

PUBLIC HEARING BINDER




220 Mountain Highway & 1515-1555 Oxford Street



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3)	Bylaw 8455 , which changes the OCP designation of the subject site from Residential Level 6: Medium Density Residential (RES6) to Commercial Residential Mixed Use Level 3 (CRMU3)
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13)	Design <ul style="list-style-type: none"> Excerpt from the Advisory Design Panel's minutes for February 14, 2019 recording the review by the Design Panel of the proposal
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15)	Arborist Report - Arborist report for the trees site and immediately adjacent to the site prepared by Radix Tree and Landscape Consulting
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Public Input	
20)	Public Input – Correspondence / submissions from the public since 1 st Reading given on November 2, 2020

AGENDA INFORMATION <input checked="" type="checkbox"/> Regular Meeting <input type="checkbox"/> Other:		Date: <u>Nov. 2, 2020</u> Date: _____	 Dept. Manager	 GM/ Director	 CAO
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The District of North Vancouver REPORT TO COUNCIL

October 14, 2020
File: 08.3060.20/083.18

AUTHOR: Casey Peters, Senior Development Planner

SUBJECT: Bylaws 8455, 8456, 8457, and 8458: OCP Amendment, Rezoning, Housing Agreement, and DCC Waiver Bylaws for a Rental Development at 220 Mountain Hwy, 1515-1555 Oxford Street

RECOMMENDATION

THAT "District of North Vancouver Official Community Plan Bylaw 7900, 2011, Amendment Bylaw 8455, 2020 (Amendment 41)" is given FIRST reading;

AND THAT "District of North Vancouver Rezoning Bylaw 1402 (Bylaw 8456)" is given FIRST reading;

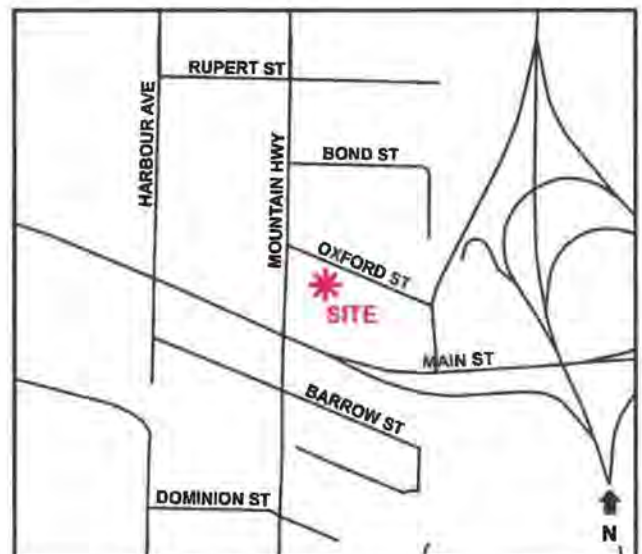
AND THAT "Mountain Highway Development Cost Charge Waiver Bylaw 8457, 2020" is given FIRST reading;

AND THAT "Housing Agreement Bylaw 8458, 2020 (220 Mountain Highway)" is given FIRST reading;

AND THAT pursuant to Section 475 and Section 476 of the Local Government Act, additional consultation is not required beyond that already undertaken with respect to Bylaw 8455;

AND THAT in accordance with Section 477 of the Local Government Act, Council has considered Bylaw 8455 in conjunction with its Financial Plan and applicable Waste Management Plans;

AND THAT Bylaw 8455 and Bylaw 8456 be referred to a Public Hearing.



REASON FOR REPORT

Implementation of the proposed project requires Council's consideration of:

- Bylaw 8455 to amend the Official Community Plan designation (**Attachment 2**);
- Bylaw 8456 to rezone the subject properties (**Attachment 3**);
- Bylaw 8457 to waive the Development Cost Charges for the six non-market rental units (**Attachment 4**);
- Bylaw 8458 to secure market and affordable rental units (**Attachment 5**); and
- Issuance of development permits.

The OCP Amendment Bylaw, Rezoning Bylaw, Housing Agreement Bylaw, and DCC Waiver Bylaw are recommended for introduction and the OCP Amendment Bylaw and Rezoning Bylaw are recommended for referral to a Public Hearing. A Development Permit will be forwarded to Council for consideration if the rezoning proceeds.

SUMMARY

TPL Development Oxford Ltd. has applied to redevelop seven existing single-family residential lots to create a six-storey rental building with a total of 140 units, including 134 market rental units and six non-market rental units.

ANALYSIS

Site and Surrounding Area

The development site is located at the south end of the Lynn Creek Town Centre at the southeast corner of Mountain Highway and Oxford Street. The development site is 3,073 m² (33,077 sq. ft.) in area and is comprised of seven single-family residential lots occupied by six single-family homes.

Surrounding land uses include commercial uses to the south and west, institutional to the north (Creekstone Care Centre, under construction), and a six-storey market rental building to the east. The other uses on this block are identified on the image above.



EXISTING POLICY

1. Official Community Plan

The Official Community Plan (OCP) designates the subject site as “Residential Level 6: Medium Density Apartment” (RES6) which envisions medium-rise apartments at a density of up to approximately 2.5 FSR.

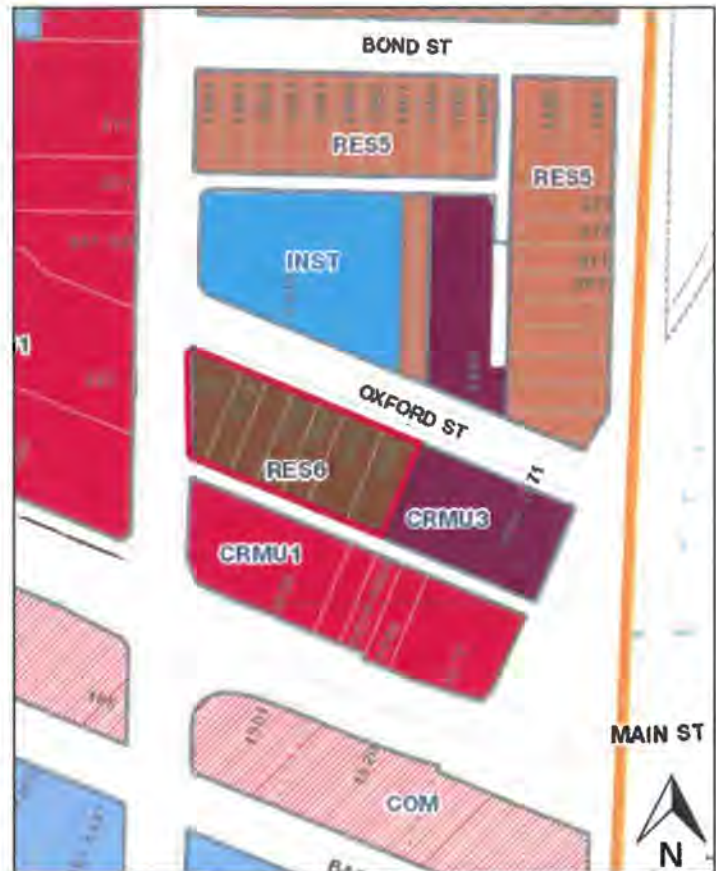
At approximately 2.96 FSR, the proposal does not comply with the density provisions of the OCP designation and an amendment to the OCP is required. Bylaw 8455 proposes to change the designation of the site to “Commercial Residential Mixed-use Level 3” (CRMU3) which permits density up to approximately 3.5 FSR.

The proposal addresses a number of OCP goals and policies including:

- “Encourage and facilitate a broad range of market, non-market and supportive housing”
- “Encourage and facilitate a wide range of multifamily housing sizes, including units suitable for families with an appropriate number of bedrooms, and smaller apartment units”
- “Focus a higher proportion of affordable housing in designated growth areas”
- “Require, where appropriate, that large multifamily developments contribute to the provision of affordable housing by, but not limited to: including a portion of affordable rental or ownership units as part of the project”

“Lynn Creek Apartments” a 98 unit market rental apartment development to the east of the site was approved by Council in September 2014 with a density of approximately 3.02 FSR and six storeys in height. The “Creekstone Care Centre” seniors’ housing development to the north at the corner of Oxford Street and Mountain Highway was approved by Council in January 2018 with a density of approximately 3.1 FSR and seven storeys in height. “Pivot” an 88 unit market rental apartment development immediately to the northeast of the site, was approved by Council in September 2018 with a density of approximately 3.09 FSR and six storeys in height.

OCP amendments were approved to accommodate each of these three nearby developments.



Lower Lynn Town Centre Implementation Plan (Lynn Creek)

The project has been reviewed against the Lower Lynn Town Centre Implementation Plan (Lynn Creek Plan) and the Lynn Creek Public Realm Guidelines. The Lynn Creek Plan anticipates multi-family residential development in the form of mid-rise apartments on this site, at a height of approximately six storeys. The proposal is consistent with the use and height anticipated for this site.

The project achieves the intended public realm objectives and provides improved infrastructure for pedestrians, bicyclists, and drivers.

Rental and Affordable Housing Strategy

The proposed bylaws, if adopted, will permit development of the site for a six-storey building with a mix of market rents and housing geared to low to moderate income households. This responds to the following goals of the District's Rental and Affordable Housing Strategy (RAHS):

- Goal 1: Expand the supply and diversity of housing.
- Goal 2: Expand the supply of new rental and affordable housing

The project addresses the RAHS by creating 140 new market rental units secured in perpetuity by Housing Agreement Bylaw 8458.

The RAHS indicates that the 10 year (2016-2026) estimated demand for affordable rental units in the District is 600 to 1,000 units. To the end of 2019, 298 units* have been created towards this goal and the proposal would create an additional 6 units. (*Source: *Pace of Development - 2019 Update*, July 12, 2020).

Council Directions, 2019-2022

The proposed bylaws respond to the following Council Priority Directions to 2022:

- Key Issue 2: Increasing Housing Diversity and Addressing Affordability

Projects that deliver rental housing for low and moderate income earners and for those in need of social housing have been identified as priorities.

Zoning

The subject properties are currently zoned "Single Family Residential 6000 Zone" (RS4). Rezoning is required to accommodate the project and Bylaw 8456 proposes to create a new "Comprehensive Development 130 Zone" (CD130) tailored specifically to this project. The proposed CD130 zone prescribes permitted uses and zoning provisions such as a maximum density of 2.96 FSR, height, setbacks, and parking requirements.

PROPOSAL

Project Description

The proposal consists of a 140-unit, six-storey rental building over a single level of underground parking. The main entrance to the building is on Oxford Street and two amenity rooms are proposed on the ground floor.

The units are a mix of studio, one, two, and three bedroom layouts. The units range in size from 41 m² (441 sq. ft.) to 91 m² (974 sq. ft.) with approximately 49% of the units as two and three bedroom layouts considered suitable for families. The building is approximately 9,093m² (97,878 sq. ft.) in total floor area.



View from Mountain Highway at Oxford Street

The proposal includes the creation of a new north-south lane to the east of the proposed building. The existing east-west lane will remain but access to Mountain Highway is proposed to be closed due to concerns with the proximity to the busy intersection at Main Street and Mountain Highway.

Access to the underground parking garage is proposed from the southwest corner of the site off the existing lane.



Housing Affordability

The proposal is for a 140 unit rental building including six units to be rented at non-market rates. The six non-market units are comprised of one studio unit and five one-bedroom units. The applicant is targeting rents for the non-market units below the Metro Vancouver median rents as published in the CMHC Rental Market Survey. The Metro Vancouver median rents (2019), District of North Vancouver median rents (2019), and proposed non-market unit rents are shown in the table below:

Unit Type	Number of Units	Metro Vancouver median rents from CMHC (2019)	Proposed Rent (% below Metro median)	DNV median rents from CMHC (2019)	Proposed Rent (% below DNV median)
Studio	1	\$1,200	\$998 (17%)	\$1,248	\$998 (20%)
1 bedroom	5	\$1,350	\$1,230 (9%)	\$1,538	\$1,230 (20%)

The non-market units would be considered affordable for households with incomes of between \$39,920 (studio unit) and \$49,200 (one-bedroom unit). These units would meet the District's definition of housing for "Low-to-Moderate Income Households" (households with 2019 before-tax incomes ranging from \$30,001 to \$85,170).

The rental tenure for all units, and rents for the non-market units, will be secured with a Housing Agreement should the project advance. The Housing Agreement also secures that parking for the non-market rental units cannot exceed the cost for the market rental units and that the non-market rental units will not be charged for bicycle storage. The applicant indicates that parking will be charged at \$100 per month, bicycle storage will be charged at \$25 per month (for market units only), and there will be no charge for use of the amenity space.

Development Permit Areas

The site is designated within the following Development Permit Areas (DPAs):

- Form and Character of Multi-Family Residential Buildings
- Energy and Water Conservation and Greenhouse Gas Emission Reduction
- Protection of Development from Hazardous Conditions (Creek Hazard)

a) Form and Character of Commercial, Industrial, and Multifamily Development

The proposal is consistent with the OCP Design Guidelines for Multi-Family Housing.

Advisory Design Panel

The application was considered by the Advisory Design Panel (ADP) on February 14, 2019 and the Panel recommended approval of the project subject to resolution of the

Panel comments. The applicant has addressed the Panel's comments including the addition of a children's play area to the rooftop, changes to the lobby, and changes to materials.

A detailed review of development permit issues, outlining the project's compliance with the applicable development permit guidelines will be provided for Council's consideration at the Development Permit stage.



View from Oxford Street

b) Energy and Water Conservation and Greenhouse Gas Emission Reduction

The proposal as designed is consistent with the OCP Guidelines for Energy and Water Conservation and Greenhouse Gas Emission Reduction.

On October 19, 2020 Council directed that bylaws be prepared to adjust the District's approach to Energy Step Code and Greenhouse Gas Intensity Targets, with an implementation date of mid-2021. The proposed approach would include a two-tiered system that would require all Part 3 Residential new construction to meet either Step 4 under the BC Step Code, or meet Step 3 and include a Low Carbon Energy System (LCES), with the LCES having an emission target of less than 3 CO₂e/m²/yr.

The applicant for the subject proposal is currently exploring two options:

- Electric Heating with gas-fired water and common space heating (resulting in emissions of approximately 9.8kg of CO₂e/m²/yr)
- 100% electric (resulting in emissions of approximately 1.3 kg of CO₂e/m²/yr)

As this project is a rental building, including a component of non-market rental, the applicant is exploring the cost implications of these options

In accordance with the District's Construction Bylaw, this project is required to meet Step 3 of the BC Energy Step Code. The applicant has considered the District's draft Community Energy and Emissions Plan (CEEP) and Council's recent declaration of a Climate Emergency and proposes the following:

- Heating system based on air source heat pumps which run exclusively on electricity
- Transportation Demand Management (TDM) strategies including measures to promote transit use including bus passes with a credit provided at the start of all new tenancies
- Parking ratio of 0.55 stalls per unit
- Roadway improvements including new pedestrian and bicycle infrastructure
- Two parking stalls dedicated to carshare programs
- Building designed to surpass recommendations of Step 3 of Energy Step Code
- Replanting of 33 trees along the perimeter of the site
- Rooftop urban agriculture initiatives

c) Protection from Natural Hazards (Creek Hazard)

The proposal is consistent with the OCP Guidelines for Protection from Natural Hazards (Creek Hazard). A flood hazard assessment report by Northwest Hydraulics Consultants was submitted with the application and the building is designed in accordance with that report.

A detailed review of development permit issues, outlining the project's compliance with the applicable development permit guidelines, will be provided for Council's consideration should the application proceed through the OCP amendment and rezoning process.

Accessibility

The proposal fulfils the requirements of the District's Accessible Design Policy for Multi-family Housing as 100% of the apartment units meet the 'Basic Accessible Design' criteria and 5% of the apartment units meet the 'Enhanced Accessible Design' criteria. A total of seven units will include 'enhanced accessible design' features.

Vehicle Parking

Vehicle parking is proposed in a single level underground garage with additional at-grade stalls accessed from the existing lane. Access to the underground garage is proposed through a ramp from the existing lane to the south of the subject site.

The District's "Reduced Parking Rates for Multifamily Residential Developments Policy" would require 0.85 spaces per unit (0.75 plus 0.1 for visitors) which would result in 119 parking spaces.

The proposal as submitted includes a total of 101 parking spaces with two of these spaces for car share and 14 for visitors, an overall ratio of 0.72 spaces per unit. The car share and visitor parking spaces are at-grade at the south side of the building.

As changes resulting from the review and finalization of the road requirements and civil design may affect the ability to provide parking, the CD130 Zone specifies a minimum requirement of 0.55 spaces per unit - actual parking provided will be a minimum of 0.55 spaces per unit up to a maximum of 0.72 spaces per unit.

The District OCP includes statements that support reductions in parking including:

- Section 5.1 (8): Consider, where appropriate, reducing vehicle parking requirements for new developments in centres and corridors well served by transit to encourage alternate modes of transportation and increase housing affordability
- Section 7.2 (8): Support, where appropriate, parking reductions for purpose built market and affordable rental units
- Section 7.3 (3) Apply incentives (including, but not limited to density bonusing, pre-zoning and reduced parking requirements) as appropriate, to encourage the development of affordable housing

The applicant has submitted a Transportation Impact Assessment prepared by Bunt and Associates that supports the proposed parking rate of 0.72 parking spaces per unit.

The applicant has proposed electric vehicle charging for 20% of the parking spaces with conduits in place for the remaining parking spaces to accommodate electric vehicle charging.

Staff are supportive of the proposed parking rate as the site is adjacent to Phibbs Exchange and is well-served by transit. The Lynn Creek Town Centre includes numerous long-term transportation improvements for pedestrians and bicyclists.

Bicycle Parking and Storage

The proposal includes 176 bicycle storage spaces for residents in the underground parking garage, providing a ratio of 1.26 spaces per unit. Six visitor bicycles spaces are

provided adjacent to the entrance of the building. In addition, e-bike charging stations are proposed. The requirements for the bicycle spaces are secured in the proposed CD130 zone.

The District's "Bicycle Parking and End-of-Trip Facilities Policy" was approved in December 2019 as the design for this project was being finalized. The policy proposes the following rates for bicycle parking:

- A minimum of 1.5 spaces for a studio or one-bedroom unit
- A minimum of 2 spaces for a two or more bedroom unit

A total of 244 bicycle spaces would be required under this policy. Due to the site constraints and significant costs of constructing a second level in the underground garage, the project is not able to achieve the number of bicycle spaces suggested under this new District policy. Staff believe the total of 176 bicycle spaces proposed for the project will be adequate and will continue to work with the applicant to identify opportunities for more bicycle parking on the site, to be finalized prior to consideration of issuance of the development permit.

Overall, the bicycle parking proposed, along with the proximity to transit service, will help to support alternate transportation options for residents and visitors to the project.

Off-site Improvements

The application includes a number of off-site improvements:

- Improved street frontages with street tree plantings and streetlight upgrades, including pedestrian lighting, curb, gutter, and paving improvements, along Mountain Highway and Oxford Street.
- New bicycle lane on Mountain Highway along the west frontage of the site.
- Creation of a new north-south lane connecting the existing lane to Oxford Street.

This project would provide substantial land dedications for roadways including:

- The creation of a new north-south lane which allows for elimination of the access/egress to Mountain Highway from the existing lane;
- Dedications on Mountain Highway to create a new bicycle lane;
- Dedications on Mountain Highway and Oxford Street to improve the turning radius for buses, including the new rapid bus.

The estimated total value of off-site works (engineering and landscaping) is \$360,000. This estimate has been provided by the applicant and the full scope (and value) of required off-site construction will be determined through the detailed design work at the Building Permit stage.

Development Cost Charges

The project will pay Development Cost Charges (DCC's) at the applicable rate at the date of Building Permit submission should the OCP amendment, rezoning, and

Development Permit be approved. The estimated District DCC payable at 2020 rates for the 134 market rental units is \$1,019,211. Bylaw 8457 is a Development Cost Charge Waiver Bylaw to establish a DCC rate at \$0 for the six non-market rental units only, subject to securing the non-market units in a housing agreement bylaw. The estimated value of the DCC waiver for the six non-market units is \$47,229.

Landscaping

A landscape plan has been submitted with the rezoning application showing planting around the perimeter of the project. A small exterior amenity space is proposed on Oxford Street adjacent to an amenity room and an additional outdoor amenity space is provided on the rooftop. The rooftop space includes a play area, moveable seats, garden plots, and a BBQ station. A more detailed review of landscape issues will be included in the development permit report.

Community Amenity Contribution

The District's Community Amenity Contribution (CAC) Policy outlines expectations for projects and includes a list of potential in-kind contributions that can be considered in lieu of a cash CAC including "Land for, or provision of, affordable, rental or special needs housing." The proposal includes 134 market rental units and 6 non-market rental units that are secured in perpetuity which represents the amenity for this project.

A third party consultant has reviewed the project's pro forma and notes the following as the main reasons why there is no increase in land value with the proposed rezoning and therefore no cash contribution in addition to the in-kind CAC:

- Rental development supports much lower rezoned land value than strata apartment development because the value of a completed rental building (per square foot) is lower than the value of a strata building, but the costs to create a rental building are similar to the costs to create a strata building.
- Market rental rates are lower in Lynn Creek than other parts of North Vancouver.
- A portion of the site needs to be dedicated to the District for the creation of a new lane at the eastern edge of the property.
- There will be significant servicing costs associated with upgrading Mountain Highway, Oxford Street, the rear lane, and the new lane required at the east end of the property.

The rental units are secured by Bylaw 8458 in perpetuity and the CD130 Zone created by Bylaw 8456 does not include a cash amenity.

Tenant Relocation Assistance

The District's Residential Tenant Relocation Assistance Policy (RTRAP) applies to rezoning applications that require the demolition of any building or combination of buildings containing more than four rental dwelling units, at the time of submission of

the detailed application. The policy was amended in March 2018, as the previous policy only applied to purpose-built rental units.

There are six existing single family houses on site and one secondary suite for a total of seven units. All units are currently rented and the applicant notes that at the time that leases were entered into, signing all tenants were made aware of the intended redevelopment of the site.

The tenant relocation package includes the following:

- An extended notice period of five months.
- Three months of free rent.
- \$750 for costs associated with tenant moving expenses.
- Priority right to rent in the new building.

A tenant communication plan is proposed that informs the tenants of input opportunities during the rezoning process using email, direct mail, and hand-delivered notification. A tenant relocation coordinator has been selected and information on tenant resources will also be provided via email.

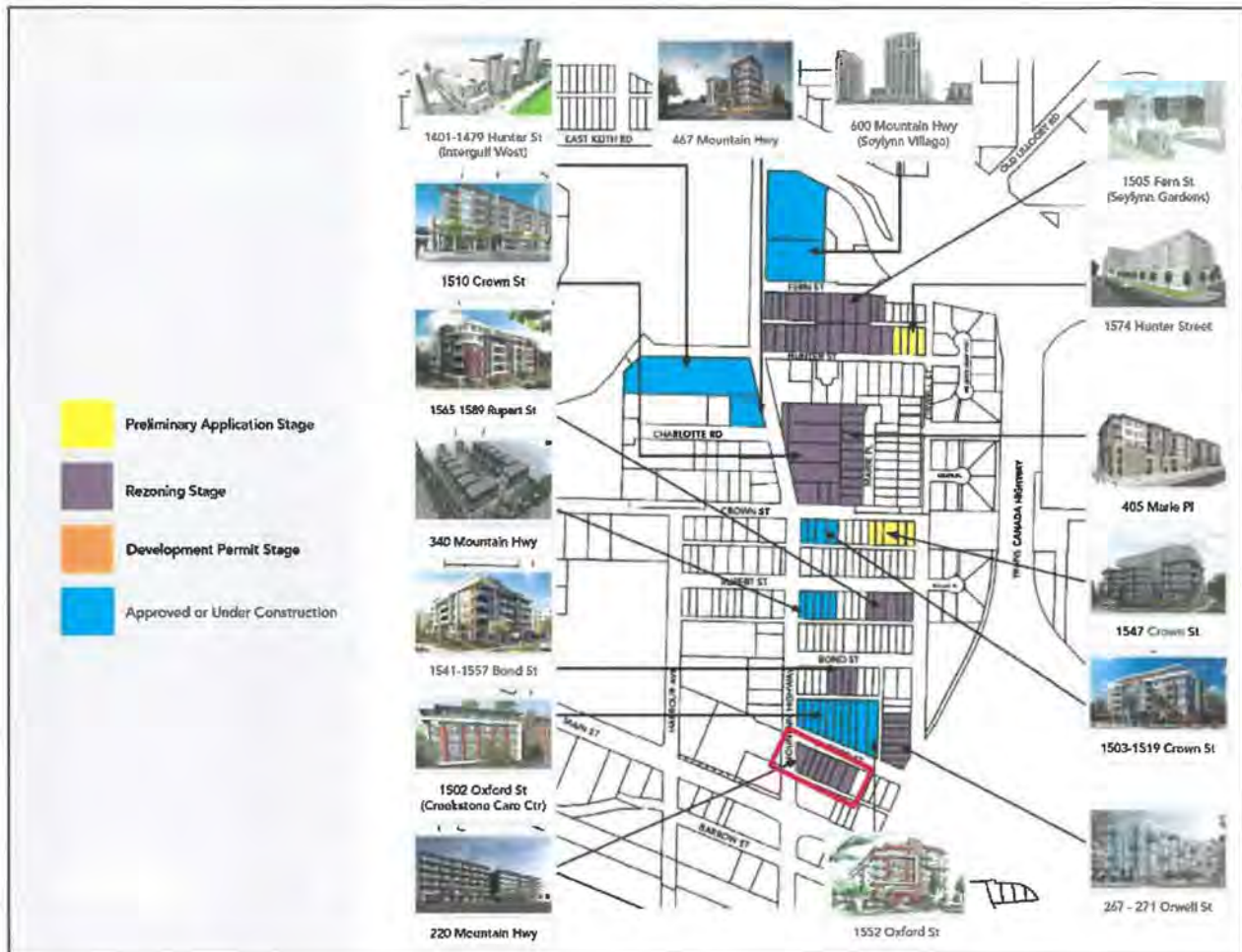
The tenant relocation package will be secured in the required Development Covenant.

Construction Traffic Management Plan

The site, outlined in red, is shown on the map on the following page in relation to other current and potential development projects in the area.

In order to reduce development's impact on pedestrian and vehicular movements, the applicant is required to provide a Construction Traffic Management Plan (CTMP) as a condition of a Development Permit.

The Plan must outline how the applicant will coordinate with other projects in the area to minimize construction impacts on pedestrian and vehicle movement along Oxford Street, with particular attention paid to impacts to bus movements. The plan is required to be approved by the District prior to issuance of a building permit.



In particular, the Construction Traffic Management Plan must:

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

Financial Impacts

The project will contribute the following housing amenities, off-site works, land, and DCC's:

- Six non-market rental units
- 134 market rental units
- Off-site works currently estimated at approximately \$360,000
- Land dedications totalling approximately 340m² (3,660 sq. ft.)
- DCC's on 134 market rental units estimated at \$1,019,211

The District's housing reserve fund will support the waived DCC's on the non-market residential units (estimated at \$47,229 based on 2020 DCC rates).

Concurrence

The project has been reviewed by staff from the Environment, Building and Permits, Parks, Development Engineering, Community Planning, Urban Design, the Fire Department, Finance, and the Arts Office.

The District of North Vancouver Rezoning Bylaw 8456 affects land lying within 800m of a controlled access intersection and therefore approval by the Provincial Ministry of Transportation and Infrastructure (MOTI) will be required after third reading of the bylaw and prior to bylaw adoption. As part of this review MOTI may require additional analysis and commitments to upgrades.

School District 44 was provided a copy of the application materials to ensure the School District is aware of these potential new residential units. No response was received from the School District.

Public Input

The applicant held a facilitated Public Information Meeting on January 31, 2019. Notices were distributed to neighbours in accordance with the District's policy on Non-Statutory Public Consultation for Development Applications. A sign was placed on the property to notify passers-by of the meeting, and advertisements were placed in the North Shore News. A webpage was established for this project on the District's website.

The meeting was attended by approximately 13 residents.

In general there was support for the project and participants recognized the demand for rental housing. Questions arose around the construction timeline, rental rates, and parking concerns in the neighbourhood. A copy of the facilitator's report with redacted public input is attached to this report.

Implementation

Implementation of this project will require an OCP amendment, a rezoning, a DCC waiver, and a Housing Agreement, as well as issuance of a development permit and registration of legal agreements.

Bylaw 8455 (Attachment 2) amends the OCP designation for the subject properties from "Residential Level 6" (RES6) to "Commercial Residential Mixed Use Level 3" (CRM3).

Bylaw 8456 (Attachment 3) rezones the subject site from "Single Family Residential 6000" Zone (RS4) to a new "Comprehensive Development 130" Zone (CD 130) which:

- establishes the permitted residential use;
- allows home occupations as an accessory use;
- establishes the maximum permitted floor area on the site;
- establishes setback and building height regulations; and,
- establishes parking regulations specific to this project.

Bylaw 8457, (Attachment 4) authorizes the District to reduce the DCCs for the six non-market rental units to 'zero'.

Bylaw 8458, (Attachment 5) authorizes the District to enter into a Housing Agreement to secure market and affordable rental units.

A legal framework will be required to support the project and it is anticipated that a development covenant will be used to secure items such as the details of off-site servicing, accessible design features, and electric vehicle charging.

Additional legal documents required for the project will include:

- subdivision plan showing road dedications
- statutory right of way on Mountain Highway for a new sidewalk
- stormwater management covenant
- registration of housing agreement to ensure the rental tenure and affordable units are secured in perpetuity

CONCLUSION

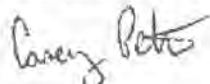
The proposed 140 unit rental building project assists in the implementation of the District's Official Community and the Lower Lynn Implementation Plan (Lynn Creek), and helps to fulfil District housing objectives. The rezoning proposal is now ready for Council's consideration.

Options:

The following options are available for Council's consideration:

1. Give Bylaws 8455, 8456, 8457, and 8458 First Reading and refer Bylaws 8455 and 8456 to a Public Hearing (staff recommendation);
2. Give the bylaws no readings; or,
3. Return the bylaws to staff.

Respectfully submitted,



Casey Peters
Senior Development Planner

Attachments:

1. Detailed Application Drawing Package
2. Bylaw 8455 – OCP Amendment
3. Bylaw 8456 – Rezoning
4. Bylaw 8457 – DCC Waiver
5. Bylaw 8458 – Housing Agreement
6. Facilitator's Report from Public Information Meeting

REVIEWED WITH:					
<input type="checkbox"/> Community Planning	_____	<input type="checkbox"/> Clerk's Office	_____	External Agencies:	
<input type="checkbox"/> Development Planning	_____	<input type="checkbox"/> Communications	_____	<input type="checkbox"/> Library Board	_____
<input type="checkbox"/> Development Engineering	_____	<input checked="" type="checkbox"/> Finance		<input type="checkbox"/> NS Health	_____
<input type="checkbox"/> Utilities	_____	<input type="checkbox"/> Fire Services	_____	<input type="checkbox"/> RCMP	_____
<input type="checkbox"/> Engineering Operations	_____	<input type="checkbox"/> ITS	_____	<input type="checkbox"/> NVRC	_____
<input type="checkbox"/> Parks	_____	<input type="checkbox"/> Solicitor	_____	<input type="checkbox"/> Museum & Arch.	_____
<input type="checkbox"/> Environment	_____	<input type="checkbox"/> GIS	_____	<input type="checkbox"/> Other:	_____
<input type="checkbox"/> Facilities	_____	<input type="checkbox"/> Real Estate	_____		
<input type="checkbox"/> Human Resources	_____	<input type="checkbox"/> Bylaw Services			
<input type="checkbox"/> Review and Compliance	_____	<input checked="" type="checkbox"/> Planning			

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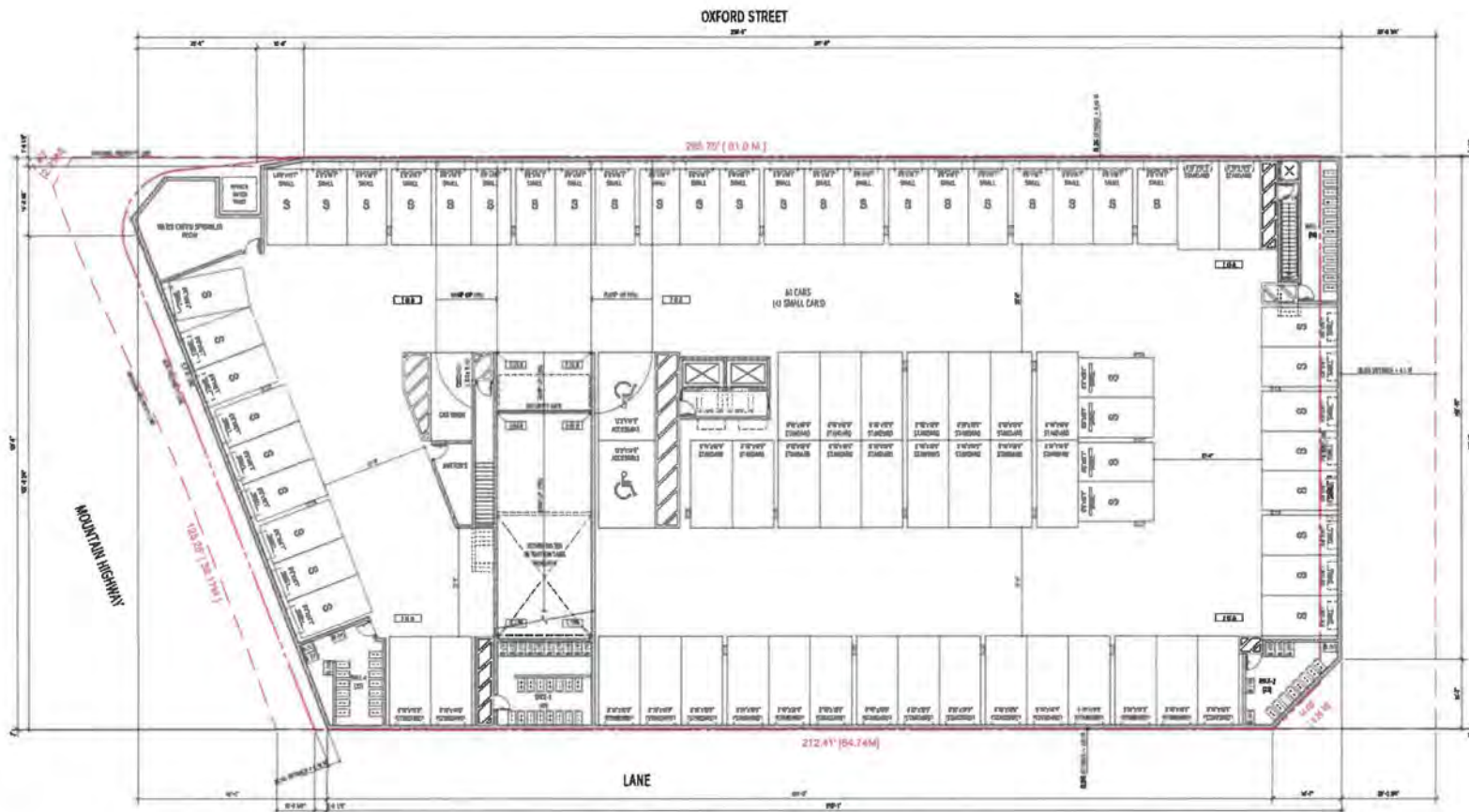
TRICOR PACIFIC LANDS

REDIC
Development

eta

NO.	DATE	REVISION
<p>Design developed for the purpose of showing the general appearance of the building and the general location of the building on the site. It is not to be used for any other purpose.</p>		
<p>YANAMOTO ARCHITECTURE</p>		
<p>902 - 22 East 8th Avenue Vancouver, BC V6T 1S6 T - 604 721 1237 F - 604 721 1237</p>		
<p>Project</p>		
<p>Fredericton Apartment</p>		
<p>220 Mountain Highway & 10th Oxford Street Fredericton, New Brunswick, Canada</p>		
<p>Project Title</p>		
<p>Fredericton View</p>		
Scale	3/32" = 1'-0"	Sheet No.
Drawn	May 26, 2016	A5.1
Checked	TV	
Approved		1/20

Attachment 1.



TRICOR PACIFIC LANDS

REDIC

eta

DATE: 2024-05-01
BY: [Signature]
SCALE: 1/8" = 1'-0"

YAMAMOTO
ARCHITECTURE

102 - 25 Street SE, Vancouver
Vancouver, BC V6T 1G6
T: 604 721 1100 F: 604 721 1100

Project: [Signature]

102 - 25 Street SE, Vancouver

250 Mountain Highway & 1025 Oxford Street
Downtown East Side, Vancouver, BC

Project: [Signature]

Level: P1

Scale: 1/8" = 1'-0"

Date: May 16, 2024

Sheet: T1/1

Project: [Signature]

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Sheet: T1/1

A2.1

LEVEL - P1 (U/G PARKADE) PLAN
Scale: 1/8" = 1'-0"

PARKING:

REQUIREMENTS:

140 UNITS @ 0.65 CAR / UNIT
140 UNITS @ 0.1 VISITOR SPACES PER UNIT

118 SPACES
(14 SPACES) INCLUDED ABOVE

PROVIDED:

140 UNITS @ 0.71 CAR / UNIT
CAR SHARE
(SMALL CARS : INCLUDED IN ABOVE)

98 SPACES
23 SPACES
50 SPACES (52.5 %)

LOADING:

TOTAL LOADING PROVIDED: 1 SPACE

BICYCLE PARKING:

REQUIREMENTS:

RESIDENTS:

VISITORS:

PROVIDED (RESIDENTS):

PROVIDED (VISITORS):

140 UNITS @ 1 / UNIT
8 PER DEVELOPMENT
140 SPACES
8 SPACES
88 SPACES SECURE HANGING RACKS ABOVE CARS
118 SPACES CLASS 1 BIKES
178 SPACES SECURE RESIDENT BIKES

8 SPACES



OXFORD STREET ELEVATION
SCALE: 3/32"=1'-0"



MOUNTAIN HIGHWAY (WEST) ELEVATION
SCALE: 3/32"=1'-0"

ELEVATION KEY NOTES

- 1. HIDE ARTSHEET SERIES - SHIP LAP BOARD
- 2. "SUTHERLAND" - SHIP LAP BOARD
- 3. HIDE ARTSHEET SERIES - V-GROOVE BOARD
- 4. "TRICH GREY" - SHIP LAP BOARD
- 5. HIDE ARTSHEET SERIES - V-GROOVE BOARD
- 6. "TRICH GREY" - SHIP LAP BOARD
- 7. HIDE ARTSHEET SERIES - V-GROOVE BOARD
- 8. "TRICH GREY" - SHIP LAP BOARD
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- 100. "TRICH GREY" - SHIP LAP BOARD

*ALL LISTED MATERIALS REQUIRE SAMPLE REVIEW
FOR ON TO PRODUCTION OR INSTALLATION

TRICOR PACIFIC LANDS

REDIC

eta

YANAMOTO ARCHITECTURE

302 - 25 5th St. West
Vancouver, BC V5T 1S8
T: 604 721 1237 F: 604 721 1237

Residential Apartment

720 Westside Highway & 1100 Oxford Street
District of North Vancouver, BC

Building Elevations

Scale: 3/32" = 1'-0"

Date: 04/10/2018

Drawn: T102

Checked: 0102

A3.1



LANE (SOUTH) ELEVATION
SCALE: 3/32"=1'-0"



NEW LANE (EAST) ELEVATION
SCALE: 3/32"=1'-0"

ELEVATION KEY NOTES

- ① HARDCORE ARTISAN SERIES - DISPLAY BEING
- ② HARDCORE ARTISAN SERIES - V-GROOVE BEING
- ③ HARDCORE ARTISAN SERIES - V-GROOVE BEING
- ④ HARDCORE ARTISAN SERIES - V-GROOVE BEING
- ⑤ HARDCORE ARTISAN SERIES - V-GROOVE BEING
- ⑥ HARDCORE ARTISAN SERIES - V-GROOVE BEING
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*ALL LISTED MATERIALS REQUIRE SAMPLE REVIEW
PRIOR TO PRODUCTION OR INSTALLATION

TRICOR PACIFIC LANDS

REDIC

eta

DATE	BY	REVISIONS
01/11/2023	01/11/2023	01/11/2023

YANAMOTO ARCHITECTURE

YANAMOTO ARCHITECTURE

3121 - 3121 West 8th Avenue
Vancouver, BC V6P 1B5
T - 604.731.1121 F - 604.731.1122

Project -

Residential Apartment

1100 Mountain Highway & 1100 Oxford Street
District of North Vancouver, BC

Project Title -
Building Elevations

Scale - 3/32" = 1'-0"

Sheet - 10 of 10

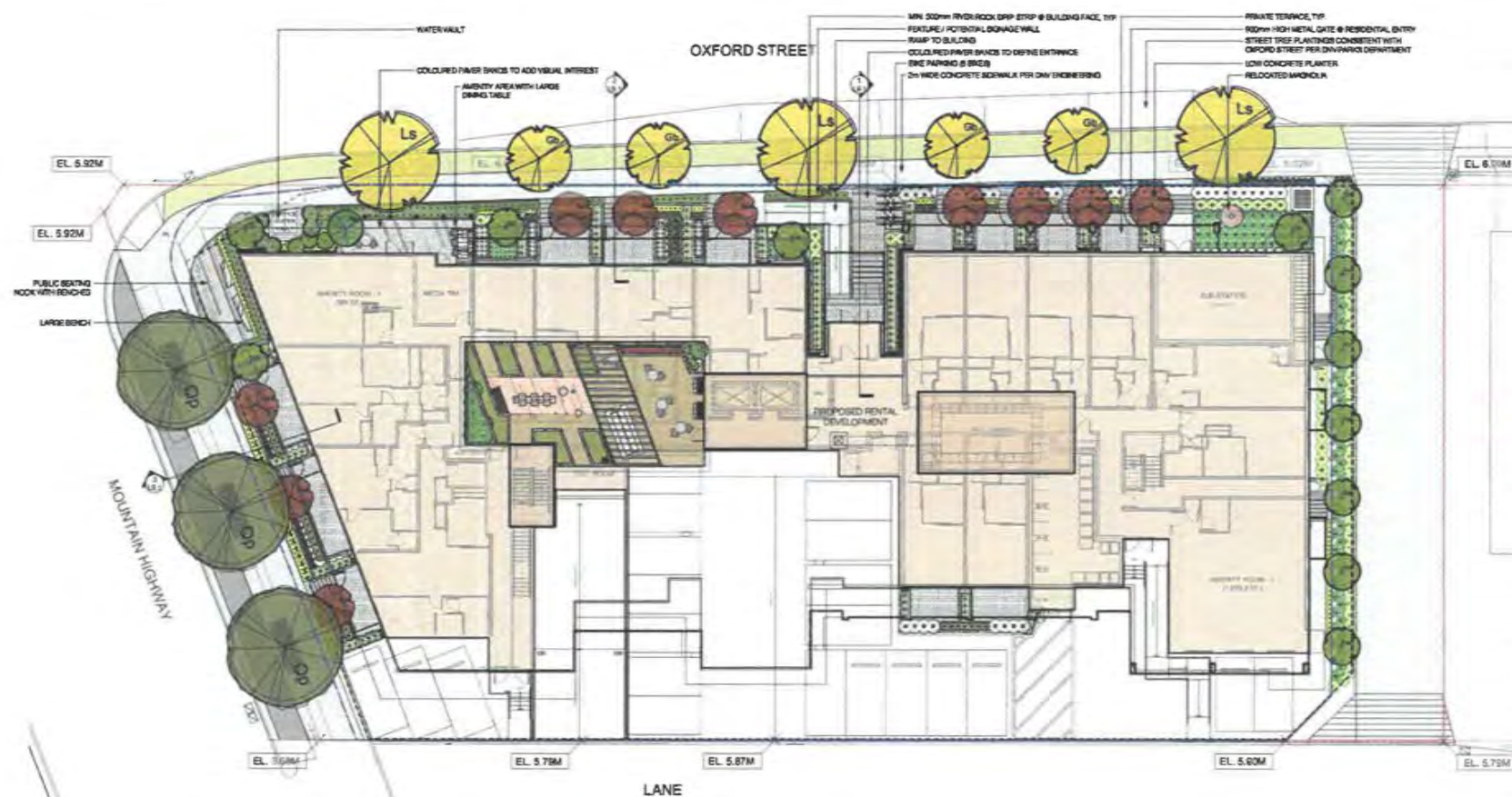
Project -

Project -

A3.2

Project -

Week No.	Date	Guest Name
A	10-25-11	Ernesto Perdomo
B	10-25-11	Ernesto Perdomo
C	10-25-11	Ernesto Perdomo
D	10-25-11	Ernesto Perdomo
E	10-25-11	Ernesto Perdomo
F	10-25-11	Ernesto Perdomo
G	10-25-11	Ernesto Perdomo



THE DISTRICT OF NORTH VANCOUVER IS RESPONSIBLE FOR THE ON-GOING MAINTENANCE OF STREET TREES ON OFF-SITE AREAS. PLEASE ADVISE THAT THE DEVELOPER IS AWARE THAT ON-GOING MAINTENANCE OF TREES/PLANTS/SCULPTURE OR OTHER AREAS IS A SOLE-LEASOR'S RESPONSIBILITY OF THE FUTURE PROPERTY OWNER.

FOR AN APPROVAL LETTER OF ANY OFF-SITE STREET SIDEWALK FURNISHING, WE WILL BE BY DAY AFTER THE TREE SPECIFICATIONS TYPES SPECIFIED ON THIS PLAN, COULD BE SUBJECT TO CHANGE.

References



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 1 0000-0000, 0000-0000
 2 0000-0000, 0000-0000
 3 www.0000.com

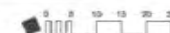
Delphi Research by SurveyPoint Systems, Inc.
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Oxford Street Rental

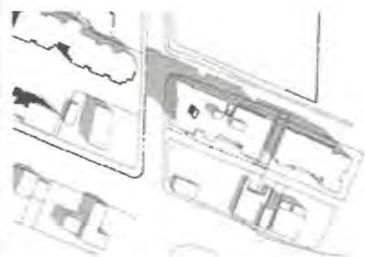
220 Mountain Highway to 1555 Oxford
Street, District of North Vancouver, B.C.

Illustrative Plan

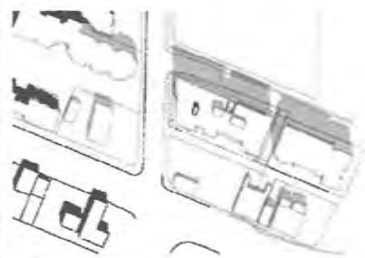
200 Mountain Highway at 126th Street



Power Supply	PowerW
V0	217-18
Assembly	Shk
V0	3252xV10"
Remarks	Exhaust
	L02
Date	2017.04.09
Rev. Order	
Project	
2017.04.09	



MARCH 21 10:00AM



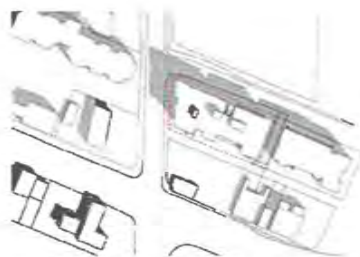
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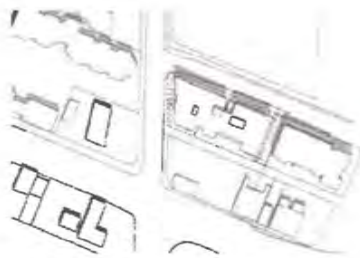
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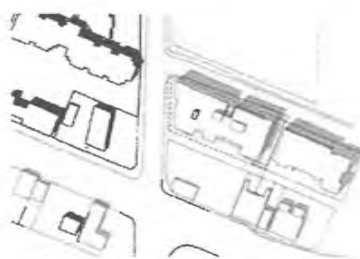
MARCH 21 6:00PM



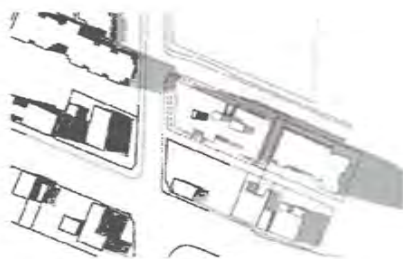
JUNE 21 10:00AM



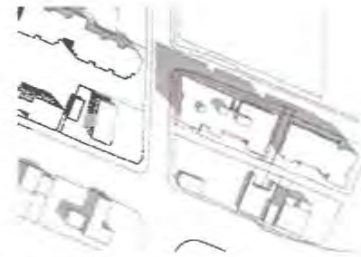
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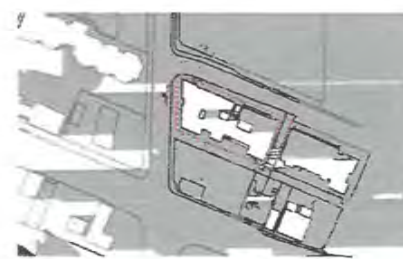
SEPTEMBER 21 10:00AM



SEPTEMBER 21 12:00PM



SEPTEMBER 21 2:00PM



SEPTEMBER 21 6:00PM



TRICOR PACIFIC LANDS

REDIC

eta

NO. 11 10/11 10/12

YANAMOTO ARCHITECTURE

3102 - 20th Street NW
Washington, DC 20007-1200

T: 202.775.1234 F: 202.775.1235

Project

Residential Apartment

1700 Mountain Highway & 1200 Capitol Street
District of Columbia, DC

Architect

Shadow Analysis

Scale - 1/8" = 1'-0"

Scale - 1/8" = 1'-0"

Scale - 1/8" = 1'-0"

Scale - 1/8" = 1'-0"

A0.3

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The Corporation of the District of North Vancouver

Bylaw 8455

A bylaw to amend District of North Vancouver
Official Community Plan Bylaw 7900, 2011

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

Citation

1. This bylaw may be cited as "District of North Vancouver Official Community Plan Bylaw 7900, 2011, Amendment Bylaw 8455, 2020 (Amendment 41)".

Amendments

2. District of North Vancouver Official Community Plan Bylaw 7900, 2011 is amended as follows:
 - a) Map 2 Land Use: as illustrated on Schedule A, by changing the land use designation of the properties on Map 2 from "Residential Level 6: Medium Density Apartment" (RES6) to "Commercial Residential Mixed-Use Level 3" (CRMU3)

READ a first time by a majority of all Council members.

PUBLIC HEARING held

READ a second time by a majority of all Council members.

READ a third time by a majority of all Council members.

ADOPTED by a majority of all Council members.

Mayor

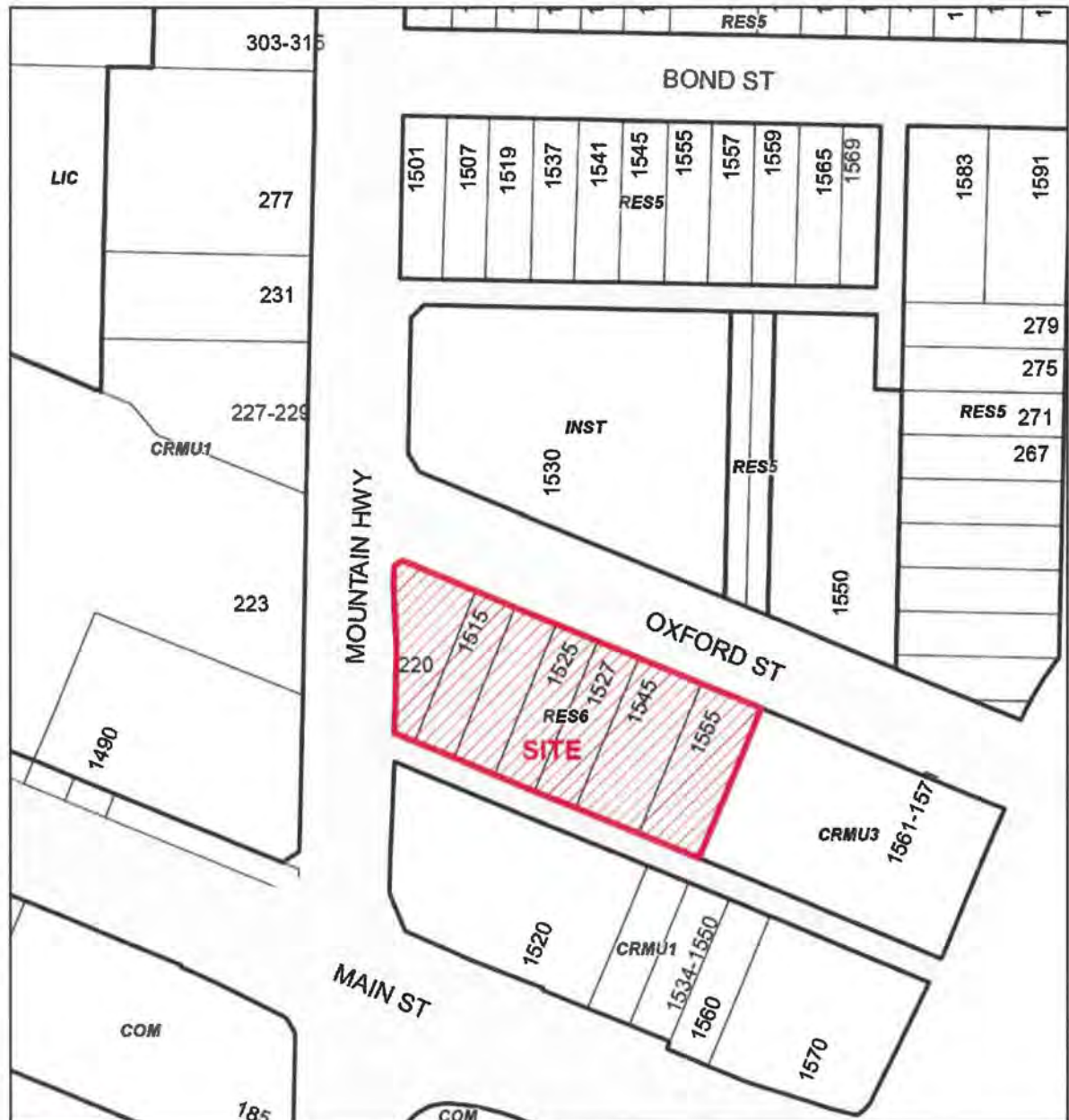
Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8455

District of North Vancouver Official Community Plan Bylaw 7900, 2011, Amendment Bylaw 8455, 2020 (Amendment 41)



Map 2 Land Use: as illustrated on Schedule A, by changing the land use designation of the properties on Map 2 from "Residential Level 6: Medium Density Apartment" (RES6) to "Commercial Residential Mixed Use Level 3" (CRMU3)



The Corporation of the District of North Vancouver**Bylaw 8456**

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 "District of North Vancouver Rezoning Bylaw 1402 (Bylaw 8456)".

2. Amendments

2.1 District of North Vancouver Zoning Bylaw 3210, 1965 is amended as follows:

- (a) Part 2A, Definitions is amended by adding CD130 to the list of zones that Part 2A applies to.
- (b) Section 301 (2) by inserting the following zoning designation:

"Comprehensive Development Zone 130 CD130"
- (c) Part 4B Comprehensive Development Zone Regulations by inserting the following, inclusive of Schedule B:

"4B130 Comprehensive Development Zone 130 CD130

The CD130 zone is applied to:

- i) Lot A Except: Part Dedicated Road on Plan BCP17008 Block 41 District Lot 204 Group 1 New Westminster District Plan 1340 (PID: 013-694-944);
- ii) Lot 3 Block 41 District Lot 204 Plan 1340 (PID: 014-742-527);
- iii) Lot 4 Block 41 District Lot 204 Plan 1340 (PID: 014-742-535);
- iv) Lot 5 Block 41 District Lot 204 Plan 1340 (PID: 014-742-543);
- v) Lot 6 Block 41 District Lot 204 Plan 1340 (PID: 002-622-165);
- vi) Amended Lot 7 (See 219838L) Block 41 District Lot 204 Plan 1340 (PID: 014-742-551); and
- vii) Amended Lot 9 (See 219839L) Block 41 District Lot 204 Plan 1340 (PID: 010-856-731).

4B 130 – 1 Intent

The purpose of the CD 130 Zone is to permit a medium-density rental residential development.

4B 130 – 2 Permitted Uses

The following *principal* uses shall be permitted in the CD 130 Zone:

a) Uses Permitted Without Conditions:

Not applicable

b) Conditional Uses:

Residential use

4B 130 – 3 Conditions of Use

a) ***Residential:*** *Residential uses* are only permitted when the following conditions are met:

- (i) Each dwelling unit has access to private or semi-private outdoor space with the exception of the ground floor units on the east elevation; and
- (ii) Balcony and deck enclosures are not permitted.

4B 130 – 4 Accessory Use

- a) *Accessory uses* customarily ancillary to the principal uses are permitted.
- b) *Home occupations* are permitted in *residential* units.

4B 130 – 5 Density

- a) The maximum permitted density is 1,382.7m² (14,883.3 sq. ft.) and 7 residential units.
- b) For the purpose of calculating *gross floor area* the following are exempted:
 - i. Any floor areas below finished grade;
 - ii. Amenity space(s) to a maximum of 185m² (1,991 sq. ft.);
 - iii. Mechanical and electrical rooms up to a maximum of 130m² (1,399 sq. ft.);

- iv. Garbage room(s) up to a maximum of 55m² (592 sq. ft.);
 - v. At-grade parking including that which is covered by building above and open on at least one side; and
 - vi. The area of balconies and covered patios.
- c) For the purposes of calculating FSR the lot area is deemed to be 3,072.6 m² (33,073 sq. ft.) being the site size at the time of rezoning.
- d) Balcony and deck enclosures are not permitted

4B 130 – 6 Amenities

- a) Despite Subsection 4B130 – 5, permitted density in the CD130 Zone is increased to a maximum of 9,105 m² (98,005 sq. ft.) *gross floor area* and 140 units if the owner enters into a Housing Agreement to secure the units as rental in perpetuity.

4B 130 – 6 Setbacks

- a) Buildings shall be set back from property lines to the closest building face (excluding any partially-exposed underground parking structure) as established by development permit and in accordance with the following regulations:

Setback	Buildings (Minimum Setback)
North (Oxford Street)	4.0m (13.1 ft)
East (Lane)	1.2m (3.9 ft)
West (Mountain Highway)	2.2m (7.2 ft)
South (Lane)	4.4m (14.4 ft)

- b) Decks and patios are excluded from the setback requirements.

4B130 – 7 Height

The maximum permitted height is:

- a) Multi-family apartment building: 23.0m (75.5 ft);

4B 130 – 8 Coverage

- a) Building Coverage: The maximum building coverage is 75%.
- b) Site Coverage: The maximum site coverage is 85%.

4B 130 – 9 Landscaping and Storm Water Management

- a) All land areas not occupied by buildings and patios shall be landscaped in accordance with a landscape plan approved by the District of North Vancouver.
- b) A 2m (6.6 ft) high screen consisting of a solid wood fence, or landscaping or a combination thereof, all with minimum 90% opacity, is required to screen from view:
 - i) any utility boxes, vents or pumps that are not located underground and/or within a building; and
 - ii) any solid waste facility(garbage, recycling, compost with the exception of temporary, at-grade staging areas) or loading areas that are not located underground and/or within a building.

4B 130 – 10 Parking, Loading and Servicing Regulations

- a) Parking and loading are required as follows:

Use	Parking Requirement
Residential dwelling unit in a building designated rental in perpetuity by way of a housing agreement or legal covenant	0.55 spaces per unit to a maximum of 0.61 spaces per unit
Visitor	0.1 spaces per unit
Car Share	2 spaces
Loading	1 space

- b) Small Car are permitted under the following conditions:
 - i) The ratio of small car parking spaces in the CD130 Zone shall not exceed 53% of the total vehicle parking requirement.
- c) Parking Setbacks from the lane from which parking spaces are directly accessed is permitted to be 0 m (0 ft).
- d) Bicycle parking is required as follows:

Use	Bicycle Parking Requirement
Residents	1.26 spaces per unit
Visitors	6 spaces

- e) Except as specifically provided in 4B130 - 10 (a), (b), (c), and (d) parking shall be provided in accordance with Part 10 of this Bylaw."

- (d) The Zoning Map is amended in the case of the lands illustrated on the attached map (Schedule A) by rezoning the land from Single Family Residential 6000 zone (RS4) to Comprehensive Development Zone 130 (CD130).

READ a first time

PUBLIC HEARING held

READ a second time

READ a third time

Certified a true copy of "District of North Vancouver Rezoning Bylaw 1401 (Bylaw 8456)" as at Third Reading

Municipal Clerk

APPROVED by the Ministry of Transportation and Infrastructure on

ADOPTED

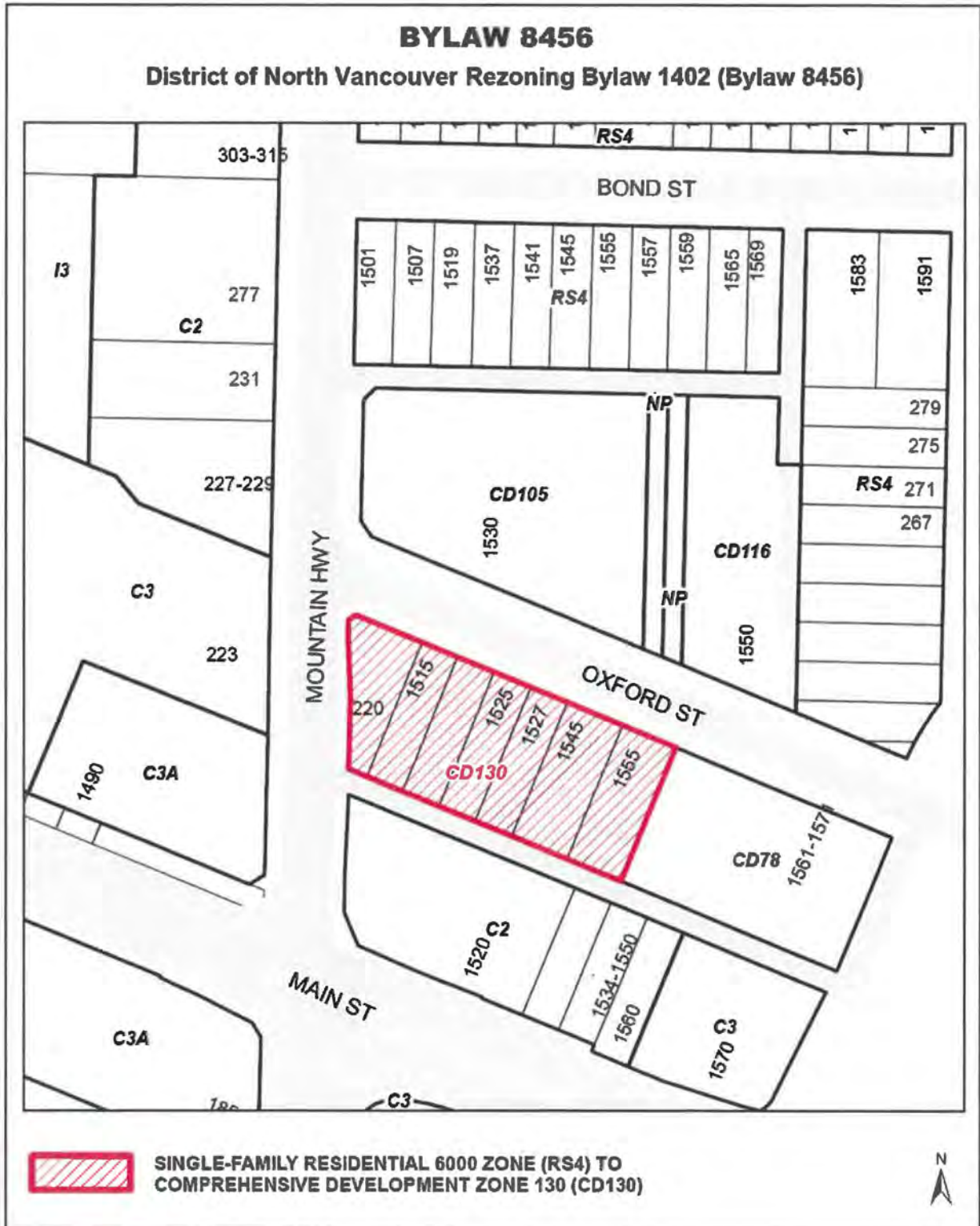
Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8456



The Corporation of the District of North Vancouver

Bylaw 8457

A bylaw to waive Development Cost Charges

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

Citation

- 1) This bylaw may be cited as "Mountain Highway Development Cost Charges Waiver Bylaw 8457, 2020".

Waiver

- 2) Development Cost Charges are hereby waived in relation to the Eligible Development proposed to be constructed on the lands shown on the attached plan and the development cost charge rates for the Eligible Development are hereby set at zero.
- 3) For the purpose of this Bylaw "Eligible Development" means not more than six (6) affordable rental housing units, each unit not exceeding 50 m² in floor area, to be constructed in the proposed six storey apartment building, and where the affordable rental rate structure is secured by way of an affordable housing agreement bylaw, restrictive land use covenant or other measure acceptable to the Municipal Solicitor.

READ a first time

READ a second time

READ a third time

ADOPTED

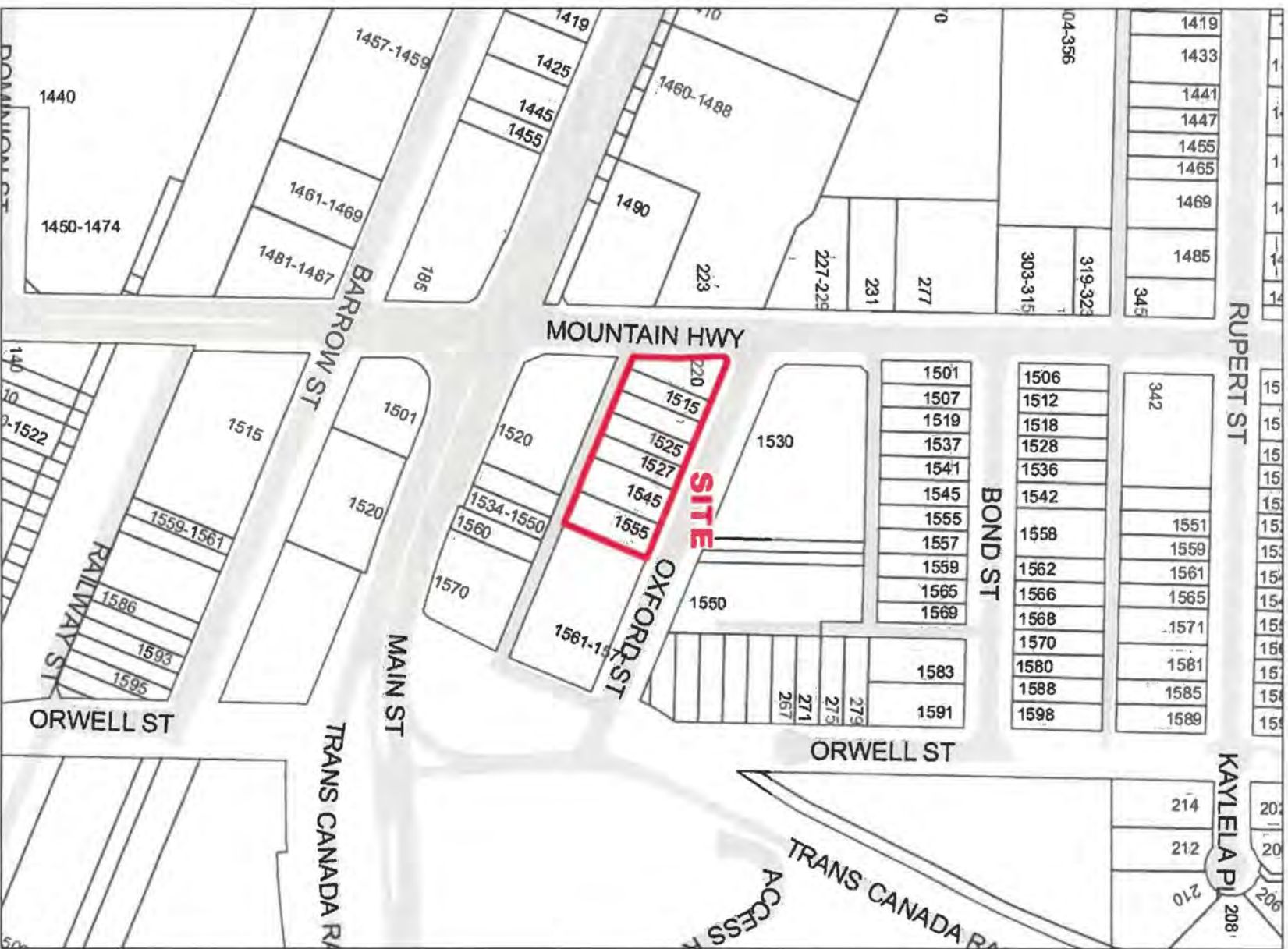
Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8457



The Corporation of the District of North Vancouver

Bylaw 8458

A bylaw to enter into a Housing Agreement

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

Citation

1. This bylaw may be cited as "Housing Agreement Bylaw 8458, 2020 (220 Mountain Highway)".

Authorization to Enter into Agreement

2. The Council hereby authorizes a housing agreement between The Corporation of the District of North Vancouver and TPL Developments Oxford GP Inc., Inc. No. BC1079915 substantially in the form attached to this Bylaw as Schedule "A" with respect to the following lands:
 - a) Lot A Except: Part Dedicated Road on Plan BCP 17008 Block 41 District Lot 204 Group 1 New Westminster District Plan 1340 (PID: 013-694-944);
 - b) Lot 3 Block 41 District Lot 204 Plan 1340 (PID: 014-742-527);
 - c) Lot 4 Block 41 District Lot 204 Plan 1340 (PID: 014-742-535);
 - d) Lot 5 Block 41 District Lot 204 Plan 1340 (PID: 014-742-543);
 - e) Lot 6 Block 41 District Lot 204 Plan 1340 (PID: 002-622-165);
 - f) Amended Lot 7 (See 219838L) Block 41 District Lot 204 Plan 1340 (PID: 014-742-551); and
 - g) Amended Lot 9 (See 219839L) Block 41 District Lot 204 Plan 1340 (PID: 010-856-731).

Execution of Documents

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

READ a first time

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8458

**SECTION 219 RENTAL HOUSING AGREEMENT COVENANT
and RENT CHARGE**

THIS AGREEMENT dated for reference the ___ day of _____, 2020

BETWEEN:

TPL Developments Oxford GP Inc., Inc. No. BC1079915

200-1111 West Hasting Street, Vancouver, BC, V6E 2J3

a company incorporated under the laws of the Province of British
Columbia having an office at

(the "Developer ")

AND:

THE CORPORATION OF THE DISTRICT OF NORTH

VANCOUVER, 355 West Queens Road, North Vancouver, BC
V7N 4N5

(the "District")

WHEREAS:

- A. The Developer is the registered owner in fee simple of lands in the District of North Vancouver, British Columbia legally described in Item 2 of the Form C General Instrument Part 1 to which this Agreement is attached and which forms part of this Agreement (the "Land");
- B. Section 219 of the *Land Title Act* permits the registration of a covenant of a negative or positive nature in favour of the District in respect of the use of land, construction on land or the subdivisions of land;
- C. Section 483 of the *Local Government Act* permits the District to enter into a housing agreement with an owner of land, which agreement may include terms and conditions regarding the occupancy, tenure and availability of dwelling units located on the Land; and
- D. The Developer and the District wish to enter into this Agreement to restrict the subdivision and use of, and construction on, the Land on the terms and conditions of this agreement, to have effect as both a covenant under section 219 of the *Land Title Act* and a housing agreement under section 483 of the *Local Government Act*.

NOW THEREFORE in consideration of the sum of \$10.00 now paid by the District to the Developer and other good and valuable consideration, the receipt and sufficiency of which the

Owner hereby acknowledges, the parties covenant and agree pursuant to section 219 of the *Land Title Act* (British Columbia) as follows:

1. **Definitions** – In this Agreement and the recitals hereto:

- (a) “*Affordable Rental Units*” means collectively the studio Dwelling Unit and 5 one bedroom Units, shown in Schedule “A”, provided that the Owner may from time to time, subject to obtaining the prior written approval of the Director, which approval will not be unreasonably withheld, substitute other Dwelling Units in the Building as the Affordable Rental Units in place of the Dwelling Units shown on Schedule “A”, provided that the mix of Affordable Rental Units does not change and the aggregate number of Affordable Rental Units in the Building will always be no less than 6. The Director’s approval of a proposed substitute Dwelling Unit will not be withheld provided that the proposed substitute Dwelling Unit is, in the reasonable opinion of the Director, at least equal to the Dwelling Unit being substituted in size, quality and condition;
- (b) “*Annual Allowable Adjustment*” means an increase in the Maximum Rate once each calendar year by the lesser of:
 - (i) the 12 month average percent increase in the Consumer Price Index for the previous calendar year; or
 - (ii) the average percent increase in the rent charged for those Market Rental Units of similar size which are occupied at any time during the applicable calendar year,

If the 12 month average percent change in the Consumer Price Index for any calendar year is less than zero then the affordable rent for the following year must not be increased, but may be decreased at the Owner’s discretion;

- (c) “*Approving Officer*” means the approving officer for the District appointed under the *Land Title Act*;
- (d) “*Building*” means the building on the Land contemplated by Development Permit No. _____ and by the Development Covenant;
- (e) “*Consumer Price Index*” means the all-items consumer price index published by Statistics Canada, or its successor in function, for British Columbia (based on a calendar year);
- (f) “*Development Covenant*” means the covenant under section 219 of the *Land Title Act* dated for reference _____, 20__ granted by the Owner to the District and registered at the LTO against the Land under number CA _____;
- (g) “*Director*” means the District’s General Manager of Planning, Permits and Properties and his or her designate;

- (h) “Discounted *CMHC Rental Rate*” means for each Affordable Rental Unit:
 - (i) for the calendar year in which a certificate of final occupancy is issued for the Building by the District, the amount set out in Schedule “B” for the applicable Affordable Rental Unit increased by the Annual Allowable Adjustment from the calendar year in which this Agreement is executed and delivered by both parties until the calendar year in which the final occupancy permit is issued; and
 - (ii) for each subsequent calendar year, an amount not greater than the rent for the preceding calendar year increased by the Annual Allowable Adjustment for such preceding calendar year;
- (i) “*Dwelling Unit*” has the meaning given to it in the Zoning Bylaw;
- (j) “*Eligibility Requirements*” means aggregate annual household gross income that is less than or equal to 333% of the annual rent for the size of Affordable Rental Unit proposed to be rented (which rent, for greater certainty, may not be greater than the Maximum Rate for the unit), where said aggregate income is established by way of true copies of the previous year’s income tax returns for each household member or individual who will reside in the Affordable Rental Unit provided, however, a person will be deemed not to meet the Eligibility Requirements if the Owner has reasonable grounds to believe that such person is not in need of subsidized housing (e.g. seniors with a substantial assets or students with financial support from parents) even if such person would otherwise meet the criteria set out above;
- (k) “*Land*” has the meaning given to it in Recital A hereto;
- (l) “*LTO*” means the Lower Mainland Land Title Office and any successor of that office;
- (m) “*Market Rental Units*” means all of the Dwelling Units in the Building which are not Affordable Rental Units;
- (n) “*Maximum Rate*” means the Discounted CMHC Rental Rate for each Affordable Rental Unit or another rental rate for each Affordable Rental Rate that is consented to in writing in advance by the Director pursuant to section 4 herein;
- (o) “*Owner*” means the Developer and any other person or persons registered in the LTO 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;
- (p) “*Proposed Development*” has the meaning given to it in the Development Covenant;
- (q) “*Society*” means a registered housing society approved in writing by the District;

- (r) “*Zoning Amendment Bylaw*” means District of North Vancouver Rezoning Bylaw _____ (No. _____, 2018); and
 - (s) “*Zoning Bylaw*” means the District of North Vancouver Zoning Bylaw No. 3210, 1965 as modified by the Zoning Amendment Bylaw and as further amended, consolidated, re-enacted or replaced from time to time.
2. **No Subdivision** – The Land and any improvements from time to time thereon (including without limitation the Building), may not be subdivided by any means whatsoever, including, without limitation, by subdivision plan, strata plan, fractional interest, lease or otherwise.
3. **The Housing Society** – No building or structure on the Land shall be occupied for any purpose and the District shall not issue any occupancy permit in respect of any building or structure on the Land, and the Owner shall not offer for rent any Affordable Rental Units or Market Rental Units in the Building or enter into any residential tenancy agreements in respect of any said Dwelling Units, unless and until the Owner has:
- (a) entered into a lease, licence or operating agreement with the Society in respect of the Affordable Rental Units, said agreement to be in form and substance acceptable to the District; and
 - (b) caused the Society to enter into a separate agreement with the District in form and substance acceptable to the District regarding the operation of the Affordable Rental Units.
4. **Changing the Discounted CMHC Rental Rate** – The Society may request in writing that the Director consent to the Society charging a rental rate for each Affordable Rental Unit that is different from the Discounted CMHC Rental Rate, and the Director will not unreasonably refuse such a request provided that the Director is satisfied, in his or her discretion, that the change in rental rates would be fair and would result in lower rent, on an aggregate basis, for the Affordable Rental Units.
5. **Use of Market Rental Units** – No Market Rental Unit in the Building may be used for any purpose whatsoever save and except for the purpose of rental housing pursuant to arm’s length month-to-month residential tenancy agreements or arm’s length residential tenancy agreement with terms not exceeding three years in duration (including all periods in respect of which any rights or renewal, contingent or otherwise have been granted).
6. **Use of Affordable Rental Units** - No Affordable Rental Unit will be used for any purposes whatsoever save and except for the purpose of providing rental accommodation in the Affordable Rental Unit to tenants meeting the Eligibility Requirements pursuant to arm’s length month-to-month residential tenancy agreements or residential tenancy agreements with terms not exceeding three years in duration (including all periods in respect of which any rights or renewal, contingent or otherwise have been granted), where said tenancy agreements comply with all of the requirements of section 8.

7. **Occupancy Restriction** – No Affordable Rental Unit may be occupied except by:
- (a) a person meeting the Eligibility Requirements pursuant to month-to-month residential tenancy agreements or residential tenancy agreement with terms not exceeding three years in duration that complies with section 8; and
 - (b) the other members of the person's household, provided that the income of all members (other than income of legal dependents up to a maximum of \$10,000 per year per dependent) is included in the determination of eligibility under the Eligibility Requirements.
8. **Tenancy Agreements for Affordable Rental Units** - The Owner shall not suffer, cause or permit occupancy of any Affordable Rental Unit except pursuant to a residential tenancy agreement that:
- (a) is entered into by the Owner and, as tenant, a person at arm's length from the Owner. For the purpose of this Agreement, "at arm's length" means:
 - (i) not in any other contractual relationship with the Owner or any director, officer or other senior employee of the Owner;
 - (ii) unrelated by blood, marriage or personal relationship to any director, officer or other senior employee of the Owner; and
 - (iii) not employed by any corporate entity that is an affiliate of the Owner, as that term is defined in the *British Columbia Business Corporations Act* as of the date of this Agreement,provided that the Director may, in his or her sole discretion, relax the restrictions contained in this subsection 8(a) upon the written request of the Owner on a case-by-case basis. Any such relaxation in relation to any particular residential tenancy agreement is not to be construed as or constitute a waiver of the requirements in relation to any other residential tenancy agreement. No relaxation of the restrictions in this subsection 8(a) will be effective unless it is granted in writing by the Director prior to the execution and delivery of the residential tenancy agreement to which the relaxation relates.
 - (b) does not, in relation to any Affordable Rental Unit, require payment of rent or any other consideration for the Affordable Rental Unit directly or indirectly that exceeds the Maximum Rate for the unit, but the tenant may be required to pay:
 - (i) additional consideration for parking, provided that the additional consideration does not exceed an amount charged from time to time for a parking stall to tenants in the Market Rental Units; and
 - (ii) third party providers directly for utilities, internet services and, if approved by the Director acting reasonably, other services not usually included in rent except the cost of hydronic heat, air conditioning or hot water which

must be included in Maximum Rate no matter who may be providing these services;

- (c) allocates bicycle locker storage space to tenants in the Affordable Rental Units on the same terms and conditions, and with the same priority, as is offered to tenants in the Market Rental Units, except that tenants in the Affordable Rental Units will not be required to pay any amount for bicycle storage locker space;
- (d) does not require the rent to be prepaid at an interval greater than monthly;
- (e) prohibits the tenant from subletting the unit, assigning the tenancy agreement, or operating the unit on a short term rental basis (less than one month), except to the extent that the *Residential Tenancy Act* restricts or prohibits such prohibitions;
- (f) requires the tenant to provide within 30 days of demand true copies of the most recent filed income tax returns or assessment notices from Canada Revenue Agency for each occupant of the unit; and
- (g) contains a provision that, if the tenant ceases to qualify for the Affordable Rental Unit because he or she no longer meets the Eligibility Requirements, the Owner may end the tenancy agreement by giving the tenant a clear six months' notice to end the tenancy in accordance with section 49.1 of the *Residential Tenancy Act* (or successor legislation).

9. **Rental Application Process** – The Owner must:

- (a) accept applications for residential occupancy of the Affordable Rental Units from all applicants meeting the Eligibility Requirements;
- (b) maintain a housing list of all eligible applicants from whom the Owner has accepted applications;
- (c) where Affordable Rental Units become available for occupancy, offer the units to persons on the housing list in the order in which their applications were made, unless:
 - (i) the person no longer meets the Eligibility Requirements; or
 - (ii) the Owner does not consider the person to be an acceptable candidate for occupancy of that Affordable Rental Unit because the person does not satisfy other reasonable and fair criteria established by the Owner from time to time; and
- (d) make the housing list available to the District upon request.

10. **Duty to Account and Report** – In addition to the other covenants and obligations to be performed by the Owner hereunder, the Owner covenants and agrees that it will:

- (a) keep or cause to be kept separate true and accurate records and accounts in accordance with generally accepted accounting principles regarding the rental income earned from both the Market Rental Units and the Affordable Rental Units; and
 - (b) deliver to the District, on request of the District, copies of all current tenancy agreements in respect of the Affordable Rental Units.
- 11. **Statutory Declaration** – Within three days after receiving notice from the District, the Owner must deliver to the District a statutory declaration, substantially in the form attached as Schedule “C”, sworn by the Owner (or a director or officer of the Owner if the Owner is a corporation) under oath before a commissioner for taking affidavits in British Columbia, containing all of the information required to complete the statutory declaration.
- 12. **Damages and Rent Charge**
 - (a) The Owner acknowledges that the District requires compliance with the provisions in this Agreement for the benefit of the community. The Owner therefore agrees that for each day the Land is occupied in breach of this Agreement, the Owner must pay the District \$200.00 (the “Daily Amount”), as liquidated damages and not as a penalty, due and payable at the offices of the District on the last day of the calendar month in which the breach occurred. The Daily Amount is increased on January 1 each calendar year by the 12 month average percent increase in the Consumer Price Index for the previous calendar year. The Owner agrees that payment may be enforced by the District in a court of competent jurisdiction as a contract debt.
 - (b) By this section, the Owner grants to the District a rent charge under section 219 of the *Land Title Act*, and at common law, securing payment by the Owner to the District of the amounts described in subsection 12(a). The District agrees that enforcement of the rent charge granted by this section is suspended until the date that is 30 days after the date on which any amount due under subsection 12(a) is due and payable to the District in accordance with subsection 12(a). The District may enforce the rent charge granted by this section by an action for an order for sale or by proceedings for the appointment of a receiver.
 - (c) The Director may, in his or her sole discretion, grant to the Owner full or partial relief from the obligation to pay liquidated damages on a case-by-case basis if the Owner establishes to the satisfaction of the Director, in the Director’s discretion, that the breach for which the Daily Amount is payable was inadvertent. No such relief in relation to any particular default is to be construed as or deemed to constitute relief in relation to any other default other default.
- 13. **Specific Performance** – The Owner agrees that, without affecting any other rights or remedies the District may have in respect of any breach of this Agreement, the District is entitled to obtain an order for specific performance of this Agreement and a prohibitory

or mandatory injunction in respect of any breach by the Owner of this Agreement. The Owner agrees that this is reasonable given the public interest in restricting occupancy of the Land in accordance with this Agreement.

14. **Indemnity** – Except for the negligence of the District or its employees, agents or contractors, the Owner will indemnify and save harmless each of the District and its elected officials, board members, officers, directors, employees, and agents, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities, which all or any of them will or may be liable for or suffer or incur or be put to by reason of or arising out of any act or omission by the Owner, or its officers, directors, employees, agents, contractors, or other persons for whom at law the Owner is responsible or the Owner's ownership, operation, management or financing of the Rental Unit or any part thereof, or the use and occupancy of any Dwelling Units in the Building by anyone.
15. **Release** – Except to the extent such advice or direction is given negligently, 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 any Dwelling Units in the Building or any part thereof which has been or hereafter may be given to the Owner by all or any of them.
16. **Survival** – The covenants of the Owner set out in Sections 14 and 15 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 or any Dwelling Unit therein, as applicable.
17. **Notice of Housing Agreement** – For clarity, the Owner acknowledges and agrees that:
 - (a) this Agreement constitutes both a covenant under section 219 of the *Land Title Act* and a housing agreement entered into under section 483 of the *Local Government Act*;
 - (b) the District is required to file a notice of housing agreement in the LTO against title to the Land; and
 - (c) once such a notice is filed, this Agreement, as a housing agreement under section 483 of the *Local Government Act*, binds all persons who acquire an interest in the Land in perpetuity.
18. **Compliance with Laws** – The Owner will at times ensure that the Land is used and occupied in compliance with all statutes, laws, regulations, bylaws, and orders of the District and other authorities having jurisdiction, including all rules, regulations, policies, guidelines and the like under or pursuant to them.

19. **Cost** – The Owner shall comply with all requirements of this Agreement at its own cost and expense, and shall pay the reasonable costs and expenses incurred and payment and expenditures made by the District, including without limitation, all survey, advertising, legal fees and disbursements and the District’s administration costs (as determined by the District’s charge out rate for District staff time) in connection with the preparation or enforcement of this Agreement and all other covenants, agreements and statutory rights of way granted by the Owner to the District or entered into between the owner to the District in respect of the development of the Land contemplated in this Agreement and ancillary documents and any modifications, discharges and partial discharges of them from time to time, and the costs of registration of such documents in the LTO.
20. **Limitation on Owner’s Obligations** – The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Lands.
21. **Interpretation** – In this Agreement:
- (a) reference to the singular includes a reference to the plural, and vice versa, unless the context requires otherwise;
 - (b) any reference to a statute or by-law includes and is a reference to such statute or by-law and to the regulations made pursuant thereto, with all amendments made thereto and as in force from time to time, and to any statute, by-law and regulations that may be passed which have the effect of supplementing or superseding such statute, by-law and regulations;
 - (c) article and section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement;
 - (d) reference to a particular numbered section or article, or to a particular lettered Schedule, is a reference to the correspondingly numbered or lettered article, section or Schedule of this Agreement;
 - (e) reference to the “Land” or to any other parcel of land is a reference also to any parcel into which it is subdivided or consolidated by any means (including the removal of interior parcel boundaries) and to each parcel created by any such subdivision or consolidations;
 - (f) if a word or expression is defined in this Agreement, other parts of speech and grammatical forms of the same word or expression have corresponding meanings;
 - (g) reference to any enactment includes any regulations, orders, permits or directives made or issued under the authority of that enactment;
 - (h) unless otherwise expressly provided, referenced to any enactment is a reference to that enactment as consolidated, revised, amended, re enacted or replaced;
 - (i) time is of the essence;

- (j) all provisions are to be interpreted as always speaking;
- (k) reference to a "party" is a reference to a party to this Agreement and the their respective heirs, executors, successors (including successors in title), trustees, administrators and receivers;
- (l) reference to the District is a reference also to is elected and appointed official, officer, employees and agents;
- (m) reference to a "day", "month", "quarter", or "year" is a reference to a calendar day, calendar month, calendar quarter or calendar year, as the case may be, unless otherwise expressly provided;
- (n) where the word "including" is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word "including"; and
- (o) any act, decision, determination, consideration, opinion, consent or exercise of discretion by a party or person as provided in this Agreement must be preformed, made, formed or exercised acting reasonably, except that any act, decision, determination, consideration, consent, opinion or exercise of discretion that is said to be within the "sole discretion" of a party or person may be preformed, made, formed or exercised by that party or person in the sole, unfettered and absolute discretion of that party or person.

22. **Notice** – All notices and other communications required or permitted to be given under this Agreement must be in writing and must be sent by registered mail or delivered as follows:

- (a) if to the Owner, as follows:

TPL Developments Oxford GP Inc., Inc. No. BC1079915
 200-1111 West Hasting Street
 Vancouver, BC
 V6E 2J3

Attention: _____

Fax: _____

- (b) if to the District, as follows:

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

Attention: Director, Planning Permits and Properties
 Facsimile: (604) 984-8664

Any notice or other communication that is delivered is considered to have been given on the next business day after it is dispatched for delivery. Any notice or other communication that is sent by registered mail is considered to have been given five days after the day on which it is mailed at a Canada Post office. If there is an existing or threatened strike or labour disruption that has caused, or may cause, an interruption in the mail, any notice or other communication must be delivered until ordinary mail services is restored or assured. If a party changes its address it must immediately give notice of its new address to the other party as provided in this section.

23. **No Waiver** – No provision or breach of this Agreement, or any default, is to be considered to have been waived or acquiesced in by a party unless the waiver is express and is in writing by the party. The waiver by a party of any breach by the other party of any provision, or default, is not to be construed as or constituted a waiver of any further or other breach or the same or any other provision or default.
24. **Rights are Cumulative** – All rights and remedies of a party under or in respect of this Agreement (including its breach) are cumulative and are in addition to, and do not exclude or limit any other right or remedy. All rights and remedies may be exercised concurrently.
25. **Third Party Beneficiaries** – Except as may be expressly provided in this Agreement, this Agreement is not to be interpreted to create rights in, or to grant remedies to, any third party as a beneficiary of this Agreement or of any duty or obligation created by this Agreement.
26. **No Effect on Laws or Powers** – This Agreement and the Owner's contributions, obligations and agreements set out in this Agreement do not:
 - (a) affect or limit the discretion, rights or powers of the District or the approving officer under any enactment or at common law, including in relation to the use, development, servicing or subdivision of the Land;
 - (b) impose on the District or the approving Officer any legal duty or obligation, including any duty of care or contractual or other legal duty or obligation, to enforce this Agreement;
 - (c) affect or limit any enactment relating to the use, development or subdivision of the Land; or
 - (d) relieve the Owner from complying with any enactment, including in relation to the use, development, servicing or subdivision of the Land.
27. **Binding Effect** – This Agreement enures to the benefit of and is binding upon the parties and their respective heirs, executors, administrators, trustees, receivers and successors (including successors in title).
28. **Covenant Runs With the Land** - Every provision of this Agreement and every obligation and covenant of the Owner in this Agreement, constitutes a deed and a

contractual obligation, and also a covenant granted by the Owner to the District in accordance with section 219 of the *Land Title Act*, and this Agreement burdens the Land to the extent provided in this Agreement, and runs with it and binds the Owner's successors in title. This Agreement also burdens and runs with every parcel into which the Land is or they are consolidated (including by the removal of interior parcel boundaries) by any means.

29. **Voluntary Agreement** - The Owner acknowledges that the Owner has entered into this Agreement voluntarily and has taken legal advice with regard to the entry of this Agreement and the development of the Land.
30. **Agreement for Benefit of District Only** – The Owner and the 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 tenant, or any future owner, lessee, occupier or user of the property, the Land or the building or any portion thereof, including any Affordable Rental Unit or Market Rental Unit; and
 - (c) the District may at any time execute a release and discharge of this Agreement, without liability to anyone for doing so, and without obtaining the consent of the Owner.
31. **Limitation on Owner's Obligations** - The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Land.
32. **Further Acts** - The Owner must do everything reasonably necessary to give effect to the intent of this Agreement, including execution of further instruments.
33. **Joint Obligations of Owner** - If two or more persons execute this Agreement as Owner, the liability of each such person to observe and perform all of the Owner's obligations pursuant to this Agreement will be deemed to be joint and several.
34. **Severance** - If any part of this Agreement is held to be invalid, illegal or unenforceable by a court having the jurisdiction to do so, 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 and unaffected by that holding or by the severance of that part.
35. **No Joint Ventureship** - Nothing in this Agreement shall constitute the Owner as the agent, joint venturer or partner of the District or give the Owner any authority or power to bind the District in any way.
36. **Amendment** - This Agreement may be amended from time to time by agreement between the Owner and the District. Except as otherwise expressly provided in this Agreement, the amendment agreement must be by an instrument in writing duly executed by the Owner and the District.

37. **Deed and Contract** - By executing and delivering this Agreement each of the parties intends to create both a new contract and a deed of covenant executed and delivered under seal.

As evidence of their agreement to be bound by the above terms, the parties each have executed and delivered this Agreement under seal by executing Part 1 of the *Land Title Act* Form C to which this Agreement is attached and which forms part of this Agreement.

SCHEDULE "A"
THE AFFORDABLE RENTAL UNITS

To be inserted prior to 3rd reading

SCHEDULE "B"
THE AFFORDABLE RENTAL UNITS – RENTAL RATES

	Studio	1 bed
Discounted CMHC Rental Rate	\$996	\$1,228.50

SCHEDULE "C"
STATUTORY DECLARATION

CANADA)	IN THE MATTER OF A HOUSING AGREEMENT with
)	the District of North Vancouver ("Housing
PROVINCE OF BRITISH COLUMBIA)	Agreement")
)	

I, _____, of _____, British Columbia, do solemnly
declare:

1. That I am the _____ (director, officer, employee) of _____, (the "Owner") the owner of the land legally described as [insert legal] and [make this declaration to the best of my personal knowledge] [have been informed by _____ and believe the statement in this declaration to be true].
2. This declaration is made pursuant to the Housing Agreement.
3. On _____,
 - (a) all of the Affordable Rental Units (as defined in the Housing Agreement) were occupied by tenants pursuant to Arm's Length (as defined in the Housing Agreement) month-to-month residential tenancy agreements or Arm's Length residential tenancy agreements with terms not exceeding three years in duration that comply with section 8 in the Housing Agreement subject to the following vacancies _____ (nil if left blank); and
 - (b) the names and mailing addresses of all of the tenants in the Affordable Rental Units are listed in Schedule A to this statutory declaration.
4. To the best of my knowledge and belief the Owner is not in breach of any of its obligations under the Housing Agreement.
5. The Owner has used commercially reasonable efforts to obtain the most recently filed income tax returns or assessment notices from Canada Revenue Agency for each occupant of each Affordable Rental Unit, and has reviewed same, and I have, to the extent reasonably possible based on the information provided to the Owner by tenants, confirmed that as of _____, _____ the tenant(s) of each Affordable Rental Unit continue to qualify for their Affordable Rental Unit because the aggregate income of all occupants residing in the Affordable Rental Unit meets the Eligibility Requirements, as defined in the Housing Agreement.
5. I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and pursuant to the *Canada Evidence Act*.

SWORN BEFORE ME at the _____, in the
Province of British Columbia, this ____ day of ____
_____, 20__.

)
)
)
)
)
)
) **Signature of person making declaration**

A Commissioner for Taking Affidavits for British
Columbia

Schedule A to the Statutory Declaration of _____

Name of Eligible Person	Age of Eligible Person	Other Resident(s) of Dwelling Unit	Apt. No.

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220 Mountain Highway and 1515-1555 Oxford Street

Public Information Meeting Summary Report

Event Date: January 31, 2019
Time: 6:30pm – 8:30pm
Location: North Shore Winter Club, 1325 E. Keith Road, North Vancouver
Attendance: 13 members of the public signed in.
Comments: Seven comment sheets, two e-mails, and one phone call were submitted.

Meeting Purpose:

- 1) To present development proposal materials to neighbours
- 2) To provide an opportunity for the public to ask questions about the proposal
- 3) To provide an opportunity for neighbours to comment on the proposal

Notification:
In accordance with District of North Vancouver policies:

Invitation Brochures

Invitations and informational packages were delivered to 228 addresses within a 100m radius from the site, meeting District requirements. Appendix A includes a copy of this package and a map of the distribution area.

Newspaper Ad

A newspaper ad was placed in the North Shore News on Friday, January 25, 2019 and Wednesday, January 30, 2019. A copy of the ad is included in Appendix A.

Notification Signs

A notification sign was installed on the property on January 16, 2019, providing two weeks' notice to neighbours of the meeting. A photograph of the installed sign is provided in Appendix A.

Attendance:

13 members of the public signed in for the meeting. A copy of the redacted sign-in sheet is included in Appendix B.

The following City staff and project team members were in attendance:

District of North Vancouver:

- Casey Peters, Development Planner

Project Team:

- Adel Bellemlih, Redic Development
- Ryan Rohani, Redic Development

- Taizo Yamamoto, Yamamoto Architecture
- Darryl Tyacke, ETA Landscape Architects

Facilitators:

- Steven Petersson, Petersson Planning Consulting
- Katrina May, Petersson Planning Consulting

Overview:

The meeting was held in a Public Information Meeting format. Meeting participants could browse the display boards and engage with the project team directly, followed by a formal presentation and facilitated question and answer period. The facilitator noted questions and comments on a flip chart for all to see.

The participants were invited to submit written comments to the facilitator or to the municipal planner. The comment period remained open from the night of the meeting, January 31, 2019 to February 14, 2019. Seven comment sheets, two e-mails, and one phone call were submitted to the municipal planner.

The general tone of the evening was support for this development proposal. Community members recognized the demand for rental housing in the neighbourhood as a more attainable alternative to home ownership. Questions arose around the construction timeline, the height of the building, whether or not it will be pet-friendly, as well as the rental rates. The suggestion was made to the DNV to consider a parking solution for people taking transit from this area.

The overall development proposal was supported by most participants.

Public Dialogue:

(Q = Question, A = Answer, C = Comment, and the number is to track the dialogue)

- Q1** Will there be public parking for people taking transit from here?
- A1** The District does not have control over the MOT parcel nearby. The District has raised the importance of creating some kind of parking at Phibbs Exchange.
- Q2** When will the project be complete?
- A2** The estimated timeline is 6 months to 1 year to complete the detailed rezoning application process. With construction, it could be approximately 3 years.
- Q3** What will rental rates be?
- A3** Construction prices are changing rapidly. We will not know for at least one year. The rental building next door is a good comparable for pricing.
- C4** There is a huge need for rental. I have friends and clients looking. There are waitlists. I think this is great.
- Q5** Will there be more rental projects in the future?

- A5** A third rental residential application in this neighbourhood has been submitted to the District. A couple of other projects that might have rental units are coming up.
- Q6** Is rental housing a priority for this council?
- A6** The District reviews all development applications, and evaluates them on their merits.
- C7** My daughter was looking for a home in the District. There is not enough rental housing. I hope this project is approved.
- Q8** What is the height of the building?
- A8** Six storeys with a flat roof and roof deck. The building will be wood-frame, which is more sustainable and affordable and puts limits on height. It is proposed to be approximately 60 feet high.
- Q9** Will pets be allowed?
- A9** Every project we do is pet-friendly.

Comment Sheet and Email Summary

Participants were invited to submit comments for a two-week response period after the meeting. Seven comment sheets, two emails, as well as one phone call were submitted. The main themes from the comments received included:

- Support for the project, as rental housing is much needed on the North Shore
- Support for the design of the project
- Suggestion to process this and other rental projects quickly
- Support for the family-friendly (2- and 3-bedroom) and pet-friendly nature of the building
- Suggestion that the project include some 4-bedroom units
- One respondent opined that there was not enough parking in this proposal.

Conclusion

The purpose of this public information meeting was to present to neighbours the proposed rezoning application, and to provide them with an opportunity to ask clarifying questions and comment on the proposal. 228 invitations were distributed by hand to the surrounding community, and 12 community members signed in. Two newspaper ads notified the community of the meeting, and a sign was posted on the property. Seven comment forms, two emails, and one phone call were submitted to the municipal planner.

The public could participate in this process in several ways:

- browsing boards
- talking to the project team and DNV Planner
- watching a presentation
- participating in a facilitated question and answer period
- submitting written comments.

The meeting length and format was sufficient to provide all participants an opportunity to learn more, ask questions, and make the comments they wished to provide that evening. Participants asked the development team and District planner a variety of questions, mostly related to the shortage of rental housing on the North Shore and their personal challenges in this regard. All of the community members that spoke at the meeting expressed explicit support for this project. Participants noted that families, younger people, and seniors are looking for rental accommodation in the area as an alternative to homeownership. Suggestions were made to prioritize this and other rental housing projects. The community was given ample opportunity to express their views of the proposal.

Appendix A: Notification

Newspaper Advertisement: North Shore News, Friday, January 25, 2019

A16 | THEATRE

rsnews.com north shore news FRIDAY, JANUARY 25, 2019

Dynamo Théâtre reimagines Romeo and Juliet

Production opens door to new reading of Shakespeare

■ *Dynamo Théâtre's What If Romeo and Juliet...*
Presentation House Theatre,
Jan. 25-27. phtheatre.org.

JEREMY SHEPHERD
jshpherd@rsnews.com

Those beautiful, hasty, star-crossed kids first died about 422 years ago.

Since then Romeo and Juliet have met their respective ends in theatres and high school English classes. Their story has been transformed/updated/butchered to include balletic leaps on New York's West Side, gunfights in Verona Beach, verbiage scampering in Africa's savannah, pizzeria bombings in Little Italy, and the rumble narration of heavy metal icon Lemmy from Motorhead.

But whatever the detour, the grim destination remained. And who could forget the poison, the tomb, the end?

Well, writer/director Jackie Gosselin for one. She'd read the play as a teenager and was captivated by the words, she says, recalling the way the play's poetry stirred the "pain of love."

But once nestled in Gosselin's subconscious, the play's DNA began to alter. The romance grew stronger



Dynamo Théâtre explores how Romeo & Juliet might have ended differently in a new production, created and directed by Jackie Gosselin, at Presentation House Theatre Jan. 25-27. PHOTO SUPPLIED

while the poison ebbed away as though overcome by antibodies.

Years later, when she began the process of bringing *Romeo and Juliet* to the stage Gosselin didn't consider the climax until speaking with Presentation House Theatre artistic director Kim Selody.

But what about the two dead teenagers at the end? Selody wanted to know.

"I said, 'Oh my God, I forgot,'" she laughs. "I just wanted to put on the stage the love between two children."

The essence of tragedy is the realization that comes too late: I am doomed and it's because of the stuff I did. *Romeo and Juliet* is a tragedy for the Montague and Capulet parents who realize their obedience to the laws of rivalry destroyed who they love and love itself. But for Romeo and Juliet themselves, it's a disaster; unburied by insight or epiphany.

But, Gosselin wondered, what if it didn't have to end that way?

The question stayed with her for years as she searched

for the nerve to adapt – and ultimately rewrite – William Shakespeare.

Montreal's Dynamo Théâtre is not a "text company," Gosselin says, explaining her reticence.

And for a company that tells stories with acrobatic movement, Shakespeare seemed protected by an untouchable aura, adds theatre general manager Chloe Besner.

But the feeling that she didn't have "the right" to stage *Romeo and Juliet* changed after reading about Rufus Walowright. The

Canadian singer's use of Shakespeare's sonnets as the basis for an album signalled something important about Shakespeare, she remembers. His work belonged to everyone.

"I must invite Shakespeare in Dynamo Theatre," she decided. "Shakespeare told me: 'It's OK.'"

But even with the Bard's permission, there were still 300 hours of work ahead.

A circus/theatre company writes with movement, Besner explains.

"The words are not in someone's head but in

someone's body. So we need those bodies to be on stage to express those words."

The stage is sparse except for two staircases representing the feuding families as well as the masculine and the feminine, Besner explains. The actors use that set "like a playground" during the writing process while the musicians compose the show's soundtrack. One informs the other, and then the other informs the one.

Gosselin guided the action and figured out the flourishes, such as incorporating Shakespeare himself. The bard's disembodied voice grants the production a dramatic dispensation from the rules that govern *Romeo and Juliet*.

What If Romeo and Juliet... takes place over five sequences: the party where they catch one another's eyes, the balcony where they speak the play's most famous words, their farewell, the swordfight, and, of course, the tomb.

But inside that tomb, the play diverges.

What if they can decide for themselves? Gosselin asks. What if they can reject the impositions of society and escape being sacrificed on the altar of their manipulating, warlike parents?

"I would like to open the door on Shakespeare to a young audience," Gosselin says. When you perform for children, she adds, you have to give them light and hope.

"The children are intelligent," she says. "We can give them the choice between the violence and peace."

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Notice of a Public Information Meeting in Your Neighborhood

A redevelopment is being proposed for 220 Mountain Highway and 1515 – 1555 Oxford St. In North Vancouver, to construct a 6-storey purpose-built rental building. You are invited to a meeting to discuss the project:

Date: Thursday January 31st, 2017
Time: 6:30PM
Location of Meeting: North Shore Winter Club
1525 E. Keith Road, North Vancouver

Redie Development Inc is proposing to construct a 6-storey purpose-built rental building at 220 Mountain Highway and 1515 – 1555 Oxford St.

The proposal is for 134 rental units, which include 62 two-bedroom units, and 5 three-bedroom units. The main pedestrian access to the building will be on Oxford Street, while the access to its underground parking will be through the rear lane. 114 parking stalls are provided for residents and visitors. The proposal also includes improvement to both the Oxford St and Mountain Highway sidewalks, as well as the creation of a new north/south lane to the east of the building.

Project Rendering
(South West Facing View from Oxford Street)

Subject property

This information package is being distributed to the owners and occupants within 100m of the proposed development site in accordance with District of North Vancouver policy. If you like to receive a copy or if you would like more information, please contact Ryan Rohani at 778-668-4236 or Casey Peters, Development Planner at 604-990-2388, or bring your questions and comments to the meeting.

lifestyle

HEALTH 24 | SENIORS 29 | SPORTS 32

Cameraman looks at life behind the lens

Book covers CBC debates, dodging NHL slapshots

JEREMY SHEPHERD
jshepherd@nsnews.com

He was most of the way up a mountain tied to a tree with 60 pounds of camera, batteries and film on his back.

Camera operator Michael Varga trained his lens on an empty expanse of sky and snow.

In five minutes or two seconds he'd hear his cue and – Shout! – a skier would swoop over the horizon like a hawk with a hunger pang.

"And if you blink, he's gone," Varga says. And then you get screamed at by CBC producers, he adds with a chuckle.

For more than 40 years Varga has been behind the lens at World Cups, Stanley Cups, Grey Cups, Olympics, and curling. He's trained his camera on Bill Gates, shared candy with the Dalai Lama and ordered a hamburger for O.J. Simpson.

His recollections, opinions, and ramblings are collected



For more than 40 years Lynn Valley resident Michael Varga captured sports around the world. His recollections are captured in the new self-published autobiography *Inside View*. PHOTO SUPPLIED

in *Inside View: The Eye Behind the Lens*, written by Varga and Roxanne Davies.

While the action of the book takes place across the world, the book itself was born in Lynn Valley.

As a semi-retired reporter, Davies says she has, "this ability to sit and listen for hours to people's stories."

Recently, she'd been helping a friend in Cloverdale write

a book. The book was fine. The commute was awful.

"Driving on Mondays behind those tractor trailers in the rain, in the snow, for two years," Davies recalls.

After deciding she would never do another book in Cloverdale, she found herself chatting with Varga during a Friday night concert in Lynn Valley.

"He starts telling me all

these stories and I go, 'Ding, ding, ding! Here's my next project,'" she laughs.

For his part, Varga seemed nonplussed by the idea.

He couldn't spell and wouldn't know where to start, he told her.

But Davies, Varga says, was unwavering by his protests.

"She just said, 'Look, I'm going to do a book on you whether you like it or not,'"

he recalls.

Davies wanted to write about the efforts we enjoy but never see.

"There's so much we take for granted," Davies says, explaining she'll never watch alpine skiing again without sparing a thought for the "poor schmuck out there who's freezing" with a camera.

The book is written in flashes and bursts and peppered with exclamation points, as though Varga is sitting across the table, trying to get in one more story before the bar closes.

In the space of one page, the narrative jumps from a mournful 1977 lunch with legendary DJ Wollman Jack to chatting with songstress Celine Dion at the 1991 Juno Awards.

Varga's career began in the early 1970s when he was hoping to parlay a summer job in CBC's mailroom into a career as a camera operator. It was an ambition he'd nursed since he'd been a nine-year-old staring into a 21-inch black and white RCA Victor television.

The plan, however, was dashed in the time it takes a paper airplane to land.

Varga was waiting for his job interview at CBC Vancouver when he saw a friendly face. His buddy,

Mark Forrester, was holding

envelopes into airplanes and firing them into mail slots.

"Here, you want to try?" he offered.

Varga's plane had just taken wing when the personnel manager walked in.

The ensuing interview was short but painful.

But while he didn't get the mailroom job, his job application floated in the desk of a technical manager in need of a camera operator.

"If I hadn't folded those paper airplanes, I'd still be working in the mailroom!" Varga writes. "It was fate and a little bit of luck."

He estimates he was sometimes working 100 hours a week, but he loved his job and the perspective it offered.

Early in his career Varga was shooting Quebec pop sensation René Simard.

Simard was known for whipping fans into a frenzy, but the producers of the show assisted any way they could.

"Awful as it seems by today's standards, occasionally we would feed a live audience of kids chocolate and soda pop to help energize them," he writes.

But what he really loved to do was shoot sports.

Varga seemed most at home shooting hockey games

See *Emmy* page 22

Notice of a Public Information Meeting in Your Neighborhood

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Date: Thursday January 31st, 2017
Time: 6:30PM
Location of Meeting: North Shore Winter Club
1525 E. Keith Road, North Vancouver

Redic Development Inc is proposing to construct a 6-storey purpose-built rental building at 220 Mountain Highway and 1515 – 1555 Oxford St.

The proposal is for 134 rental units, which include 62 two-bedroom units, and 5 three-bedroom units. The main pedestrian access to the building will be on Oxford Street, while the access to its underground parking will be through the rear lane. 114 parking stalls are provided for residents and visitors. The proposal also includes improvement to both the Oxford St and Mountain Highway sidewalks, as well as the creation of a new north/south lane to the east of the building.



Project Rendering:
(South-West Facing View from Oxford Street)



Subject property

This information package is being distributed to the owners and occupants within 100m of the proposed development site in accordance with District of North Vancouver policy. If you like to receive a copy or if you would like more information, please contact Ryan Bohani at 778-688-4236 or Casey Peters, Development Planner at 604-990-2388, or bring your questions and comments to the meeting.

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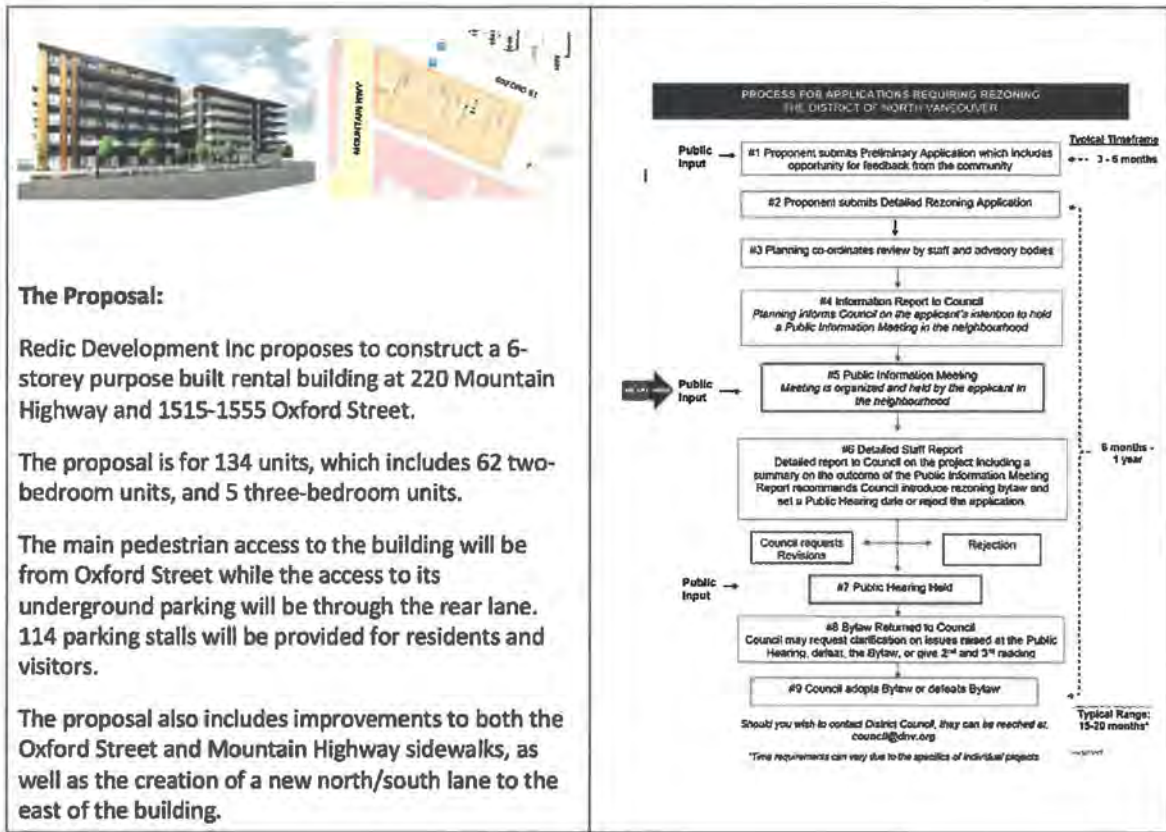
Notification Sign: Installed January 16, 2019



Notification Flyers

<p><u>Meeting Agenda:</u></p> <p>Doors Open: 6:30 PM</p> <p>Open House Discussion Start: 6:45PM</p> <p>Presentation: 7:00 PM – 7:45 PM</p> <p>For further information please contact:</p> <table><tr><td>Ryan Rohani 778-668-4236</td><td>Redic Development Inc.</td></tr><tr><td>Casey Peters 604-990-2388</td><td>District of North Vancouver Development Planner</td></tr></table>	Ryan Rohani 778-668-4236	Redic Development Inc.	Casey Peters 604-990-2388	District of North Vancouver Development Planner	<p>Notice of a Public Information Meeting in Your Neighborhood</p> <p>Redic Developments Inc is hosting a Public Information Meeting to present the development proposal for a 134-unit purpose-built rental building at 220 Mountain Highway and 1515 – 1555 Oxford St.</p> <p>This information package is being distributed to the owners and occupants within 100m of the proposed development site in accordance with District of North Vancouver policy</p> <p>Meeting Time and Location:</p> <p>Thursday, January 31st, 2018</p> <p>North Shore Winter Club</p> <p>1325 E. Keith Road, North Vancouver</p>
Ryan Rohani 778-668-4236	Redic Development Inc.				
Casey Peters 604-990-2388	District of North Vancouver Development Planner				

220 Mountain Highway & 1515-1555 Oxford St Rezoning Application – Public Information Meeting Summary Report



Notification Area Map



**220 MOUNTAIN HIGHWAY AND 1515-1555 OXFORD STREET
PUBLIC INFORMATION MEETING - JANUARY 31, 2019
SIGN-IN SHEET**

[illegible]

The personal information collected on this form is done so pursuant to the Community Charter and/or the Local Government Act and in accordance with the Freedom of Information and Access to Information Act. The personal information collected herein will be used only for the purpose of this public consultation process unless it is released as authorized by the owner or is completed by a Court or an agent duly authorized under another Act.

Further information may be obtained by speaking with The District of North Vancouver's Manager of Administrative Services at 604-993-2207.

Appendix C – Public Comments: Written Submissions:

COMMENT SHEET
The District of North Vancouver

PROPOSAL: Six-storey, 134-unit rental residential building over underground parking, at 220 Mountain Highway and 1515-1555 Oxford Street.

To help us determine neighbourhood opinions, please provide us with any input you have on this project (fee free to attach additional sheets):

Great project providing much needed
T.O.V. rentals - beautiful design.
Please accelerate approvals so this
can be built ASAP. For all those
desperate to find housing in
North Van

Your Name [REDACTED] Street Address [REDACTED]

Please check this box if you desire your contact information to be available to the applicant: ☒

The personal information collected on this form is done so pursuant to the Community Charter and/or the Local Government Act and in accordance with the Freedom of Information and Protection of Privacy Act. The personal information collected herein will be used only for the purpose of this public consultation process unless its release is authorized by its owner or is compelled by a Court or an agent duly authorized under another Act. Further information may be obtained by speaking with The District of North Vancouver's Manager of Administrative Services at 604-990-2207.

Please return, by mail or email by February 14, 2019 to:

Casey Peters

Tel: 604-990-2480

District of North Vancouver - Development Planning Department

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

Email: petersc@dnv.org

Document: 3352896

COMMENT SHEET
The District of North Vancouver

PROPOSAL: Six-storey, 134-unit rental residential building over underground parking, at 220 Mountain Highway and 1515-1555 Oxford Street.

To help us determine neighbourhood opinions, please provide us with any input you have on this project (feel free to attach additional sheets):

A family friendly and pet friendly rental! This is just a dream for families in the North Shore we've held such a hard time finding a decent rental unit for a long time, so it is a relief to see that things are changing the good way. North Vancouver is a family friendly city/district and there should be more rental opportunities like this one. Thank you!

Your Name _____ Street Address _____

Please check this box if you desire your contact information to be available to the applicant: ☒

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Casey Peters

Tel: 604-990-2480

District of North Vancouver - Development Planning Department

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

Email: petersc@dnv.org

Document: 3352696

COMMENT SHEET
The District of North Vancouver

PROPOSAL: Six-storey, 134-unit rental residential building over underground parking, at 220 Mountain Highway and 1515-1555 Oxford Street.

To help us determine neighbourhood opinions, please provide us with any input you have on this project (feel free to attach additional sheets):

This project is very elegant and will be a fantastic addition to the neighbourhood.
There is an ~~strong~~ growing demand for rental in the whole district, while this project is a huge help, we still need more rental space.
Thanks for all the hard work District, Redic.

Your Name [REDACTED] Street Address [REDACTED]

Please check this box if you desire your contact information to be available to the applicant: ☒

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Document: 3352896

COMMENT SHEET
The District of North Vancouver

PROPOSAL: Six-storey, 134-unit rental residential building over underground parking, at 220 Mountain Highway and 1515-1555 Oxford Street.

To help us determine neighbourhood opinions, please provide us with any input you have on this project (feel free to attach additional sheets):

The design of the building looks absolutely lovely & modern. This gives a fresh new feel to a very much needed look in this neighborhood. The rooms with 2 + 3 bedrooms are much needed and have a big demand. This project will definitely have many people excited. I hope it pulls through!

Your Name

Street Address

Please check this box if you desire your contact information to be available to the applicant: ☐

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COMMENT SHEET
The District of North Vancouver

PROPOSAL: Six-storey, 134-unit rental residential building over underground parking, at 220 Mountain Highway and 1515-1555 Oxford Street.

To help us determine neighbourhood opinions, please provide us with any input you have on this project (feel free to attach additional sheets):

Definitely needed project in the neighbourhood
The height is kept to a very reasonable scale
compare to the big Dent homes nearby.

In favor of this project.

Your Name _____ Street Address _____

Please check this box if you desire your contact information to be available to the applicant: ☐

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Email: petersc@dnv.org

Document: 3352896

COMMENT SHEET
The District of North Vancouver

PROPOSAL: Six-storey, 134-unit rental residential building over underground parking, at 220 Mountain Highway and 1515-1555 Oxford Street.

To help us determine neighbourhood opinions, please provide us with any input you have on this project (feel free to attach additional sheets):

Please DO make this proposal happen!

Your Name [REDACTED] Street Address _____

Please check this box if you desire your contact information to be available to the applicant: ☐

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Please return, by mail or email by February 14, 2019 to:

Casey Peters

Tel: 604-990-2480

District of North Vancouver - Development Planning Department

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

Email: petersc@dnv.org

Document: 5352895

COMMENT SHEET
The District of North Vancouver

PROPOSAL: Six-storey, 134-unit rental residential building over underground parking, at 220 Mountain Highway and 1515-1555 Oxford Street.

To help us determine neighbourhood opinions, please provide us with any input you have on this project (feel free to attach additional sheets):

We feel there is a need for rental property, especially since our [redacted] was looking for a space to live in and could only find a dark small basement at an exorbitant price to rent, out of necessity.

Your Name [redacted] Street Address [redacted]

Please check this box if you desire your contact information to be available to the applicant: ☐

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Casey Peters

Tel: 604-990-2480

District of North Vancouver - Development Planning Department

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

Email: petersc@dnv.org

Document: 3352896

Casey Peters

From: [REDACTED]
Sent: January 28, 2019 3:33 PM
To: Casey Peters
Subject: Re: Questions re:220 Mtn Hwy
Importance: High

Hi Casey,

Thank you for taking the time to respond to my questions and for sharing the outdoor plan. I do appreciate it.

At this public information stage of the application, I wish to make it known that I would like to see the inclusion of more market rentals that are sized for larger families (ie SOME 4 bedroom units) such as ones that Mosaic is including in their rental building—flex-units that have 3 beds plus the flex/lock off that would allow for either a larger family with parents and children, or for a grandparent to live with them. Knowing the difficulty our [REDACTED] family is encountering in finding a comparable replacement place/space to rent, purpose built rentals should be built across a diverse spectrum.

I would appreciate if you would ensure these comments are included in the public feedback. I wish I could be there but am unable this week.

Thanks for reading.

Best,

[REDACTED]

[REDACTED]

----- Original Message -----
From: Casey Peters
To: [REDACTED]
Sent: Monday, January 28, 2019 8:11 AM
Subject: RE: Questions re:220 Mtn Hwy

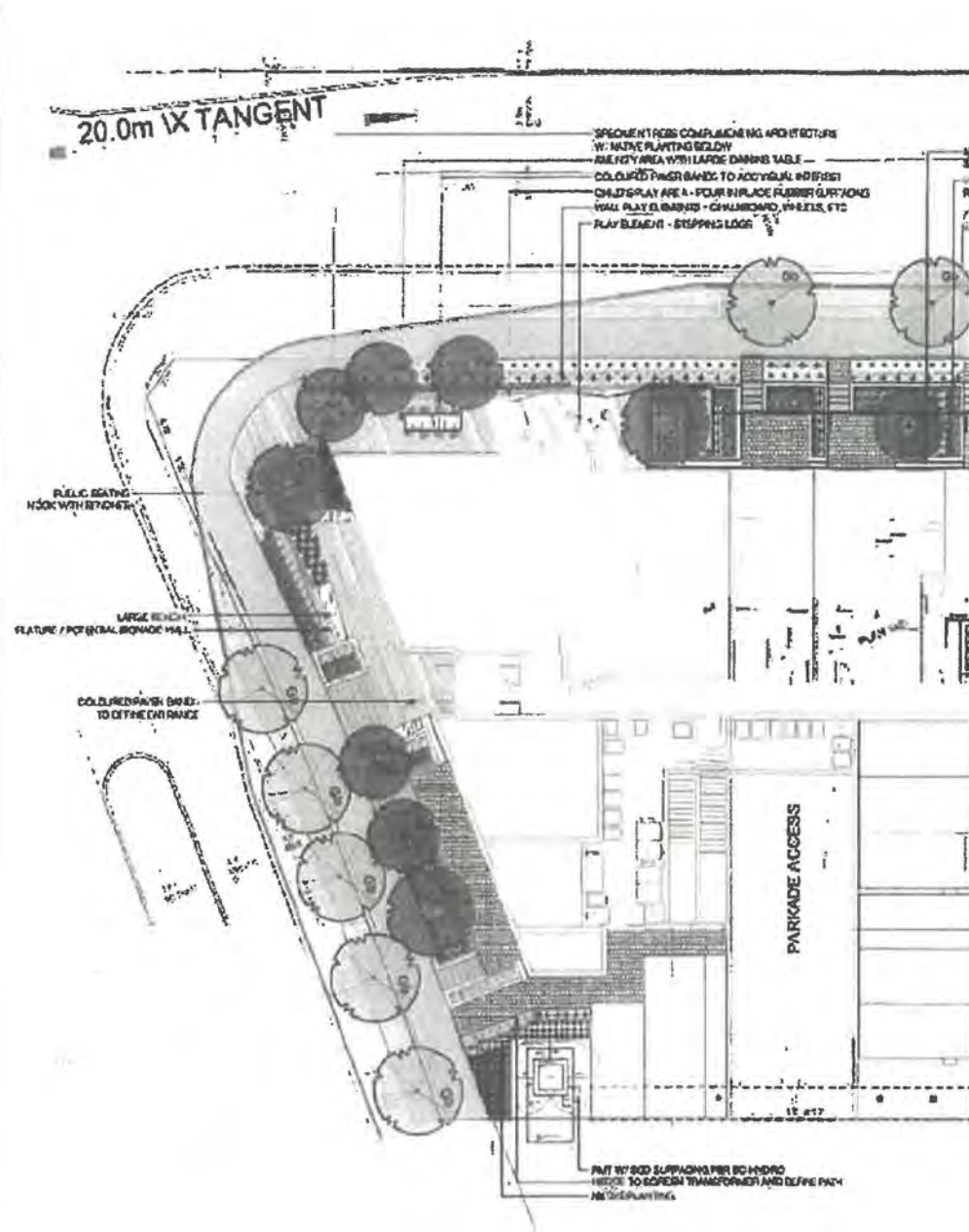
Hello [REDACTED]

Happy new year to you as well.

The project proposes 134 rental units with a proposed unit mix is as follows:

15 studio
52 one-bedroom
62 two-bedroom
5 three-bedroom

There is an indoor amenity space proposed at the northwest corner of the building and an adjacent outdoor amenity space that includes a large dining table and children's play area. I've included a "snip" of the landscape plan below.



Casey Peters
Development Planner
District of North Vancouver Development Planning
604-990-2388

cpeters@dnv.org

From: [REDACTED]
Sent: January 25, 2019 5:27 PM
To: Casey Peters <PetersC@dnv.org>
Subject: Questions re:220 Mtn Hwy

Hi Casey,

Happy New Year!

I have a couple questions about the aforementioned proposed development. Unfortunately Jan 31 is [REDACTED] so I won't be able to attend the info meeting, but I'm curious about the unit mix here. News ad says 5 3 bedrooms. Are there any 4 bedroom units proposed? 62 two bedrooms. What is the other unit mix? Is there any outdoor space?

I tried to find more info on dnv.org but didn't see anything.

I look forward to hearing from you.

Kindly,

[REDACTED]

Sent from my Samsung Galaxy smartphone.

[REDACTED] (by phone) Jan 30
[REDACTED]

- lack of parking in proposal
- residents will have one car each.
- on-street parking is already difficult in the neighbourhood.

*Can't attend Pim.

The Corporation of the District of North Vancouver

Bylaw 8455

A bylaw to amend District of North Vancouver
Official Community Plan Bylaw 7900, 2011

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

Citation

1. This bylaw may be cited as “District of North Vancouver Official Community Plan Bylaw 7900, 2011, Amendment Bylaw 8455, 2020 (Amendment 41)”.

Amendments

2. District of North Vancouver Official Community Plan Bylaw 7900, 2011 is amended as follows:
 - a) Map 2 Land Use: as illustrated on Schedule A, by changing the land use designation of the properties on Map 2 from “Residential Level 6: Medium Density Apartment” (RES6) to “Commercial Residential Mixed-Use Level 3” (CRMU3)

READ a first time November 2nd by a majority of all Council members.

PUBLIC HEARING held

READ a second time by a majority of all Council members.

READ a third time by a majority of all Council members.

ADOPTED by a majority of all Council members.

Mayor

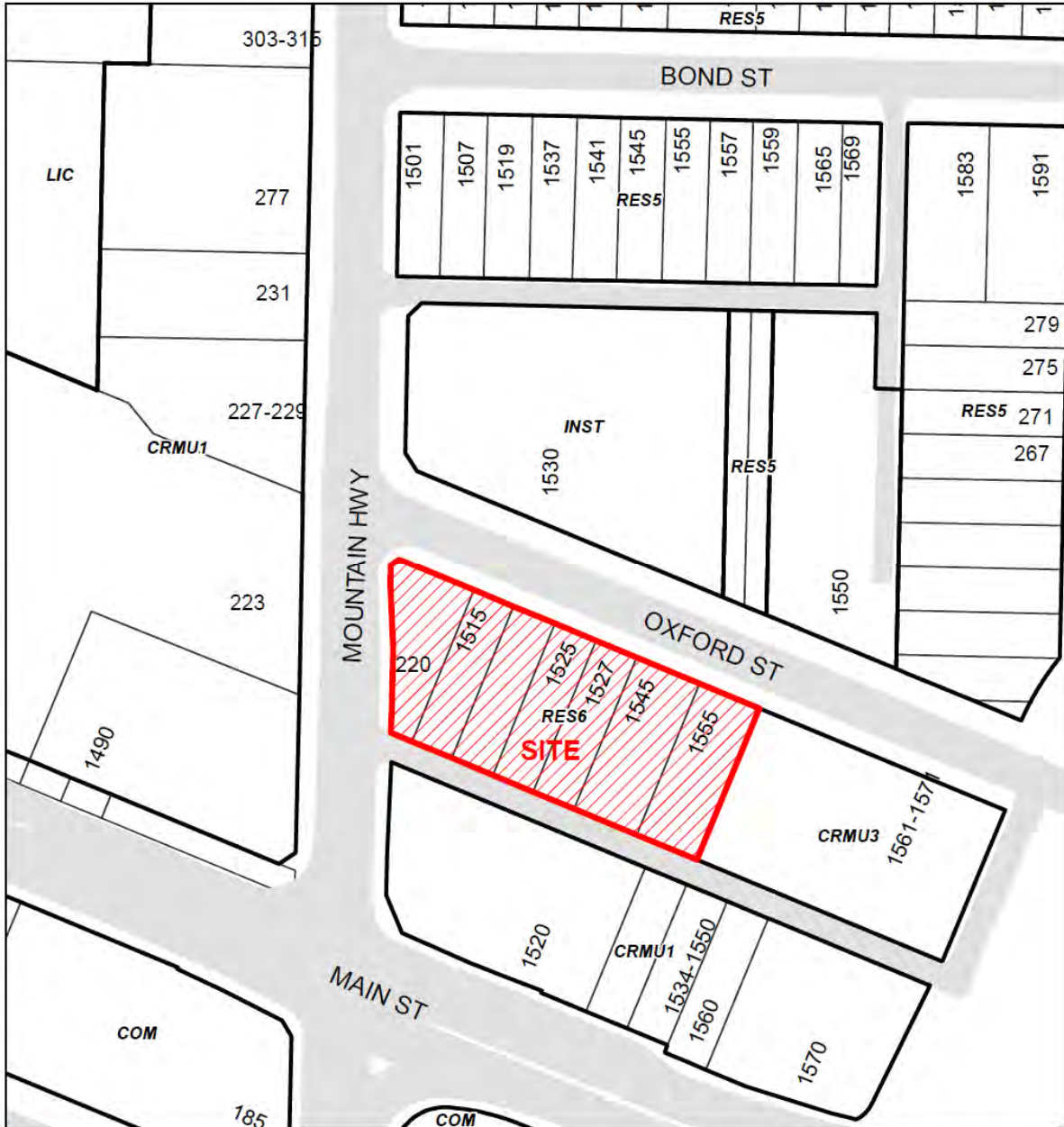
Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8455

District of North Vancouver Official Community Plan Bylaw 7900, 2011, Amendment Bylaw 8455, 2020 (Amendment 41)



Map 2

Land Use: as illustrated on Schedule A, by changing the land use designation of the properties on Map 2 from "Residential Level 6: Medium Density Apartment" (RES6) to "Commercial Residential Mixed Use Level 3" (CRMU3)



The Corporation of the District of North Vancouver

Bylaw 8456

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 “District of North Vancouver Rezoning Bylaw 1402 (Bylaw 8456)”.

2. Amendments

2.1 District of North Vancouver Zoning Bylaw 3210, 1965 is amended as follows:

- (a) Part 2A, Definitions is amended by adding CD130 to the list of zones that Part 2A applies to.
- (b) Section 301 (2) by inserting the following zoning designation:

“Comprehensive Development Zone 130 CD130”
- (c) Part 4B Comprehensive Development Zone Regulations by inserting the following, inclusive of Schedule B:

“4B130 Comprehensive Development Zone 130 CD130

The CD130 zone is applied to:

- i) Lot A Except: Part Dedicated Road on Plan BCP17008 Block 41 District Lot 204 Group 1 New Westminster District Plan 1340 (PID: 013-694-944);
- ii) Lot 3 Block 41 District Lot 204 Plan 1340 (PID: 014-742-527);
- iii) Lot 4 Block 41 District Lot 204 Plan 1340 (PID: 014-742-535);
- iv) Lot 5 Block 41 District Lot 204 Plan 1340 (PID: 014-742-543);
- v) Lot 6 Block 41 District Lot 204 Plan 1340 (PID: 002-622-165);
- vi) Amended Lot 7 (See 219838L) Block 41 District Lot 204 Plan 1340 (PID: 014-742-551); and
- vii) Amended Lot 9 (See 219839L) Block 41 District Lot 204 Plan 1340 (PID: 010-856-731).

4B 130 – 1 Intent

The purpose of the CD 130 Zone is to permit a medium-density rental residential development.

4B 130 – 2 Permitted Uses

The following *principal* uses shall be permitted in the CD 130 Zone:

a) Uses Permitted Without Conditions:

Not applicable

b) Conditional Uses:

Residential use

4B 130 – 3 Conditions of Use

a) ***Residential:*** *Residential uses* are only permitted when the following conditions are met:

(i) Each dwelling unit has access to private or semi-private outdoor space with the exception of the ground floor units on the east elevation; and

(ii) Balcony and deck enclosures are not permitted.

4B 130 – 4 Accessory Use

a) *Accessory uses* customarily ancillary to the principal uses are permitted.

b) *Home occupations* are permitted in *residential* units.

4B 130 – 5 Density

a) The maximum permitted density is 1,382.7m² (14,883.3 sq. ft.) and 7 residential units.

b) For the purpose of calculating *gross floor area* the following are exempted:

i. Any floor areas below finished grade;

ii. Amenity space(s) to a maximum of 185m² (1,991 sq. ft.);

iii. Mechanical and electrical rooms up to a maximum of 130m² (1,399 sq. ft.);

- iv. Garbage room(s) up to a maximum of 55m² (592 sq. ft.);
 - v. At-grade parking including that which is covered by building above and open on at least one side; and
 - vi. The area of balconies and covered patios.
- c) For the purposes of calculating FSR the lot area is deemed to be 3,072.6 m² (33,073 sq. ft.) being the site size at the time of rezoning.
 - d) Balcony and deck enclosures are not permitted

4B 130 – 6 Amenities

- a) Despite Subsection 4B130 – 5, permitted density in the CD130 Zone is increased to a maximum of 9,105 m² (98,005 sq. ft.) *gross floor area* and 140 units if the owner enters into a Housing Agreement to secure the units as rental in perpetuity.

4B 130 – 6 Setbacks

- a) Buildings shall be set back from property lines to the closest building face (excluding any partially-exposed underground parking structure) as established by development permit and in accordance with the following regulations:

Setback	Buildings (Minimum Setback)
North (Oxford Street)	4.0m (13.1 ft)
East (Lane)	1.2m (3.9 ft)
West (Mountain Highway)	2.2m (7.2 ft)
South (Lane)	4.4m (14.4 ft)

- b) Decks and patios are excluded from the setback requirements.

4B130 – 7 Height

The maximum permitted height is:

- a) Multi-family apartment building: 23.0m (75.5 ft);

4B 130 – 8 Coverage

- a) Building Coverage: The maximum building coverage is 75%.
- b) Site Coverage: The maximum site coverage is 85%.

4B 130 – 9 Landscaping and Storm Water Management

- a) All land areas not occupied by buildings and patios shall be landscaped in accordance with a landscape plan approved by the District of North Vancouver.
- b) A 2m (6.6 ft) high screen consisting of a solid wood fence, or landscaping or a combination thereof, all with minimum 90% opacity, is required to screen from view:
 - i) any utility boxes, vents or pumps that are not located underground and/or within a building; and
 - ii) any solid waste facility(garbage, recycling, compost with the exception of temporary, at-grade staging areas) or loading areas that are not located underground and/or within a building.

4B 130 – 10 Parking, Loading and Servicing Regulations

- a) Parking and loading are required as follows:

Use	Parking Requirement
Residential dwelling unit in a building designated rental in perpetuity by way of a housing agreement or legal covenant	0.55 spaces per unit to a maximum of 0.61 spaces per unit
Visitor	0.1 spaces per unit
Car Share	2 spaces
Loading	1 space

- b) Small Car are permitted under the following conditions:
 - i) The ratio of small car parking spaces in the CD130 Zone shall not exceed 53% of the total vehicle parking requirement.
- c) Parking Setbacks from the lane from which parking spaces are directly accessed is permitted to be 0 m (0 ft).
- d) Bicycle parking is required as follows:

Use	Bicycle Parking Requirement
Residents	1.26 spaces per unit
Visitors	6 spaces

- e) Except as specifically provided in 4B130 - 10 (a), (b), (c), and (d) parking shall be provided in accordance with Part 10 of this Bylaw.”

- (d) The Zoning Map is amended in the case of the lands illustrated on the attached map (Schedule A) by rezoning the land from Single Family Residential 6000 zone (RS4) to Comprehensive Development Zone 130 (CD130).

READ a first time November 2nd, 2020

PUBLIC HEARING held

READ a second time

READ a third time

Certified a true copy of "District of North Vancouver Rezoning Bylaw 1401 (Bylaw 8456)" as at Third Reading

Municipal Clerk

APPROVED by the Ministry of Transportation and Infrastructure on

ADOPTED

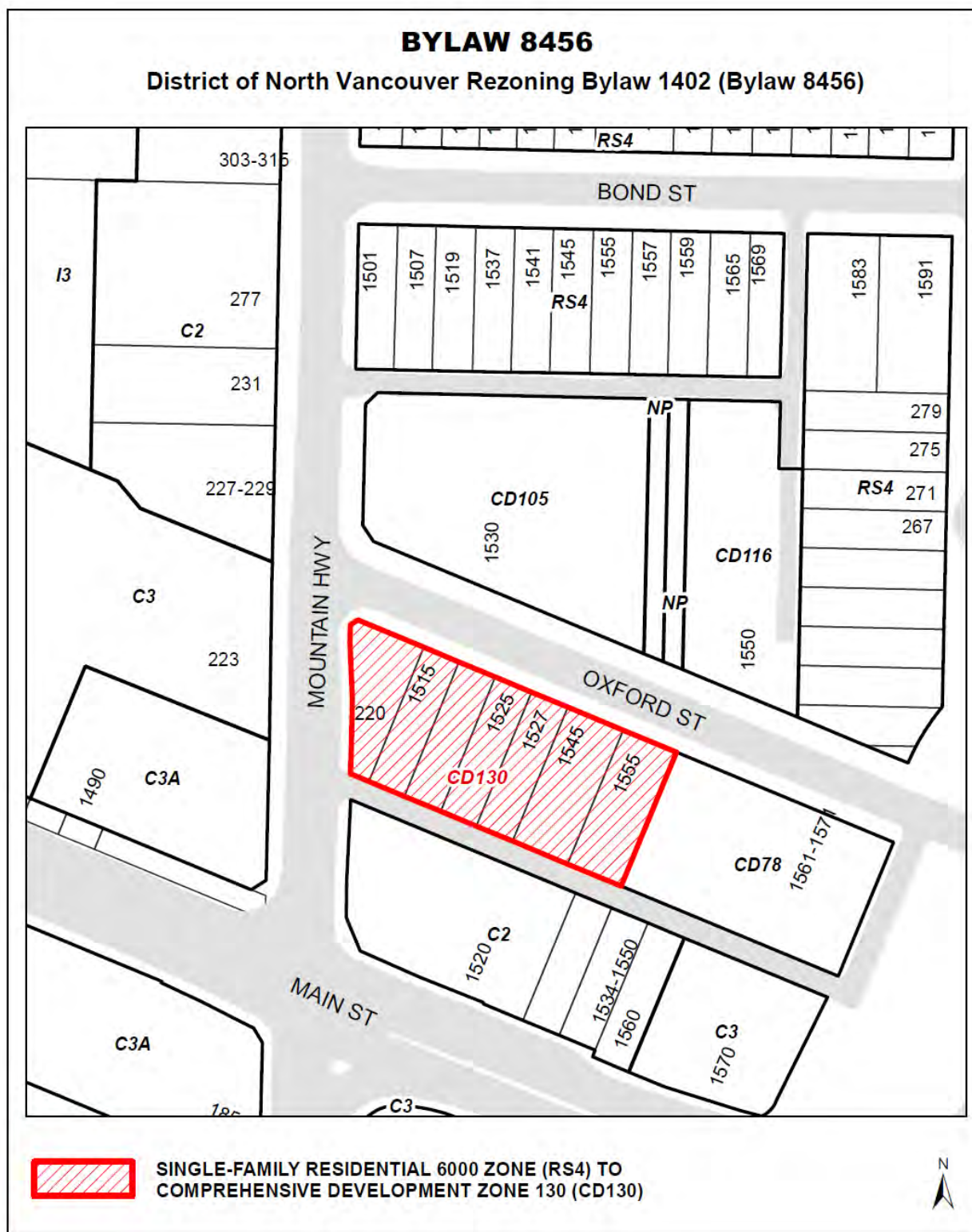
Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8456



The Corporation of the District of North Vancouver

Bylaw 8457

A bylaw to waive Development Cost Charges

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

Citation

- 1) This bylaw may be cited as “Mountain Highway Development Cost Charges Waiver Bylaw 8457, 2020”.

Waiver

- 2) Development Cost Charges are hereby waived in relation to the Eligible Development proposed to be constructed on the lands shown on the attached plan and the development cost charge rates for the Eligible Development are hereby set at zero.
- 3) For the purpose of this Bylaw “Eligible Development” means not more than six (6) affordable rental housing units, each unit not exceeding 50 m² in floor area, to be constructed in the proposed six storey apartment building, and where the affordable rental rate structure is secured by way of an affordable housing agreement bylaw, restrictive land use covenant or other measure acceptable to the Municipal Solicitor.

READ a first time November 2nd, 2020

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

This is a detailed street map of a residential area in Regina, Saskatchewan. The map shows a grid of streets including Rupert St, Bond St, Oxford St, Main St, Barrow St, Mountain Hwy, and Orwell St. A specific lot, located between Mountain Hwy and Oxford St, is highlighted with a red border and labeled "SITE". This lot is situated between addresses 1515 and 1555 on Mountain Hwy. The map also shows various other residential lots with their respective addresses, such as 1419, 1433, 1441, 1447, 1455, 1465, 1469, 1485, 1488, 1490, 1499, 1501, 1507, 1519, 1537, 1541, 1545, 1555, 1567, 1569, 1570, 1583, 1591, 1598, 1599, 1601, 1603, 1605, 1607, 1609, 1611, 1613, 1615, 1617, 1619, 1621, 1623, 1625, 1627, 1629, 1631, 1633, 1635, 1637, 1639, 1641, 1643, 1645, 1647, 1649, 1651, 1653, 1655, 1657, 1659, 1661, 1663, 1665, 1667, 1669, 1671, 1673, 1675, 1677, 1679, 1681, 1683, 1685, 1687, 1689, 1691, 1693, 1695, 1697, 1699, 1701, 1703, 1705, 1707, 1709, 1711, 1713, 1715, 1717, 1719, 1721, 1723, 1725, 1727, 1729, 1731, 1733, 1735, 1737, 1739, 1741, 1743, 1745, 1747, 1749, 1751, 1753, 1755, 1757, 1759, 1761, 1763, 1765, 1767, 1769, 1771, 1773, 1775, 1777, 1779, 1781, 1783, 1785, 1787, 1789, 1791, 1793, 1795, 1797, 1799, 1801, 1803, 1805, 1807, 1809, 1811, 1813, 1815, 1817, 1819, 1821, 1823, 1825, 1827, 1829, 1831, 1833, 1835, 1837, 1839, 1841, 1843, 1845, 1847, 1849, 1851, 1853, 1855, 1857, 1859, 1861, 1863, 1865, 1867, 1869, 1871, 1873, 1875, 1877, 1879, 1881, 1883, 1885, 1887, 1889, 1891, 1893, 1895, 1897, 1899, 1901, 1903, 1905, 1907, 1909, 1911, 1913, 1915, 1917, 1919, 1921, 1923, 1925, 1927, 1929, 1931, 1933, 1935, 1937, 1939, 1941, 1943, 1945, 1947, 1949, 1951, 1953, 1955, 1957, 1959, 1961, 1963, 1965, 1967, 1969, 1971, 1973, 1975, 1977, 1979, 1981, 1983, 1985, 1987, 1989, 1991, 1993, 1995, 1997, 1999, 2001, 2003, 2005, 2007, 2009, 2011, 2013, 2015, 2017, 2019, 2021, 2023, 2025, 2027, 2029, 2031, 2033, 2035, 2037, 2039, 2041, 2043, 2045, 2047, 2049, 2051, 2053, 2055, 2057, 2059, 2061, 2063, 2065, 2067, 2069, 2071, 2073, 2075, 2077, 2079, 2081, 2083, 2085, 2087, 2089, 2091, 2093, 2095, 2097, 2099, 2101, 2103, 2105, 2107, 2109, 2111, 2113, 2115, 2117, 2119, 2121, 2123, 2125, 2127, 2129, 2131, 2133, 2135, 2137, 2139, 2141, 2143, 2145, 2147, 2149, 2151, 2153, 2155, 2157, 2159, 2161, 2163, 2165, 2167, 2169, 2171, 2173, 2175, 2177, 2179, 2181, 2183, 2185, 2187, 2189, 2191, 2193, 2195, 2197, 2199, 2201, 2203, 2205, 2207, 2209, 2211, 2213, 2215, 2217, 2219, 2221, 2223, 2225, 2227, 2229, 2231, 2233, 2235, 2237, 2239, 2241, 2243, 2245, 2247, 2249, 2251, 2253, 2255, 2257, 2259, 2261, 2263, 2265, 2267, 2269, 2271, 2273, 2275, 2277, 2279, 2281, 2283, 2285, 2287, 2289, 2291, 2293, 2295, 2297, 2299, 2301, 2303, 2305, 2307, 2309, 2311, 2313, 2315, 2317, 2319, 2321, 2323, 2325, 2327, 2329, 2331, 2333, 2335, 2337, 2339, 2341, 2343, 2345, 2347, 2349, 2351, 2353, 2355, 2357, 2359, 2361, 2363, 2365, 2367, 2369, 2371, 2373, 2375, 2377, 2379, 2381, 2383, 2385, 2387, 2389, 2391, 2393, 2395, 2397, 2399, 2401, 2403, 2405, 2407, 2409, 2411, 2413, 2415, 2417, 2419, 2421, 2423, 2425, 2427, 2429, 2431, 2433, 2435, 2437, 2439, 2441, 2443, 2445, 2447, 2449, 2451, 2453, 2455, 2457, 2459, 2461, 2463, 2465, 2467, 2469, 2471, 2473, 2475, 2477, 2479, 2481, 2483, 2485, 2487, 2489, 2491, 2493, 2495, 2497, 2499, 2501, 2503, 2505, 2507, 2509, 2511, 2513, 2515, 2517, 2519, 2521, 2523, 2525, 2527, 2529, 2531, 2533, 2535, 2537, 2539, 2541, 2543, 2545, 2547, 2549, 2551, 2553, 2555, 2557, 2559, 2561, 2563, 2565, 2567, 2569, 2571, 2573, 2575, 2577, 2579, 2581, 2583, 2585, 2587, 2589, 2591, 2593, 2595, 2597, 2599, 2601, 2603, 2605, 2607, 2609, 2611, 2613, 2615, 2617, 2619, 2621, 2623, 2625, 2627, 2629, 2631, 2633, 2635, 2637, 2639, 2641, 2643, 2645, 2647, 2649, 2651, 2653, 2655, 2657, 2659, 2661, 2663, 2665, 2667, 2669, 2671, 2673, 2675, 2677, 2679, 2681, 2683, 2685, 2687, 2689, 2691, 2693, 2695, 2697, 2699, 2701, 2703, 2705, 2707, 2709, 2711, 2713, 2715, 2717, 2719, 2721, 2723, 2725, 2727, 2729, 2731, 2733, 2735, 2737, 2739, 2741, 2743, 2745, 2747, 2749, 2751, 2753, 2755, 2757, 2759, 2761, 2763, 2765, 2767, 2769, 2771, 2773, 2775, 2777, 2779, 2781, 2783, 2785, 2787, 2789, 2791, 2793, 2795, 2797, 2799, 2801, 2803, 2805, 2807, 2809, 2811, 2813, 2815, 2817, 2819, 2821, 2823, 2825, 2827, 2829, 2831, 2833, 2835, 2837, 2839, 2841, 2843, 2845, 2847, 2849, 2851, 2853, 2855, 2857, 2859, 2861,

The Corporation of the District of North Vancouver

Bylaw 8458

A bylaw to enter into a Housing Agreement

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

Citation

1. This bylaw may be cited as “Housing Agreement Bylaw 8458, 2020 (220 Mountain Highway)”.

Authorization to Enter into Agreement

2. The Council hereby authorizes a housing agreement between The Corporation of the District of North Vancouver and TPL Developments Oxford GP Inc., Inc. No. BC1079915 substantially in the form attached to this Bylaw as Schedule “A” with respect to the following lands:
 - a) Lot A Except: Part Dedicated Road on Plan BCP 17008 Block 41 District Lot 204 Group 1 New Westminster District Plan 1340 (PID: 013-694-944);
 - b) Lot 3 Block 41 District Lot 204 Plan 1340 (PID: 014-742-527);
 - c) Lot 4 Block 41 District Lot 204 Plan 1340 (PID: 014-742-535);
 - d) Lot 5 Block 41 District Lot 204 Plan 1340 (PID: 014-742-543);
 - e) Lot 6 Block 41 District Lot 204 Plan 1340 (PID: 002-622-165);
 - f) Amended Lot 7 (See 219838L) Block 41 District Lot 204 Plan 1340 (PID: 014-742-551); and
 - g) Amended Lot 9 (See 219839L) Block 41 District Lot 204 Plan 1340 (PID: 010-856-731).

Execution of Documents

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

READ a first time November 2nd, 2020

READ a second time

READ a third time

ADOPTED

Mayor

Municipal Clerk

Certified a true copy

Municipal Clerk

Schedule A to Bylaw 8458

**SECTION 219 RENTAL HOUSING AGREEMENT COVENANT
and RENT CHARGE**

THIS AGREEMENT dated for reference the ___ day of _____, 2020

BETWEEN:

TPL Developments Oxford GP Inc., Inc. No. BC1079915
200-1111 West Hasting Street, Vancouver, BC, V6E 2J3

a company incorporated under the laws of the Province of British
Columbia having an office at

(the "Developer ")

AND:

**THE CORPORATION OF THE DISTRICT OF NORTH
VANCOUVER**, 355 West Queens Road, North Vancouver, BC
V7N 4N5

(the "District")

WHEREAS:

- A. The Developer is the registered owner in fee simple of lands in the District of North Vancouver, British Columbia legally described in Item 2 of the Form C General Instrument Part 1 to which this Agreement is attached and which forms part of this Agreement (the "Land");
- B. Section 219 of the *Land Title Act* permits the registration of a covenant of a negative or positive nature in favour of the District in respect of the use of land, construction on land or the subdivisions of land;
- C. Section 483 of the *Local Government Act* permits the District to enter into a housing agreement with an owner of land, which agreement may include terms and conditions regarding the occupancy, tenure and availability of dwelling units located on the Land; and
- D. The Developer and the District wish to enter into this Agreement to restrict the subdivision and use of, and construction on, the Land on the terms and conditions of this agreement, to have effect as both a covenant under section 219 of the *Land Title Act* and a housing agreement under section 483 of the *Local Government Act*.

NOW THEREFORE in consideration of the sum of \$10.00 now paid by the District to the Developer and other good and valuable consideration, the receipt and sufficiency of which the

Owner hereby acknowledges, the parties covenant and agree pursuant to section 219 of the *Land Title Act* (British Columbia) as follows:

1. **Definitions** – In this Agreement and the recitals hereto:

- (a) “*Affordable Rental Units*” means collectively the studio Dwelling Unit and 5 one bedroom Units, shown in Schedule “A”, provided that the Owner may from time to time, subject to obtaining the prior written approval of the Director, which approval will not be unreasonably withheld, substitute other Dwelling Units in the Building as the Affordable Rental Units in place of the Dwelling Units shown on Schedule “A”, provided that the mix of Affordable Rental Units does not change and the aggregate number of Affordable Rental Units in the Building will always be no less than 6. The Director’s approval of a proposed substitute Dwelling Unit will not be withheld provided that the proposed substitute Dwelling Unit is, in the reasonable opinion of the Director, at least equal to the Dwelling Unit being substituted in size, quality and condition;
- (b) “*Annual Allowable Adjustment*” means an increase in the Maximum Rate once each calendar year by the lesser of:
 - (i) the 12 month average percent increase in the Consumer Price Index for the previous calendar year; or
 - (ii) the average percent increase in the rent charged for those Market Rental Units of similar size which are occupied at any time during the applicable calendar year,

If the 12 month average percent change in the Consumer Price Index for any calendar year is less than zero then the affordable rent for the following year must not be increased, but may be decreased at the Owner’s discretion;

- (c) “*Approving Officer*” means the approving officer for the District appointed under the *Land Title Act*;
- (d) “*Building*” means the building on the Land contemplated by Development Permit No. _____ and by the Development Covenant;
- (e) “*Consumer Price Index*” means the all-items consumer price index published by Statistics Canada, or its successor in function, for British Columbia (based on a calendar year);
- (f) “*Development Covenant*” means the covenant under section 219 of the *Land Title Act* dated for reference _____, 20__ granted by the Owner to the District and registered at the LTO against the Land under number CA_____;
- (g) “*Director*” means the District’s General Manager of Planning, Permits and Properties and his or her designate;

- (h) “Discounted *CMHC Rental Rate*” means for each Affordable Rental Unit:
 - (i) for the calendar year in which a certificate of final occupancy is issued for the Building by the District, the amount set out in Schedule “B” for the applicable Affordable Rental Unit increased by the Annual Allowable Adjustment from the calendar year in which this Agreement is executed and delivered by both parties until the calendar year in which the final occupancy permit is issued; and
 - (ii) for each subsequent calendar year, an amount not greater than the rent for the preceding calendar year increased by the Annual Allowable Adjustment for such preceding calendar year;
- (i) “*Dwelling Unit*” has the meaning given to it in the Zoning Bylaw;
- (j) “*Eligibility Requirements*” means aggregate annual household gross income that is less than or equal to 333% of the annual rent for the size of Affordable Rental Unit proposed to be rented (which rent, for greater certainty, may not be greater than the Maximum Rate for the unit), where said aggregate income is established by way of true copies of the previous year’s income tax returns for each household member or individual who will reside in the Affordable Rental Unit provided, however, a person will be deemed not to meet the Eligibility Requirements if the Owner has reasonable grounds to believe that such person is not in need of subsidized housing (e.g. seniors with a substantial assets or students with financial support from parents) even if such person would otherwise meet the criteria set out above;
- (k) “*Land*” has the meaning given to it in Recital A hereto;
- (l) “*LTO*” means the Lower Mainland Land Title Office and any successor of that office;
- (m) “*Market Rental Units*” means all of the Dwelling Units in the Building which are not Affordable Rental Units;
- (n) “*Maximum Rate*” means the Discounted CMHC Rental Rate for each Affordable Rental Unit or another rental rate for each Affordable Rental Rate that is consented to in writing in advance by the Director pursuant to section 4 herein;
- (o) “*Owner*” means the Developer and any other person or persons registered in the LTO 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;
- (p) “*Proposed Development*” has the meaning given to it in the Development Covenant;
- (q) “*Society*” means a registered housing society approved in writing by the District;

- (r) “*Zoning Amendment Bylaw*” means District of North Vancouver Rezoning Bylaw _____ (No. _____, 2018); and
 - (s) “*Zoning Bylaw*” means the District of North Vancouver Zoning Bylaw No. 3210, 1965 as modified by the Zoning Amendment Bylaw and as further amended, consolidated, re-enacted or replaced from time to time.
2. **No Subdivision** – The Land and any improvements from time to time thereon (including without limitation the Building), may not be subdivided by any means whatsoever, including, without limitation, by subdivision plan, strata plan, fractional interest, lease or otherwise.
3. **The Housing Society** – No building or structure on the Land shall be occupied for any purpose and the District shall not issue any occupancy permit in respect of any building or structure on the Land, and the Owner shall not offer for rent any Affordable Rental Units or Market Rental Units in the Building or enter into any residential tenancy agreements in respect of any said Dwelling Units, unless and until the Owner has:
- (a) entered into a lease, licence or operating agreement with the Society in respect of the Affordable Rental Units, said agreement to be in form and substance acceptable to the District; and
 - (b) caused the Society to enter into a separate agreement with the District in form and substance acceptable to the District regarding the operation of the Affordable Rental Units.
4. **Changing the Discounted CMHC Rental Rate** – The Society may request in writing that the Director consent to the Society charging a rental rate for each Affordable Rental Unit that is different from the Discounted CMHC Rental Rate, and the Director will not unreasonably refuse such a request provided that the Director is satisfied, in his or her discretion, that the change in rental rates would be fair and would result in lower rent, on an aggregate basis, for the Affordable Rental Units.
5. **Use of Market Rental Units** – No Market Rental Unit in the Building may be used for any purpose whatsoever save and except for the purpose of rental housing pursuant to arm’s length month-to-month residential tenancy agreements or arm’s length residential tenancy agreement with terms not exceeding three years in duration (including all periods in respect of which any rights or renewal, contingent or otherwise have been granted).
6. **Use of Affordable Rental Units** - No Affordable Rental Unit will be used for any purposes whatsoever save and except for the purpose of providing rental accommodation in the Affordable Rental Unit to tenants meeting the Eligibility Requirements pursuant to arm’s length month-to-month residential tenancy agreements or residential tenancy agreements with terms not exceeding three years in duration (including all periods in respect of which any rights or renewal, contingent or otherwise have been granted), where said tenancy agreements comply with all of the requirements of section 8.

7. **Occupancy Restriction** – No Affordable Rental Unit may be occupied except by:
- (a) a person meeting the Eligibility Requirements pursuant to month-to-month residential tenancy agreements or residential tenancy agreement with terms not exceeding three years in duration that complies with section 8; and
 - (b) the other members of the person's household, provided that the income of all members (other than income of legal dependents up to a maximum of \$10,000 per year per dependent) is included in the determination of eligibility under the Eligibility Requirements.

8. **Tenancy Agreements for Affordable Rental Units** - The Owner shall not suffer, cause or permit occupancy of any Affordable Rental Unit except pursuant to a residential tenancy agreement that:

- (a) is entered into by the Owner and, as tenant, a person at arm's length from the Owner. For the purpose of this Agreement, "at arm's length" means:
 - (i) not in any other contractual relationship with the Owner or any director, officer or other senior employee of the Owner;
 - (ii) unrelated by blood, marriage or personal relationship to any director, officer or other senior employee of the Owner; and
 - (iii) not employed by any corporate entity that is an affiliate of the Owner, as that term is defined in the *British Columbia Business Corporations Act* as of the date of this Agreement,

provided that the Director may, in his or her sole discretion, relax the restrictions contained in this subsection 8(a) upon the written request of the Owner on a case-by-case basis. Any such relaxation in relation to any particular residential tenancy agreement is not to be construed as or constitute a waiver of the requirements in relation to any other residential tenancy agreement. No relaxation of the restrictions in this subsection 8(a) will be effective unless it is granted in writing by the Director prior to the execution and delivery of the residential tenancy agreement to which the relaxation relates.

- (b) does not, in relation to any Affordable Rental Unit, require payment of rent or any other consideration for the Affordable Rental Unit directly or indirectly that exceeds the Maximum Rate for the unit, but the tenant may be required to pay:
 - (i) additional consideration for parking, provided that the additional consideration does not exceed an amount charged from time to time for a parking stall to tenants in the Market Rental Units; and
 - (ii) third party providers directly for utilities, internet services and, if approved by the Director acting reasonably, other services not usually included in rent except the cost of hydronic heat, air conditioning or hot water which

must be included in Maximum Rate no matter who may be providing these services;

- (c) allocates bicycle locker storage space to tenants in the Affordable Rental Units on the same terms and conditions, and with the same priority, as is offered to tenants in the Market Rental Units, except that tenants in the Affordable Rental Units will not be required to pay any amount for bicycle storage locker space;
- (d) does not require the rent to be prepaid at an interval greater than monthly;
- (e) prohibits the tenant from subletting the unit, assigning the tenancy agreement, or operating the unit on a short term rental basis (less than one month), except to the extent that the *Residential Tenancy Act* restricts or prohibits such prohibitions;
- (f) requires the tenant to provide within 30 days of demand true copies of the most recent filed income tax returns or assessment notices from Canada Revenue Agency for each occupant of the unit; and
- (g) contains a provision that, if the tenant ceases to qualify for the Affordable Rental Unit because he or she no longer meets the Eligibility Requirements, the Owner may end the tenancy agreement by giving the tenant a clear six months' notice to end the tenancy in accordance with section 49.1 of the *Residential Tenancy Act* (or successor legislation).

9. **Rental Application Process** – The Owner must:

- (a) accept applications for residential occupancy of the Affordable Rental Units from all applicants meeting the Eligibility Requirements;
- (b) maintain a housing list of all eligible applicants from whom the Owner has accepted applications;
- (c) where Affordable Rental Units become available for occupancy, offer the units to persons on the housing list in the order in which their applications were made, unless:
 - (i) the person no longer meets the Eligibility Requirements; or
 - (ii) the Owner does not consider the person to be an acceptable candidate for occupancy of that Affordable Rental Unit because the person does not satisfy other reasonable and fair criteria established by the Owner from time to time; and
- (d) make the housing list available to the District upon request.

10. **Duty to Account and Report** – In addition to the other covenants and obligations to be performed by the Owner hereunder, the Owner covenants and agrees that it will:

- (a) keep or cause to be kept separate true and accurate records and accounts in accordance with generally accepted accounting principles regarding the rental income earned from both the Market Rental Units and the Affordable Rental Units; and
 - (b) deliver to the District, on request of the District, copies of all current tenancy agreements in respect of the Affordable Rental Units.
- 11. **Statutory Declaration** – Within three days after receiving notice from the District, the Owner must deliver to the District a statutory declaration, substantially in the form attached as Schedule “C”, sworn by the Owner (or a director or officer of the Owner if the Owner is a corporation) under oath before a commissioner for taking affidavits in British Columbia, containing all of the information required to complete the statutory declaration.
- 12. **Damages and Rent Charge**
 - (a) The Owner acknowledges that the District requires compliance with the provisions in this Agreement for the benefit of the community. The Owner therefore agrees that for each day the Land is occupied in breach of this Agreement, the Owner must pay the District \$200.00 (the “Daily Amount”), as liquidated damages and not as a penalty, due and payable at the offices of the District on the last day of the calendar month in which the breach occurred. The Daily Amount is increased on January 1 each calendar year by the 12 month average percent increase in the Consumer Price Index for the previous calendar year. The Owner agrees that payment may be enforced by the District in a court of competent jurisdiction as a contract debt.
 - (b) By this section, the Owner grants to the District a rent charge under section 219 of the *Land Title Act*, and at common law, securing payment by the Owner to the District of the amounts described in subsection 12(a). The District agrees that enforcement of the rent charge granted by this section is suspended until the date that is 30 days after the date on which any amount due under subsection 12(a) is due and payable to the District in accordance with subsection 12(a). The District may enforce the rent charge granted by this section by an action for an order for sale or by proceedings for the appointment of a receiver.
 - (c) The Director may, in his or her sole discretion, grant to the Owner full or partial relief from the obligation to pay liquidated damages on a case-by-case basis if the Owner establishes to the satisfaction of the Director, in the Director’s discretion, that the breach for which the Daily Amount is payable was inadvertent. No such relief in relation to any particular default is to be construed as or deemed to constitute relief in relation to any other default other default.
- 13. **Specific Performance** – The Owner agrees that, without affecting any other rights or remedies the District may have in respect of any breach of this Agreement, the District is entitled to obtain an order for specific performance of this Agreement and a prohibitory

or mandatory injunction in respect of any breach by the Owner of this Agreement. The Owner agrees that this is reasonable given the public interest in restricting occupancy of the Land in accordance with this Agreement.

14. **Indemnity** – Except for the negligence of the District or its employees, agents or contractors, the Owner will indemnify and save harmless each of the District and its elected officials, board members, officers, directors, employees, and agents, and their heirs, executors, administrators, personal representatives, successors and assigns, from and against all claims, demands, actions, loss, damage, costs and liabilities, which all or any of them will or may be liable for or suffer or incur or be put to by reason of or arising out of any act or omission by the Owner, or its officers, directors, employees, agents, contractors, or other persons for whom at law the Owner is responsible or the Owner's ownership, operation, management or financing of the Rental Unit or any part thereof, or the use and occupancy of any Dwelling Units in the Building by anyone.
15. **Release** – Except to the extent such advice or direction is given negligently, 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 any Dwelling Units in the Building or any part thereof which has been or hereafter may be given to the Owner by all or any of them.
16. **Survival** – The covenants of the Owner set out in Sections 14 and 15 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 or any Dwelling Unit therein, as applicable.
17. **Notice of Housing Agreement** – For clarity, the Owner acknowledges and agrees that:
 - (a) this Agreement constitutes both a covenant under section 219 of the *Land Title Act* and a housing agreement entered into under section 483 of the *Local Government Act*;
 - (b) the District is required to file a notice of housing agreement in the LTO against title to the Land; and
 - (c) once such a notice is filed, this Agreement, as a housing agreement under section 483 of the *Local Government Act*, binds all persons who acquire an interest in the Land in perpetuity.
18. **Compliance with Laws** – The Owner will at times ensure that the Land is used and occupied in compliance with all statutes, laws, regulations, bylaws, and orders of the District and other authorities having jurisdiction, including all rules, regulations, policies, guidelines and the like under or pursuant to them.

19. **Cost** – The Owner shall comply with all requirements of this Agreement at its own cost and expense, and shall pay the reasonable costs and expenses incurred and payment and expenditures made by the District, including without limitation, all survey, advertising, legal fees and disbursements and the District’s administration costs (as determined by the District’s charge out rate for District staff time) in connection with the preparation or enforcement of this Agreement and all other covenants, agreements and statutory rights of way granted by the Owner to the District or entered into between the owner to the District in respect of the development of the Land contemplated in this Agreement and ancillary documents and any modifications, discharges and partial discharges of them from time to time, and the costs of registration of such documents in the LTO.
20. **Limitation on Owner’s Obligations** – The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Lands.
21. **Interpretation** – In this Agreement:
- (a) reference to the singular includes a reference to the plural, and vice versa, unless the context requires otherwise;
 - (b) any reference to a statute or by-law includes and is a reference to such statute or by-law and to the regulations made pursuant thereto, with all amendments made thereto and as in force from time to time, and to any statute, by-law and regulations that may be passed which have the effect of supplementing or superseding such statute, by-law and regulations;
 - (c) article and section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement;
 - (d) reference to a particular numbered section or article, or to a particular lettered Schedule, is a reference to the correspondingly numbered or lettered article, section or Schedule of this Agreement;
 - (e) reference to the “Land” or to any other parcel of land is a reference also to any parcel into which it is subdivided or consolidated by any means (including the removal of interior parcel boundaries) and to each parcel created by any such subdivision or consolidations;
 - (f) if a word or expression is defined in this Agreement, other parts of speech and grammatical forms of the same word or expression have corresponding meanings;
 - (g) reference to any enactment includes any regulations, orders, permits or directives made or issued under the authority of that enactment;
 - (h) unless otherwise expressly provided, referenced to any enactment is a reference to that enactment as consolidated, revised, amended, re enacted or replaced;
 - (i) time is of the essence;

- (j) all provisions are to be interpreted as always speaking;
- (k) reference to a “party” is a reference to a party to this Agreement and the their respective heirs, executors, successors (including successors in title), trustees, administrators and receivers;
- (l) reference to the District is a reference also to is elected and appointed official, officer, employees and agents;
- (m) reference to a “day”, “month”, “quarter”, or “year” is a reference to a calendar day, calendar month, calendar quarter or calendar year, as the case may be, unless otherwise expressly provided;
- (n) where the word “including” is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word “including”; and
- (o) any act, decision, determination, consideration, opinion, consent or exercise of discretion by a party or person as provided in this Agreement must be preformed, made, formed or exercised acting reasonably, except that any act, decision, determination, consideration, consent, opinion or exercise of discretion that is said to be within the “sole discretion” of a party or person may be preformed, made, formed or exercised by that party or person in the sole, unfettered and absolute discretion of that party or person.

22. **Notice** – All notices and other communications required or permitted to be given under this Agreement must be in writing and must be sent by registered mail or delivered as follows:

- (a) if to the Owner, as follows:

TPL Developments Oxford GP Inc., Inc. No. BC1079915
200-1111 West Hasting Street
Vancouver, BC
V6E 2J3

Attention: _____

Fax: _____

- (b) if to the District, as follows:

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

Attention: Director, Planning Permits and Properties
Facsimile: (604) 984-8664

Any notice or other communication that is delivered is considered to have been given on the next business day after it is dispatched for delivery. Any notice or other communication that is sent by registered mail is considered to have been given five days after the day on which it is mailed at a Canada Post office. If there is an existing or threatened strike or labour disruption that has caused, or may cause, an interruption in the mail, any notice or other communication must be delivered until ordinary mail services is restored or assured. If a party changes its address it must immediately give notice of its new address to the other party as provided in this section.

23. **No Waiver** – No provision or breach of this Agreement, or any default, is to be considered to have been waived or acquiesced in by a party unless the waiver is express and is in writing by the party. The waiver by a party of any breach by the other party of any provision, or default, is not to be construed as or constituted a waiver of any further or other breach or the same or any other provision or default.
24. **Rights are Cumulative** – All rights and remedies of a party under or in respect of this Agreement (including its breach) are cumulative and are in addition to, and do not exclude or limit any other right or remedy. All rights and remedies may be exercised concurrently.
25. **Third Party Beneficiaries** – Except as may be expressly provided in this Agreement, this Agreement is not to be interpreted to create rights in, or to grant remedies to, any third party as a beneficiary of this Agreement or of any duty or obligation created by this Agreement.
26. **No Effect on Laws or Powers** – This Agreement and the Owner’s contributions, obligations and agreements set out in this Agreement do not:
 - (a) affect or limit the discretion, rights or powers of the District or the approving officer under any enactment or at common law, including in relation to the use, development, servicing or subdivision of the Land;
 - (b) impose on the District or the approving Officer any legal duty or obligation, including any duty of care or contractual or other legal duty or obligation, to enforce this Agreement;
 - (c) affect or limit any enactment relating to the use, development or subdivision of the Land; or
 - (d) relieve the Owner from complying with any enactment, including in relation to the use, development, servicing or subdivision of the Land.
27. **Binding Effect** – This Agreement enures to the benefit of and is binding upon the parties and their respective heirs, executors, administrators, trustees, receivers and successors (including successors in title).
28. **Covenant Runs With the Land** - Every provision of this Agreement and every obligation and covenant of the Owner in this Agreement, constitutes a deed and a

contractual obligation, and also a covenant granted by the Owner to the District in accordance with section 219 of the *Land Title Act*, and this Agreement burdens the Land to the extent provided in this Agreement, and runs with it and binds the Owner's successors in title. This Agreement also burdens and runs with every parcel into which the Land is or they are consolidated (including by the removal of interior parcel boundaries) by any means.

29. **Voluntary Agreement** - The Owner acknowledges that the Owner has entered into this Agreement voluntarily and has taken legal advice with regard to the entry of this Agreement and the development of the Land.
30. **Agreement for Benefit of District Only** – The Owner and the 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 tenant, or any future owner, lessee, occupier or user of the property, the Land or the building or any portion thereof, including any Affordable Rental Unit or Market Rental Unit; and
 - (c) the District may at any time execute a release and discharge of this Agreement, without liability to anyone for doing so, and without obtaining the consent of the Owner.
31. **Limitation on Owner's Obligations** - The Owner is only liable for breaches of this Agreement that occur while the Owner is the registered owner of the Land.
32. **Further Acts** - The Owner must do everything reasonably necessary to give effect to the intent of this Agreement, including execution of further instruments.
33. **Joint Obligations of Owner** - If two or more persons execute this Agreement as Owner, the liability of each such person to observe and perform all of the Owner's obligations pursuant to this Agreement will be deemed to be joint and several.
34. **Severance** - If any part of this Agreement is held to be invalid, illegal or unenforceable by a court having the jurisdiction to do so, 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 and unaffected by that holding or by the severance of that part.
35. **No Joint Ventureship** - Nothing in this Agreement shall constitute the Owner as the agent, joint venturer or partner of the District or give the Owner any authority or power to bind the District in any way.
36. **Amendment** - This Agreement may be amended from time to time by agreement between the Owner and the District. Except as otherwise expressly provided in this Agreement, the amendment agreement must be by an instrument in writing duly executed by the Owner and the District.

37. **Deed and Contract** - By executing and delivering this Agreement each of the parties intends to create both a new contract and a deed of covenant executed and delivered under seal.

As evidence of their agreement to be bound by the above terms, the parties each have executed and delivered this Agreement under seal by executing Part 1 of the *Land Title Act* Form C to which this Agreement is attached and which forms part of this Agreement.

**SCHEDULE “A”
THE AFFORDABLE RENTAL UNITS**

To be inserted prior to 3rd reading

SCHEDULE “B”
THE AFFORDABLE RENTAL UNITS – RENTAL RATES

	Studio	1 bed
Discounted CMHC Rental Rate	\$996	\$1,228.50

SCHEDULE "C"
STATUTORY DECLARATION

CANADA)	IN THE MATTER OF A HOUSING AGREEMENT with
)	the District of North Vancouver ("Housing
PROVINCE OF BRITISH COLUMBIA)	Agreement")
)	

I, _____, of _____, British Columbia, do solemnly declare:

1. That I am the _____ (director, officer, employee) of _____, (the "Owner") the owner of the land legally described as *[insert legal]* and *[make this declaration to the best of my personal knowledge] [have been informed by _____ and believe the statement in this declaration to be true]*.
2. This declaration is made pursuant to the Housing Agreement.
3. On _____, _____:
 - (a) all of the Affordable Rental Units (as defined in the Housing Agreement) were occupied by tenants pursuant to Arm's Length (as defined in the Housing Agreement) month-to-month residential tenancy agreements or Arm's Length residential tenancy agreements with terms not exceeding three years in duration that comply with section 8 in the Housing Agreement subject to the following vacancies _____ (*nil if left blank*); and
 - (b) the names and mailing addresses of all of the tenants in the Affordable Rental Units are listed in Schedule A to this statutory declaration.
4. To the best of my knowledge and belief the Owner is not in breach of any of its obligations under the Housing Agreement.
5. The Owner has used commercially reasonable efforts to obtain the most recently filed income tax returns or assessment notices from Canada Revenue Agency for each occupant of each Affordable Rental Unit, and has reviewed same, and I have, to the extent reasonably possible based on the information provided to the Owner by tenants, confirmed that as of _____, _____ the tenant(s) of each Affordable Rental Unit continue to qualify for their Affordable Rental Unit because the aggregate income of all occupants residing in the Affordable Rental Unit meets the Eligibility Requirements, as defined in the Housing Agreement.
5. I make this solemn declaration, conscientiously believing it to be true and knowing that it is of the same force and effect as if made under oath and pursuant to the *Canada Evidence Act*.

SWORN BEFORE ME at the _____, in the
Province of British Columbia, this ____ day of _____
_____, 20__.

)

)

)

)

)

) _____
) Signature of person making declaration

A Commissioner for Taking Affidavits for British
Columbia

Schedule A to the Statutory Declaration of _____

Name of Eligible Person	Age of Eligible Person	Other Resident(s) of Dwelling Unit	Apt. No.

VIRTUAL PUBLIC HEARING

220 Mountain Hwy & 1515-1555 Oxford St

OFFICIAL COMMUNITY PLAN AND ZONING BYLAW AMENDMENTS

When: Tuesday, December 8, 2020 at 7pm

Where: 355 West Queens Road, North Vancouver, BC

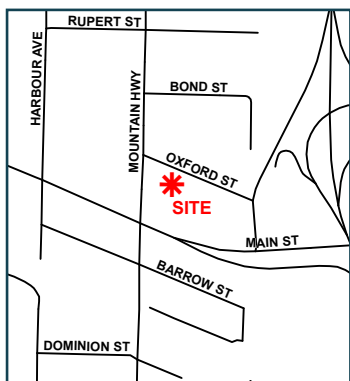
How: This Public Hearing will be held virtually, with participation by electronic means only. The hearing will be streamed over the internet at app.DNV.org/councillive

What: A Public Hearing for Bylaws 8455 and 8456, proposed amendments to the Official Community Plan and Zoning Bylaw, to permit the creation of a six-storey rental building with a total of 140 units, including 134 market rental units and six non-market rental units at 220 Mountain Highway and 1515-1555 Oxford Street.

What changes?

Bylaw 8455 proposes to amend the OCP land use designation of the subject site from Residential Level 6: Medium Density Apartment (RES6) to Commercial Residential Mixed-use Level 3 (CRMU3).

Bylaw 8456 proposes to amend the District's Zoning Bylaw by rezoning the subject site from Single Family Residential 6000 Zone (RS4) to a new Comprehensive Development Zone 130 (CD130). The CD130 Zone addresses permitted and accessory uses and zoning provisions such as density, amenities, setbacks, height, building and site coverage, landscaping, storm water management, and parking requirements.



**Proposed*



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

When and How can I provide input?

We welcome your input on Tuesday, December 8, 2020 at 7pm. You may sign up in advance to speak at the hearing by contacting the Municipal Clerk at gordonja@dnv.org prior to noon, Tuesday, December 8, 2020. You may also provide a written submission at any time prior to the close of the hearing by sending it to the Municipal Clerk at input@dnv.org or by mail to Municipal Clerk, District of North Vancouver, 355 West Queens Road, North Vancouver, BC, V7N 4N5. After the speakers list has been exhausted, there will be an opportunity for additional speakers to make submissions by telephone. Dial-in information will be provided at the meeting over the internet to those viewing the video stream.

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 bylaws are available for review online at DNV.org/public_hearing.



1 Growth Management

2030 TARGET

75-90% of new residential units located in 4 key centres within the Network of Centres

The effective management of growth and change is one of the key functions of an OCP. Well planned growth and development can provide lasting benefits through the efficient use of land, resources, infrastructure, facilities and services. **The District's objective is to proactively manage growth and change in the District to achieve a compact, efficient, environmentally sustainable, prosperous and socially equitable community.**

Managing growth proactively requires a strong vision for land use in the District of North Vancouver. The concept that expresses this land use vision is a “network of centres”: a hierarchy of different sized centres with a variety of housing, services and jobs that are accessible, connected, vibrant and unique places. This concept is illustrated on the Network of Centres Concept Map (Map 1). Directing growth into this urban structure supports a number of the OCP's goals. Sprawl is contained and impacts to natural areas are minimized. Improved transit becomes viable between centres and a more walkable environment is created within centres. Transportation-related greenhouse gases are reduced. Municipal infrastructure and services are provided more efficiently. Local businesses operate within vibrant hubs, while employment lands are preserved for their economic value. More diverse housing choices become available to meet the needs of residents at different stages of their lives. And importantly, the stability and character of residential neighbourhoods are sensitively preserved.

This OCP will strategically direct growth in a controlled manner to achieve the community's goals and vision. **Looking to 2030, the OCP identifies capacity for approximately 10,000 net new housing units, corresponding to a population increase of around 20,000 people and 10,000 new jobs. These figures are estimates only. They are provided to help guide planning and are not targets. This growth may or may not occur over the 20-year planning horizon to 2030 and will depend on market and other forces, including the capacity of infrastructure.** The policies and implementation strategies articulated in this Plan will ensure that future development will be guided in the public interest and work towards realizing the desired community benefits.

POLICIES

1. Accommodate growth and development within the existing built area and maintain the District's Urban Containment Boundary as shown on the Land Use Map (see Map 2)
2. Protect areas outside the Urban Containment Boundary by limiting to uses associated with outdoor recreation and tourism, watershed and resource management, conservation, rural residential living and research purposes
3. Establish a network of centres and corridors consistent with the Network of Centres Concept Map (see Map 1) and direct residential and commercial growth to these areas
4. Facilitate an appropriate mix and intensity of land uses in designated centres and corridors to support enhanced transit service provision
5. Respect residential neighbourhood character and limit growth in these areas
6. Integrate land use, transportation, and parks planning, infrastructure provision, urban design, and energy conservation to achieve efficiencies and vibrant places
7. Protect employment lands by limiting to uses predominantly associated with heavy industry, light industry, and general business and by limiting residential and retail uses
8. Work collaboratively with the City of North Vancouver, the District of West Vancouver, Squamish and Tsleil-Waututh First Nation governments, the regional transportation authority, Metro Vancouver, and Provincial and Federal agencies to effectively coordinate community and infrastructure planning





2 Urban Structure



2030 TARGET

housing mix of 55% detached, 45% attached units

The urban structure of the District is shown conceptually on Map 1, Network of Centres Concept Map. It is comprised of two Town Centres (Lynn Valley and Lower Lynn) and six Village Centres (Lower Capilano-Marine, Edgemont, Queensdale, Maplewood, Parkgate and Deep Cove), along with Neighbourhoods and the Corridors that connect them. **In addition to the urban structure policies, which apply across the District, Schedule A of this OCP provides more detailed planning for the four primary growth centres in the District: Lynn Valley and Lower Lynn Town Centres and Capilano-Marine and Maplewood Village Centres.** Further implementation of land use policies and OCP objectives is anticipated to occur through specific Centres Implementation Plans and Neighbourhood Infill Plans (Chapter 12.3.1).

- 2.1 Town Centres
- 2.2 Village Centres
- 2.3 Neighbourhoods
- 2.4 Transit Corridors
- 2.5 Land Use Designations for the Urban Structure

2.1 Town Centres

The Town Centres contain the broadest range of services and land uses in the District. As the highest category of centre, they are anticipated to receive significant growth over the time frame of this plan. The Town Centres are major nodes on the transit network and can be accessed by several bus routes. They function as municipal-wide destinations that contain major commercial uses like grocery and department stores and institutional uses like libraries and community centres. Office employment is encouraged. The Town Centres provide a variety of multifamily housing options within and around their commercial core and transition sensitively outwards to their surrounding neighbourhoods. High quality urban design enhances the public realm and pedestrian environment. **The District's objective for the Town Centres is to create vibrant and complete communities that provide diverse housing, employment and recreational opportunities.**

POLICIES

1. Designate Lynn Valley and Lower Lynn as the District's Town Centres and prepare detailed Town Centre Implementation Plans for these areas of growth
2. Direct residential growth to the Town Centres in the form of mixed-use and multifamily development to enable greater housing diversity and affordability
3. Concentrate new retail, service and major office development in the Town Centres to maximize transit and pedestrian access for employees and customers
4. Focus community infrastructure investment to the Town Centres to ensure that quality facilities and services meet the needs of their expanded populations, while recognizing District-wide needs
5. Transition sensitively outwards from the Town Centre with appropriate ground-oriented housing forms (such as townhouse) to adjacent residential neighbourhoods
6. Establish Development Permit Areas and Design Guidelines regulating the form and character of development to promote design excellence and reflect the unique qualities of each Town Centre



2.2 Village Centres

The Village Centres provide a focus for their surrounding neighbourhoods. They have a range of shops and services to meet most daily needs, but do not generally include major “destination” retail establishments such as department stores. Mixed-use development, such as apartments situated over shops, is a typical building form within the commercial core, with lower density multifamily housing (such as duplexes or townhouses) forming a peripheral area adjacent to the core. **The District’s objective for the Village Centres is to build on their own unique characteristics to create distinct urban village environments.** More detailed planning for the Village Centres where growth is anticipated - Maplewood and Capilano - Marine - is provided for in this OCP in Schedule A. Significant changes to other Village Centres are not proposed in this plan and pre-existing Local Area Plan land uses have been integrated. The OCP provides for the opportunity for more detailed Village Centre Implementation Plans to be prepared or reviewed where appropriate in the future (Chapter 12).

POLICIES

1. Designate Lower Capilano-Marine, Edgemont, Queensdale, Maplewood, Parkgate and Deep Cove as the District’s Village Centres
2. Prepare detailed Village Centre Implementation Plans for Maplewood and Lower Capilano-Marine as these are areas for revitalization and growth
3. Accommodate a range of multifamily, commercial and institutional uses in the Village Centres
4. Encourage the inclusion of upper floor residential units in new commercial development in core or high street areas
5. Concentrate development in the Village core and transition sensitively outwards with appropriate ground-oriented housing forms (such as duplex and townhouse) to adjacent residential neighbourhoods
6. Establish Development Permit Areas and Design Guidelines regulating the form and character of development to promote design excellence and reflect the unique qualities of each Village Centre
7. Ensure Village Centre Implementation Plans and their peripheral areas are consistent with the objectives and policies of the OCP and prepare or review Plans as necessary
8. Work with Capilano University to integrate residential, institutional or economic development within the university precinct into the District’s urban structure

2.3 Neighbourhoods

The existing residential neighbourhoods in the District are largely comprised of detached houses. With a few exceptions, multifamily residences within neighbourhoods are ground-oriented (duplexes, triplexes or townhouses). Schools, corner stores and parks provide valuable amenities to surrounding residential uses. Neighbourhoods should be walkable, family-friendly places. Significant change is not anticipated in existing neighbourhoods. Sensitive residential infill opportunities may be considered to provide greater housing diversity or transition to adjacent uses through Neighbourhood Infill Plans and/or Housing Action Plans (Chapter 12). **Neighbourhood character and local support must be considered in these Plans and planning processes. The District's objective for Neighbourhoods is to provide safe, beautiful and inclusive environments for residents of all ages.**

POLICIES

1. Maintain ground-oriented detached and attached housing as the predominant residential forms
2. Accommodate the provision of schools, community facilities and other institutional uses and maintain public assembly uses where feasible
3. Integrate a network of parks and open spaces throughout neighbourhoods
4. Encourage the preservation of local commercial uses (corner stores) in neighbourhoods and encourage new local commercial uses where appropriate
5. Prepare Housing Action Plan(s) to identify criteria for low intensity infill housing, such as coach and laneway housing and small lot subdivision as appropriate
6. Enable sensitive redevelopment in appropriate areas, such as locations adjacent to existing multifamily or commercial uses, through Neighbourhood Infill Plans



Create a network of vibrant, mixed-use centres while enhancing the character of our neighbourhoods and protecting natural areas

2.4 Transit Corridors

The transit corridor concept illustrated in the Network of Centres Concept Map (Map 1) supports the OCP's urban structure by connecting the Town and Village Centres along key corridors. These corridors receive, or may potentially receive, frequent transit service provision (defined as every 15 minutes or better, throughout the day, 7 days a week). To support the provision of this level of service, the regional transportation authority allows portions of transit corridors to be designated Frequent Transit Development Areas in collaboration with municipalities. **The District's objective is to achieve the regional designation of Lower Lynn Town Centre and Capilano - Marine Village Centre as Frequent Transit Development Areas. As the District's Municipal Town Centre¹, Lynn Valley is also a priority for frequent transit.** Other opportunities for strategic densification in areas in immediate proximity to transit corridors may arise over the horizon of this plan. These should occur at different scales to ensure a sensitive and appropriate fit to their surrounding uses and would be addressed through Centres Implementation or Neighbourhood Infill Planning processes as outlined in 12.3.1.

POLICIES

1. Work with the regional transportation authority and Metro Vancouver to establish Lower Lynn Town Centre and Capilano - Marine Village Centre as Frequent Transit Development Areas (see Regional Context Statement, Schedule C)
2. Consider designating additional Frequent Transit Development Areas as appropriate over time where such designation is consistent with OCP land use and transportation objectives
3. Enable sensitive densification of appropriate scale at strategic locations along transit corridors within the Network of Centres through Centres Implementation or Neighbourhood Infill Planning processes

2.5 Land Use Designations for the Urban Structure

Map 2 is the Land Use Map for the District. It designates the preferred location of land uses. The residential, commercial and institutional land use designations on Map 2 are described in the following table. The references to Floor Space Ratios (FSR) in the table provide guidance regarding the general massing and approximate density of development. The term "Floor Space Ratio", as used in the table, means generally the ratio of the floor area of a proposed development over the area of the lot or lots upon which the development is to be located. It does

¹ Lynn Valley is identified as the District's Municipal Town Centre in the proposed Regional Growth Strategy and this designation is reflected in the District's Regional Context Statement (Schedule C). This designation recognizes Lynn Valley's existing role as a municipal-serving hub. As OCP implementation advances, Lower Lynn may also be considered for addition to the Regional Growth Strategy as a Municipal Town Centre.

not regulate actual densities on individual lots, that being the function of the District's Zoning Bylaw. Council may, in its discretion, and with a public hearing, consider zoning bylaw amendments to permit density over and above that indicated in the table on a case by case basis where the proposed development is otherwise consistent with objectives and policies of the OCP.

RESIDENTIAL LEVEL 1: RURAL RESIDENTIAL

Areas designated for rural residential are intended for detached housing on large lots situated outside the urban boundary. The OCP does not envision further intensification of use through subdivision in this designation and/or through extension of services. Detached rural residences are generally allowed up to approximately 0.35 FSR.

RESIDENTIAL LEVEL 2: DETACHED RESIDENTIAL

Areas designated for detached residential are intended predominantly for detached housing within neighbourhoods. This designation accommodates secondary rental units such as suites or coach houses subject to the imposition and satisfaction of appropriate conditions. Detached residences (inclusive of suites and coach houses) are generally allowed up to approximately 0.55 FSR.

RESIDENTIAL LEVEL 3: ATTACHED RESIDENTIAL

Areas designated for attached residential are intended predominantly for ground-oriented multifamily housing within neighbourhoods, or as a transition between higher density sites and adjacent detached residential areas. Typical housing forms in this designation include duplex, triplex and attached row houses up to approximately 0.80 FSR.

RESIDENTIAL LEVEL 4: TRANSITION MULTIFAMILY

Areas designated for transitional multifamily are intended predominantly for multifamily uses within or in close proximity to centres and corridors, or as a transition between higher density sites and adjacent detached and attached residential areas. This designation typically allows for a mix of townhouse and apartment developments up to approximately 1.20 FSR.

RESIDENTIAL LEVEL 5: LOW DENSITY APARTMENT

Areas designated for low density apartment are intended predominantly for multifamily housing in centres and corridors up to approximately 1.75 FSR. Development in this designation will typically be expressed in low rise apartments, but may include some townhouses. Some commercial use may be permitted at grade.

RESIDENTIAL LEVEL 6: MEDIUM DENSITY APARTMENT

Areas designated for medium density apartment are intended predominantly to provide increased multifamily housing up to approximately 2.50 FSR at strategic locations in centres and corridors. Development in this designation will typically be expressed in medium rise apartments. Some commercial use may also be permitted in this designation.

COMMERCIAL RESIDENTIAL MIXED-USE LEVEL 1

Areas designated for commercial residential mixed-use level 1 are intended predominantly for general commercial purposes, such as retail, service and offices throughout the District. Residential uses above commercial uses at street level are generally encouraged. Development in this designation is permitted up to approximately 1.75 FSR.

COMMERCIAL RESIDENTIAL MIXED-USE LEVEL 2

Areas designated for commercial residential mixed-use level 2 are intended predominantly for medium density general commercial purposes, such as retail, service and offices at limited sites within the District. Residential uses are typically expected to accompany commercial uses. Development in this designation is permitted up to approximately 2.50 FSR.

COMMERCIAL RESIDENTIAL MIXED-USE LEVEL 3

Areas designated for commercial residential mixed-use level 3 are intended predominantly to provide for high density uses up to approximately 3.50 FSR at limited appropriate sites in the District's Centres. Development in this designation may include residential or commercial uses, which encompass retail, office and service uses, or a mix of these residential and commercial uses.

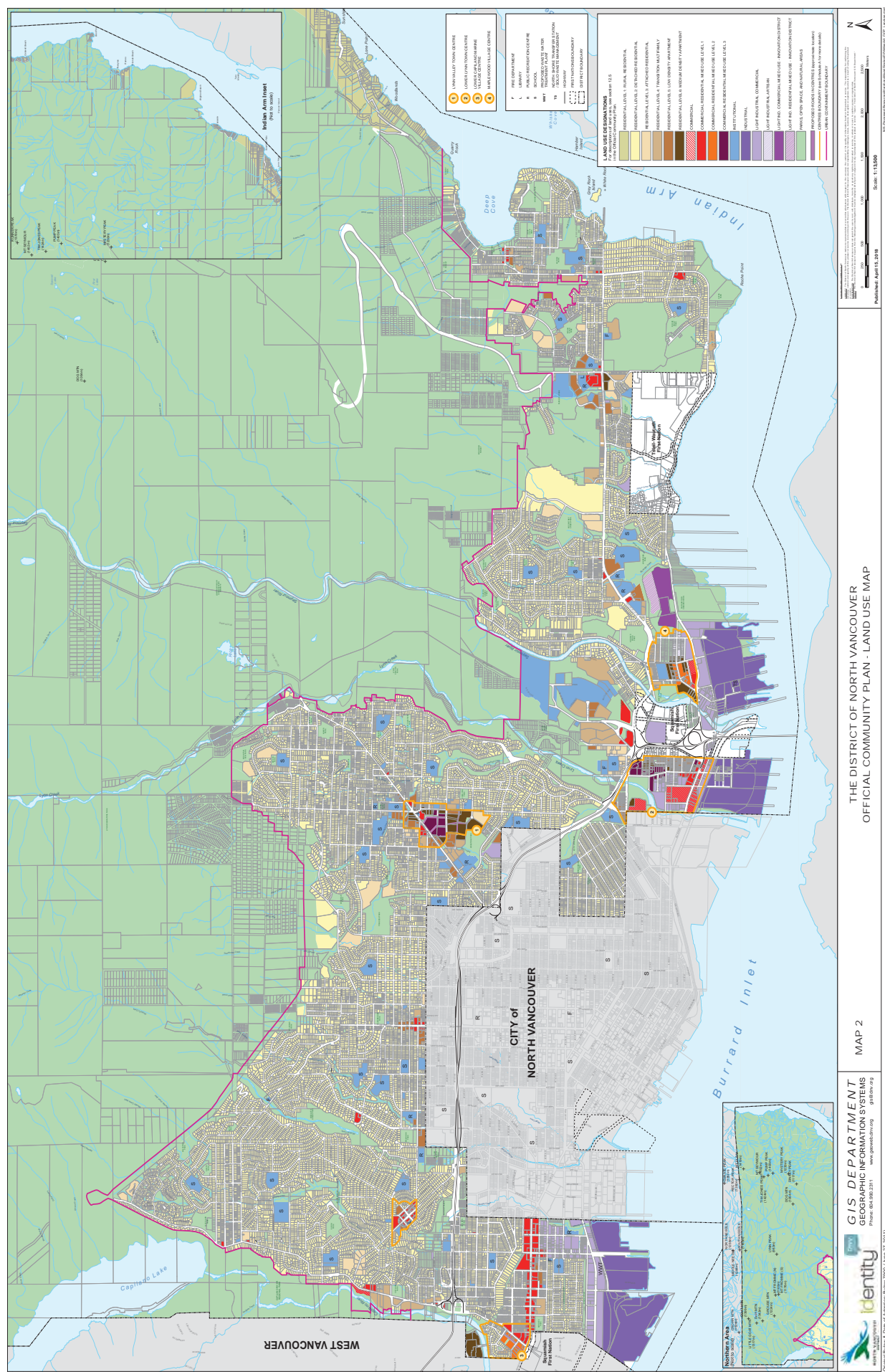
COMMERCIAL

Areas designated for commercial are intended predominantly for a variety of commercial and service type uses, where residential uses are not generally permitted. Development in this designation is permitted up to approximately 1.0 FSR.

INSTITUTIONAL

Areas designated for institutional are intended predominantly for a range of public assembly uses, such as schools, churches, recreation centres, and public buildings. Some commercial and accessory residential uses may be permitted.







7 Housing

2030 TARGET

a net increase in rental housing units (overall percentage)

The profile of the District resident of today has changed significantly from that of 20 years ago. During this time there has been a noticeable demographic shift from a younger family-oriented community towards more seniors with fewer young adults and children. Our housing mix, comprised largely of detached single family homes, has not kept pace with the needs of this changing community profile. Providing more diverse and affordable housing choice is needed for seniors, young singles, couples, and families with children so that a wide mix of ages can thrive together and ensure a healthy, diverse and vibrant community. Emergency, transitional and social housing is also needed to support vulnerable populations. **The District's objective is to increase housing choices across the full continuum of housing needs.**

- 7.1 Housing Diversity
- 7.2 Rental Housing
- 7.3 Housing Affordability
- 7.4 Non-Market Housing and Homelessness

7.1 Housing Diversity

The network of centres concept provides important opportunities for increasing housing diversity and approximately 75 - 90% of future development will be directed to the four planned centres (Chapter 2). While growth will be restricted in detached residential areas, opportunities will exist to sensitively introduce appropriate housing choices such as coach houses, duplexes and small lot infill that respect and enhance neighbourhood character. Some flexibility is encouraged to enable residents to better age in place, live closer to schools, or have a mortgage helper. **The District's objective is to provide more options to suit different residents' ages, needs and incomes.**

POLICIES

1. Encourage and facilitate a broad range of market, non-market and supportive housing
2. Undertake Neighbourhood Infill plans and/or Housing Action Plans (described in Chapter 12) where appropriate to:
 - a) identify potential townhouse, row house, triplex and duplex areas near designated Town and Village Centres, neighbourhood commercial uses and public schools
 - b) designate additional Small Lot Infill Areas
 - c) develop criteria and identify suitable areas to support detached accessory dwellings (such as coach houses, backyard cottages and laneway housing)
3. Develop design guidelines to assist in ensuring the form and character of new multifamily development contributes to the character of existing neighbourhoods and to ensure a high standard of design in the new Town and Village Centres
4. Encourage and facilitate a wide range of multifamily housing sizes, including units suitable for families with an appropriate number of bedrooms, and smaller apartment units
5. Require accessibility features in new multifamily developments where feasible and appropriate




7.2 Rental Housing

Entry into home ownership is increasingly challenging given the high housing prices in the District. Rental housing typically offers more affordable options for mid-to-low income groups, which may include single parents, students, young families and seniors. **The District's objective is to provide more alternatives to home ownership. Currently, only 18% of the dwellings in the District are rental.**

POLICIES

1. Explore increasing the maximum permitted size of secondary suites
2. Consider permitting secondary suites or lock-off units within townhouses, row houses and apartments
3. Encourage the retention of existing, and the development of new, rental units through development, zoning and other incentives
4. Facilitate rental replacement through redevelopment
5. Continue to limit the conversion of rental units to strata title ownership and require, where possible and appropriate, that new strata units be available for rental
6. Establish a minimum acceptable standard of maintenance for rental properties
7. Develop a rental and affordable housing strategy through Housing Action Plan(s) and/or Centres Implementation Plans
8. Support, where appropriate, parking reductions for purpose built market and affordable rental units
9. Encourage the provision of student housing at or near the campus of Capilano University
10. Support the addition of ancillary rental housing on church sites where additional development can be accommodated



Encourage and enable a diverse mix of housing type, tenure and affordability to accommodate the lifestyles and needs of people at all stages of life

7.3 Housing Affordability

Lack of affordable housing in the District is often cited as a factor contributing to the loss of our “missing generation” of 20-40-year-olds and the inability of many local employers to find and retain staff. With approximately 2,645 households in core need of appropriate housing and 1,460 households spending at least half of their income on housing, our lack of affordability is widely felt. **The District’s objective is to formulate development strategies and work with community partners and senior levels of government to provide housing for modest to moderate income residents.**

POLICIES

1. Reflect District housing priorities through an appropriate mix, type and size of affordable housing
2. Focus a higher proportion of affordable housing in designated growth areas
3. Apply incentives (including, but not limited to density bonussing, pre-zoning and reduced parking requirements) as appropriate, to encourage the development of affordable housing
4. Require, where appropriate, that large multifamily developments contribute to the provision of affordable housing by, but not limited to:
 - a) including a portion of affordable rental or ownership units as part of the project
 - b) providing land dedicated for affordable housing
 - c) providing a payment-in-lieu to address affordable housing
5. Expand the District’s Affordable Housing Fund to receive funds from non-municipal sources
6. Work with community partners and the Province to facilitate options for affordable housing and advocate the Federal government to develop a national housing strategy for affordable housing
7. Consider incentives such as reduced Development Cost Charges to facilitate affordable rental housing

7.4 Non-Market Housing and Homelessness

Emergency, transitional and supportive housing is needed to provide access to the full continuum of housing in the District. This section addresses the housing needs of our growing homeless population, those most at risk of homelessness, those with substance abuse and mental health issues, seniors who need support to remain living independently and others. Provision of such housing requires funding that the District cannot address on its own. **The District's objective is to work with senior levels of government and social service providers to support our most disadvantaged residents.**

POLICIES

1. Encourage non-profits, supportive housing groups, developers, senior levels of government and others to develop or facilitate the development of:
 - a) transitional housing for homeless adults, families and youth
 - b) supportive housing for those with mental health and/or addiction issues
 - c) independent living units for people with disabilities
 - d) assisted living facilities for people with cognitive and/or developmental disabilities
2. Work with community partners to explore opportunities for social housing, co-operative and innovative housing solutions
3. Continue to facilitate community facility lease policies to provide municipal land or infrastructure for services to vulnerable populations
4. Consider the use of District land, where appropriate, to contribute towards and leverage other funding for the development of social and affordable housing
5. Encourage other levels of government to contribute financial support and/or a portion of surplus lands towards appropriate and affordable housing for those with special needs
6. Continue to support regional efforts to eliminate and prevent homelessness on the North Shore
7. Continue to support non-profit agencies that provide short-term emergency and transitional shelter, food and access to social services for those in need
8. Support community partners in providing a full continuum of support services to address issues related to mental health, addictions, health services, housing, employment, and food security; and to provide assistance for homeless people to facilitate their transition to independent living



Lower Lynn Town Centre

1 INTRODUCTION

Lower Lynn is one of two designated Town Centres in the OCP. Centrally located within the District at the Second Narrows bridgehead and connected to Lower Lonsdale via Main Street/Low Level Road, Lower Lynn has good access to transit, nearby parks and amenities, adjacent employment lands and numerous commercial uses. Lower Lynn is well situated for the creation of a complete community. In the regional context, Lower Lynn will be proposed, in consultation with the regional transportation authority, as a Frequent Transit Development Area with a greater mix and density of housing, commercial, employment and other uses to support frequent transit services. Over the next 20 years (and potentially longer) it is anticipated that approximately 3,000 units will be created in Lower Lynn Town Centre.

Existing land uses in Lower Lynn include light industrial, regionally oriented retail uses along Main Street, port industrial activity south of Main Street and single family homes east of Mountain Highway. The highway, railway lines serving the port and Lynn Creek are physical barriers that impact the connectivity of the Lower Lynn Town Centre with the surrounding area. The community has expressed a strong desire to rejuvenate and redevelop this area. Seylynn Village, a high-density mixed use development, has been approved at the north-eastern edge of Lower Lynn Town Centre and may catalyze redevelopment. With redevelopment, there is an opportunity to realize greater housing choices including rental and more affordable types. As well, the pedestrian and cycling network connections can be improved to Park and Tilford, Lynn Creek Park, and the trail network from the waterfront north to Inter-River Park. Pedestrian and cycling connections may also be facilitated to Seymour Creek and Maplewood in the future.

2 VISION

Lower Lynn will be a transit-oriented mixed use community comprised of a wide range of housing types for people of all stages of life, all incomes, with accessible places of work and convenient shopping, amenities and civic uses and services. Over time, Lower Lynn will become an outstanding model of urban living in harmony with the North Shore's natural environment.

3 TOWN CENTRE POLICIES

3.1 LAND USE

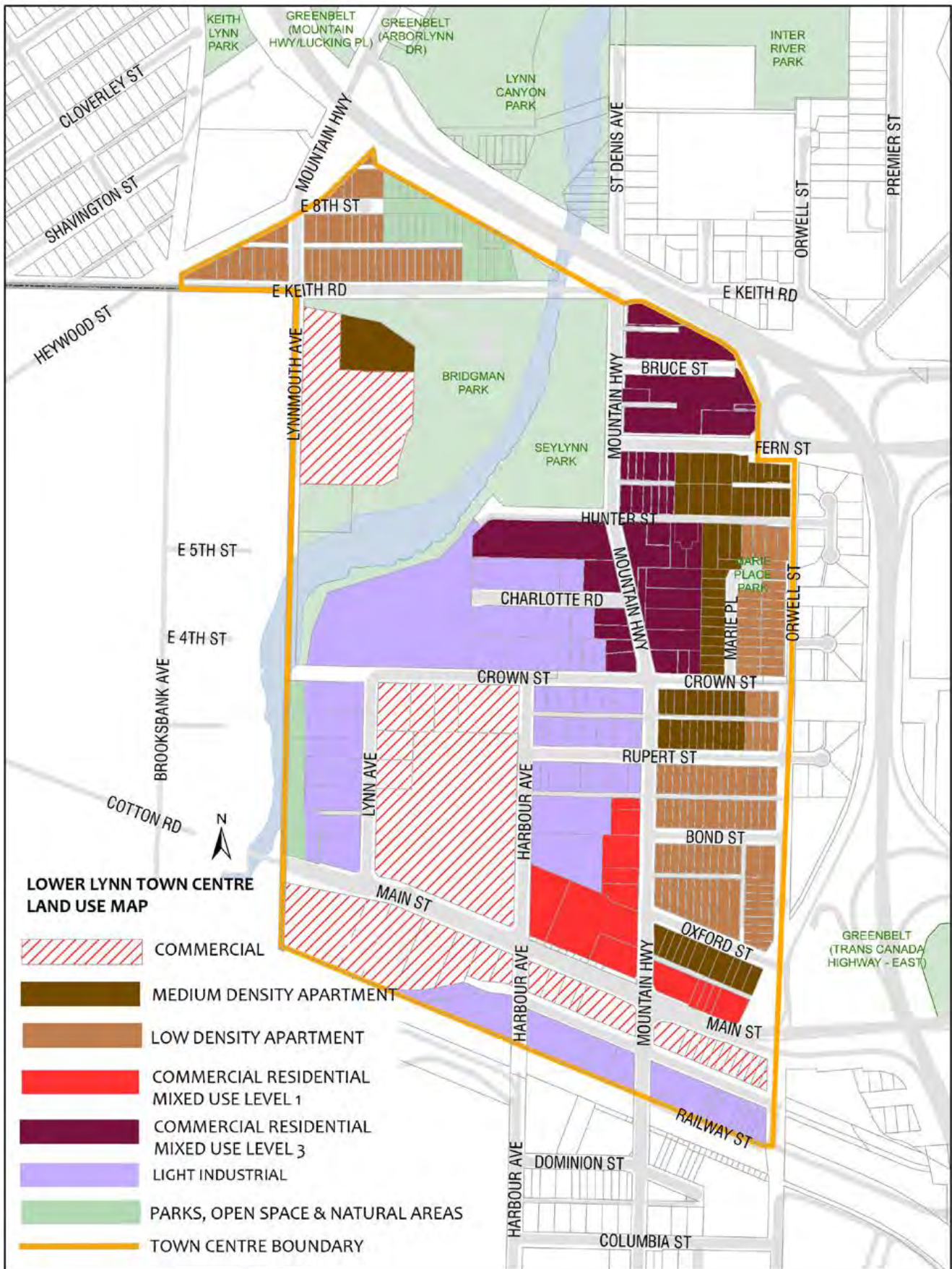
Map 8 indicates the predominant land uses for Lower Lynn Town Centre.

3.1.1 HOUSING

1. Accommodate a range of household types including seniors, young families and singles, and a range of income levels through a mix of residential unit types and tenures
2. Establish minimum requirements for the provision of affordable and rental units to be achieved through the Lower Lynn public benefit and community amenity provision strategy
3. Encourage redevelopment that includes an appropriate proportion of units suitable for families in terms of adequate unit size, number of bedrooms, access to private outdoor space and potential for “lock off” units
4. Require multi-family developments to include on-site play space for children where appropriate
5. Consider, where appropriate, facilitating live/work units along Mountain Highway to provide a transition between residential and light industrial uses



Potential forms of development: tower/podium, mid-rise and ground-oriented



MAP 8: LOWER LYNN TOWN CENTRE LAND USE MAP

3.1.2 COMMERCIAL AND EMPLOYMENT USES

1. Focus new commercial floorspace and services in the “heart” and within Seylynn Village; and explore transitional commercial uses at the southwest corner of Mountain Highway and Crown Street
2. Support and encourage major office development
3. Support light industrial commercial uses and encourage intensification and diversification of such uses
4. Maintain Main Street as a regional destination commercial area
5. Facilitate effective buffering of commercial and mixed uses along Main Street from nearby industrial areas, and transition development sensitively to adjacent residential uses
6. Maintain the District’s Works Yard in the medium term and consider alternative uses of this site that may support the Town Centre in the long term

3.1.3 COMMUNITY FACILITIES, SERVICES AND AMENITIES

1. Provide a central plaza on the east side of Mountain Highway in the heart of the Town Centre and program it to support community activities and serve as a community focal point
2. Create a gateway to the heart at Mountain Highway and Crown through public realm improvements on the four corners
3. Prepare a community amenity strategy for Lower Lynn Town Centre to deliver community amenities and public benefits generally to include, but not limited to:
 - a) Affordable and rental housing units
 - b) Redevelopment of Seylynn Hall as a community centre
 - c) Community space adjacent to Seylynn Park
 - d) Neighbourhood park improvements including playgrounds at Seylynn and Bridgman Parks, and new neighbourhood park space to serve the area south of Crown Street and east of Mountain Highway
 - e) Urban plaza including landscaping, street furniture and public art
 - f) Enhancement of trails and greenways
 - g) Other community amenities as identified to meet goals and objectives for Lower Lynn



Sketch of Lower Lynn Town Centre looking north up Mountain Highway

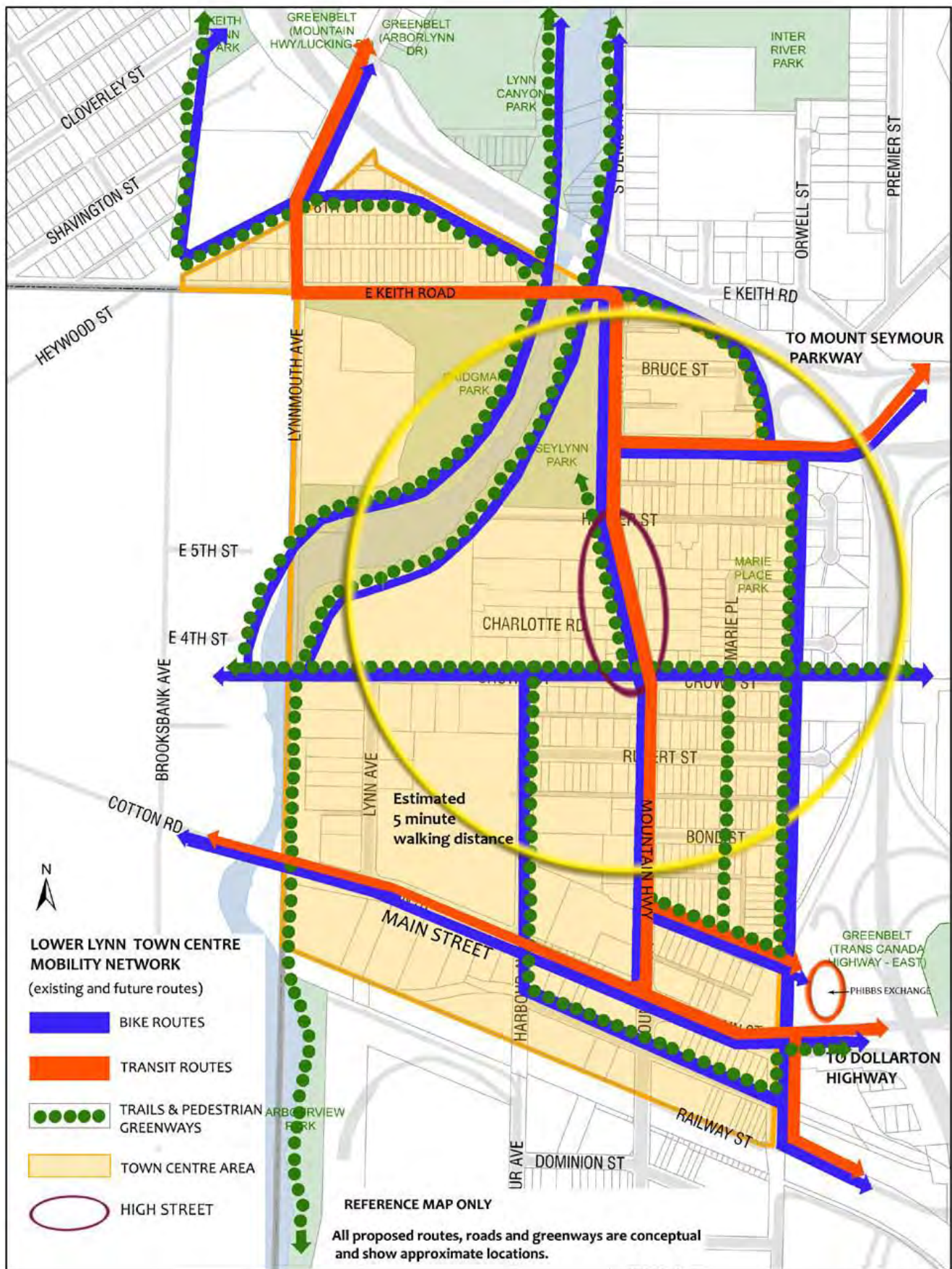
3.1.4 PARKS AND OPEN SPACES

1. Undertake trail improvements to enhance connections to the Lynn Creek trail system and Lynnmour School and neighbourhood
2. Establish Crown and Orwell Streets as greenways that prioritize walking and cycling
3. Upgrade Seylynn Park to address local recreational needs
4. Expand and upgrade Marie Place Park as a locally serving neighbourhood park
5. Facilitate creation of a new neighbourhood park south of Crown Street and east of Mountain Highway
6. Design open spaces with consideration of solar orientation, weather protection and typical use during different times of day
7. Design open spaces with consideration of crime prevention principles and maximization of passive surveillance

3.2 MOBILITY NETWORK

Map 9 provides a conceptual representation of the mobility network for Lower Lynn Town Centre.

1. Pursue transportation demand management strategies to encourage active travel modes and public transit
2. Work with the regional transportation authority to coordinate the provision of effective transit service and upgrades to Phibbs Exchange to support increased population and employment in Lower Lynn Town Centre
3. Work with the regional transportation authority to improve the integration of Phibbs Exchange into the community
4. Investigate the potential for new pedestrian/cycle bridges over Lynn Creek and over the Trans-Canada Highway along the Crown Street alignment
5. Improve the existing Lynn Creek trail to Lynnmour School under the Keith Road and highway bridges
6. Work with the Provincial transportation ministry and other governments to address highway interchange improvements including east-west connections to the Seymour area
7. Designate Crown and Orwell Streets as greenways and implement streetscape improvements that prioritize walking and cycling movements
8. Secure mid-block connections east of Mountain Highway at redevelopment
9. Provide a consistent and high quality sidewalk treatment on both sides of Mountain Highway
10. Develop way-finding measures and signage to direct pedestrians and cyclist to the community heart, Seylynn Park, Lynn Creek trail system, community facilities and Phibbs Exchange



MAP 9: LOWER LYNN TOWN CENTRE MOBILITY NETWORK MAP

3.3 SUSTAINABILITY

1. Undertake a feasibility analysis of district energy to consider alternative/sustainable energy systems for Lower Lynn; and subject to this analysis, anticipate and accommodate the development of a hydronic based district energy system
2. Promote the implementation of green building and water conservation practices
3. Manage and re-use storm water on site to the greatest extent possible
4. Encourage urban agriculture through provision of garden spaces and green roofs
5. Encourage new multi-family housing developments to provide composting facilities and/or coordinate composting services



LOWER LYNN TOWN CENTRE IMPLEMENTATION PLAN



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A. Introduction

Local context

Lower Lynn is one of four key designated centres in the Official Community Plan's (OCP) Network of Centres. Centrally located within the District of North Vancouver (District) at the Second Narrows bridgehead and connected to Lower Lonsdale via Main Street/Low Level Road, Lower Lynn has good access to Phibbs Exchange and frequent transit, significant parks and natural amenities, employment lands and regional commercial along Main Street.

Redevelopment of the existing residential areas provides an opportunity to protect employment lands, to rejuvenate the residential areas through quality urban design and place making, to increase connectivity between neighbourhoods that have been isolated by the TransCanada Highway, and to establish a central community “heart” or focal point that serves as a hub for community services and facilities.

Revitalization of the Lower Lynn Town Centre, including a range of new multi-family housing and affordability options, will make it easier for local businesses to attract and retain new employees. In addition, young working adults (20-40 year olds) and their families, seniors looking to downsize and first time home buyers from the North Shore and elsewhere, are anticipated to move here to take advantage of new housing options, jobs, ready access to transit, parks, trails and other amenities.

This **Lower Lynn Town Centre Implementation Plan** responds to the Official Community Plan policies and direction identifying the need for a detailed implementation plan and design guidelines

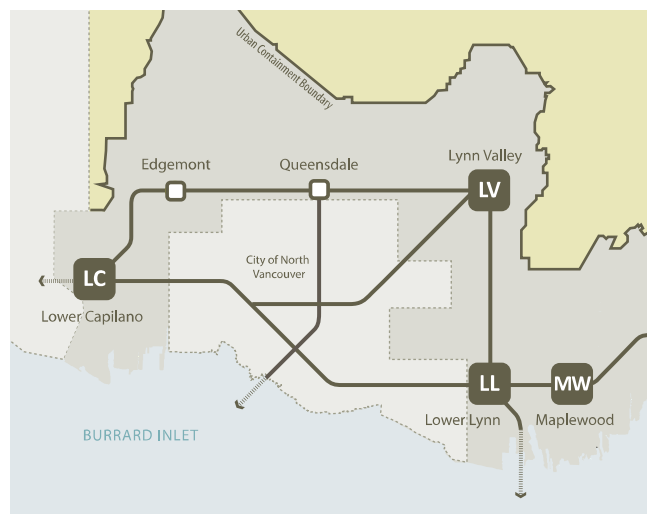


Figure 1. OCP Network of Centres

to inform redevelopment of this area in a manner that is consistent with the community's vision for this centre. The Lower Lynn Town Centre Implementation Plan also provides policy direction to guide growth and change in the Lower Lynn Town Centre to 2030. Recognizing that it may take 20 years or more for the area to be fully redeveloped, the plan allows for incremental change over time so that areas outside of the core area can continue to function as they do now until such time as they are ready for change.

Vision for the Lower Lynn Town Centre

The Official Community Plan vision for the Lower Lynn Town Centre, developed in consultation with the local community is:

Lower Lynn will be a transit-oriented mixed use community comprised of a wide range of housing types for people of all stages of life, all incomes, with accessible places of work, convenient shopping and amenities. Over

time, Lower Lynn will become an outstanding model of urban living in harmony with the North Shore's natural environment.

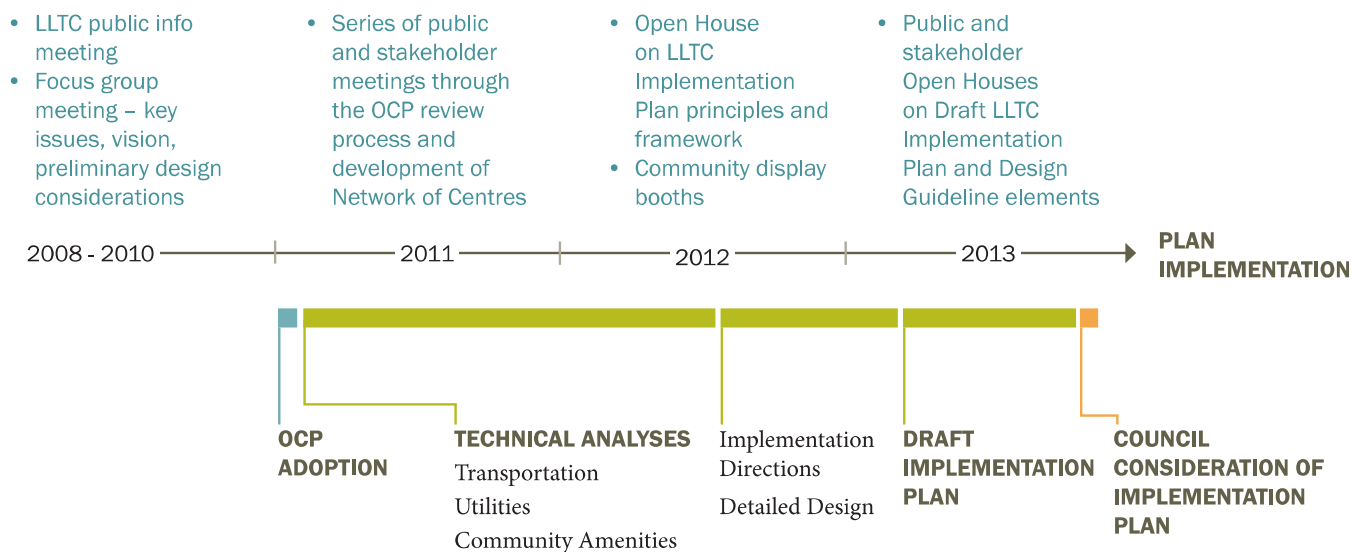
Implementation Planning and Engagement Process

Following adoption of the Official Community Plan (2011), implementation planning work on the Lower Lynn Town Centre involved: undertaking a series of technical transportation and economic analyses, conducting public and stakeholder consultation, and establishing planning principles and a detailed Concept Plan as a basis for the Lower Lynn Town Centre Implementation Plan and Design Guidelines.

Public engagement on the Lower Lynn Town Centre began in 2008 and has occurred at every major milestone in the implementation planning process. Engagement has involved community and stakeholder workshops, open houses, focus group meetings, drop-in sessions, and community display booths that enabled the community to be active participants in shaping the vision, concept plan and implementation policies for this Town Centre.

The District of North Vancouver has worked closely with Vancouver Coastal Health (VCH) on this and other designated centres to promote community health through healthy built environments and active living. VCH has played an important role in building awareness and providing a strong voice for proactive measures to promote community health.

LLTC IMPLEMENTATION ENGAGEMENT PROCESS



LLTC IMPLEMENTATION PLANNING PROCESS

Figure 2. Lower Lynn Town Centre implementation planning and engagement process

How to use this document and relationship to the Official Community Plan

This Lower Lynn Town Centre Implementation Plan represents a long-term vision to 2030 to guide future redevelopment, growth and change to this area. This document is to be used in conjunction with the Official Community Plan (OCP). The OCP land use designations and Town Centre policies (Schedule A of the OCP) lay the foundation and policy directions for the Lower Lynn Town Centre. Guided by and consistent with the OCP, this Implementation Plan provides more detailed policies and implementation actions to guide redevelopment of this Town Centre in accordance with the OCP. In the event that there is any inconsistency between this Implementation Plan and the OCP, the OCP governs.

The general, District-wide Development Permit Area Guidelines found in Schedule B of the OCP apply to redevelopment in this area. In addition, the supplemental Design Guidelines specific to the Lower Lynn Town Centre outline the specific form and character and streetscape design elements to help shape the unique character and identity of the Town Centre.

Realizing a Sustainable Implementation Plan

Lower Lynn Town Centre has the potential to become one of the most sustainable communities in the District of North Vancouver.

Building on the vision of the Official Community Plan (OCP) as an Integrated Sustainable Community Plan, this Implementation Plan guides the redevelopment of the Lower Lynn Town Centre towards social, economic and environmental sustainability by:

- » directing new growth in a frequent transit development area (FTDA) that is well served by transit;
- » integrating a range of housing choices, community facilities and services to promote social interaction and demographic mix;
- » encouraging economic development through the protection of light industrial lands and expansion and renewal of commercial uses;
- » providing new park space and promoting environmental protection, watershed enhancement, green infrastructure, energy and water conservation.

This Implementation Plan also provides recommendations for monitoring progress towards overall Plan objectives and OCP targets.

B. Planning for a Mixed Use Town Centre

Establishment of a mixed use centre with easy and enjoyable walking access to retail, community facilities and services, and jobs is an important first step towards creating a very liveable, healthy and vibrant community for current and future residents and businesses. The community's vision for this Town Centre is illustrated by means of a Concept Plan (Figure 3) and supported by land use and other policies in this Implementation Plan. Both conceptual and land use planning for this mixed use Town Centre have been shaped by extensive community and stakeholder input.

Concept Planning Principles

The following planning principles, established in consultation with stakeholders and the public, were used to guide the development of the Lower Lynn Town Centre Concept Plan and the framework for this Implementation Plan.

Create a new Town Centre for Lower Lynn that:

Mixed Use

- » Integrates multi-family residential, retail, light industrial and park uses into a revitalized, complete, transit oriented community.
- » Provides a community focal point including a mixed use community “heart” with a “high street” on Mountain Highway between Crown and Hunter Streets.
- » Encourages economic development through the protection and intensification of light industrial uses, and modest expansion of local-serving commercial uses.

Multi-Modal Transportation Network

- » Strengthens community connectivity through a network of safe and accessible pedestrian and cycling routes including a central “green spine”.
- » Supports and facilitates access to the frequent transit network.
- » Redirects east-west local District traffic via the East Keith Road extension.

Housing Choices

- » Revitalizes the residential neighbourhood and encourages innovative housing forms close to employment, transit, retail and community services.
- » Facilitates a mix of housing types and tenures to accommodate people of all ages, abilities and incomes for the next 20 years.

Public Realm and Community Amenities

- » Establishes a unique community identity and sense of place referencing nature, outdoor recreation and elements of the industrial character.
- » Enhances liveability and social well-being through provision of engaging public spaces, new neighbourhood parks and urban plazas, and a range of community services.
- » Promotes public safety and security through streetscape and urban design.

Environmental Protection and Green Infrastructure

- » Protects and enhances the Lynn Creek corridor and encourages a healthy urban forest canopy.
- » Promotes green infrastructure, rainwater management best practices, water and energy conservation, and alternative energy solutions towards a more sustainable community.

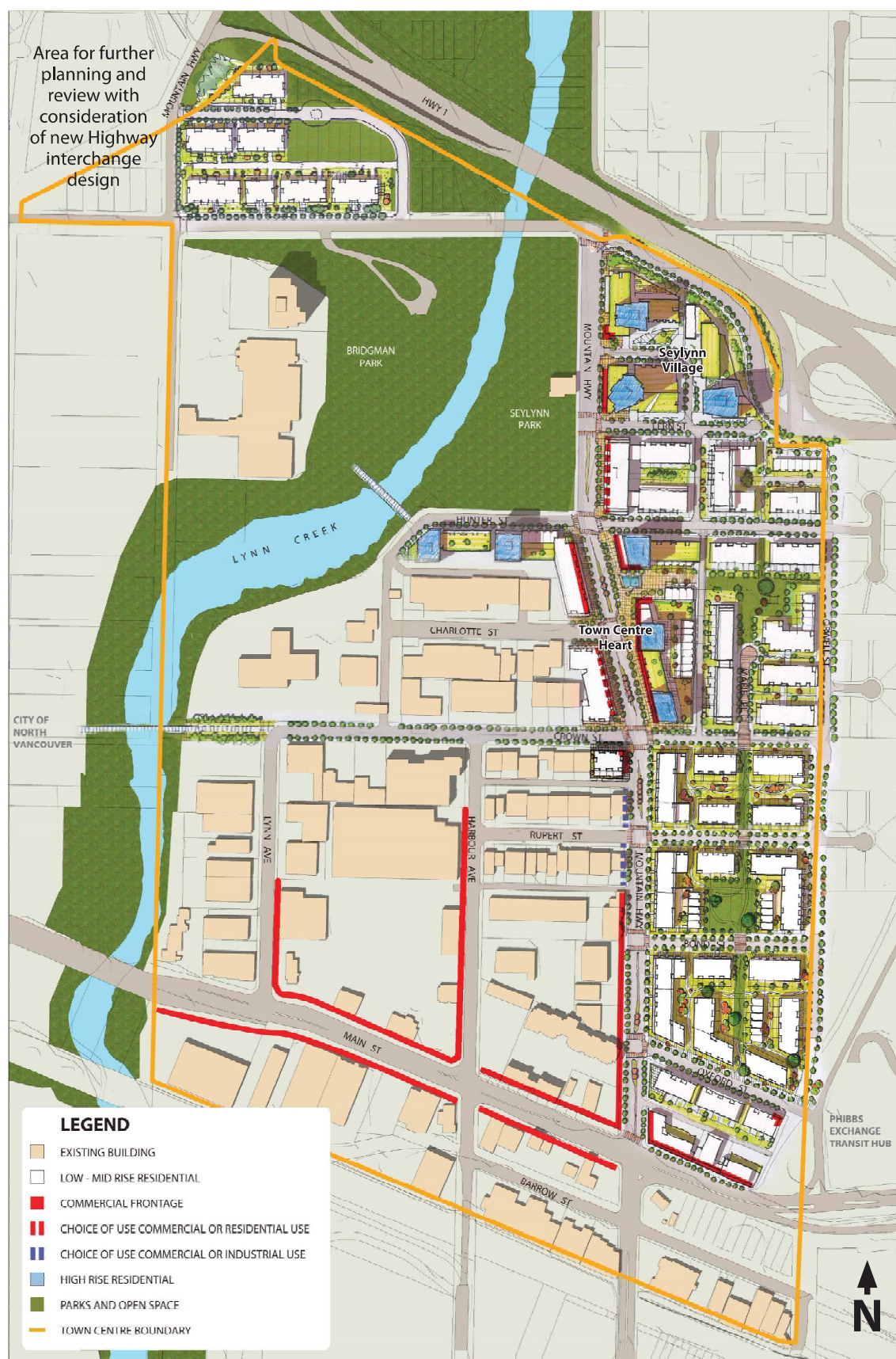
Concept Plan for Lower Lynn Town Centre

The District's Official Community Plan (OCP) land use map forms the foundation for the Lower Lynn Town Centre Concept Plan. The Concept Plan (Figure 3) has also been informed by community input, economic and transportation analysis, and the concept planning principles specific to the Lower Lynn Town Centre.

Under the Concept Plan, the most significant change is proposed for existing residential areas east of Mountain Highway. Existing employment lands west of Mountain Highway will retain their current uses with the ability to redevelop and intensify light industrial uses in a manner that is consistent with the Zoning Bylaw and the OCP.

Note that while it provides greater detail and finer grain of planning than the OCP land use map, **the Concept Plan illustrates one possible way in which redevelopment may occur in the future according to the land uses and densities provided in the OCP.**

The actual location, built form and height of buildings will be determined at the time of redevelopment through applicable development application and review processes. The Concept Plan also assumes that some site assemblies may be needed to achieve the Plan vision and the densities in the OCP.



Illustrative Character Sketches of the Lower Lynn Town Centre



Figure 4a. Seylynn Park and Potential Community Facility

This sketch shows a potential new community facility (pending results of a needs assessment) with residential development on Hunter Street and directly facing Seylynn Park.



Figure 4b. The Lower Lynn Town Centre "Heart"

View looking north-west across the central plaza towards Mountain Highway and Seylynn Park. The central plaza is wrapped by at grade retail with café seating, displays and weather protection which together with public art, pavement treatment, landscaping and water features create an inviting and animated public realm space.



Figure 4c. Crown Street

View along Crown Street looking east towards Orwell Street. A mix of low and mid-rise apartments and ground oriented housing with street level entrances, landscaped front yards and street trees enrich the character of this residential neighbourhood.



Figure 4d. Oxford Street

This sketch shows a new pedestrian greenway along the north side of Oxford Street connecting to Phibbs Exchange. Low profile landscaping, rain gardens, rock infill areas, street furniture and lighting provide a safe and enjoyable route for pedestrians to the transit hub.

Land use and density

Land use designations are used to identify the future land uses applicable to an area. Land uses in the Lower Lynn Town Centre encourage building typologies and densities to establish a vibrant higher density, mixed used town centre, close to transit, that protects employment lands and integrates parks, open space and community amenities.

Policies:

1. Encourage redevelopment in the Lower Lynn Town Centre that is consistent with the Official Community Plan land use map and land use designations for this area (Figure 6 and Table 1).
2. Support light industrial uses and encourage intensification of these uses on existing employment lands.
3. Facilitate the establishment of diverse housing forms consistent with OCP land use designations.
4. Maintain the destination/regional commercial character of Main Street and focus new local commercial floorspace and services in the Town Centre “heart” (see Figure 5).
5. Consider opportunities for a new office building with retail at grade at the southwest corner of Mountain Highway and Crown Street, and choice of use (industrial or commercial) for the Mountain Highway frontages immediately north and south of Rupert Street, and for a portion of Main Street as shown in the Concept Plan.
6. Minimize potential conflicts between different adjacent land uses through urban design, buffering and edge treatments.
7. Consider facilitating live/work units along the west side of Mountain Highway at Rupert Street to provide a transition between residential and light industrial uses, where appropriate.
8. Introduce institutional (public assembly) land uses to accommodate a new community recreation facility in the Town Centre core.
9. Retain and expand parks, open space and green spaces to enhance community liveability and to create a vibrant public realm.
10. Encourage an appropriate minimum site assembly size (approximately 4-5 smaller residential lots) for redevelopment in order to achieve the Concept Plan and the land uses and densities in the Official Community Plan.
11. Ensure that new developments demonstrate ability to achieve the overall objectives of the Lower Lynn Town Centre Plan and the Official Community Plan in order to be eligible for the density shown in the applicable land use designation.
12. Discourage proposed development configurations that may result in remainders of land that are uneconomic to development for the uses intended in the Land Use Map (Figure 6).



Figure 5. Illustrative sketch of the Lower Lynn Town Centre looking south-east across Mountain Highway towards the central plaza.

Land use designations and applicable densities for the Town Centre (shown below) are articulated in the OCP and form the foundation for the Lower Lynn Town Centre Implementation Plan. Floor space ratio, as referenced below, means generally the ratio of the gross floor area of a proposed development over the gross area of the lot or lots upon which the development is located.

Residential Level 5 Low Density Apartment: Areas designated for low density apartment are intended predominantly for multifamily housing in centres and corridors up to approximately 1.75 FSR. Development in this designation will typically be expressed in low rise apartments, but may include some townhouses. Some commercial use may be permitted at grade.

Residential Level 6 Medium Density Apartment: Areas designated for medium density apartment are intended predominantly to provide increased multifamily housing up to approximately 2.50 FSR at strategic locations in centres and corridors. Development in this designation will typically be expressed in medium rise apartments. Some commercial use may also be permitted in this designation.

Commercial: Areas designated for commercial are intended predominantly for a variety of commercial and service type uses, where residential uses are not generally permitted. Development in this designation is permitted up to approximately 1.0 FSR.

Commercial Residential Mixed Use Level 1: Areas designated for commercial residential mixed use level 1 are intended predominantly for general commercial purposes, such as retail, service and offices throughout the District. Residential uses above commercial uses at street level are generally encouraged. Development in this designation is permitted up to approximately 1.75 FSR.

Commercial Residential Mixed Use Level 3: Areas designated for commercial residential mixed use level 3 are intended predominantly to provide for high density uses up to approximately 3.50 FSR at limited appropriate sites in the District's Centres. Development in this designation may include residential or commercial uses which encompass retail, office and service uses, or a mix of these residential and commercial uses.

Light Industrial Commercial: Areas designated for light industrial commercial are intended predominantly for a mix of industrial, warehouse, office, service, utility and business park type uses. Supportive uses including limited retail and limited residential uses may be permitted.

Parks, Open Space, and Natural Areas: Areas designated for parks, open space and natural areas are intended for a range of public and private uses focussed principally on the protection and preservation of ecologically important habitat areas, the regional drinking water supply, or the provision of diverse parks, outdoor recreational, or tourism opportunities.

Table 1. Land use designations for Lower Lynn Town Centre (from the OCP).

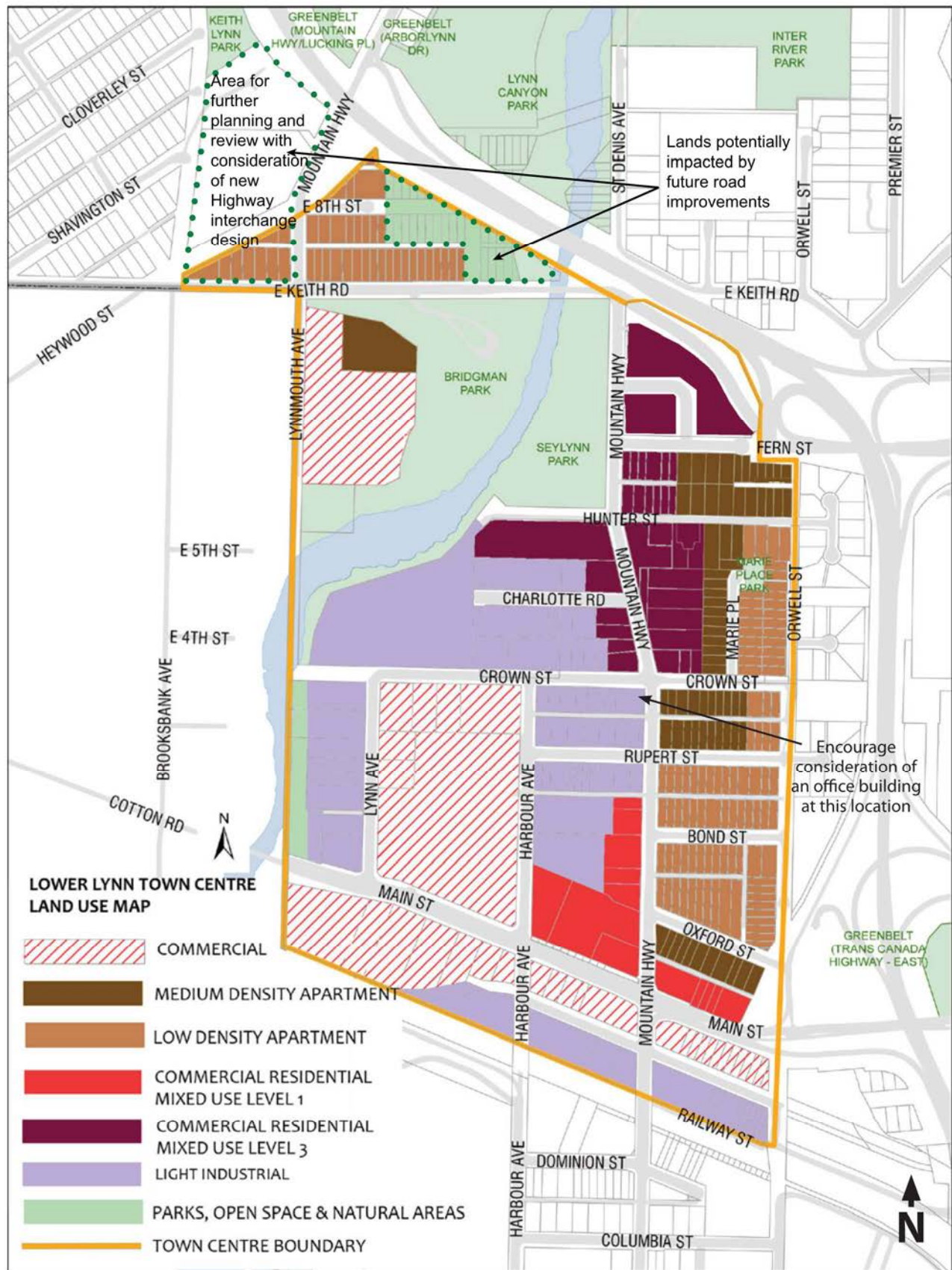


Figure 6. Lower Lynn Town Centre Land Use Map

Community Identity and Urban Design

Building on its existing setting, contextual patterns, climate and history and looking forward to what this area could become; redevelopment of the Lower Lynn Town Centre will create a unique community character and identity for this area that is both distinct from other town and village centres and will help to foster community connection and sense of place or belonging. The Lower Lynn Town Centre Design Guidelines provide detailed direction for streetscape and urban design and for the expression of community identity and character. General design objectives and policies are provided below.

Policies:

1. Promote a high quality attractive built environment that reflects the role of this community as a gateway to the District of North Vancouver.
2. Encourage and promote new development within the Lower Lynn Town Centre that:
 - » follows urban design principles that are consistent with the Form and Character Design Guidelines in the OCP and the Lower Lynn Town Centre Design Guidelines; and
 - » helps create of a unique community character and identity for the Lower Lynn Town Centre through site planning, streetscape and urban design, landscaping, public art and other measures as appropriate.
3. Encourage application of the Lower Lynn Town Centre Design Guidelines in a manner that promotes design continuity, while still enabling individual expression on a particular development site.
4. Encourage and promote new development and appropriate landscaping that complements and reinforces the character and roles of the different streets, neighbourhoods and open spaces in the community.
5. Undertake a review of street names (Mountain Highway, proposed new streets), place names (Town Centre itself), parks and other community facility names to identify new names, as needed, that are in keeping with the identity and character of this area and that help to establish unique sense of place.
6. Recognize that the Design Guidelines may be supplemented, from time to time, to provide further clarity and direction to inform the urban character and streetscape design.

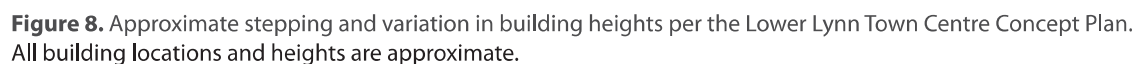
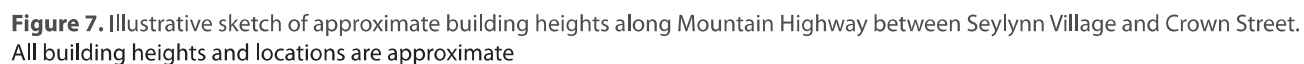
Building Form and Height

The Concept Plan outlines the approximate type and location of potential future buildings in the Lower Lynn Town Centre. Approximate building heights shown in Figures 6 and 7 reflect consideration of land use and density, land economics, parcel assembly, sunlight penetration, views, privacy, access, relationship to other uses and to the street.

Policies:

1. Encourage new development to consider public and private access to views and sunlight and request view and shadow analyses with development applications, as appropriate.
2. Employ sensitive urban design and variation in heights to transition sensitively outwards from the Town Centre heart.
3. Encourage smaller tower floor plates to establish leaner buildings and to maximize open space.
4. Encourage new development that is respectful of adjacent current and future built forms and presents an appropriate relationship in scale and form to adjacent land uses.

LLTC “Heart”





Rental and Affordable Housing Strategy



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Updated November 2016

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1 | INTRODUCTION

As guided by the North Vancouver District's Official Community Plan (OCP), increasing housing choices to meet the diverse needs of residents of all ages and incomes is a key objective for this community.

While important strides have been made to increase the type and tenure of housing through revitalization and mixed use redevelopment of designated town and village centres, a more focused strategy is needed to address the needs of low and moderate income households in their efforts to find affordable housing choices.

Intent of this Strategy

The District has an opportunity to promote retention of existing rental, and the expansion of the affordable rental housing inventory through the implementation of the OCP and other relevant bylaws and policies, and the administration of the land development application and review process. Realization of affordable housing objectives will require collaboration and partnerships with senior government agencies, non-profit housing providers, and other community stakeholders.

This Rental and Affordable Housing Strategy has been developed with the input of District residents, non-profit housing providers, housing agencies, and development industry representatives. Goals, policies and implementation measures in this strategy are intended to guide the community, developers, Council and staff towards the provision of housing choices for low to moderate income households in the District.

This strategy also supplements and provides additional detail to inform existing housing policies in the Official Community Plan (OCP), centres implementation plans, and other relevant Council policies.



Public and Stakeholder Engagement

This Rental and Affordable Housing Strategy has been shaped by housing research, data from OCP-related forums on housing, a series of workshops with Council, online and in-person public surveys, and stakeholder feedback. This process is illustrated in Figure 1.

In February - March 2016, the District hosted a number of workshops with non-profit organizations, housing providers/agencies, and development industry representatives to gather feedback on the draft strategy. Approximately 45 participants, representing 32 organizations, attended these workshops.

In May 2016, the District retained NRG Research Group to conduct statically valid telephone and onsite interviews with home owners and renters in the District. A total of 689 residents provided input through these surveys. An additional 83 residents submitted responses through an online survey posted on the District's website.

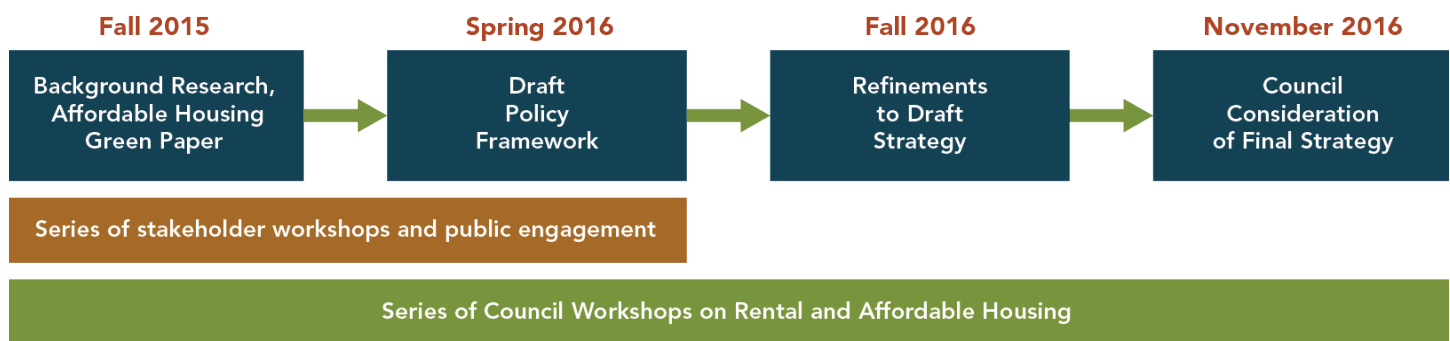


Figure 1. Planning and engagement process to develop the strategy

2 | FOCUS FOR THIS STRATEGY

Low and moderate income households

A healthy community has a diverse spectrum of housing types to accommodate the housing needs of residents of all ages, incomes, abilities and household sizes. Figure 2 illustrates the continuum of housing in the District from non-market housing for vulnerable and low income populations to market housing for higher income households.

- 1. Focus on the needs of low and low to moderate income earning households that are most likely to face challenges in finding appropriate and affordable housing.**

These households are largely renters earning an estimated 30 - 50% and 50 - 80%, respectively, of the District's median rental household income. This area of focus roughly coincides with the social housing, low end market rental and market rental housing segments of the District's housing continuum.

Non-Market Housing			Market Housing			
Emergency Shelters & Transitional Housing	Supportive Housing	Social and Co-op Housing	Low End Market Rental	Market Rental Housing	Entry Level Market Ownership	Market Home Ownership

Figure 2. Housing continuum in the District

The above focus aligns with OCP direction to develop a rental and affordable housing strategy to address the housing needs of low to moderate income earning households. It is also consistent with and helps support key goals in the Regional Affordable Housing Strategy.

Target resident households

Ensuring an intergenerational mix of residents of all ages, incomes and abilities is important to the ongoing health and vibrancy of our community.

2. Consider the housing needs of lower income families as a key area of focus.

3. Seek to address the housing needs of lower income seniors, students, persons with disabilities and vulnerable populations at risk of being homeless, as well.

There is an on-going need for more affordable and rental housing choices for the following types of residents.

Families



Housing is needed for families that cannot afford home ownership and need additional space for children and/or extended family members. In 2011, an estimated 1,520 District households were living in core need and spending at least half of their income on housing, and approximately 860 (56%) of these were family households. In the absence of more affordable housing choices, many of these families may be forced to leave the District.

Young Adults and Students



Demographic trends for the District show a declining number of young adults aged 20 - 40 years, and identified as the 'missing generation' in the OCP. At the same time, local business operators report challenges in attracting and retaining qualified employees given the high land values on the North Shore. Affordable housing choices are needed to ensure that young adults receiving education, entering the work force and starting to raise families can continue to live and thrive in the District.

Seniors



Seniors are projected to comprise the largest proportion of the District's population in the coming decades. While the majority of seniors over 55 years own their current home and expect to be owning a home for the next 10 years, some lower income seniors are looking for low maintenance and affordable rental housing choices close to transit and other community amenities and services.

Persons with Disabilities



Persons living with cognitive and/or mobility disabilities are faced with tough challenges in finding affordable, barrier free housing. Some older purpose built rental units present limited options for persons with disabilities and an increased supply of affordable accessible designed units is needed.

Vulnerable persons at risk of homelessness



While the numbers of homeless people have, in recent years, remained relatively constant; social service providers across the North Shore report a growing number of vulnerable populations at risk of homelessness and waitlists for social and non-market housing continue to grow.

3 | ESTIMATED RENTAL DEMAND

The OCP (2011) anticipates capacity for approximately 10,000 net new units in the District by 2030.

As guided by the Metro Vancouver housing demand estimates in the Regional Growth Strategy (Metro 2040) and the Regional Affordable Housing Strategy, the District has established an estimated 10 year demand for affordable housing.

4. The 10 year (2016 – 2026) estimated demand for affordable rental units in the District is 600 -1,000 units.

These affordable rental units are intended to form part of, and not in addition to, the anticipated 10,000 net new units.



4 | LEVEL OF AFFORDABILITY

Canada Mortgage and Housing Corporation (CMHC) generally considers housing to be “affordable” when a household spends no more than 30% of their gross household income on shelter costs (rent, mortgage payments, property taxes, strata fees, and heating costs). CMHC has also established a set of recognized and regularly updated affordability levels that are derived from the CMHC annual rental market survey.

5. Establish rental thresholds for new affordable rental units at the time of rezoning and through a signed Housing Agreement.

6. Use the established CMHC Affordability Criteria, as updated on an annual basis, to guide the determination of affordability levels.

7. Include provisions in the Housing Agreement to the effect that existing and potential renters are income tested to ensure that affordable units are provided to low and low-moderate income earners.



Calculations of actual rents must refer to annually updated CMHC Market Rental reports.

Stats Canada census provides median household income (MHI) data every 5 years. MHI calculations may be adjusted by the annual rate of inflation to reflect incremental changes to income in the interim years.

5 | KEY RENTAL AND AFFORDABLE HOUSING GOALS

This section establishes key goals and corresponding policies to guide the rental and affordable housing in the District.

GOAL 1: Expand the supply and diversity of housing

As we move towards 2030, the majority (75 – 90%) of new housing is anticipated to be added in key growth centres, while preserving the neighbourhood character and lower density of established neighbourhoods. Increased supply of housing in centres will add diverse multi-family housing choices (type, tenure, unit sizes etc.) for District residents, and encourage competitive pricing for homes.

8. Continue to encourage diversity and increase the supply of housing in town and village centres in accordance with OCP and centre implementation plan policies.



GOAL 2: Expand the supply of new rental and affordable housing

Following a 30 - 40 year period of little change in the inventory of rental housing, some renewed interest in developing new purpose built market rental is emerging. Low interest rates, higher rental returns, municipal incentives and other factors have contributed to making the market rental housing more attractive to some developers. Municipal policy, partnerships and negotiated approaches at rezoning are needed to increase the supply of affordable rental housing that the market will not ordinarily provide. Locating affordable rental in centres that are within walking distance to frequent transit provides alternate transportation choices and helps ease the transportation costs and financial burden for renters.

- 9. Expand the supply of rental and affordable housing in a manner that is consistent with the OCP, and enables low and moderate income households to access transit and community services, retail and employment within walking distance from their homes.**
- 10. Encourage development applicants to demonstrate how the proposed project will support rental and affordable housing in the District, where feasible.**
- 11. Ensure that new rental includes a range of units, (i.e. number of bedrooms) to suit the needs of families and other households.**
- 12. Negotiate for rental and affordable units, land (typically for larger projects), a cash-in-lieu contribution (typically for smaller projects) towards affordable housing, or some combination thereof, at the time of rezoning, and on a case-by-case.**
- 13. Consider opportunities for density/height bonus zoning, on a case-by-case basis, to facilitate provision of affordable housing.**
- 14. Consider opportunities, on a case-by-case basis, to incentivise rental and affordable housing with parking reductions in key centres and along the frequent transit network, and in consideration of applicable centres plans and transportation policies.**
- 15. Continue to apply the strata rental protection policy recognizing that strata rental provides an important source of market rental housing.**



Key Goals - continued

GOAL 3: Encourage the maintenance and retention of existing affordable rental

Existing, older purpose built rental housing makes an important contribution to the affordable rental inventory in the District, and provides a key source of more affordable housing for low to moderate income families and other households. Progressive maintenance and restoration of these buildings is necessary to extend their service life and to ensure their functionality and liveability for residents.

16. Encourage the maintenance of purpose built rental to the end of its economic life, and ensure the appropriate enforcement of the Standards of Maintenance Bylaw in consideration of other applicable policies.

17. Prioritize the maintenance, restoration and retention of purpose built rental subject to an objective assessment of the building condition, and in consideration of applicable centres plans objectives and policies.

GOAL 4: Enable the replacement of existing rental housing with conditions

It is recognized that even with ongoing and regular maintenance, by 40 - 50 years of age, several major mechanical components of residential buildings may need to be replaced outright. Higher maintenance costs associated with this work may be reflected in higher rents and/or sub-standard living conditions if maintenance is deferred. On a case-by-case basis, the condition of an existing rental building may warrant redevelopment.

18. Consider the replacement of existing rental, on a case-by-case basis, and subject to negotiation of the replacement rental units reflecting the number of bedrooms and affordability of original units, or some combination thereof, to meet the affordable housing needs of families and other households.



GOAL 5: Minimizing Impacts to Tenants

Potential demolition of older multi-family rental buildings has raised concerns for displaced renters who may face significant challenges in finding suitable affordable housing in a low vacancy rate climate.

A Residential Tenant Relocation Assistance Policy outlines procedures to assist current tenants in finding alternative and affordable accommodation. Such procedures may include providing advanced notice to tenants, assistance with relocation, moving cost allowance, right of first refusal in the new building, long term tenant bonus, and/ or other measures.

19. Work with land owners and developers to explore a phased approach to development to minimize impacts to existing tenants, where feasible.

20. Apply a Residential Tenant Relocation Assistance Policy to encourage development proponents to offer assistance to tenants in their search for new housing.



Key Goals - continued

GOAL 6: Partner with other agencies to help deliver affordable housing

Addressing the affordable housing needs of lower and low to moderate income households will require partnership and collaboration with diverse community partners. Efficiencies can be realized when affordable housing is constructed as part of a market housing or mixed use development project. The day-to-day operation of affordable housing units and provision of services to tenants, as needed, is often managed by non-profit housing providers. Capital grants or other financing from Provincial and Federal governments can strengthen the economic feasibility of an affordable housing project. Strategic use of District owned lands, which may involve a long-term lease, can help leverage senior government funding.

21. Seek opportunities to partner with community stakeholders and senior government towards achieving affordable housing goals.

22. Explore opportunities to utilize District owned land subject to consideration of, but not limited to: proximity to frequent transit network; access to community services and employment; availability of external funding and partnerships; alignment with OCP, centres implementation plans and other applicable municipal policies.

23. Derive value from individual District owned lots for affordable housing in a manner that is consistent with Council policies.



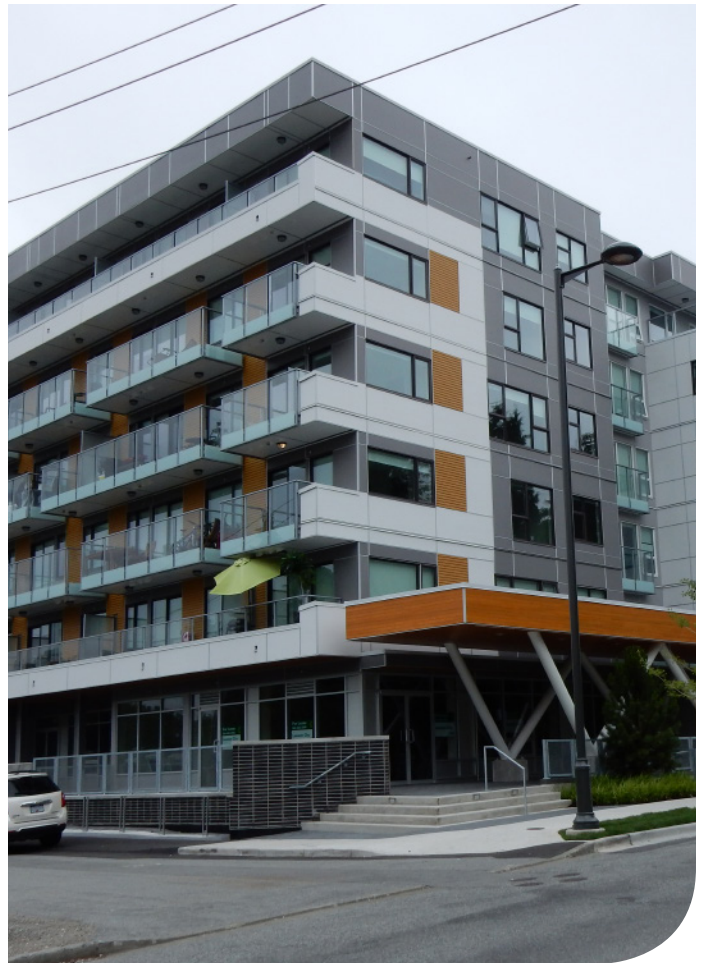
6 | IMPLEMENTATION OF THIS STRATEGY

Successful implementation of rental and affordable housing in the District will require regular data collection and monitoring to ensure alignment with changing community needs. A reporting framework will provide a consistent and comprehensive means of tracking important housing metrics, and may be used to inform future adjustments, as may be needed, for Council's consideration. Implications to the existing funding levels will be considered with the long-term funding strategy.

26. Establish a reporting framework to routinely monitor appropriate affordable housing metrics, not limited to the number of units and bedrooms, and level of affordability of existing and new affordable units, by project and by area.

27. Report on these metrics for each applicable residential development application and on a consolidated, annual basis and compare to projected demand estimates.

28. Consider the allocation of Community Amenity Contribution funds for affordable housing, on a case-by-case basis, and subject to consideration of the District's long-term funding strategy.





TRAFFIC STUDY - DRAFT Rev.3

Residential Development
220 Mountain Highway, North Vancouver

November 26, 2018

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Appendix B: AutoTURN Analysis
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1 INTRODUCTION

1.1 Background

R.F. Binnie & Associates Ltd. (Binnie) was retained by Redic Developments Inc. (the Client) to prepare a traffic study for a proposed residential development in the District of North Vancouver (the District). The proposed development will be constructed at 1515-1555 Oxford Street and 220 Mountain Highway. The project location is shown in Figure 1-1.

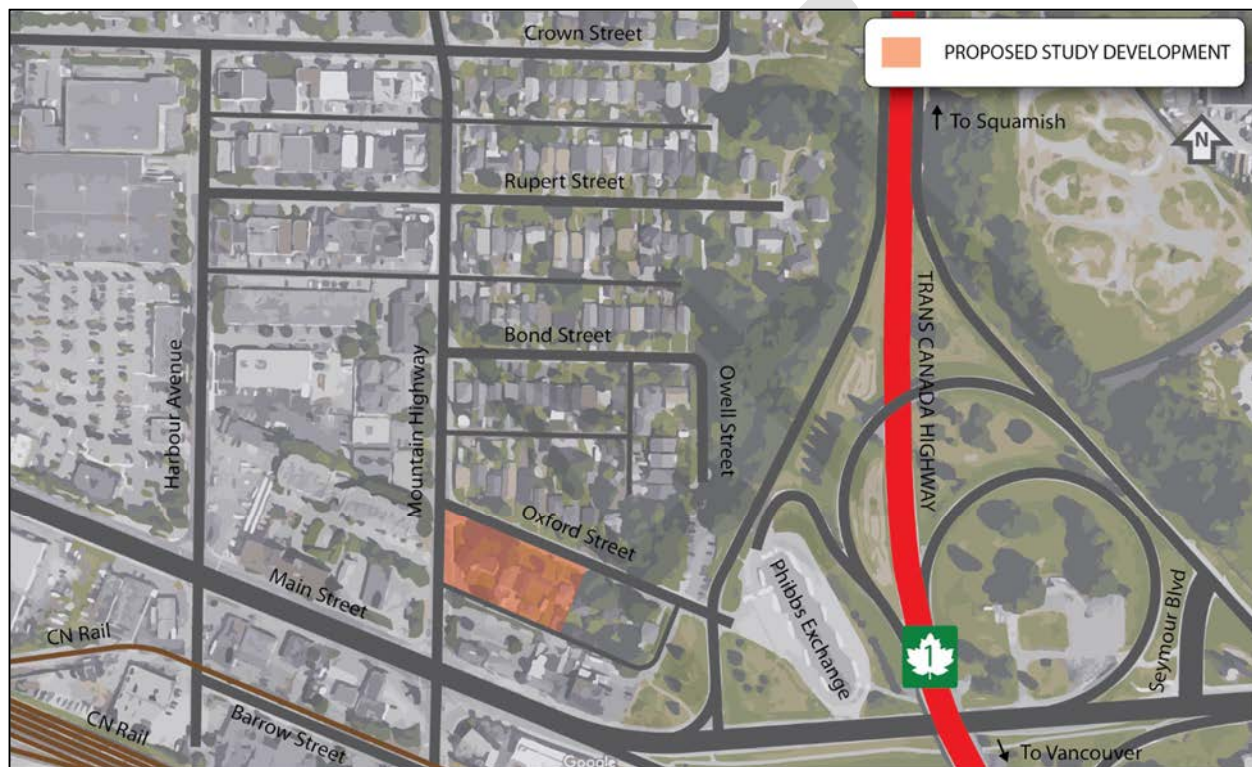


Figure 1-1: Project Location

1.2 Study Objectives

The purpose of this study is to review the background conditions within the study area and identify any traffic related concerns caused by the proposed development. If any traffic issues are identified, this report will recommend improvements to mitigate them. It is noted that the traffic analysis for the proposed development will be included in the Lynn Creek Town Centre study conducted by the District.

In general, the objectives of this traffic study are to:

- Review the proposed development's access point configuration, recommend the required number of vehicle and bicycle parking spaces, and estimate the site generated traffic
- Provide a Travel Demand Management (TDM) plan for the proposed development
- Recommend necessary transportation improvements based on the study's findings

2 EXISTING CONDITIONS

2.1 Adjacent Road Network

2.1.1 *Mountain Highway*

Mountain Highway is classified as a major arterial route according to the District's 2030 Transportation Plan, dated July 2012. Within the District, the roadway primarily travels in the north-south direction between the Upper Lynn neighbourhood and the Lynnterm East Gate facility located along the Fraser River. Mountain Highway connects with Main Street approximately 350 m west of the Highway 1 and Main Street interchange.

Within the study area, Mountain Highway has a three-lane cross-section with the southbound curb lane marked as a transit/cyclist only lane from 6:00 AM to 10:00 AM during weekdays. On-street parking is provided on the east side of the roadway only. There are existing sidewalks on both sides of the road and the posted speed limit of Mountain Highway is 50 km/h.

2.1.2 *Oxford Street*

Oxford Street is a local two-way roadway that runs in the east-west direction between Mountain Highway and the Highway 1 southbound off-ramp to Main Street. The driveway access to a commercial area is located opposite of Oxford Street at the Mountain Highway intersection, while an access to TransLink's Phibbs Bus Exchange is located opposite of Oxford Street at the Highway 1 southbound off-ramp intersection. There are existing sidewalks on the north side of Oxford Street and on-street parking is accommodated on the south side of the roadway. The posted speed limit of Oxford Street is 50 km/h.

2.2 Study Intersection

2.2.1 *Mountain Highway and Oxford Street*

Mountain Highway and Oxford Street is a three-legged stop-controlled intersection, with Mountain Highway operating as the free-flow movement. The west approach accommodates the driveway access to the North Shore Veterinary Clinic and there is a marked pedestrian crosswalk across the south approach.

Along Mountain Highway, the north approach has one shared left-turn/through lane and one through/right-turn lane, while the south approach has one shared movement lane. Both Oxford Street and the driveway access (the east and west approaches respectively) have one shared movement lane.

The existing laning configuration and traffic control at the study intersection is shown in Figure 2-1.



Figure 2-1: Existing Intersection Laning Configuration and Traffic Control

2.3 Public Transit

Public transit services are provided in the District by TransLink. The development is located approximately 200 m west of Phibbs Bus Exchange, which currently services eleven bus routes. There are bus stops on either side of Oxford Street in front of the proposed development site which service the following bus routes:

- Route #28 Joyce Station / Phibbs Exchange / Capilano University: This bus route connects Joyce-Collingwood Station to Capilano University, mainly via Boundary Road, Highway 1, and Lillooet Road.
- Route #130 Metrotown Station / Hastings / Kootenay Loop / Phibbs Exchange / Capilano University: This bus route connects Metrotown Station to Capilano University mainly via Willingdon Avenue, Highway 1, and Lillooet Road.
- Route #209 Upper Lynn Valley / Vancouver: This bus route connects Downtown Vancouver to Upper Lynn Valley, mainly via Pender Street, Highway 1, and Mountain Highway.
- Route #210 Upper Lynn Valley / Vancouver: This bus route connects Downtown Vancouver to Upper Lynn Valley, mainly via Powell Street, Highway 1, and Mountain Highway.
- Route #211 Vancouver / Phibbs Exchange / Seymour: This bus route connects Downtown Vancouver to Deep Cove, mainly via Powell Street, Highway 1, and Mt. Seymour Parkway.

- Route #227 Lynn Valley Centre / Phibbs Exchange: This bus route connects Phibbs Exchange to Lynn Valley Centre, mainly via Mountain Highway, Arborlynn Drive, and Lynn Valley Road.
- Route #239 Park Royal / Lonsdale Quay / Phibbs Exchange / Capilano University: This bus route connects Capilano University to Park Royal Shopping Centre, mainly via Cotton Road, 3rd Street, and Marine Drive.

The transit routes are shown in Figure 2-2.



Figure 2-2: Transit Routes (Source: TransLink)

3 PROPOSED DEVELOPMENT CONCEPT

3.1 Development Concept

The proposed residential development is located at 220 Mountain Highway and 1515-1555 Oxford Street and is expected to provide 134 residential rental units. Based on the District's Official Community Plan (OCP), dated May 2018, the site is currently zoned as Residential Level 6: Medium Density Apartment. Development accesses will be provided on the east and south sides of the property off of a proposed laneway and an existing laneway, respectively.

The proposed residential development preliminary concept can be seen in Figure 3-1. The complete preliminary site plan for the proposed residential development is attached in Appendix A.

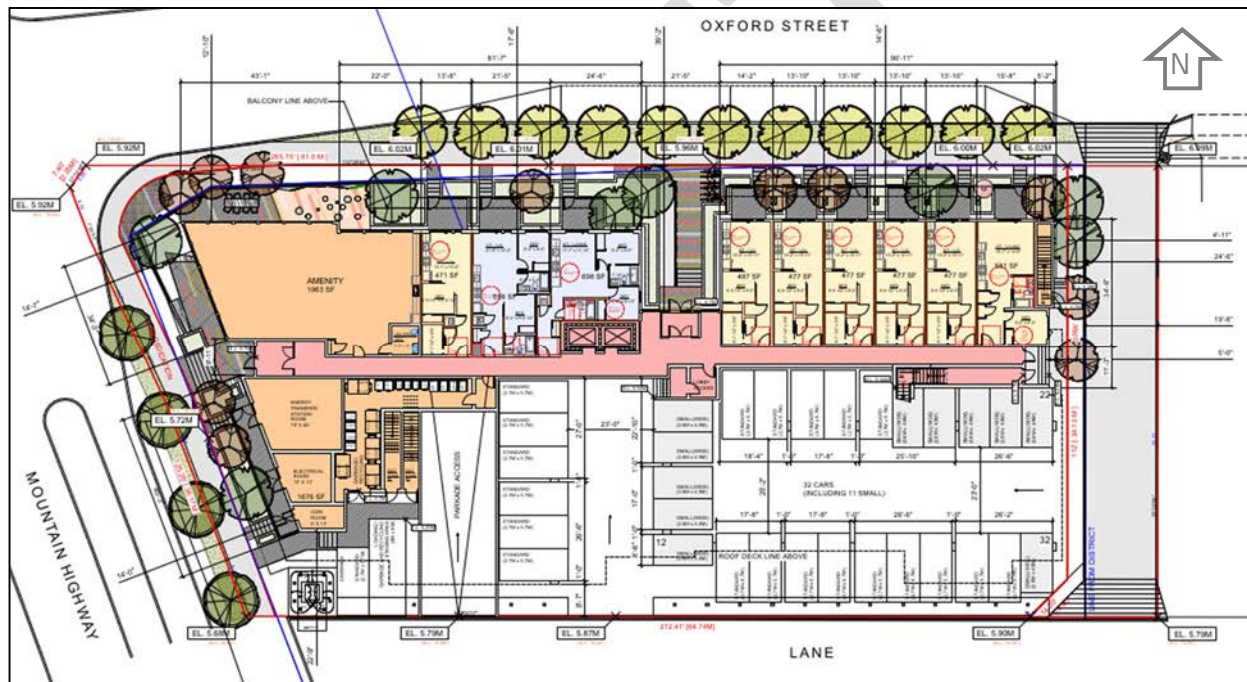


Figure 3-1: Proposed Residential Development Preliminary Site Plan

3.1.1 Development Access

The preliminary site plan proposes three vehicle accesses into the development. One access is expected to be located on the east side of the property off a new laneway that would span between Oxford Street and the existing laneway located on the south side of the development. This access will provide access to an at-grade parking area. The other two accesses are expected to be located on the south side of the property off the existing laneway. One of the southern driveways will provide access to the underground parking stalls, while the other will provide access to an at-grade parking area and the garbage / recycling pick-up area. It is expected that the egress movements from the development onto the laneways will operate as typical driveways with no formal intersection control, but with the expectation of yielding to laneway traffic.

The internal drive aisle for the underground parking lot is required to be at least 7 m wide according to the District's bylaw requirements. Based on the latest site plan provided by the Client, the internal drive aisle has a width of less than 7 m on the east side of the underground parking lot. It is noted that the parking stalls along this section of the drive aisle are all designated for small vehicles. An AutoTURN analysis was conducted for the adjacent parking stalls to show that the ingress and egress movements are still able to be performed. The AutoTURN analysis is provided in Appendix B.

The existing laneway currently connects to Mountain Highway at the south-west side of the proposed development site. Based on the District's Engineering Development Servicing Review for this project, the Client is required to close off the laneway at Mountain Highway and provide a turnaround area. Therefore, it is assumed that all site generated traffic will use the new laneway to access Oxford Street.

The new laneway will be located on the eastern end of the property and will connect to Oxford Street approximately 90 m east of Mountain Highway and 80 m west of the Highway 1 southbound off-ramp. The proposed intersection is expected to be stop-controlled with the new laneway operating as the stop-controlled movement. The stop sign should be placed in advance of the sidewalk to reduce the likelihood of conflicts between exiting vehicles and pedestrians.

Additionally, a sidewalk is to be constructed on the south side of Oxford Street along the frontage of the study development to accommodate pedestrian access.

3.1.2 Sightline Safety Review

The standard sightline distances for vehicles turning onto a major road are outlined in the Transportation Association of Canada's (TAC) *Geometric Design Guide for Canadian Roads*. The guideline states that the minimum approach sight triangle for a stop-controlled movement is established by determining the minimum stopping sight distance along the major roadway or, preferably, the minimum decision sight distance along the minor roadway. Based on the location of the proposed access, the sightline to the east is approximately 80 m and to the west is approximately 90 m.

Stopping Sight Distance

As per the TAC *Geometric Design Guide for Canadian Roads*' Table 1.2.5.3, the stopping sight distance for a vehicle travelling along a roadway at a design speed of 50 km/h is approximately 65 m, based on the performance of regular vehicles. Therefore, there is adequate stopping sight distance at the intersection for the eastbound and westbound through movements.

Decision Sight Distance

As per the TAC *Geometric Design Guide for Canadian Roads*' Figure 2.3.3.4, the decision sight distance for a left-turn or right-turn movement onto a two-lane roadway with a design speed of 50 km/h is approximately 120 m. It is noted that vehicles turning onto Oxford Street from Mountain Highway or the Highway 1 southbound off-ramp will be at an operating speed lower than the design speed. For an operating speed of 35 km/h, the decision sight distance is reduced to approximately 75 m; therefore, there is adequate decision sight distance at the intersection.

3.1.3 Phasing and Timing

The proposed study development is expected to be constructed in a single phase. For the purposes of this study, the Opening Day of the development is assumed to be in the 2020 horizon year.

3.2 Off-Street Parking Review

3.2.1 Vehicle Parking

Based on the current information provided by the Client, the proposed study development will have 134 residential units. For a multiple unit residential development, the District's current Zoning Bylaw 1965, No. 3210 requires one parking space per dwelling unit for residents plus one space per 100 m² of gross residential floor area, up to a maximum of 2 spaces per unit inclusive of 0.25 per dwelling unit designated for visitor parking. Additionally, based on the District's Engineering Development Servicing Review, 20% of vehicle parking stalls must include an electric outlet capable of Level 1 (110 V) charging at 20 A for electric vehicles.

Based on the preliminary site plan, 176 resident parking stalls and 34 visitors parking stalls will be required to satisfy the District's off-street parking bylaw, with at least one parking space reserved for disabled persons. Additionally, up to 35% of the required parking spaces may be provided as small car spaces.

It is noted that the study development is applying for the District's reduced bylaw parking rate, as per the District's administrative and operational policy *Reduced Parking Rates for Multifamily Residential Developments*, dated December 2014. Under the reduced parking rate, the development would be required to provide 0.75 resident parking spaces per unit and 0.10 visitor spaces per unit. This results in a total of 101 resident and 13 visitor off-street parking spaces being required. To qualify for the reduced rate, the development must include a TDM plan, which is described below in Section 3.3.

The required number of parking spaces under the policy is summarized in Table 3-1.

Table 3-1: Bylaw Parking Space Requirement for the Proposed Study Development

Unit Type	Size	Unit	Rate in Zoning Bylaw	Bylaw Spaces Required	Proposed Rate	Proposed Number of Spaces
Multiple Unit Residential Building	134	Dwelling Units	1.00	134	0.75	101
Multiple Unit Residential Building	76	100 sq. m.	1.00	42	-	0
Visitors	134	Dwelling Units	0.25	34	0.10	13
Total:				210		114

Based on the latest development site plan, the proposed development is expected to provide 0.85 parking spaces per dwelling unit for a total of 114 parking stalls, including 54 small car spaces (47%) and two stalls reserved for disabled persons. As such, the study development is expected satisfy the District's reduced bylaw requirement for on-site parking. It is noted that the proposed development will be exceeding the bylaw's limit for the number of small car spaces. Based on information by the Client, the required outlets for charging electric vehicles will be provided.

The proposed parking layout for the development can be seen in Figure 3-2.



Figure 3-2: Proposed Residential Development Parking Layout

3.2.2 Bicycle Parking

The District's current Zoning Bylaw 1965, No. 3210 requires multiple family residential buildings to have 0.2 Class 2 bicycle spaces per unit for any development containing five or more residential units. Class 2 bicycle spaces are defined as a space provided on a rack with a minimum width of 0.3 m for each bicycle and secure theft-resistant anchoring to the floor or ground. Therefore, the proposed development requires 27 Class 2 bicycle spaces to be provided.

Additionally, based on the District's Engineering Development Servicing Review, a minimum of one Class 1 bicycle space per unit is required. Class 1 bicycle spaces are defined as secure storage spaces with Level 1 (110 V) electric outlets for charging electric bicycles. Therefore, the proposed development requires 134 Class 1 bicycle spaces to be provided.

The development site plan proposes 130 Class 1 spaces in secure bicycle rooms, 80 hanging racks above cars in the underground parking area, and six at-grade racks for visitors for a total of 216 bicycle parking spaces. Although the District's off-street bicycle parking bylaw will be satisfied, the development is short by four Class 1 bicycle spaces in order to satisfy the requirements set out by the District's Engineering Development Servicing Review. However, this is expected to be acceptable given that there are an additional 80 secure bicycle hanging racks above vehicles in the parkade with three-point security and there will be power plugs for bike charging available inside and outside the bike storage rooms.

3.3 TDM Plan

In order to qualify for the District's reduced parking rate policy, the development must have a TDM plan to decrease the demand for off-street parking stalls.

3.3.1 Public Transit

The proposed development is situated in a location that is well serviced by public transit; therefore, the future residents of this development will not be necessarily dependent on private vehicle ownership. As described in Section 2.3, the development is approximately 200 m west of the Phibbs Bus Exchange, which currently services 11 bus routes. Additionally, there are bus stops on either side of Oxford Street immediately adjacent to the development. Therefore, within a five-minute walking distance, residents of the proposed development have several bus routes that can be used to access popular destinations such as Lonsdale Quay, Capilano University, Park Royal Shopping Centre, Upper Lynn Valley, and Downtown Vancouver. It is expected that the developer will provide information on transit routes in the area to residents before they move in.

3.3.2 Walking/Cycling

The proposed development is located approximately 300 m east of the Harbour Front Centre, a commercial area that includes several restaurants, a bank, and a big-box home goods store. It is also located approximately 200 m west of the Phibbs Bus Exchange. To encourage residents to walk to nearby commercial areas and to transit, a sidewalk will be constructed on the south side of Oxford Street along the frontage of the study development. This new sidewalk will also connect residents to the existing sidewalks located on both sides of Mountain Highway, which lead to additional nearby local attractions such as Seyllynn Park.

To encourage bicycle ownership by residents of the proposed development, a total of 130 secure Class 1 bicycle spaces and 80 bicycle racks will be provided, in addition to three bicycle repair stations. It is noted that as part of the District's ultimate plan, Mountain Highway will provide a raised bicycle lane in each direction, which will encourage cyclists of all ages and abilities. Additionally, residents who

commute via bicycle can easily access the Mountain Highway southbound curb lane which is restricted to buses and bicycles only from 6:00 AM – 10:00 AM, Monday to Friday.

The Developer is also expected to provide information on cycling routes, cycling skills training, and destinations within walking distance to residents before they move in.

Based on the TDM measures described above, it is expected that the proposed development will be able to qualify for the District's reduced bylaw parking rate.

3.4 Trip Generation

The forecast trip generation for the proposed study development and the existing single family residential units were derived from the *Trip Generation 10th Edition*, published by the Institute of Transportation Engineers (ITE). The trip generation rates published under the Multifamily Housing (Mid-Rise) (ITE Ref. 221) land use were assumed to be representative of the study development, while the Single Family Detached Housing (ITE Ref. 210) land use was used for the existing single family residential units.

3.4.1 Study Development

Based on the current information provided by the Client, the proposed study development will have 134 residential rental units. It is estimated that the proposed development will generate 49 vehicle trips during the weekday AM peak hour, with 13 vehicles entering and 36 vehicles exiting the site. During the weekday PM peak hour, it is estimated that 59 vehicle trips will be generated by the site with 36 vehicles entering and 23 vehicles exiting.

To determine the increase in site generated traffic between the current and proposed land uses, the trip generation for the existing six single family detached homes was also estimated. During the weekday AM peak hour, it is estimated that five vehicle trips are currently generated, with one vehicle entering and four vehicles exiting the site. During the weekday PM peak hour, it is estimated that six vehicle trips are currently generated, with four vehicles entering and two vehicles exiting.

The forecast increases to site generated traffic between the existing single family detached homes and the proposed study development is shown in Table 3-2.

Table 3-2: Estimated Site Generated Traffic

Description	Size	Unit	ITE Ref.	Avg. Trip Ends per Unit	Generated Trip Ends	% Entering	% Exiting	Vehicle Entering	Vehicle Exiting
AM Peak Hour									
Multifamily Housing (Mid-Rise)	134	Dw elling Units	221	0.36	49	26	74	13	36
Single Family Detached Housing	6	Dw elling Units	210	0.74	5	25	75	-1	-4
							Total:	12	32
PM Peak Hour									
Multifamily Housing (Mid-Rise)	134	Dw elling Units	221	0.44	59	61	39	36	23
Single Family Detached Housing	6	Dw elling Units	210	0.99	6	63	37	-4	-2
							Total:	32	21

Based on these findings, the study development is expected to generate 44 additional vehicle trips during the weekday AM peak hour, with 12 new vehicles entering and 32 new vehicles exiting the site. During the weekday PM peak hour, the development is expected to generate 53 new vehicle trips with 32 new vehicles entering the site and 21 new vehicles exiting the site.

4 CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

The study development is located in the existing properties at 220 Mountain Highway and 1515-1555 Oxford Street and is expected to provide 134 new rental residential units. The purpose of this study is to review the background conditions within the study area and to review any traffic related concerns caused by the proposed development. A summary of the study findings are as follows:

- The study development is located in close proximity to Highway 1. As a result, the surrounding road network was observed to experience congestion during the peak periods.
- The study development is located approximately 200 m away from the existing Phibbs Bus Exchange and as a result is within a five-minute walking distance to several bus routes, which provide connections to various points throughout Metro Vancouver.
- The development access will be located on the south and east sides of the site, off of existing and proposed laneways, respectively. It is expected that the egress movements from the development will operate as typical driveways with no formal intersection control, but with the expectation of yielding to laneway traffic.
- Based on review of the District's standard bylaw requirements, the development will require 210 off-street parking stalls, including 34 visitor spaces and one stall reserved for disabled persons. Up to 35% of the required parking stalls may be provided as small car spaces. The development will also require 19 Class 2 bicycle parking spaces. Additionally, based on the District's Engineering Development Servicing Review, the proposed development requires 134 Class 1 bicycle spaces to be provided.
 - Under the District's reduced parking requirements bylaw, the development will be required to provide 114 off-street parking stalls, including 13 visitors parking stalls and one stall reserved for disabled persons.
 - The development is expected to provide 114 off-street vehicle parking stalls, including 54 small car spaces (47%) and two parking spaces reserved for disabled persons.
 - The development will also provide a total of, 130 Class 1 bicycle parking stalls in secure bike rooms, 80 hanging racks above cars in the three-point secure underground parkade, and six visitor bicycle parking stalls at-grade. Three bicycle repair stations will also be provided.
- The internal drive aisles in the parking facility will be required to be at least 7 m wide to satisfy the District's Bylaw requirements.
 - An AutoTURN analysis was conducted for the parking stalls adjacent to the section of the drive aisle that does not meet the 7 m requirement. It is noted that these parking stalls are all designated for small vehicles.
- Based on the ITE trip generation rates, the development is expected to generate 44 new vehicle trips during the AM peak hour and 53 new vehicle trips during the PM peak hour.

4.2 Recommendations

Based on the study findings described above, the following recommendations are provided to support the proposed development:

- As shown in the proposed site plan, the access to the new laneway should be located at the northeast corner of the development to maximize the distance from the Mountain Highway and Oxford Street intersection. The stop sign for the egress movement from the laneway shall be located in advance of the sidewalk.
- Internal drive aisles within the underground parkade are required to be at least 7 m wide in order to satisfy the District's Bylaw requirements. In sections where the drive aisle is less than 7 m wide, the adjacent parking stalls shall be designated for small vehicles.
- In order to qualify for the District's reduced Bylaw parking rate, the development must include a TDM plan, which is summarized below:
 - As the development is within 200 m to several existing transit routes, the Developer is expected to provide information on transit access to residents before they move in.
 - The development is expected to provide a total of 130 Class 1 bicycle parking stalls in secure bike rooms and 80 hanging racks above cars in the three-point secure underground parkade for residents. The Client is also expected to provide information on cycling routes, cycling skills training, and destinations within walking distance to residents before they move in. Three bicycle repair stations are also to be provided.
 - The proposed ultimate configuration of Mountain Highway includes a raised cycle track in the northbound direction, which will further promote the use of bicycles by residents.
 - The proposed ultimate configuration of Oxford Street includes a sidewalk along the frontage of the proposed development, which will further promote walking by residents.
- A conceptual design of the District's proposed ultimate configuration at the Mountain Highway and Oxford Street intersection is provided in Appendix C. The Client should construct the south side of Oxford Street and the east side of Mountain Highway, along the frontage of the proposed development, to the District's proposed ultimate configuration.

5 CLOSING

We trust you find the information outlined in this traffic study suitable for your requirements. Should you have any questions or comments on the information contained herein, please do not hesitate to contact the Project Manager.

Prepared by:

DRAFT

Kelly Bullivant, P.Eng.
Traffic Engineer

Reviewed by:

DRAFT

Brendan Stevenson, P.Eng., PTOE
Project Manager/
Traffic Engineer-of-Record

APPENDIX A

PROPOSED SITE PLAN



TRICOR PACIFIC LANDS

REDIC
DEVELOPMENTS

eta
landscape architecture

NO — DATE — ISSUE —

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YAMAMOTO
ARCHITECTURE

202 - 33 East 8th Avenue
Vancouver, BC V5T 1R5
T - 604 731 1127 F - 604 731 1327

PROJECT —

Residential Apartment

220 Mountain Highway & 1555 Oxford Street
District of North Vancouver, BC

DRAWING TITLE —
Ground Level Plan

SCALE — 3/32" = 1'-0" SHEET NO. —

DATE — Nov 19, 2018 A2.1

DRAWN — TY/JL

CHECKED — PROJ NO — 1702

UNIT BREAKDOWN (BY FLOOR):

FLOOR	non-FAR	Studio	1 Bed	2 Bed	3 Bed	UNIT AREA	CIRCULATION	GROSS RES. AREA
1		0	7	2	0	4,811 SF	1,995 SF	6,806 SF
TOTAL:	1 3,699 SF	0 SF	3,454 SF	1,357 SF	0 SF	3,699 SF		

OVERALL AVG UNIT SIZE

NA	443 SF	479 SF	751 SF	951 SF
----	--------	--------	--------	--------

EXCLUDED FLOOR AREA:

1ST FLOOR AMENITY	182 SQ.M.	(1,963 SF)
ELEC./GARB./COMMS	161 SQ.M.	(1,736 SF)
TOTAL:	344 SQ.M.	(3,699 SF)

RESID. AREA + EXCLUSION AREA:

6,806 SF	(includes residential area, amenity, electrical, comms, garbage/recycling, elevator cores, exit stairs, corridor)
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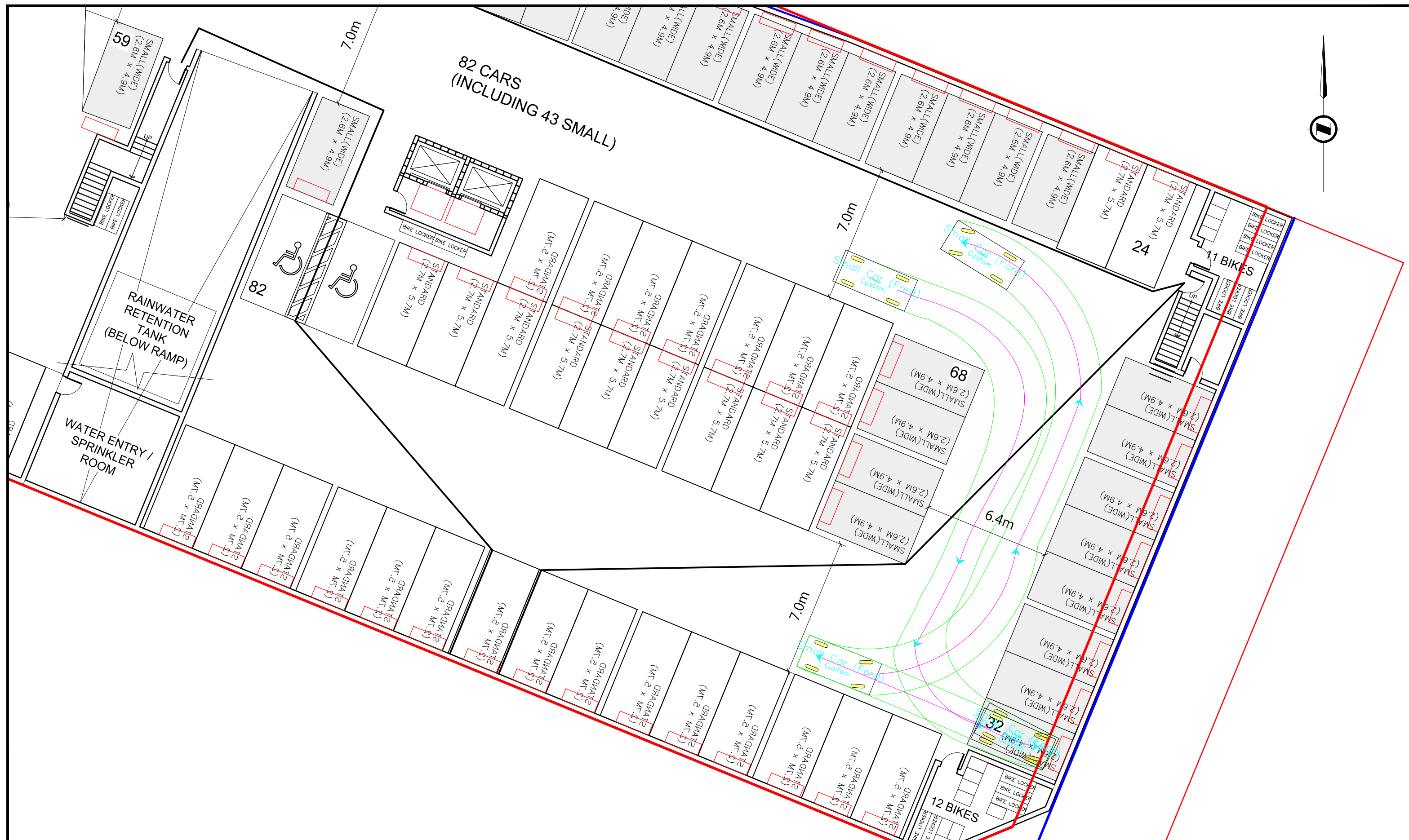
PROJECT
NORTH

GROUND LEVEL PLAN:
SCALE: 3/32"=1'-0"

VISITOR PROVIDED: 6 SPACES IN RACKS AT GRADE

APPENDIX B

AUTOTURN ANALYSIS



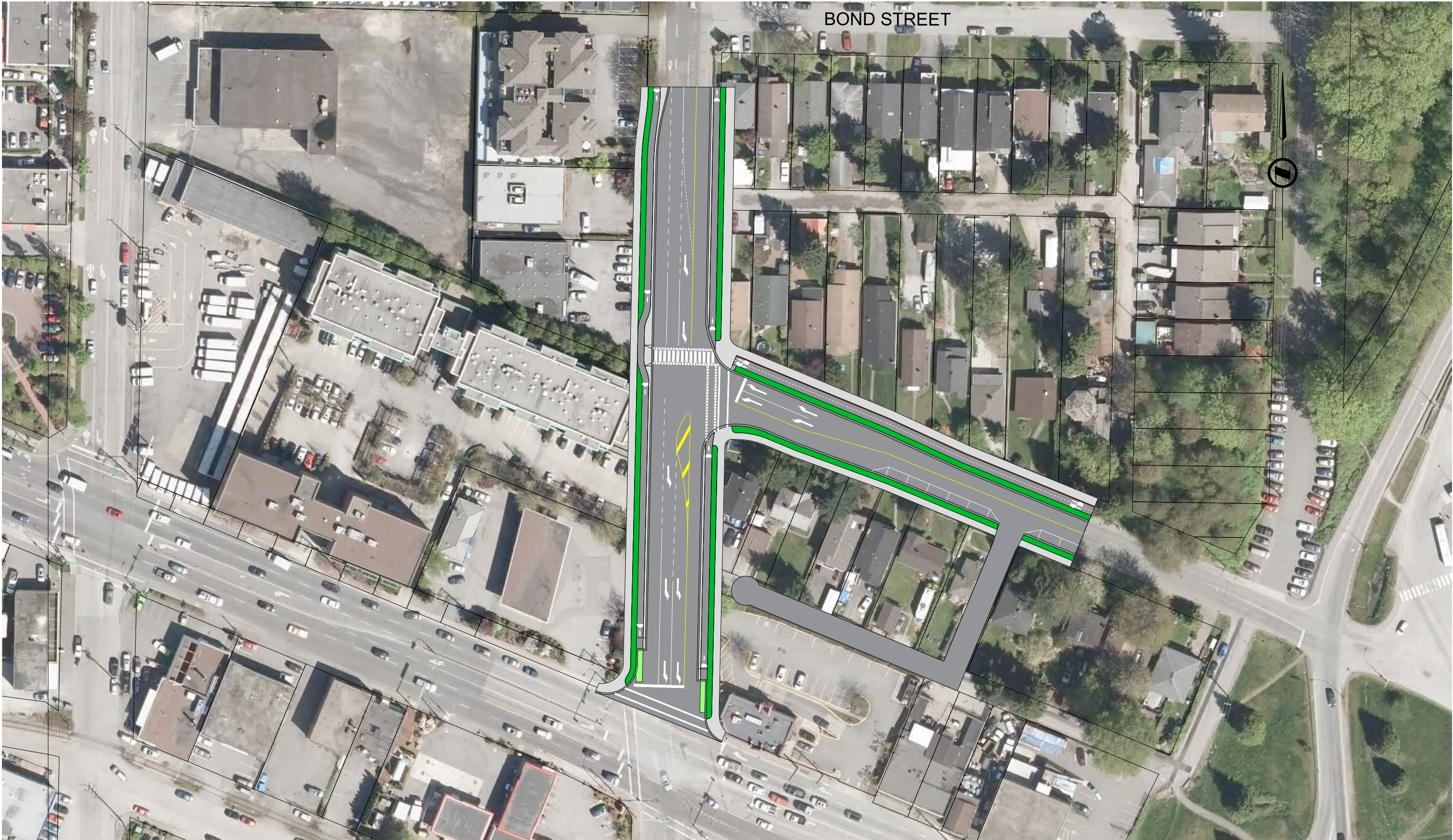
TITLE :
SMALL CAR CORNER 2 INRESS & EGRESS
AUTOTURN ANALYSIS
OXFORD & MOUNTAIN HWY RESIDENTIAL DEVELOPMENT

DATE :	9/26/2018
DWG. No. :	AT-03
SCALE :	NTS


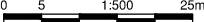


APPENDIX C

CONCEPTUAL INTERSECTION DESIGN



FOR DISCUSSION ONLY - JUNE 8, 2018

 BINNIE <i>Your Challenges. Our Solutions. Build with Binnie.</i>	R.F. BINNIE & ASSOCIATES LTD. 205 - 4946 Canada Way, Burnaby, BC V5G 4H7 TEL 604 420 1721 BINNIE.com	CHECK PRINT <small>THIS DRAWING HAS NOT BEEN APPROVED</small>	SCALE 		CAD FILENAME 18-0372 - DESIGN BASE JUNE 5.DWG	
			DATE 2018-06-08			
			REV DATE REVISIONS SIGNATURE			
PROFESSIONAL SEAL		0 2018-06-08 DRAFT CONCEPTUAL PLAN	B. STEVENSON	SENIOR DESIGNER		
				DATE 2018-06-08		
				DESIGNED K. BULLIVANT DATE 2018-06-08		
				QUALITY CONTROL K. BULLIVANT DATE 2018-06-08		
				QUALITY ASSURANCE B. STEVENSON DATE 2018-06-08		
				DRAWN K. BULLIVANT DATE 2018-06-08		
		FILE NUMBER 18-0372		PROJECT NUMBER ---		
		REG -		DRAWING NUMBER INT-PLN-01		
		REV 0				



CONSTRUCTION TRAFFIC MANAGEMENT

220 Mountain Highway Apartment Project

Redic Development Inc.

1. Construction Impact Mitigation Strategy

1.1. Project Summary sheet

Building site address	220 Mountain Highway & 1515 – 1555 Oxford St.	
# of storeys below grade	One	
# of storeys above grade	Six	
Type of construction (i.e. concrete/woodframe)	Concrete for underground and part of ground floor and wood frame for above ground floors	
Total number of months to complete	18 Months subject to weather related delays	
Contractor	Clark Builders (TBD)	
Project Manager	Name	Armin Khatoonabadi
	E-mail	armin@redicdev.com
	Phone	604-338-8496
On-site contact	Name:	TBD
	Cell	TBD
	E-mail	TBD

Site Generated Traffic (Assuming the building permit is granted in January 2020)

Phase	Dates/ Duration		# of Trucks/ day	# of Workers	# of off-street parking stalls
Demolition	February 1 st , 2020 / 3 Weeks		8	3	0
Excavation	February 25 th , 2020 / 5 Weeks	m ³ removed: 4,915	11-12	6	0
Foundation/ Parkade	April 1 st , 2020 / 2 Months	m ³ concrete: 1,606	Average 4	10	2 for pump and truck

Above Grade Structure	June 1 st , 2020 / 6 months	m ³ concrete: 90	1	20 – 25	0
Finishes	October 1 st , 2020 / 8 months		1	20 - 25	0
Off-site Civil	January 1 st , 2021 / 3 months		2	10	2-3 for equipment
Landscape	May 1 st , 2021 / 2 months		2	6	2 for equipment

1.2. Project Details

Project Description

Redic Development Inc is proposing to develop a 134-unit rental apartment project in place of existing single family lots on 220 Mountain Highway and 1515 – 1555 Oxford St. The existing homes will be demolished, and a 6-story wood-frame building will replace them. The project also includes re-development of site frontage along both Oxford St. and Mountain Highway.

The Building will have one level of underground parking and six residential levels above ground. Total Gross Floor Area is 93,968 square feet.

The building plans also include 31 covered surface parking stalls fronting the back lane.

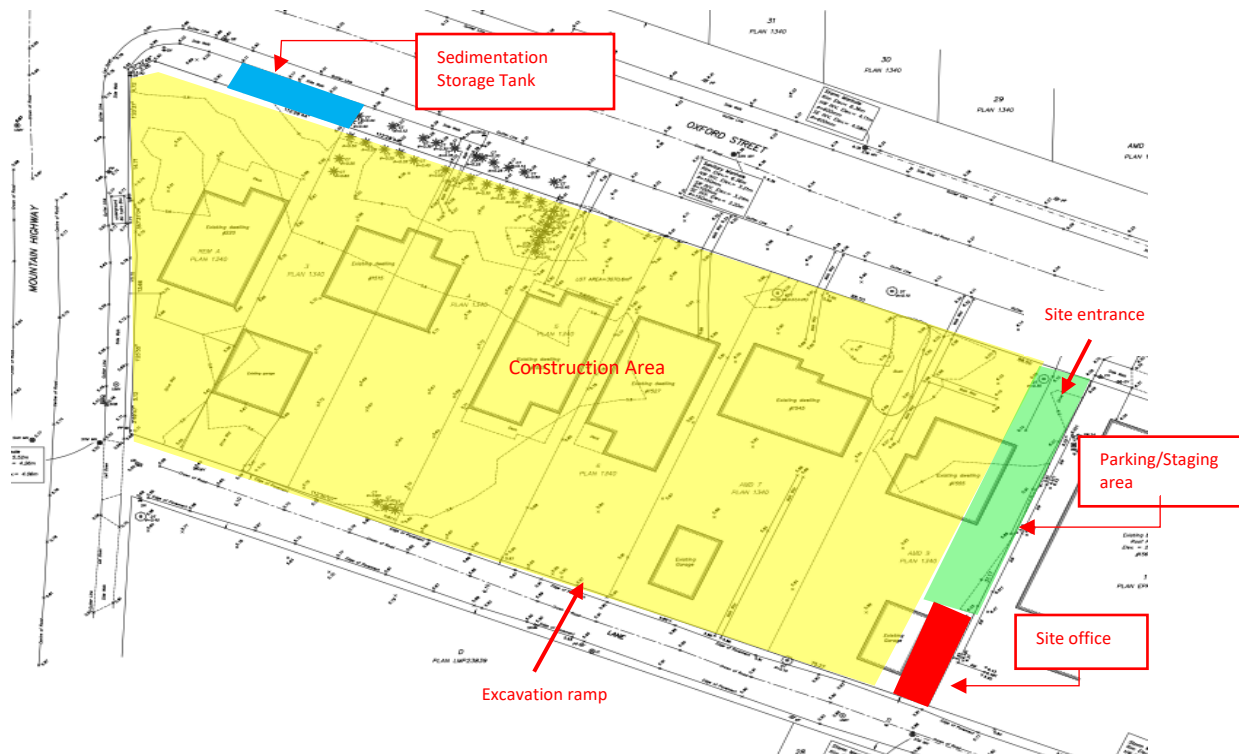
Contractor's name and onsite contact

Given we have no information from DNV regarding the possible date of building permit, it is difficult to provide detailed on who will manage the site as the availability of contractors will change with time.

The general contractor responsible for this project will most likely be Clark Builders. However, this has yet to be finalized.

The applicant rep will be Armin Khatoonabadi. He can be reached at 604-338-8496

Site Schematic:



Detailed Work Description

The scope of work includes the following:

- Demolition of existing buildings
- Excavation
- Below grade parking structure
- Above grade wooden structure and finishing
- On-site civil and landscaping
- Off-site civil and landscaping

Demolition and excavation (anticipated duration: 2 months)

This includes demolition of existing building and removal of debris and existing landscaping. Excavation and shoring will follow for below grade parking.

Below grade parking structure (Anticipated duration: 2 months)

Construction of underground parking level including the concrete foundations, slab on grade, perimeter walls and suspended slab

Above grade wooden structure and finishing (Anticipated duration: 8 months)

Construction and erection of wooden frames for the 6-story residential area and all the mechanical, electrical and architectural finishing both inside and outside the building

On-site civil and landscaping (Anticipated duration: 1 month)

Landscaping and civil work in and round the building within the property lines

Off-site civil and landscaping (Anticipated duration: 2 months for each activity)

Offsite sidewalk and green area plus all the upgrade to existing services, paving both Mountain Highway and Rupert along the frontage of the building and rebuilding Mountain Highway and Rupert intersection

Sequence of Work:

Activity	Start Date	# Months
Demolition	February 1 st , 2020	2
Excavation	February 25 th , 2020	
Foundation / parkade	April 1 st , 2020	2
Above grade structure	June 1 st , 2020	6
Finishes	October 1 st , 2020	8
Civil works	January 1 st , 2021	2
Landscaping	May 1 st , 2021	2

Required Civil Work Off Site:

The required work is as follows:

- Upgrade to watermain on Oxford street
- Upgrade to sidewalk in front of project site on Oxford
- Upgrade to Sewer line on Oxford
- Paving full width of Oxford Street, beginning at the junction of Oxford and Mountain Highway
- Upgrade watermain on Mountain highway

Required On-Street Building Zone

The Civil servicing operation will happen in the areas below:

- Full width of Oxford from the Junction on Mountain highway
- Mountain Highway, one lane, at the frontage of the site
- Sidewalks next to construction site on Oxford and Mountain highway

Construction Delivery and Off-street Parking:

As shown in the schematic on page 2, approximately 1/3 of the lot on the east side of the site will be assigned to the parking and staging area until the underground parking is built. Once built, the underground parking will be used for additional storage and parking.

1.3. Schedule

Total construction of the building is anticipated to take approximately 18 months beginning in February 2020 and finishing by August 2021. It is anticipated that Off-site civil work will be performed concurrently with building finishing and on-site civil.

The hours of work will be in compliance with District of North Vancouver Noise Bylaw 7188 that prohibits any noise or sound that disturbs peace and comfort of neighborhood or exceeds maximum sound level 80dB or maximum Daytime Average Sound Level of 65dB.

Work hours will be limited to:

- 7:00 AM to latest 8:00 PM weekdays however work after 15:30 PM is not very likely.
- 9:00 AM to 5:00 PM Saturdays

No work will be performed on Sundays.

Any possible night work will be performed only with specific resolution of DNV council however, no night work is anticipated at this moment.

Activity	Start Date	# Months
Demolition	February 1 st , 2020	2
Excavation	February 25 th , 2020	
Foundation / parkade	April 1 st , 2020	2
Above grade structure	June 1 st , 2020	6
Finishes	October 1 st , 2020	8
Civil works	January 1 st , 2021	2
Landscaping	May 1 st , 2021	2

1.4. Mobility Impact

This section explains how project will impact road users including pedestrians, cyclists and motor vehicles.

Areas that are going to be affected are as follows:

- Oxford Street: will be impacted during two phases:
 - Upgrade to the services and paving of Oxford. At this time, traffic to Oxford will be significantly interrupted as we will need to upgrade both water and storm services and pave half the width of the street. During this time, car traffic will continue through one

- lane which will be left open for traffic to pass through and coordinated by an on-site traffic controller.
- Upgrade to the sidewalk in front of the development site. The current sidewalk on the south side of the street will be interrupted. Pedestrians will be advised to use the sidewalk on the north side of the street. Should the development on the north side of the street be closed, a designated pedestrian path will be created for walk-through.
- Mountain Highway:
 - Upgrade to services and paving: The traffic will be managed as per the drawings attached. It is anticipated that one lane in each direction will always be kept open.
 - Upgrade to sidewalk: Pedestrian traffic will be diverted to other side of the street. Please see the plans attached.

Truck routes and volume

Intention is to avoid use of Iron Workers Bridge for delivery of bulky material. We will source concrete from NorthShore and try to find dump sites on the North Shore side for the excavated soil. One idea was to find other construction sites who could use our exported soil for backfilling purposes. This idea needs to be investigated further closer to the start of construction.

Main access to the project will be through Mountain highway, Main Street and Highway 1. Please see attached showing the anticipated truck traffic.

Based on proposed construction schedule the following heavy vehicle traffic volumes are estimated:

Phase	Activity	Average Daily Vehicle per Day	Max Vehicles per Hour
1	Demolition and excavation	8	3
2	Below Grade Parking Structure	1	3
3	Above grade wooden structure and finishing	1	2
4	On-Site civil and landscaping	1	4
5	Off-Site Civil and landscaping	6	6

The size of excavation and our property will accommodate queuing the trucks inside the property. We don't see any need for trucks wait outside the property. The traffic will be arranged for middle of the day so the trucks do not interrupt the traffic during rush hours.

We don't have any oversized equipment used for this project.

Mitigation Measures

The following measure will be implemented to mitigate any potential impact on daily commute of road users:

General Measures:

1. Site and construction work will be separated from public using fencing, hoarding and signs
2. Sidewalk on the Mountain highway side will remain open and clear until start of off-site Civil and landscaping operations through which the whole sidewalk and street paving will be upgraded.

3. There is no sidewalk on the Oxford side. A new sidewalk will be built as part of this development and will be accessible to pedestrians at the end of the project.
4. Bike routes, after constructed will remain open to cyclists.
5. There won't be any restriction to emergency vehicles at any time. They will have priority access at all times.
6. Any activity that may affect the emergency vehicles (fire, police and ambulance) will be coordinated in advance.
7. All truck marshalling will happen inside the property
8. Trucking companies will be provided with copies of this plan and assigned routes.
9. All heavy trucks will have radios so they can be delayed, diverted or cancelled when needed in order to prevent any unnecessary clogging of access routes.
10. Sedimentation control will be in place in order to mitigate silt, mud and debris:
 - 10.1. Trucks will be covered while in transit
 - 10.2. A site sediment and erosion control will be installed and maintained inside the property including wheel wash during excavation.
 - 10.3. The trucking and excavation contractors will be responsible to make sure the adjacent streets will not be soiled due to their activity.
11. Flaggers will handle any entrance, exit and in general any interruption to normal street traffic.

Demolition and Excavation period measures:

1. All trucks will access and leave the site through the truck routes mentioned in this report
2. Certified flaggers will handle entrance and exit of trucks to and from the property.
3. To minimize the impact on local traffic, deliveries to and from the site will be scheduled outside peak hours (between 9:00 AM and 4:00 PM)
4. Work force generated traffic will be minimal (less than 4 vehicles) and will happen before peak hour in the morning and will leave before afternoon peak

Below Grade Parking Structure:

1. Most truck traffic will happen during concrete placement. The concrete placement will be scheduled outside peak hours.
2. The Trucks will be using the predefined routes in this report
3. Construction traffic will be handled by certified flag persons
4. Workers will arrive before morning traffic peak leave before afternoon traffic peak

Above Grade Wooden Structure and Finishing

Delivery by trucks are scattered throughout the period and thus no high traffic of deliveries in a certain day is expected.

1. The Trucks will be using the predefined routes in this report
2. Construction traffic will be handled by certified flag persons
3. Workers will arrive before morning traffic peak leave before afternoon traffic peak

On-site Civil and Landscaping

Delivery is minimal in this phase and only pertains to landscaping material. Deliveries will be phased and now high traffic is expected

1. The Trucks will be using the predefined routes in this report
2. Construction traffic will be handled by certified flag persons
3. Workers will arrive before morning traffic peak leave before afternoon traffic peak

Off-Site Civil and Landscaping:

This phase includes upgrading the sidewalks, water and sanitary main on both Oxford and Mountain Highway and re-paving both streets along the frontage of development. Thus, traffic will be impacted. Please note this phase will happen at the same time of On-site civil and landscaping and probably last month of Building Finishing.

1. Timing of each operation will be coordinated with DNV through permit application process.
2. Specific traffic management plan for each activity will ensure minimal impact and safe path for road users.
3. The Trucks will be using the predefined routes in this report
4. Construction traffic will be handled by certified flag persons
5. Workers will arrive before morning traffic peak leave before afternoon traffic peak

1.5. Community Impact:

This section will explore how construction will affect parking availability.

Construction Parking Demand:

On the east side of the property, we expect to have approximately 2,000 sf of vacant land which will service as our parking and temporary staging area until the time our first level of underground parking is built. Upon the completion of the underground parkade, we will be able to house all parking and staging requirements within our site. Overall, we can accommodate the parking needs for the subtrade inside our own property.

Overall we anticipate needing 7-10 parking stalls during demo, excavation and underground concrete structure and 20-25 parking stalls during the finishing phase. All parking will be accommodated within the boundaries of the property.

We are also coordinating our activity with other construction sites in our neighborhood in order to minimize the cumulative impact of all construction activities in the neighborhood.

Working hours and noise

Working hours will be 7 AM – 8 PM weekdays and 9 AM – 5 PM on Saturdays. The noise generated by construction equipment will be within the limit allowed by District Bylaws.

We will have Onsite bins for storing the litter generated by construction which will be hauled away periodically. We don't anticipate any cause of concern for the community caused by this activity.

1.6. Communication

Both the residents on Oxford Street, as well as the Coast Mountain Bus Company will be notified of operations which may interrupt the traffic flow of services on Oxford. Residents will be informed using letters for the following events:

- Street closure
- Drinking water service interruption
- Sidewalk closure

The letters will have description of the activity, impact and the time during which it will happen.

For all offsite civil work on Mountain highway, we will install signs at entrance and exit point to Mountain Highway to inform the commuters of change to traffic pattern and the duration it will be in effect.

In these cases, a notice will be sent to Emergency services and Coast Mountain Bus Company in advance to inform them about the type of operations happening and their possible impact on

All traffic control devices will be installed and used in accordance to BC Workers Compensation Board Section 18, BC MOT Traffic Control Manual for Work on Roadways and the TAC Canadian Manual of Uniform Traffic Control Devices.

Furthermore, one lane will remain open at all times and an on-site traffic coordinator will coordinate access for Coast Mountain Buses coming and going from the Phibbs Exchange transit hub.

1.7. Monitoring

This plan will be part of our contract with the general contractor responsible for construction of the project.

We will make sure this plan is communicated to all subtrades and form part of the contract with the general contractor.

Redic Developments Inc. will monitor execution of the above plan in weekly or bi-weekly site meetings and make changes if necessary to ensure proper execution of the plan.

1.8. Coordination with Adjacent Developments

We have met with the developers of the adjacent projects and understand that Adera is preparing a coordination plan amongst all projects in our neighborhood.

Due to the fact that only one of these projects has been given a building permit, at this time it is difficult to know which projects will overlap. The plan will be updated as this information becomes available.

The plan will be submitted to the District as soon as it is ready.

1.9. Highway Use Permit

The only time we would use the City properties like Sidewalks and Street is during the off site Utility and Sidewalk upgrades. We will apply for permit for these particular cases in advance.

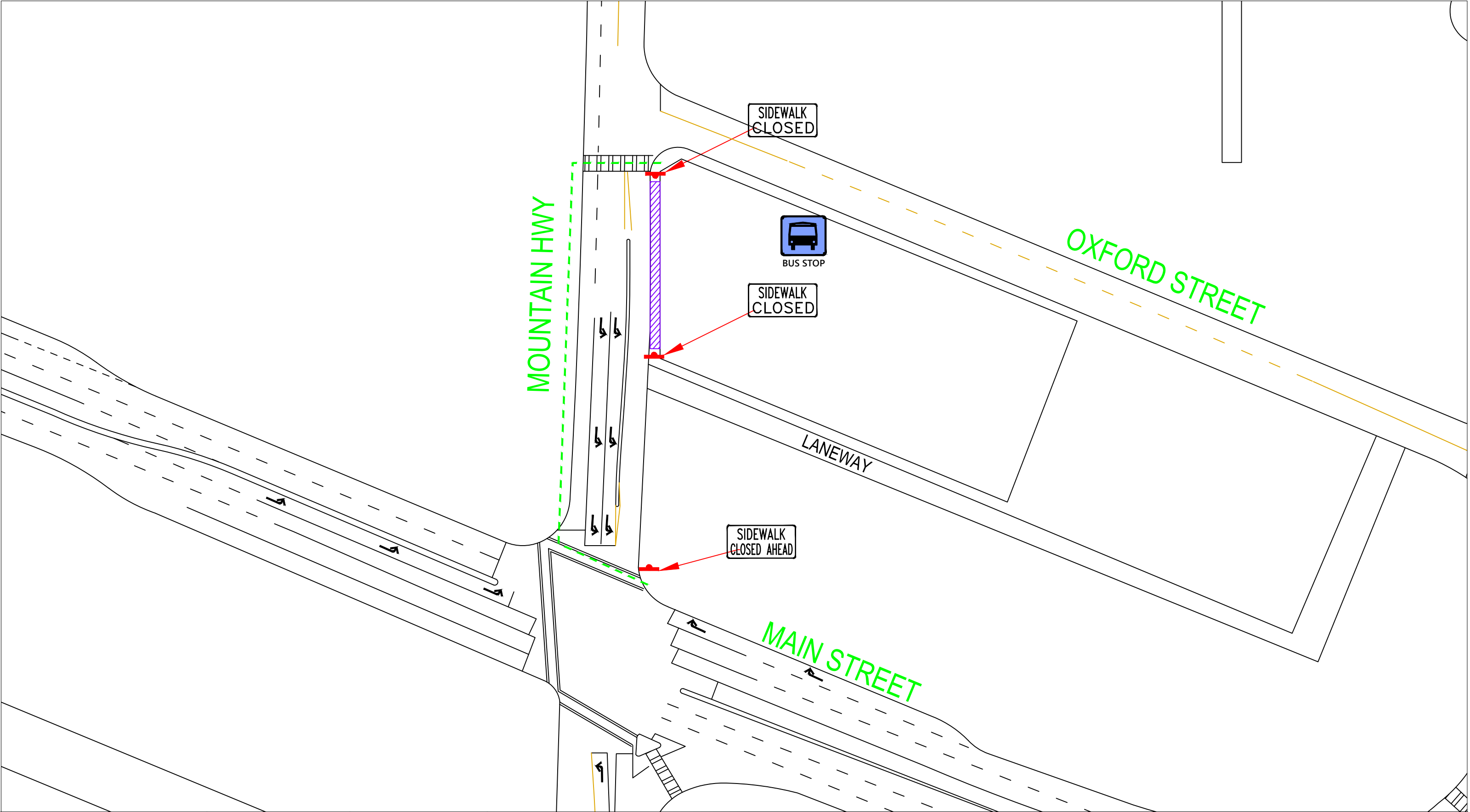
1.10. Traffic Management Plans

Please see attached for preliminary traffic management plans. These plans are all related to the Offsite Civil work phase.

2. Site Plans

Excavation and Sedimentation control plans are attached.

The excavation ramp will be on the south side of the ramp and will be removed from inside the excavated area and the excavator will exit the site through the actual ramp to the underground floor to Oxford Street.



LEGEND:

Advanced Warning Sign

Traffic Control Person

Closure Area

Pedestrian Route

Delineator

VALLEY
TRAFFIC SYSTEMS
VALLEY TRAFFIC SYSTEMS, INC.
TRAFFIC MANAGEMENT DIVISION
9770 199A STREET
LANGLEY BC V1M 2K7
PHONE: 604-513-0210
FAX: 604-513-3661

REVISIONS:

DATE	DETAILS

NOTES:

1. Dates: TBD

2. Hours of Operation: TBD

3. Duration: TBD

4. Traffic Plan based on a 50 km/h speed zone

6. Existing lane alignment to be reinstated at the end of each shift

7. Traffic specifications based on the Traffic Management Manual for Work on Roadways(2015)

MUNICIPAL PROJECT NO.

MUNICIPAL CONTACT:
TBD

ONSITE CONTACT:

BUS STOP(S) TO BE REMOVED:
N/A

PARKING METERS TO BE REMOVED:
N/A

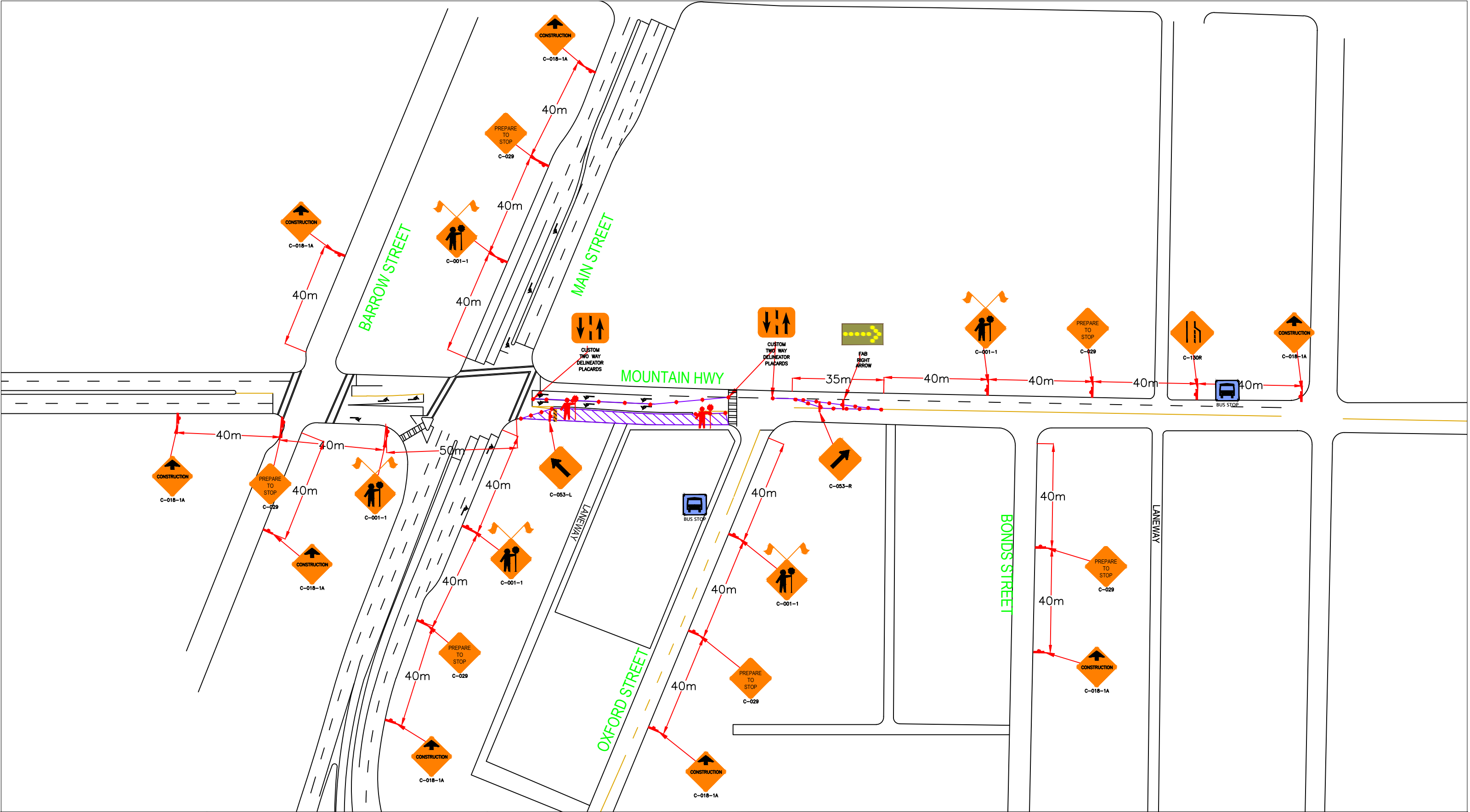
ENGINEER SEAL

REDIC DEVELOPMENT

DISTRICT OF NORTH VANCOUVER:
OXFORD STREET AND MOUNTAIN HIGHWAY

Traffic Control Plan: Sidewalk closure on Mountain Highway between
Oxford St and Main St

SCALE: NTS	DATE: 09.10.2018	VTS PROJ. NO. 17011	DWG. NO. DWG01	REV: 00	BY: HAT
---------------	---------------------	------------------------	-------------------	---------	---------



LEGEND:

- Advanced Warning Sign
- Traffic Control Person
- Closure Area
- Delineator
- Pedestrian Route

VALLEY TRAFFIC SYSTEMS, INC.
TRAFFIC MANAGEMENT DIVISION
9770 199A STREET
LANGLEY BC V1M 2X7
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FAX: 604-513-3661

REVISIONS:

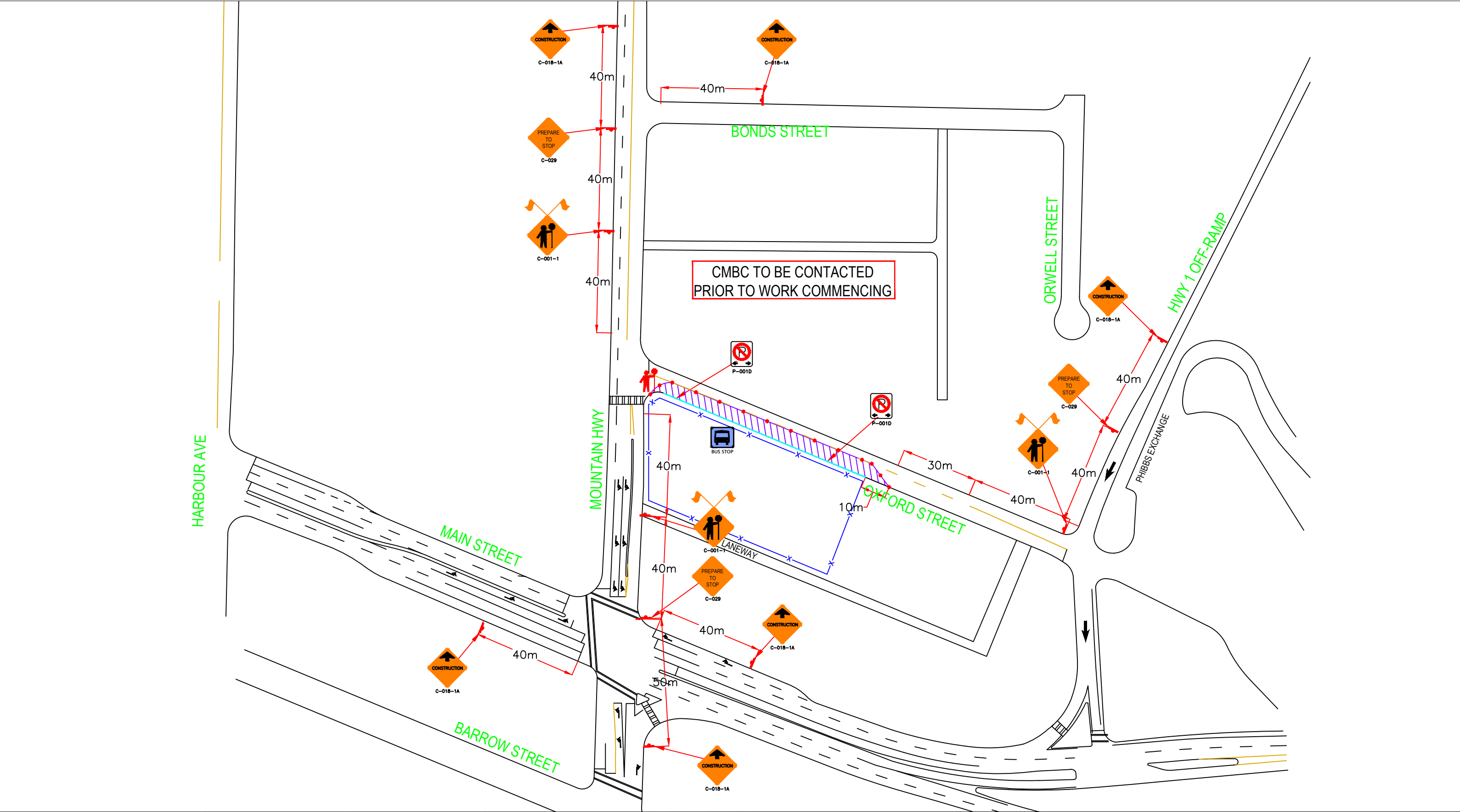
DATE	DETAILS

NOTES:


- Dates: TBD
- Hours of Operation: TBD
- Duration: TBD
- Traffic Plan based on a 50 km/h speed zone
- TCP's to assist pedestrian and cyclists are required
- Existing lane alignment to be reinstated at the end of each shift
- Traffic specifications based on the Traffic Management Manual for Work on Roadways(2015)


MUNICIPAL PROJECT NO.	
MUNICIPAL CONTACT: TBD	
ONSITE CONTACT:	
BUS STOP(S) TO BE REMOVED: N/A	
PARKING METERS TO BE REMOVED: N/A	


REDIC DEVELOPMENT					
DISTRICT OF NORTH VANCOUVER: 1515-1555 OXFORD STREET AND 220 MOUNTAIN HIGHWAY					
Traffic Control Plan: Median crossover on Mountain Highway between Oxford St and Main St					
SCALE: NTS	DATE: 09.10.2018	VTS PROJ. NO. 17011	DWG. NO. DWG02	REV: 00	BY: HAT





LEGEND:


 Advanced Warning Sign


 Traffic Control Person

 Closure Area

 Delineator

 Pedestrian Route

 No Parking



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TRAFFIC MANAGEMENT DIVISION
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LANGLEY BC V1M 2X7
PHONE: 604-513-0210
FAX: 604-513-3661

REVISIONS:


DATE	DETAILS

NOTES:

- Dates: TBD
- Hours of Operation: TBD
- Duration: TBD
- Traffic Plan based on a 50 km/h speed zone
- TCP's to assist pedestrian and cyclists are required
- Work zone may be shortened to accommodate daily activities
- Existing lane alignment to be reinstated at the end of each shift
- Traffic specifications based on the Traffic Management Manual for Work on Roadways(2015)

MUNICIPAL PROJECT NO.
MUNICIPAL CONTACT:
ONSITE CONTACT:
BUS STOP(S) TO BE REMOVED:
PARKING METERS TO BE REMOVED:

ENGINEER SEAL

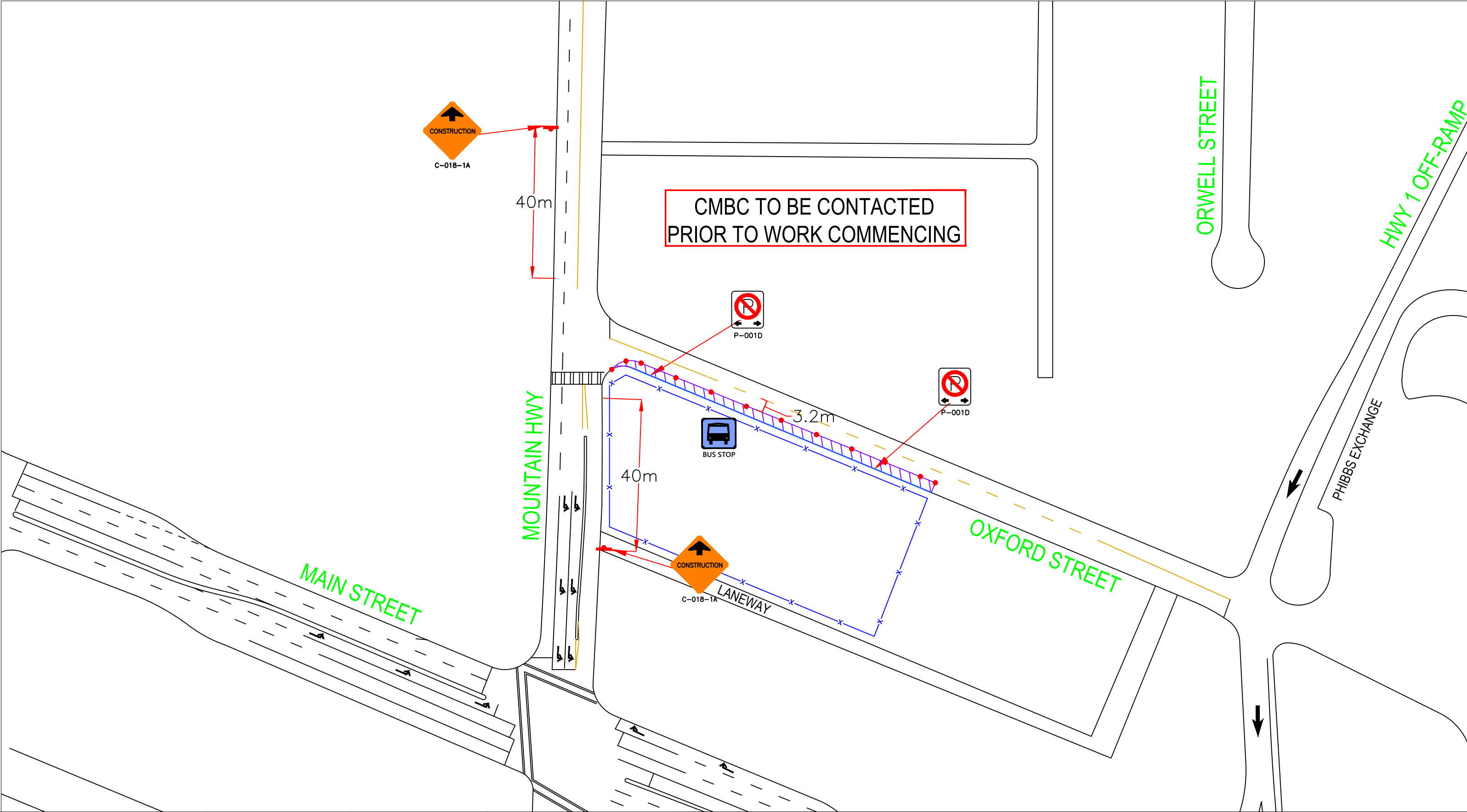


REDIC DEVELOPMENT

DISTRICT OF NORTH VANCOUVER:
1515-1555 OXFORD STREET AND 220 MOUNTAIN HIGHWAY

Traffic Control Plan: Single Lane Alternating Traffic on Oxford St
between Mountain Hwy and Hwy 1 Off-Ramp

SCALE:	DATE:	VTS PROJ. NO.	DWG. NO.	REV:	BY:
NTS	09.10.2018	17011	DWG03	00	HAT



LEGEND:

- Advanced Warning Sign
- Traffic Control Person
- Closure Area
- Delineator
- No Parking

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REVISIONS:

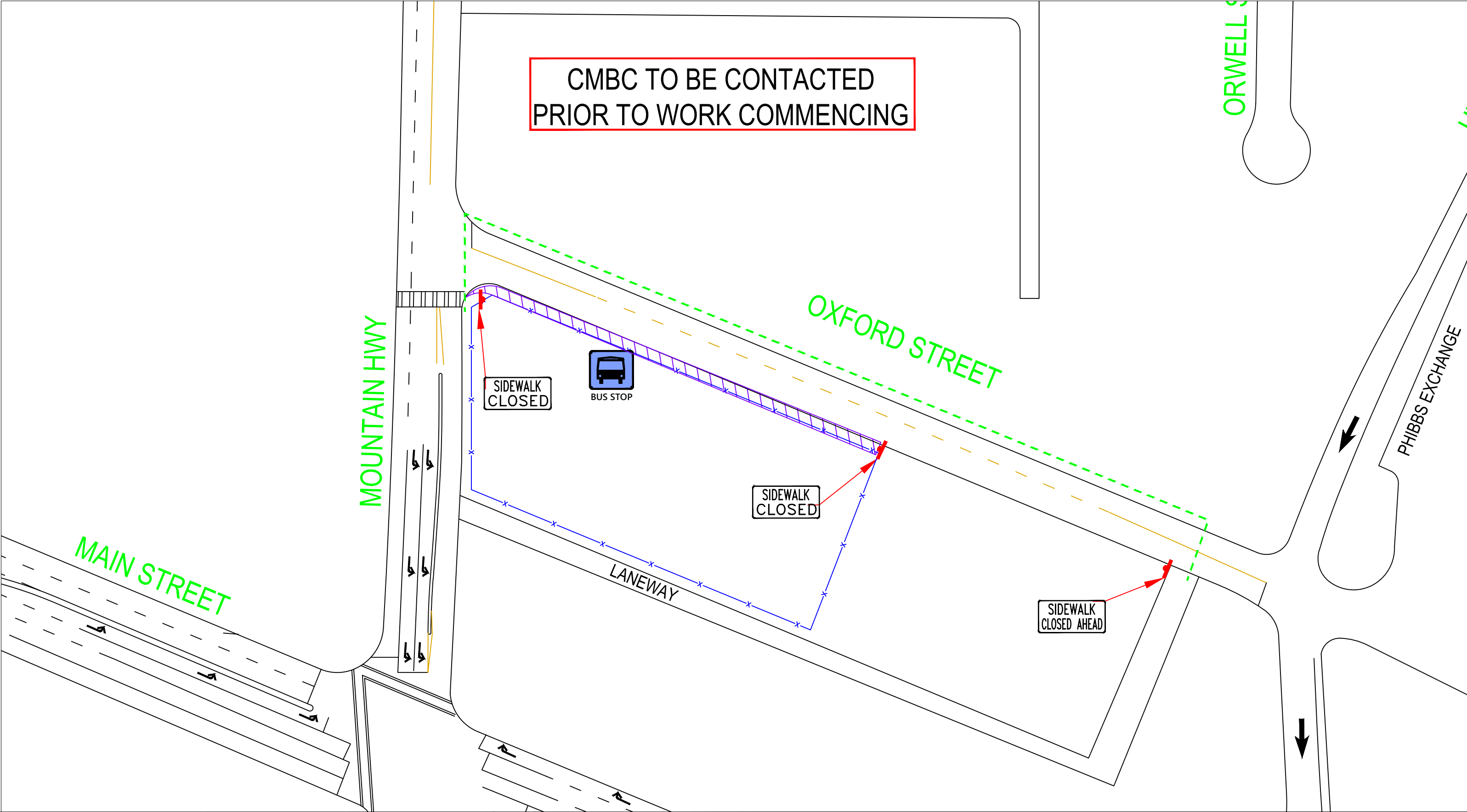
DATE	DETAILS





NOTES:


- Dates: TBD
- Hours of Operation: TBD
- Duration: TBD
- Traffic Plan based on a 50 km/h speed zone
- Work zone may be shortened to accommodate daily activities
- Existing lane alignment to be reinstated at the end of each shift
- Traffic specifications based on the Traffic Management Manual for Work on Roadways(2015)

MUNICIPAL PROJECT NO.	
MUNICIPAL CONTACT: TBD	
ONSITE CONTACT:	
BUS STOP(S) TO BE REMOVED: N/A	
PARKING METERS TO BE REMOVED: N/A	

REDIC DEVELOPMENT	
DISTRICT OF NORTH VANCOUVER: 1515-1555 OXFORD STREET AND 220 MOUNTAIN HIGHWAY	
	ENGINEER SEAL
	Traffic Control Plan: Parking lane closure on Oxford St
SCALE: NTS	DATE: 09.10.2018
VTS PROJ. NO. 17011	DWG. NO. DWG04
REV: 00	BY: HAT



LEGEND:
 Advanced Warning Sign
 Closure Area
 Delineator
 Pedestrian Route


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TRAFFIC MANAGEMENT DIVISION
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LANGLEY BC V1M 2K7
PHONE: 604-513-0210
FAX: 604-513-3661


REVISIONS:

DATE	DETAILS

NOTES:

- Dates: TBD
- Hours of Operation: TBD
- Duration: TBD
- Traffic Plan based on a 50 km/h speed zone
- Work zone may be shortened to accommodate daily activities
- Existing lane alignment to be reinstated at the end of each shift
- Traffic specifications based on the Traffic Management Manual for Work on Roadways(2015)

MUNICIPAL PROJECT NO.	
MUNICIPAL CONTACT: TBD	
ONSITE CONTACT:	
BUS STOP(S) TO BE REMOVED: N/A	
PARKING METERS TO BE REMOVED: N/A	

REDIC DEVELOPMENT					
DISTRICT OF NORTH VANCOUVER: 1515-1555 OXFORD STREET AND 220 MOUNTAIN HIGHWAY					
	ENGINEER SEAL	Traffic Control Plan: Parking lane closure on Oxford St			
		SCALE: NTS	DATE: 09.10.2018	VTS PROJ. NO. 17011	DWG. NO. DWG05



RENDER
SCALE: NTS

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<p>PROJECT — Residential Apartment — 220 Mountain Highway & 1555 Oxford Street District of North Vancouver, BC</p>		
<p>DRAWING TITLE — Render View</p>		
SCALE — 3/32" = 1'-0"	<div>SHEET NO. — A5.1</div>	
DATE — May 29, 2018		
DRAWN — TY		
CHECKED —		
PROJ NO — 1702		



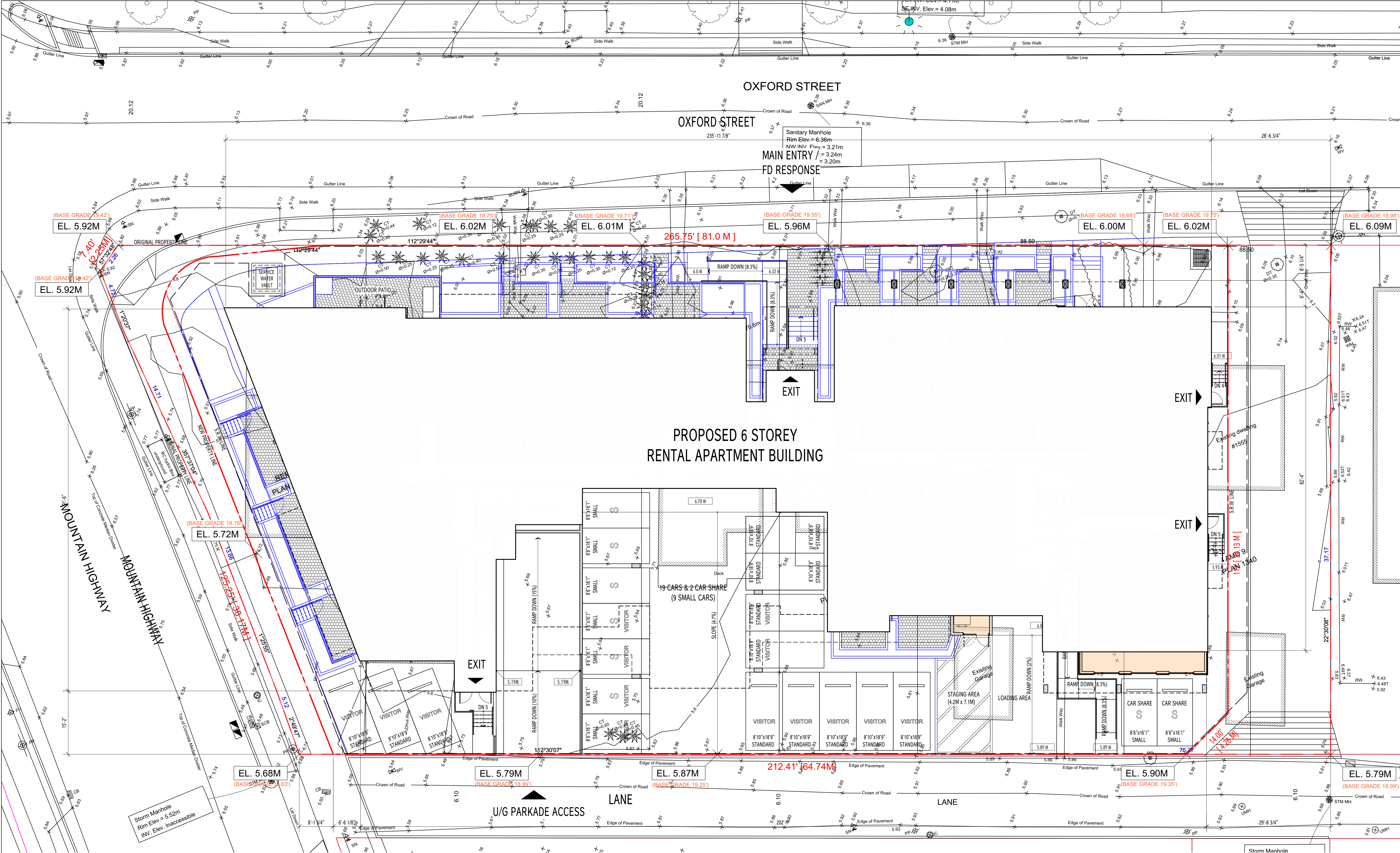
RENDER
SCALE: NTS

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<p>PROJECT —</p> <p>Residential Apartment</p> <p>—</p> <p>220 Mountain Highway & 1555 Oxford Street District of North Vancouver, BC</p>			
<p>DRAWING TITLE —</p> <p>Massing Views</p>			
SCALE — 3/32" = 1'-0"		SHEET NO. —	
DATE — May 29, 2018		A5.2	
DRAWN — TY			
CHECKED —		PROJ NO — 1702	



PROPOSED 6 STOREY
RENTAL APARTMENT BUILDING

SITE PLAN WITH SURVEY PLAN OVERLAY
SCALE: 3/32" = 1'-0"

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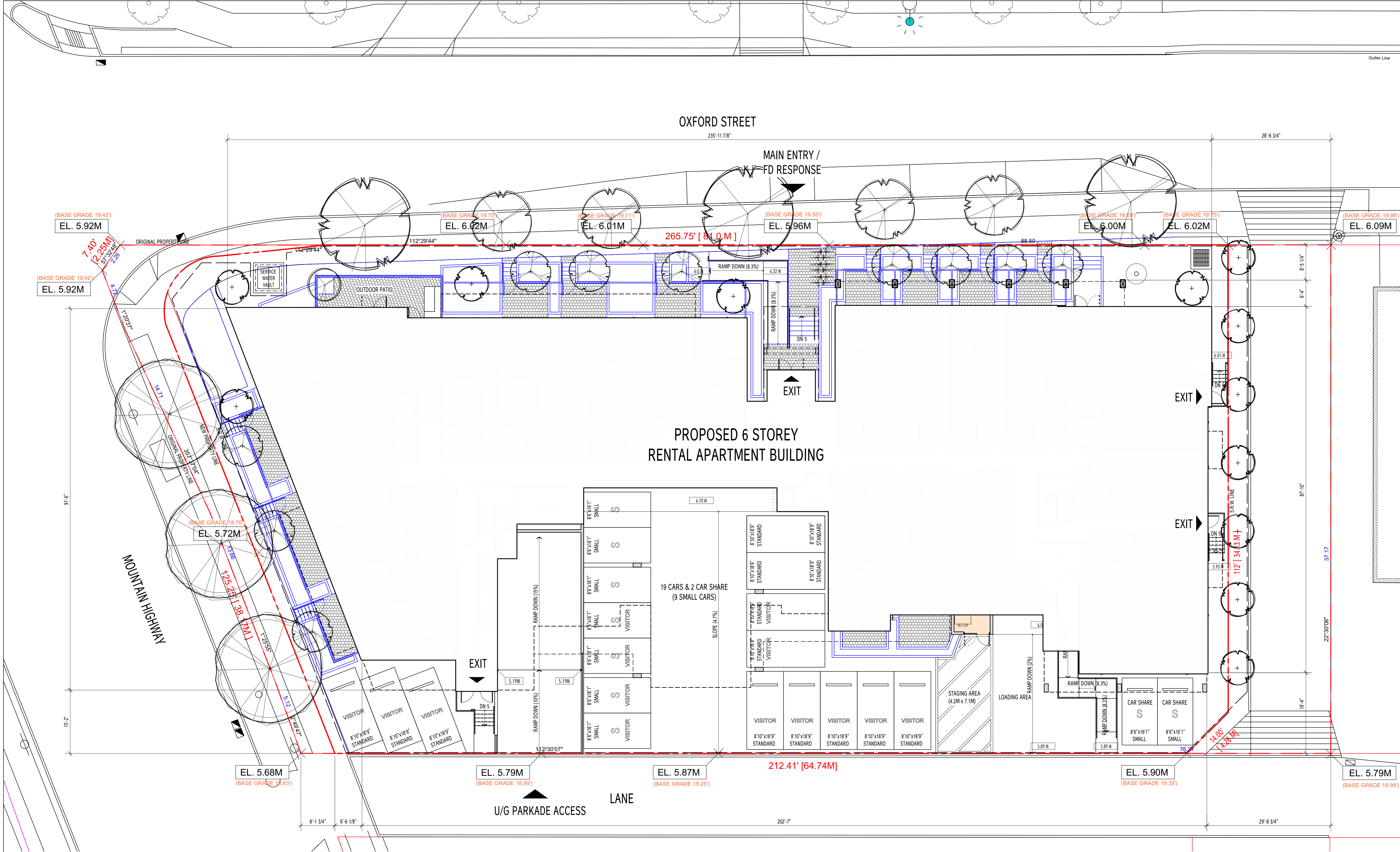
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PROJECT —
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—
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District of North Vancouver, BC

DRAWING TITLE —
SURVEY OVERLAY

SCALE — 3/32" = 1'-0"	SHEET NO. —
DATE — Nov 19, 2018	A1.2
DRAWN — TY/JL	
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PROJECT —

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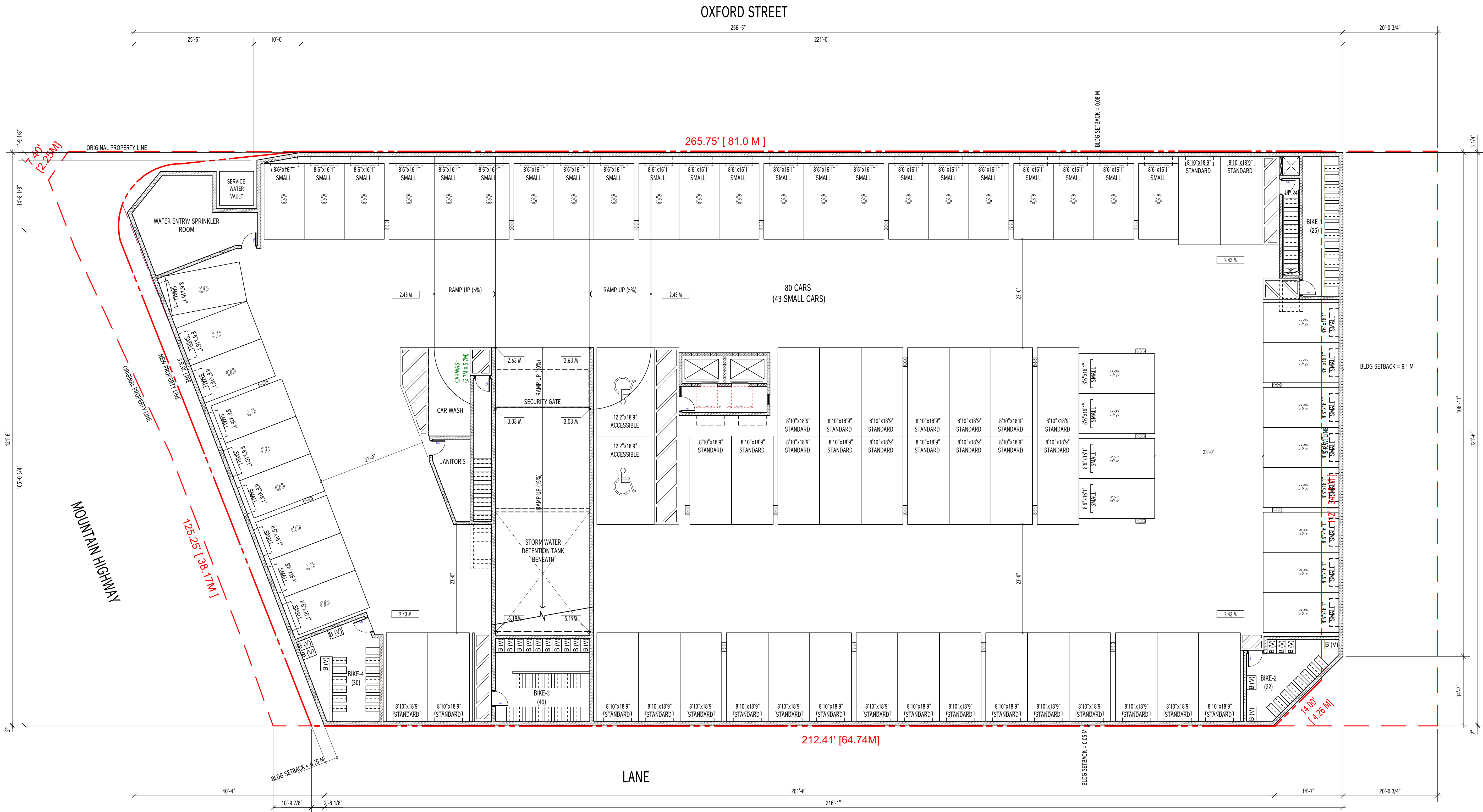
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DRAWING TITLE —
SITE PLAN

SCALE — 3/32" = 1'-0"	SHEET NO. —
DATE — Nov 19, 2018	A1.3
DRAWN — TY/JL	
CHECKED —	PROJ NO — 1702

SITE PLAN

SCALE : 3/32" = 1'-0"



PARKING:

REQUIREMENTS:

140 UNITS @ 0.85 CAR / UNIT
(140 UNITS @ 0.1 VISITOR SPACES PER UNIT)

119 SPACES
(14 SPACE) INCLUDED ABOVE

PROVIDED:

140 UNITS @ 0.71 CAR / UNIT
CAR SHARE
(SMALL CARS : INCLUDED IN ABOVE)

99 SPACES
2 SPACES
52 SPACES (52.5 %)

LOADING:

TOTAL LOADING PROVIDED: 1 SPACE

BICYCLE PARKING:

REQUIREMENTS:

RESIDENTS: 140 UNITS @ 1 / UNIT
VISITORS: 6 PER DEVELOPMENT

140 SPACES
6 SPACES

PROVIDED (RESIDENTS): 58 SPACES SECURE HANGING RACKS ABOVE CARS
118 SPACES CLASS 1 BIKES
176 SPACES SECURE RESIDENT BIKES

PROVIDED (VISITORS): 6 SPACES

LEVEL - P1 (U/G PARKADE) PLAN

SCALE : 3/32" = 1'-0"

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220 Mountain Highway & 1555 Oxford Street
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DRAWING TITLE -

Level-P1

SCALE - 3/32" = 1'-0"

DATE - Nov 19, 2018

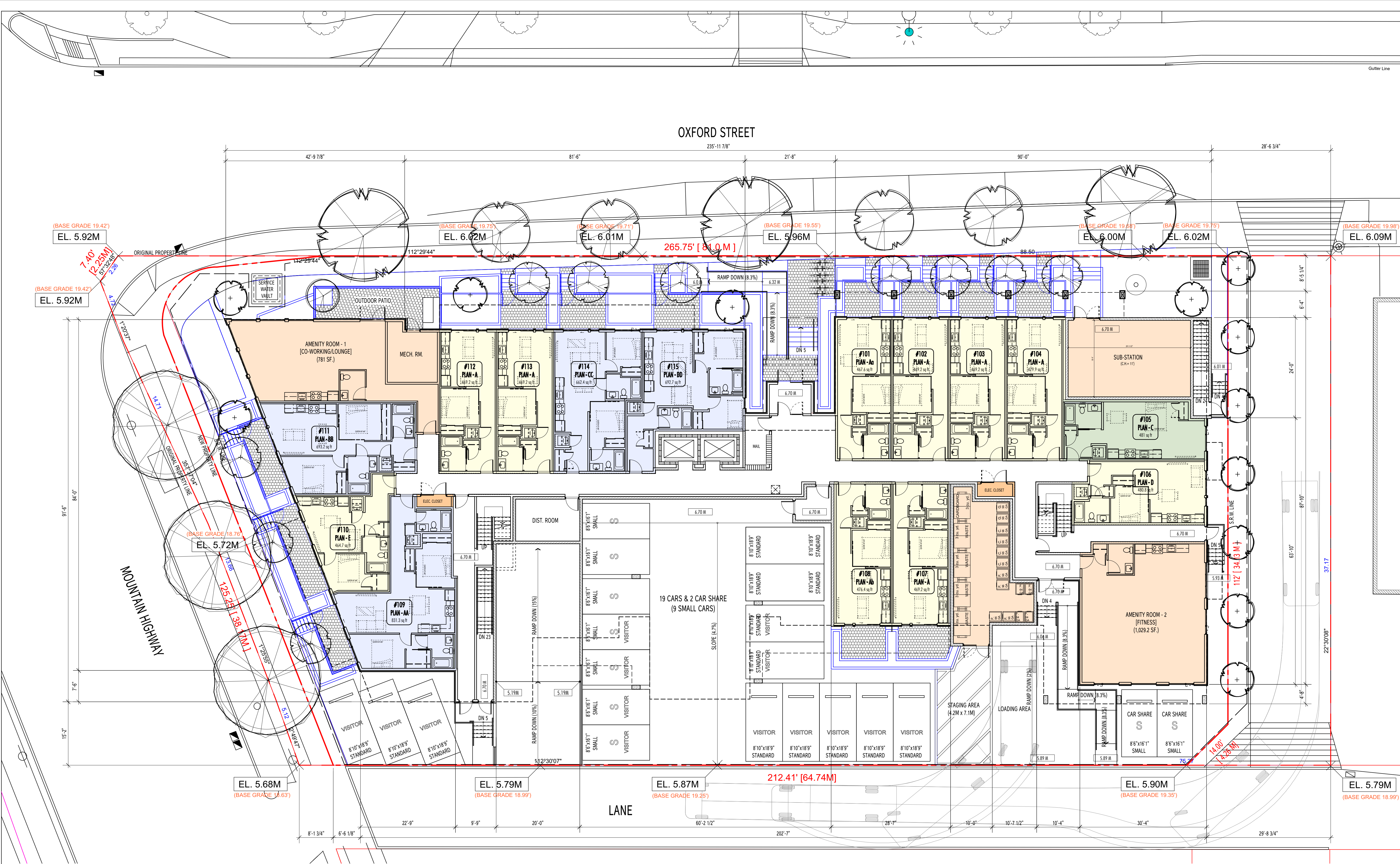
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SHEET NO. -

A2.1

PROJ NO - 1702



UNIT BREAKDOWN (BY FLOOR):							
FLOOR	non-FAR	Studio	1 Bed	2 Bed	3 Bed	UNIT AREA	GROSS RES. AREA
LEVEL - 1		1	10	4	0		
TOTAL:	3,409.8 SF	481.0 SF	4,715.4 SF	2,897.0 SF	0.0 SF	8,093.4 SF	14,315.2 SF
OVERALL AVG UNIT SIZE		481.0 SF	471.5 SF	724.3 SF	N/A		
EXCLUDED FLOOR AREA:							
AMENITY ROOMS	168.2 SQ.M.	(1,810.6 SF)					
ELEC./GARB./MECH. SERVICE	148.6 SQ.M.	(1,599.2 SF)					
TOTAL:	316.8 SQ.M.	(3,409.8 SF)					
RESID. AREA + EXCLUSION AREA:		(14,315.2 SF)	(INCLUDES RESIDENTIAL AREA, AMENITY, ELEC. ROOMS, GARBAGE/RECYCL'G, ELEVATOR, EXIST STAIRS AND CORRIDOR)				

LEVEL - 1 FLOOR PLAN
SCALE : 3/32" = 1'-0"

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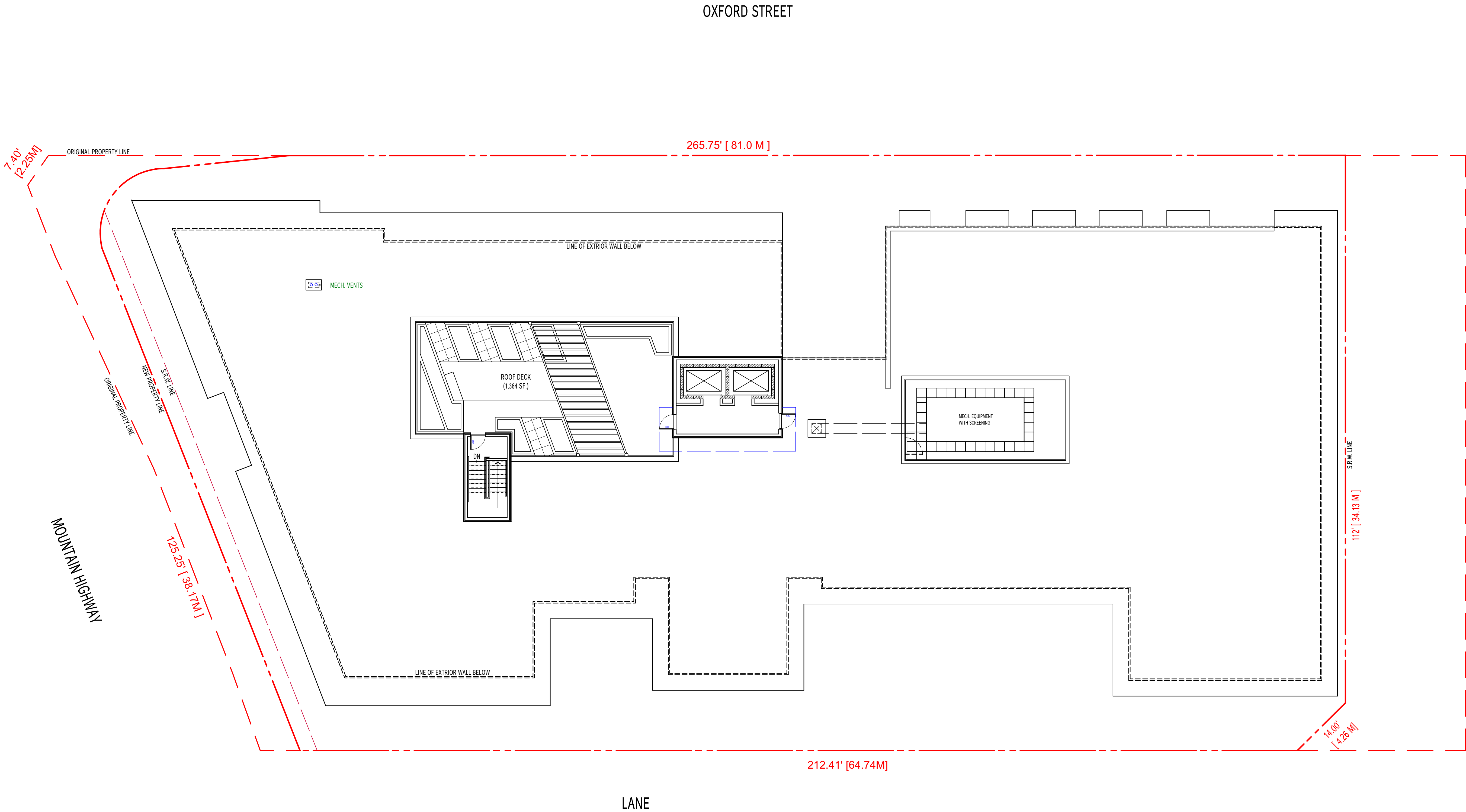
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DRAWING TITLE - Level-1	SCALE - 3/32" = 1'-0"	SHEET NO. - A2.2
CHECKED -	DATE - Nov 19, 2018	PROJ NO - 1702
DRAWN - TY/JL		



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PROJECT —

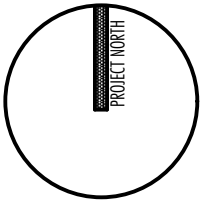
Residential Apartment
—

220 Mountain Highway & 1555 Oxford Street
District of North Vancouver, BC

DRAWING TITLE —
Roof

SCALE — 3/32" = 1'-0"	SHEET NO. —
DATE — Nov 19, 2018	A2.8
DRAWN — TY/JL	
CHECKED —	PROJ NO — 1702

ROOF PLAN
SCALE : 3/32" = 1'-0"





OXFORD STREET ELEVATION
SCALE: 3/32"=1'-0"



MOUNTAIN HIGHWAY (WEST) ELEVATION
SCALE: 3/32"=1'-0"

ELEVATION KEY NOTES

- 01 HARDIE ARTISAN SERIES - SHIPLAP SIDING - "AUTUMN TAN"
- 02 HARDIE ARTISAN SERIES - V-GROOVE SIDING - "IRON GREY"
- 03 HARDIE ARTISAN SERIES - V-GROOVE SIDING - "LIGHT MIST"
- 04 VINYL FRAME DOUBLE-GLAZED WINDOW
- 05 ALMN. GUARDRAIL W/ GLASS PANEL
- 06 ALMN. WINDOW WALL
- 07 HARDIE PANEL IN "IRON GREY" - W/ PAINTED REVEAL JOINTS
- 08 SAGIPER WOOD-GRAIN SOFFIT
- 09 VERTICAL ALUMINUM LOUVER - CHARCOAL
- 10 METAL DOOR - PAINTED
- 11 CONCRETE - SEALED
- 12 WOOD TRELLIS
- 13 ALMN. GATE
- 14 ALUMINUM ARBOUR

*ALL LISTED MATERIALS REQUIRE SAMPLE REVIEW PRIOR TO PRODUCTION OR INSTALLATION

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PROJECT —

Residential Apartment

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District of North Vancouver, BC

DRAWING TITLE —

Building Elevations

SCALE — 3/32" = 1'-0"

DATE — Nov 19, 2018

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SHEET NO. —

A3.1

PROJ NO — 1702



LANE (SOUTH) ELEVATION
SCALE: 3/32"=1'-0"



NEW LANE (EAST) ELEVATION
SCALE: 3/32"=1'-0"

ELEVATION KEY NOTES

- 01 HARDIE ARTISAN SERIES - SHIPLAP SIDING - "AUTUMN TAN"
- 02 HARDIE ARTISAN SERIES - V-GROOVE SIDING - "IRON GREY"
- 03 HARDIE ARTISAN SERIES - V-GROOVE SIDING - "LIGHT MIST"
- 04 VINYL FRAME DOUBLE-GLAZED WINDOW
- 05 ALMN. GUARDRAIL W/ GLASS PANEL
- 06 ALMN. WINDOW WALL
- 07 HARDIE PANEL IN "IRON GREY" - W/ PAINTED REVEAL JOINTS
- 08 SAGIPER WOOD-GRAIN SOFFIT
- 09 VERTICAL ALUMINUM LOUVER - CHARCOAL
- 10 METAL DOOR - PAINTED
- 11 CONCRETE - SEALED
- 12 WOOD TRELLIS
- 13 ALMN. GATE
- 14 ALUMINUM ARBOUR

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PROJECT -

Residential Apartment

220 Mountain Highway & 1555 Oxford Street
District of North Vancouver, BC

DRAWING TITLE -

Building Elevations

SCALE - 3/32" = 1'-0"

DATE - Nov 19, 2018

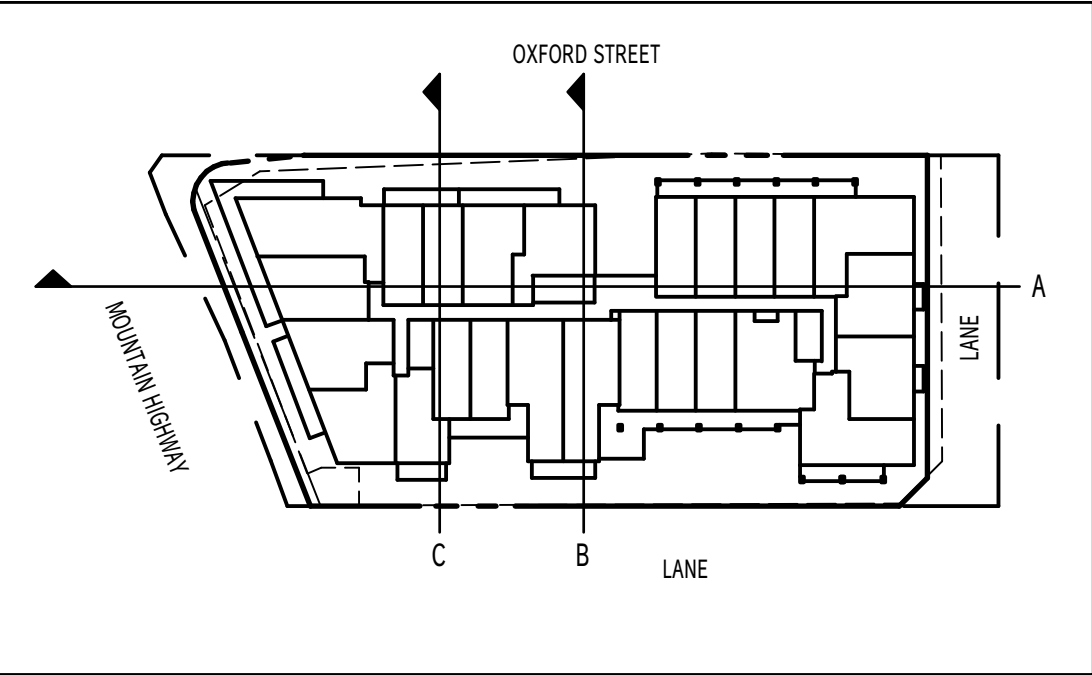
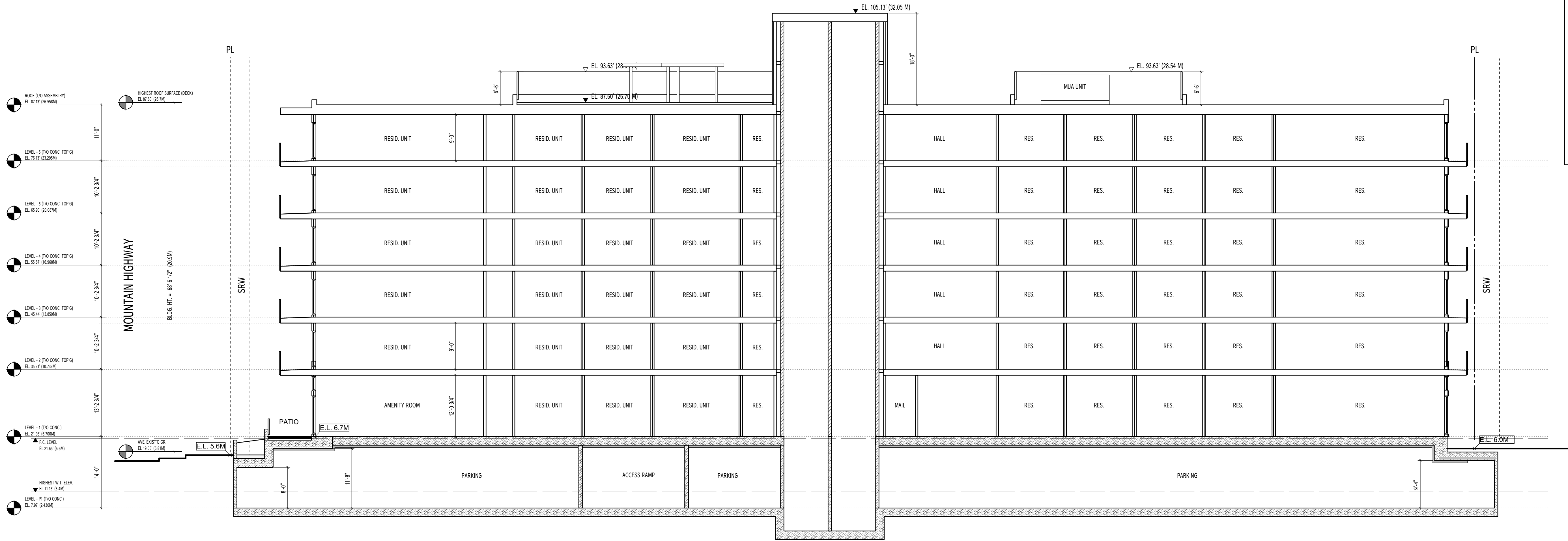
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SHEET NO. -

A3.2

PROJ NO - 1702



CROSS SECTION A - A
SCALE : 3/32" = 1'-0"

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PROJECT -

Residential Apartment

220 Mountain Highway & 1555 Oxford Street
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DRAWING TITLE -
SECTION

SCALE - 3/32" = 1'-0"

DATE - Nov 19, 2018

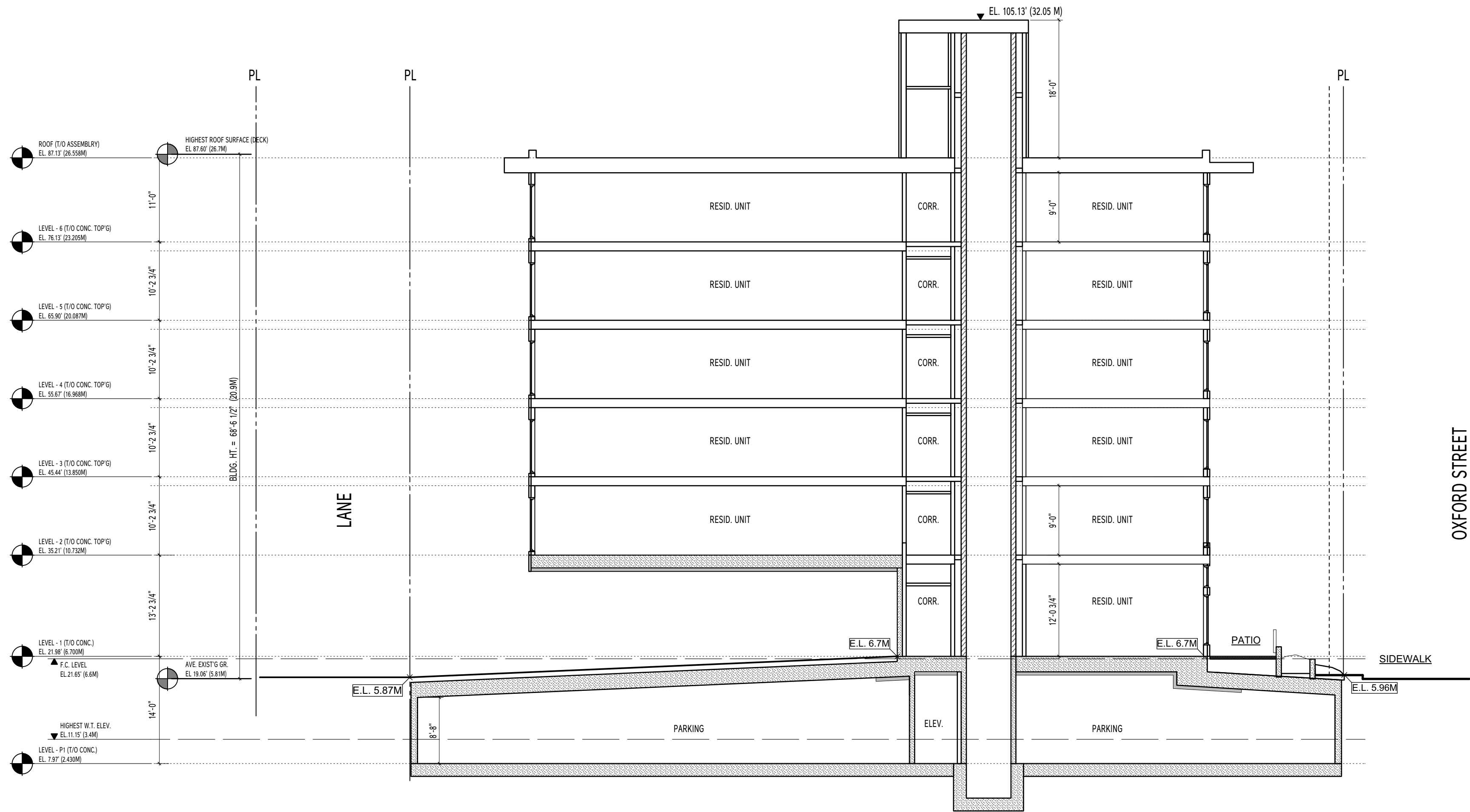
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CHECKED -

SHEET NO. -

A4.1

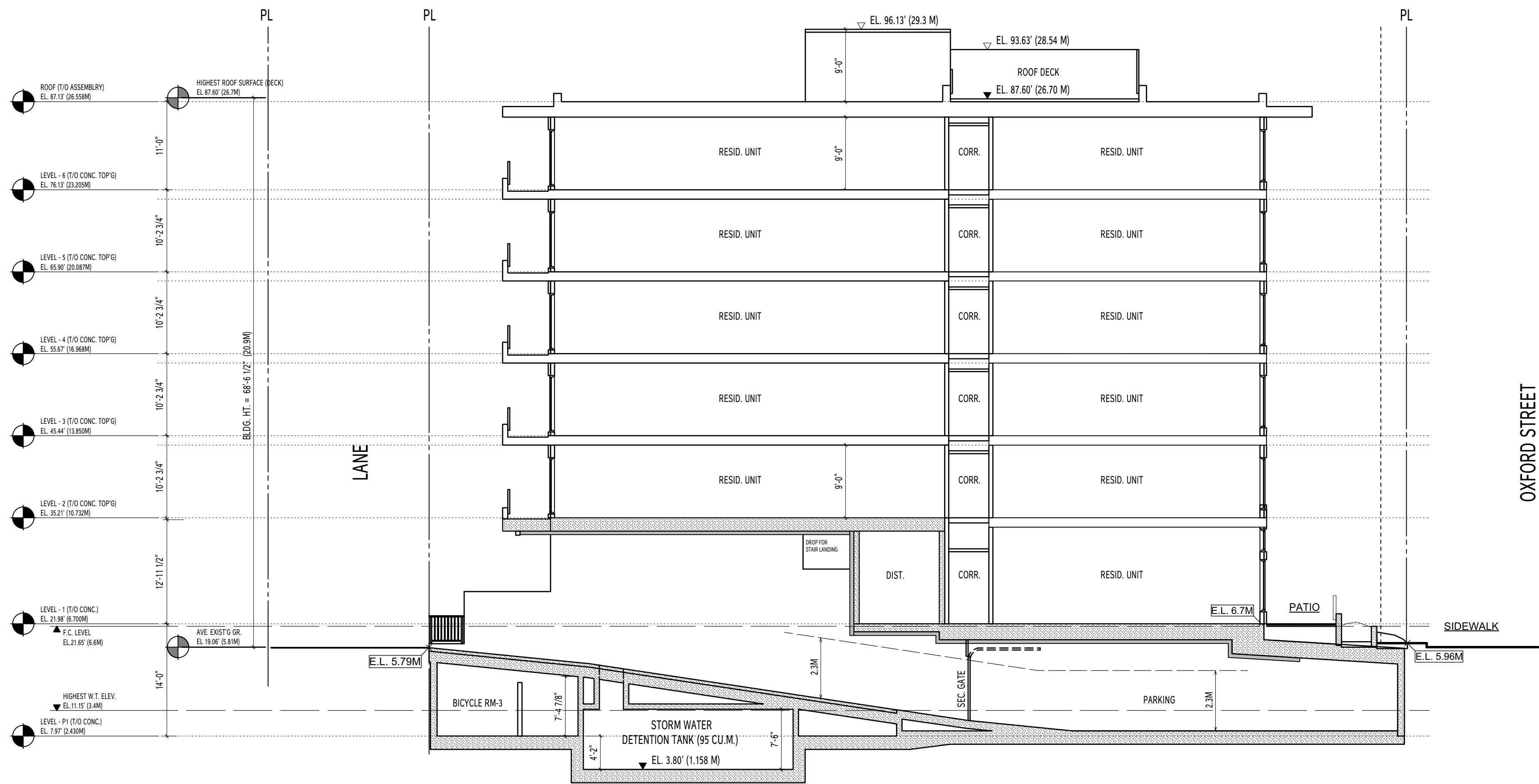
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OXFORD STREET

CROSS SECTION B - B

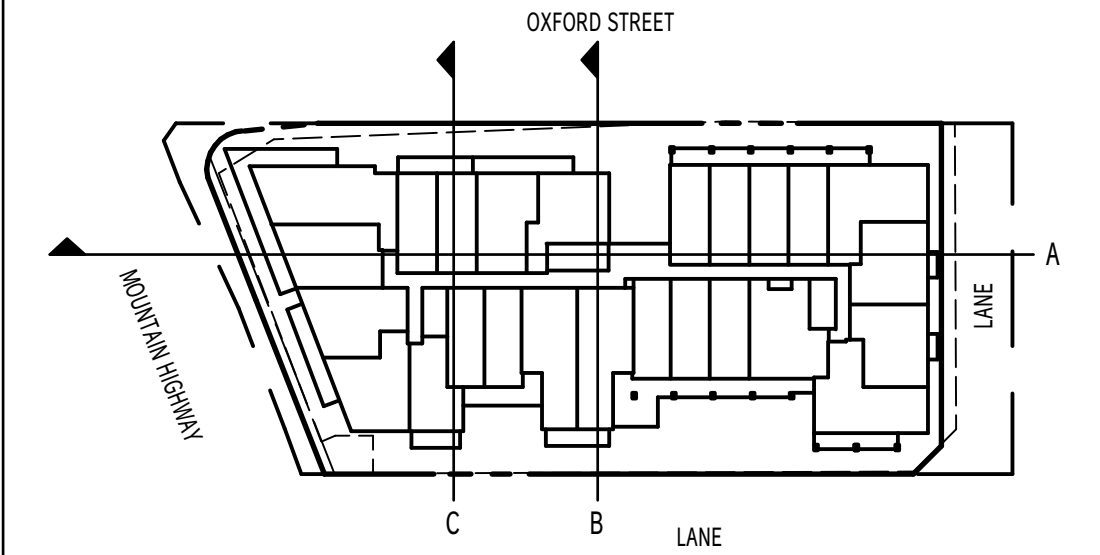
SCALE : 3/32" = 1'-0"



OXFORD STREET

CROSS SECTION C - C

SCALE : 3/32" = 1'-0"



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NO	DATE	ISSUE

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PROJECT -

Residential Apartment

220 Mountain Highway & 1555 Oxford Street
District of North Vancouver, BC

DRAWING TITLE -
SECTION

SCALE - 3/32" = 1'-0" SHEET NO. -

DATE - Nov 19, 2018 **A4.2**

DRAWN - TY/JL

CHECKED - PROJ NO - 1702

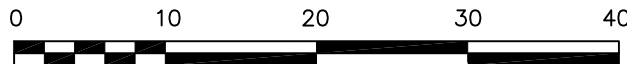
SUBDIVISION PLAN OF LOT A EXCEPT: PART DEDICATED ROAD ON PLAN BCP17008,
AND LOTS 3 TO 6, AMENDED LOT 7(SEE 219838L) AND AMENDED LOT 9(SEE 219839L)
ALL OF BLOCK 41 DISTRICT LOT 204 GROUP 1
NEW WESTMINSTER DISTRICT PLAN 1340

Preliminary

Pursuant to Section 67, Land Title Act.
BCGS 92G.035

Integrated Survey Area No. 16,
District of North Vancouver
NAD83 (CSRS) 4.0.0.BC.1.GVRD

SCALE 1:500



All distances are in metres and decimal
Thereof unless otherwise indicated

The intended plot size of this plan is
560mm in width by 432mm in height (C size)
when plotted at a scale of 1:500



Legend

- Denotes Control Monument Found
- Denotes Lead Plug Found
- Denotes Standard Iron Pin Found
- Denotes Standard Iron Post Set
- m² Denotes Squared Metres
- (C) Denotes Calculated
- PP Denotes Posting Plan
- Wt. Denotes Witness

Note:

This plan shows one or more witness posts
which are not set on the true corners(s).

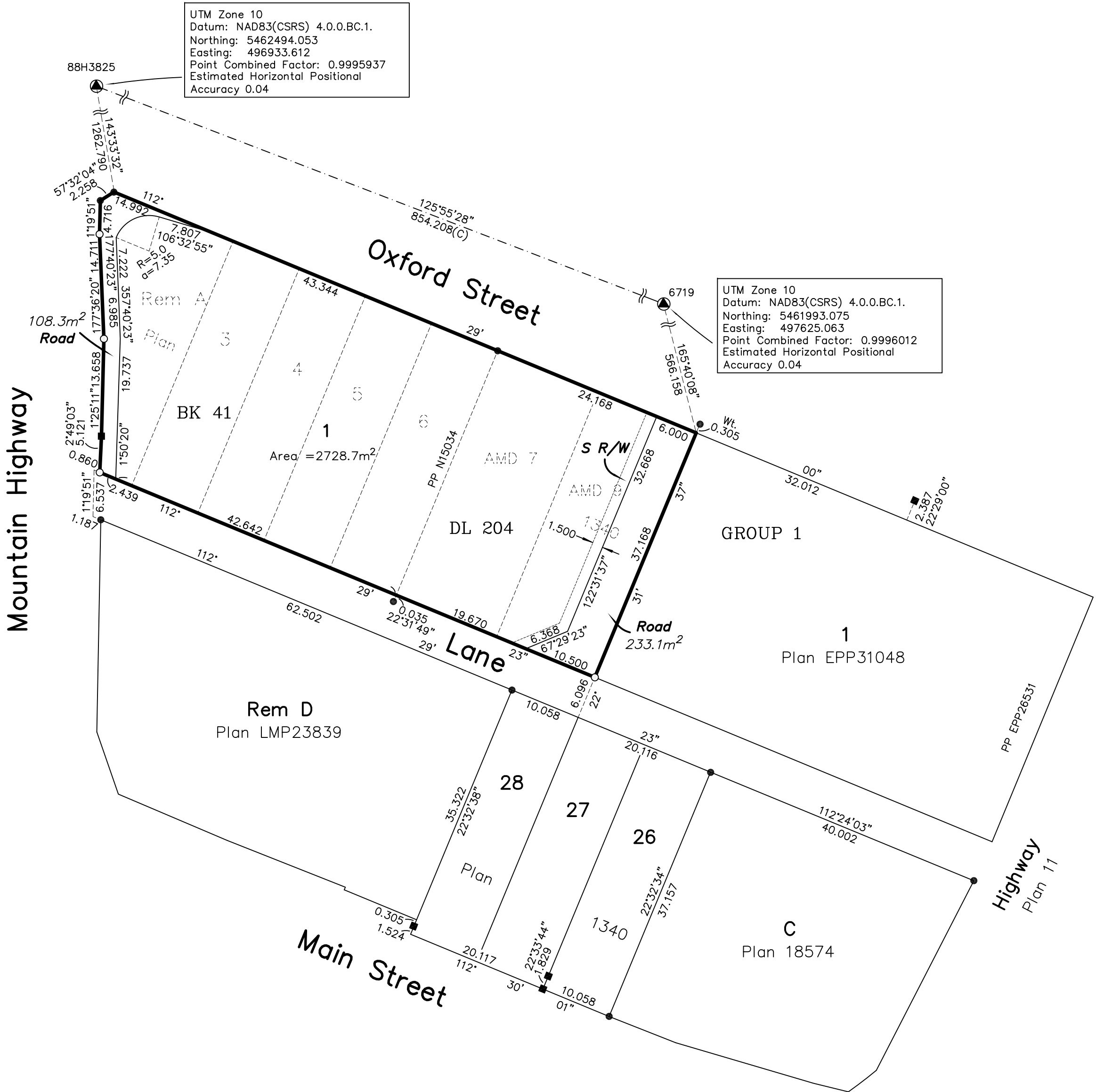
Grid bearings are derived from differential dual frequency
GNSS observations between geodetic control monuments
6719 and 88H3825.

The UTM coordinates and estimated horizontal positional accuracy
achieved are derived from dual frequency GNSS observations
to geodetic control monuments 6719 and 88H3825.

This plan shows horizontal ground-level distance unless
otherwise specified. To compute grid distances, multiply
ground-level distances by the average combined factor of
0.9995975 which has been derived from geodetic control
monuments 6719 and 88H3825.

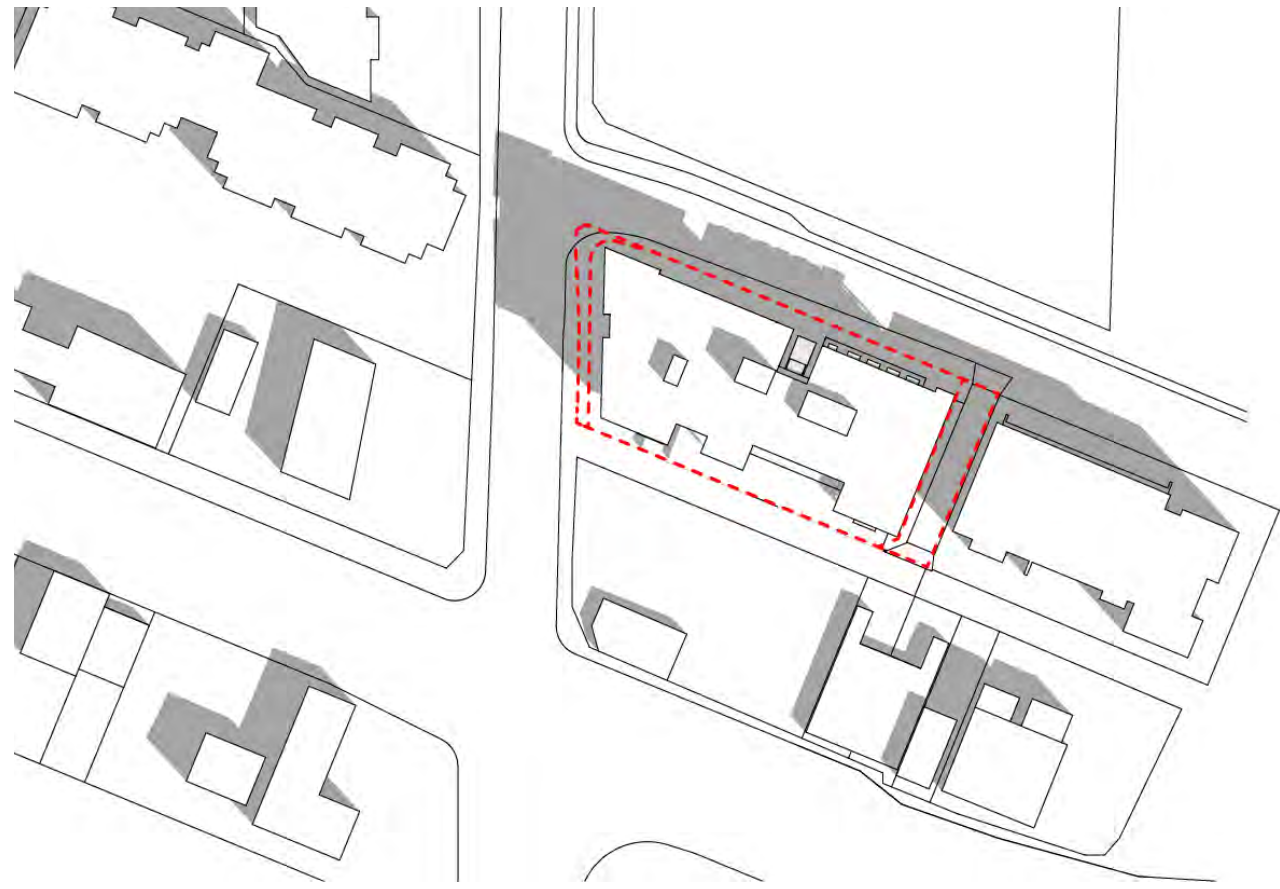
COMPASS LAND SURVEYING LTD.
Professional Land Surveyors

#202-8381 128th Street
Surrey, B.C. V3W 4G1
Tel: 604-503-6898
Email: Office@CompassSurveys.com
File No.: 1604008 S2

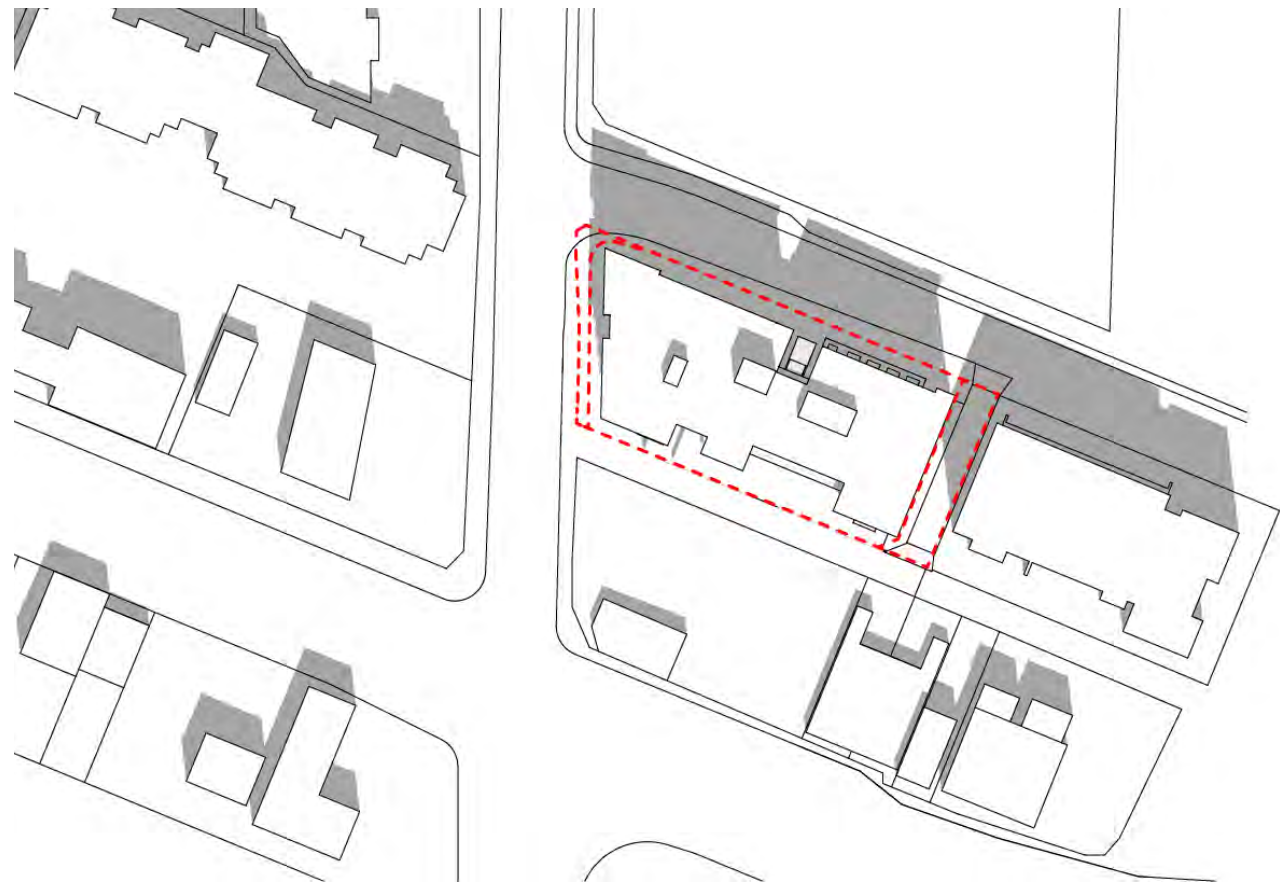


This plan lies within the Greater Vancouver Regional District

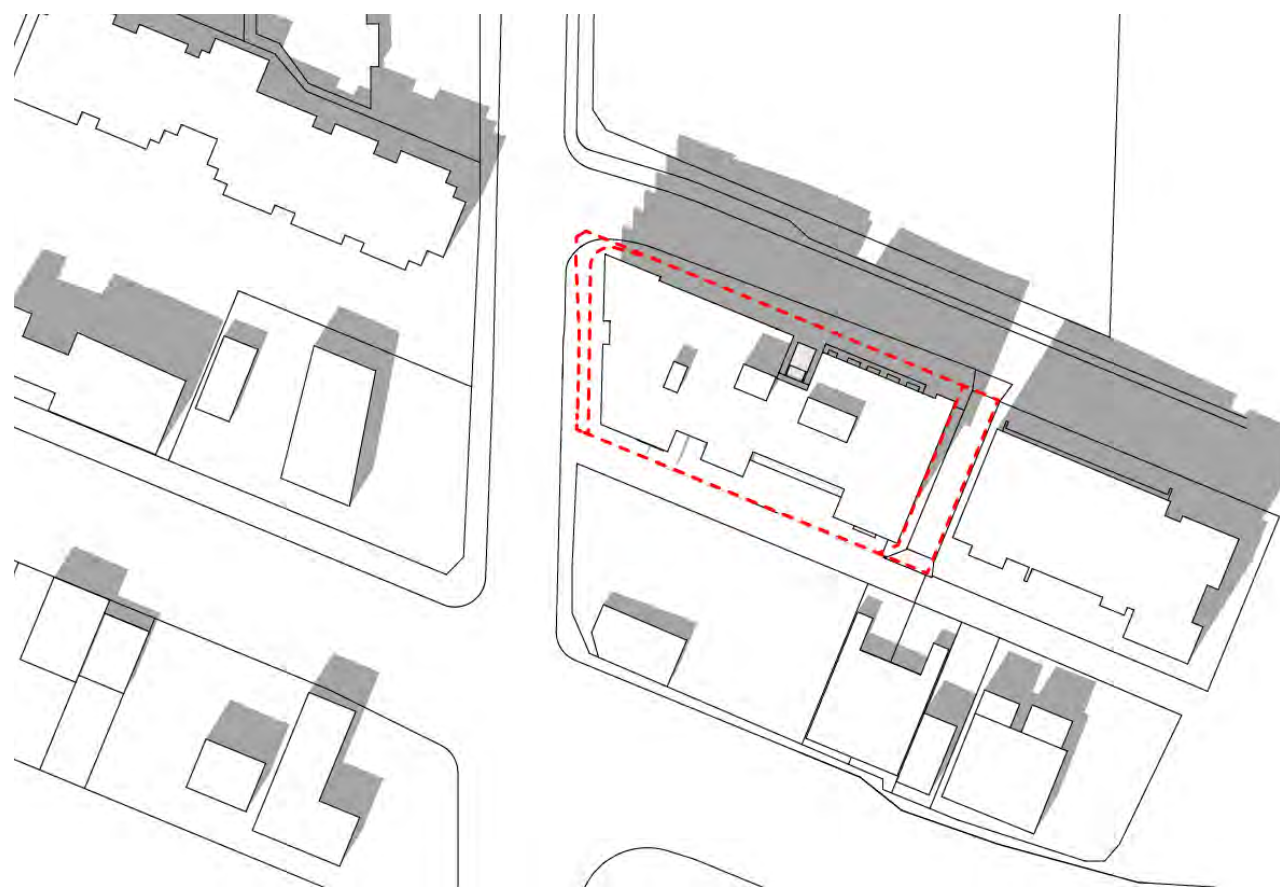
The field survey represented by this plan was
completed on the 26th day November, 2018.
SHOUPENG LIU, B.C.L.S. #933



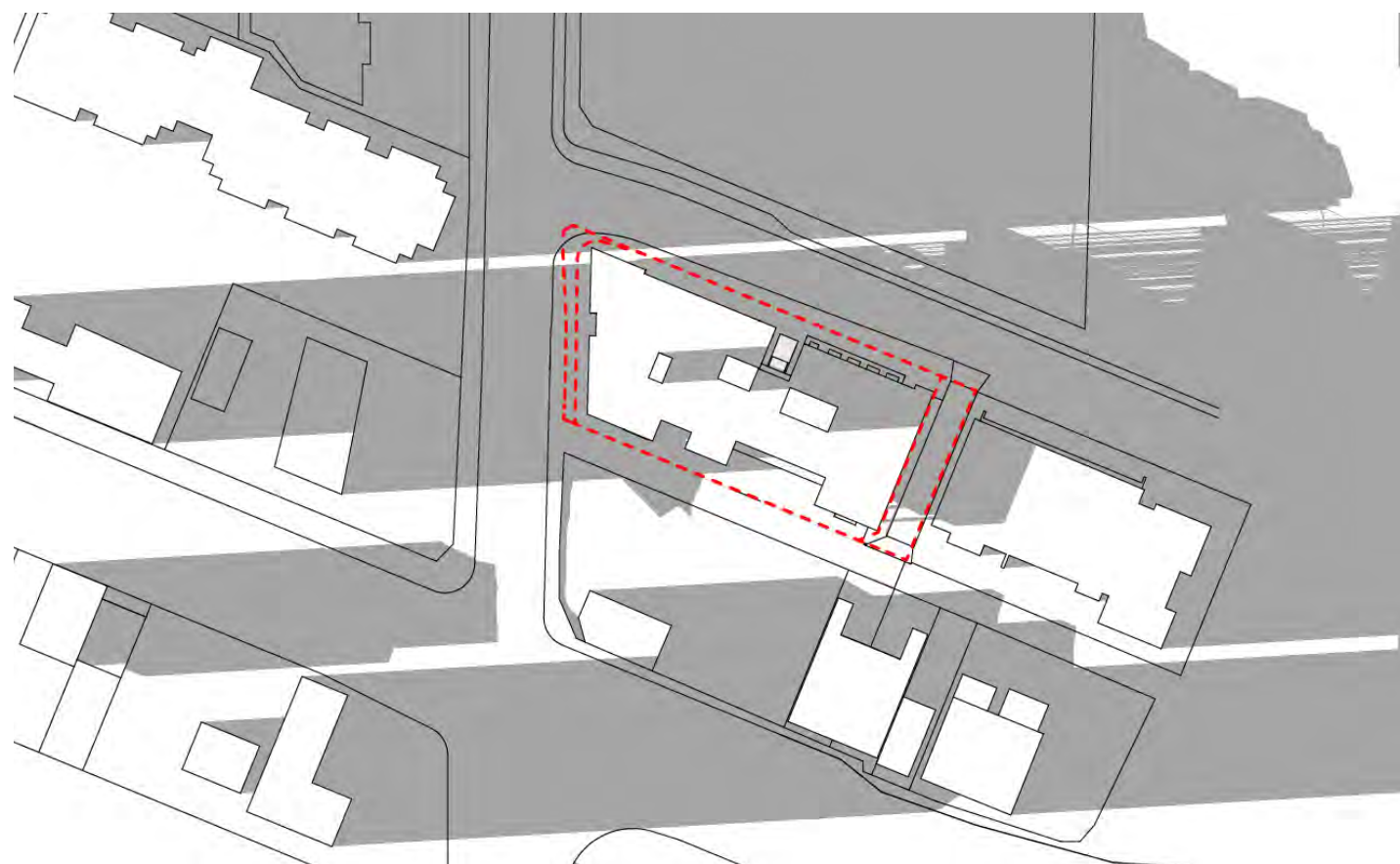
MARCH 21 10:00AM



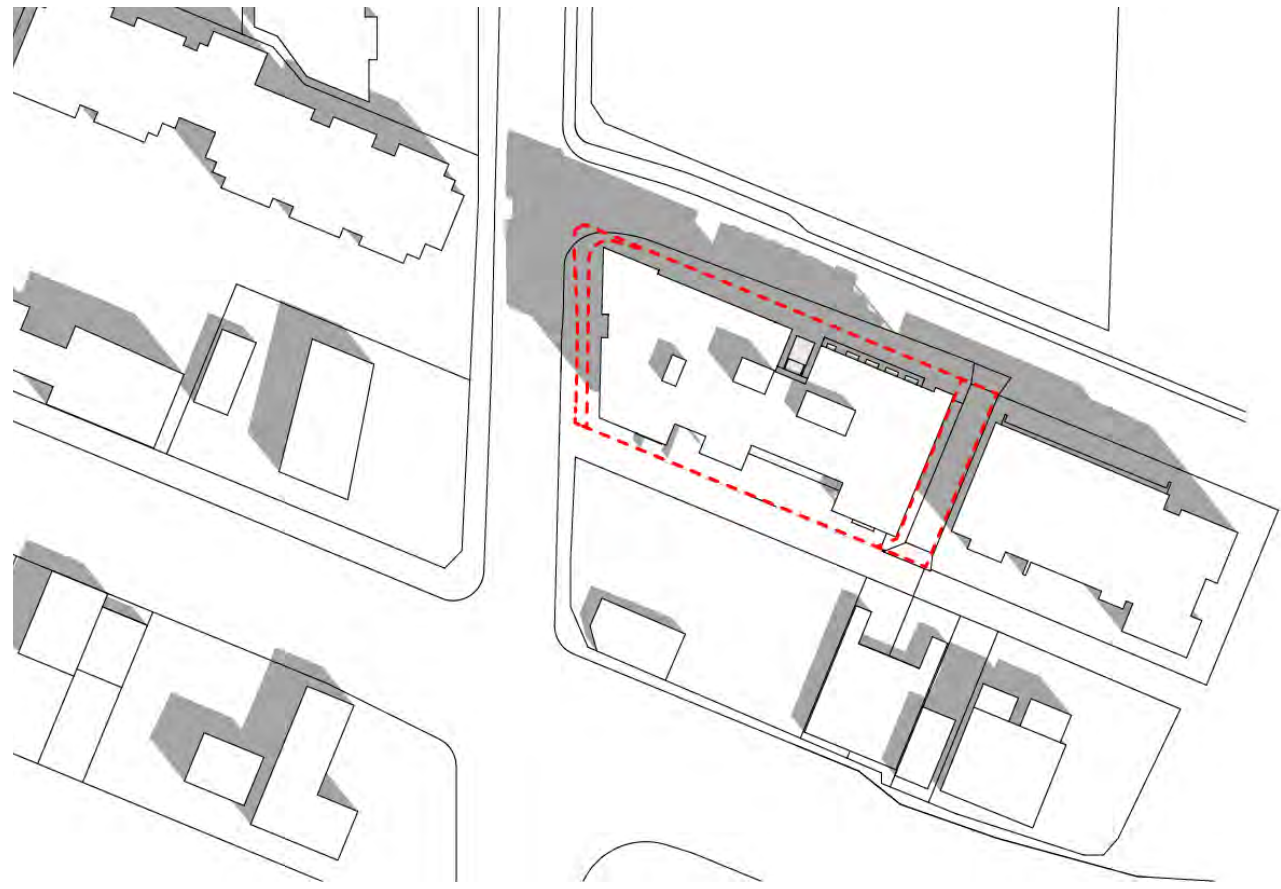
MARCH 21 12:00PM



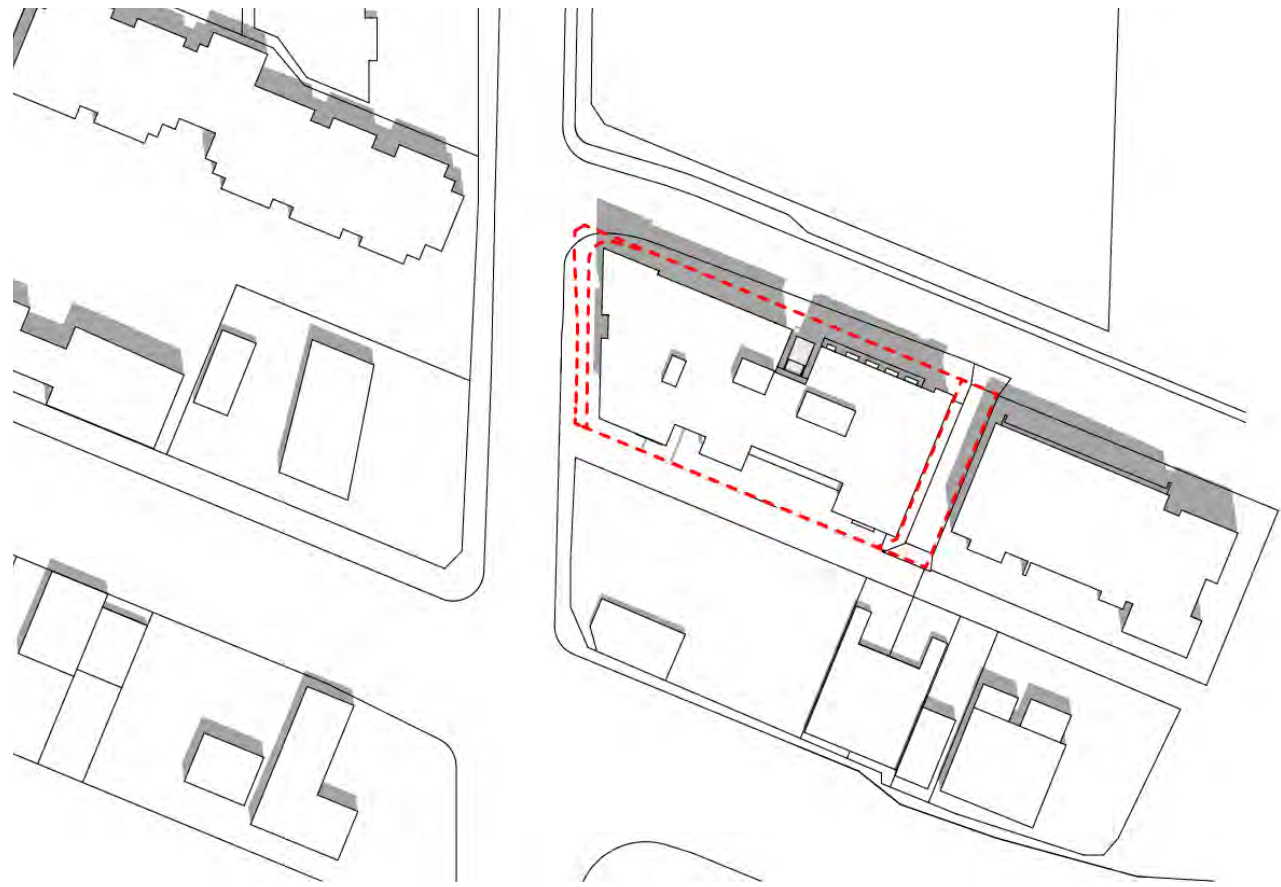
MARCH 21 2:00PM



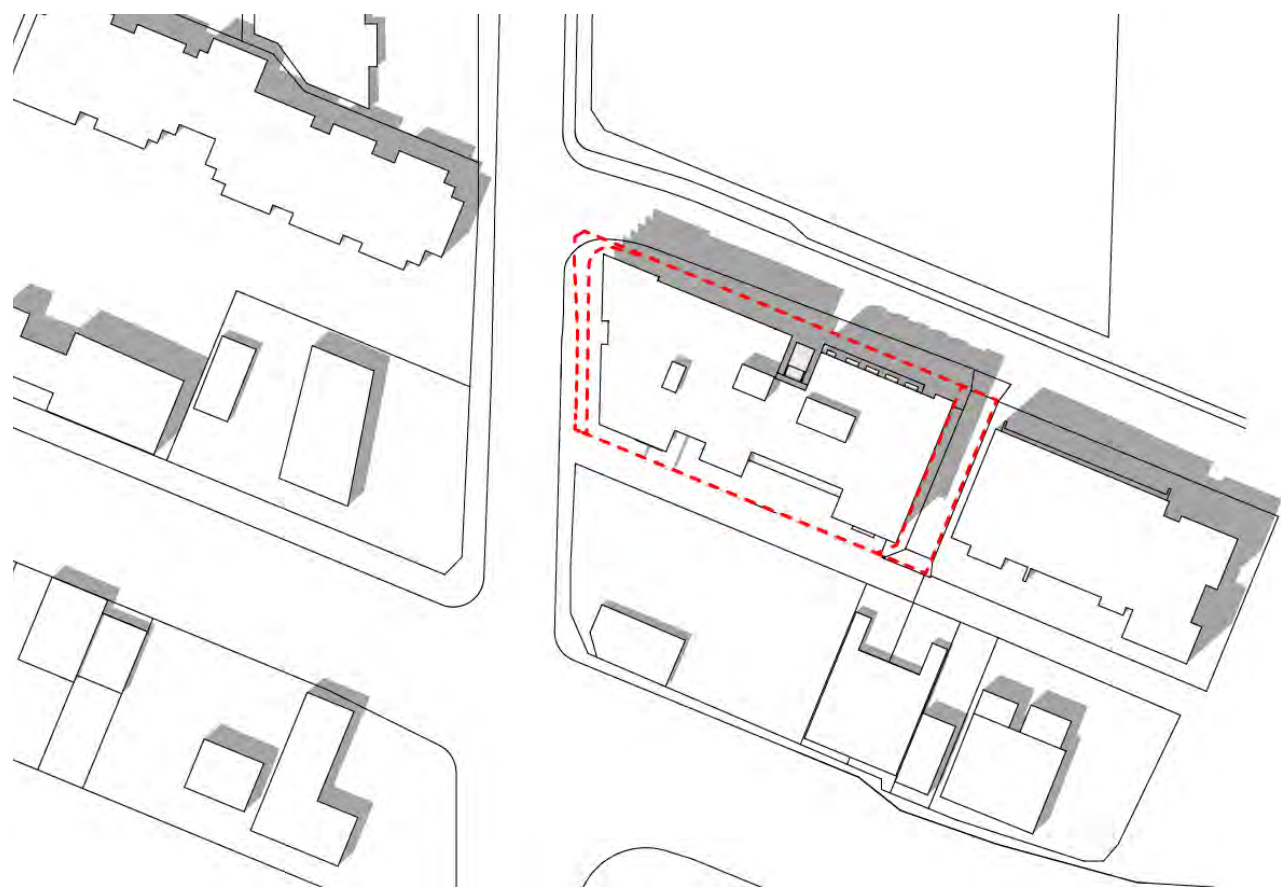
MARCH 21 6:00PM



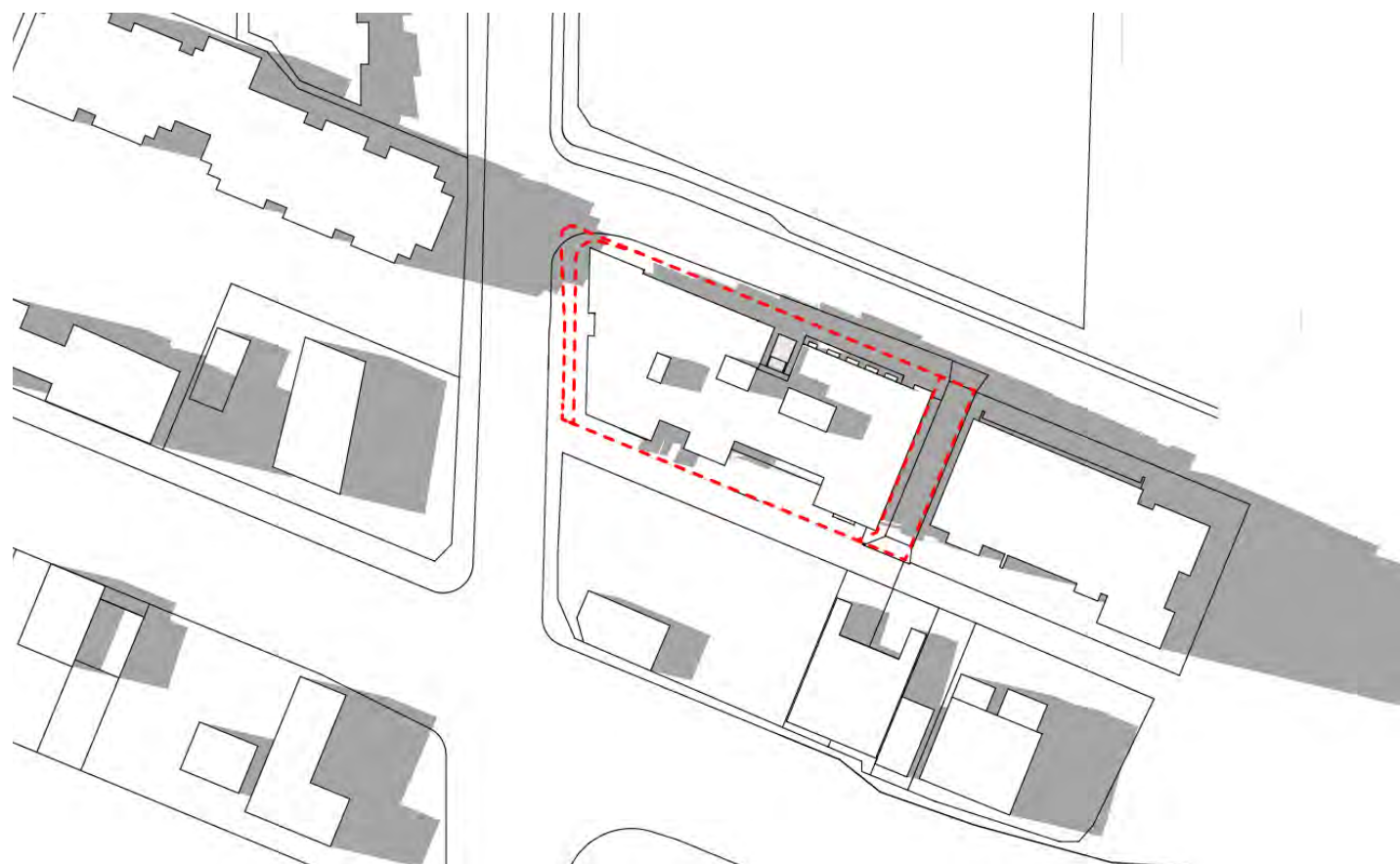
JUNE 21 10:00AM



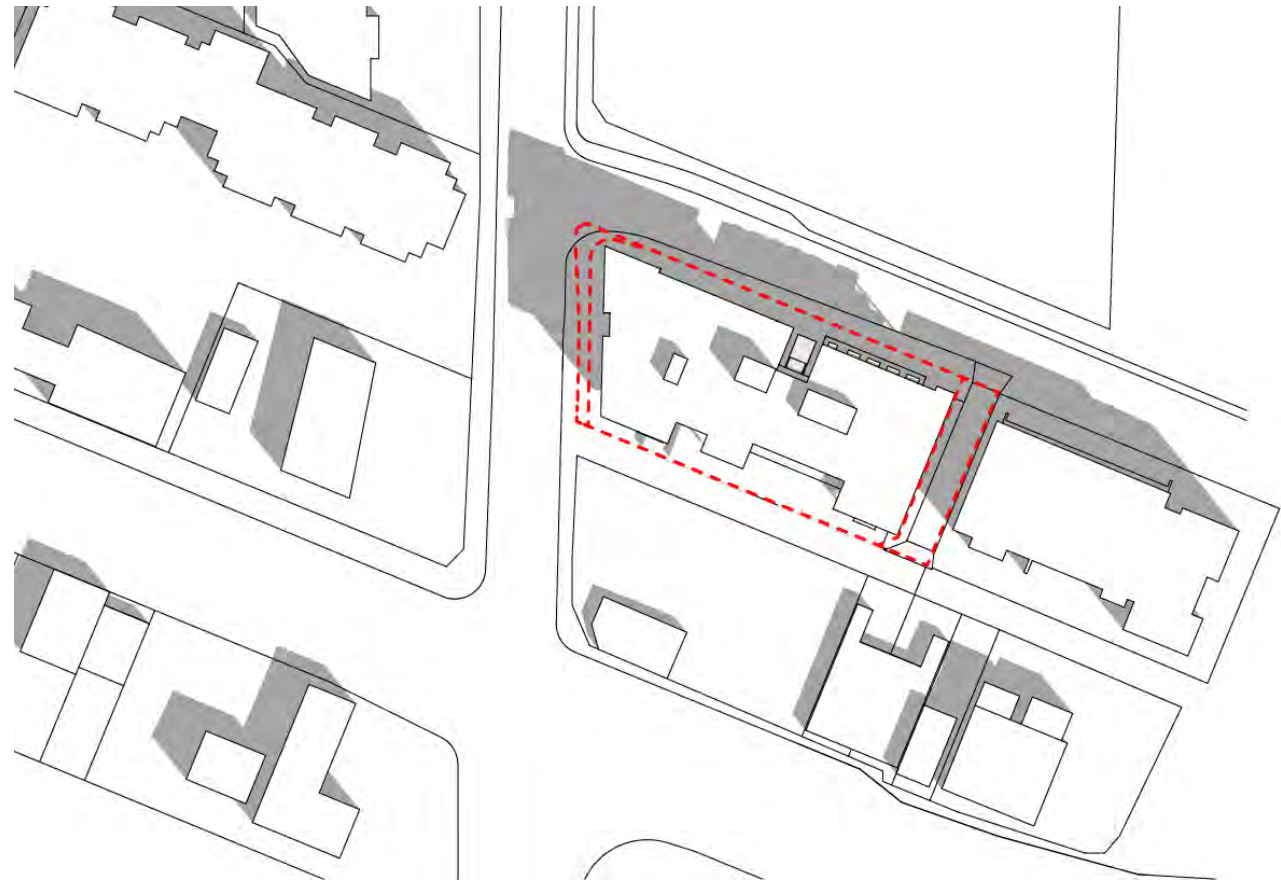
JUNE 21 12:00PM



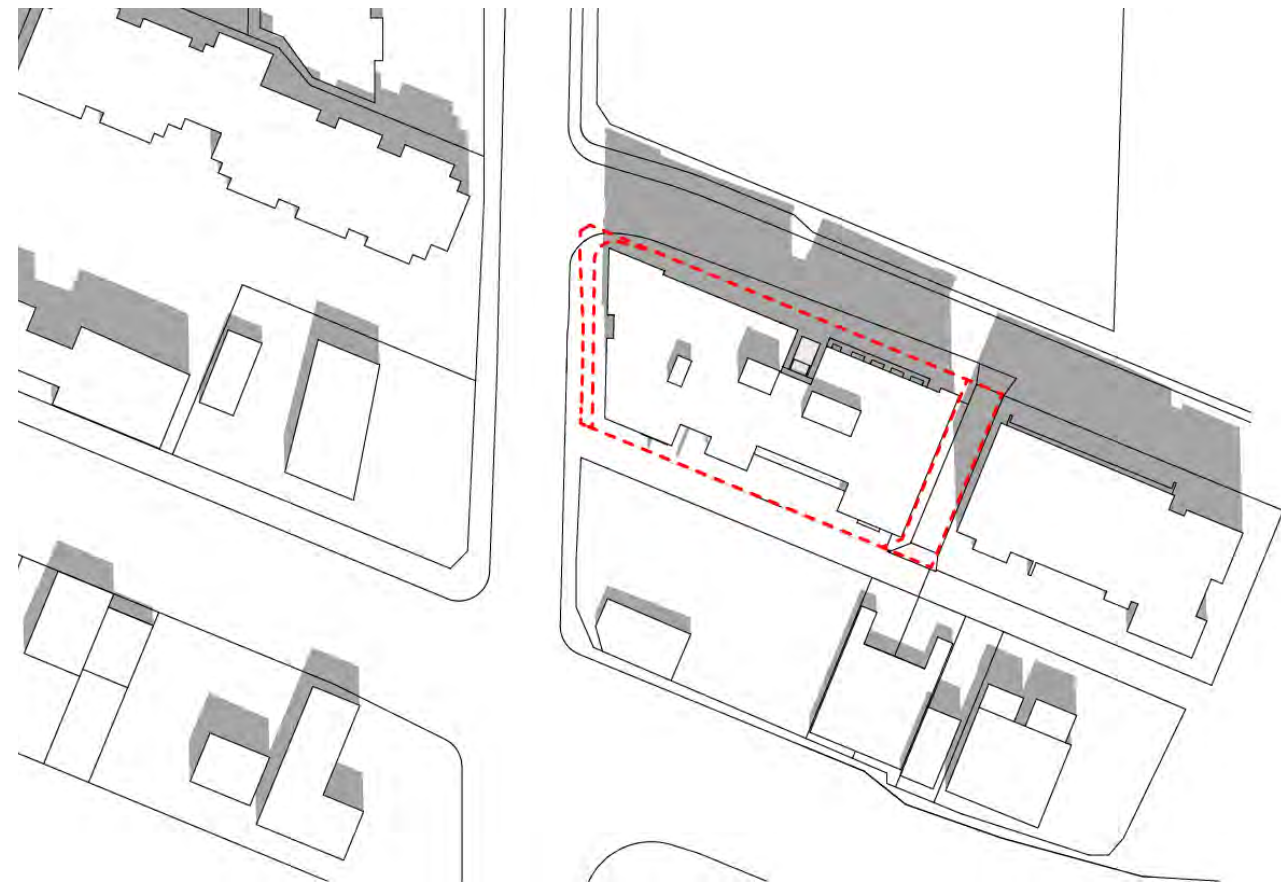
JUNE 21 2:00PM



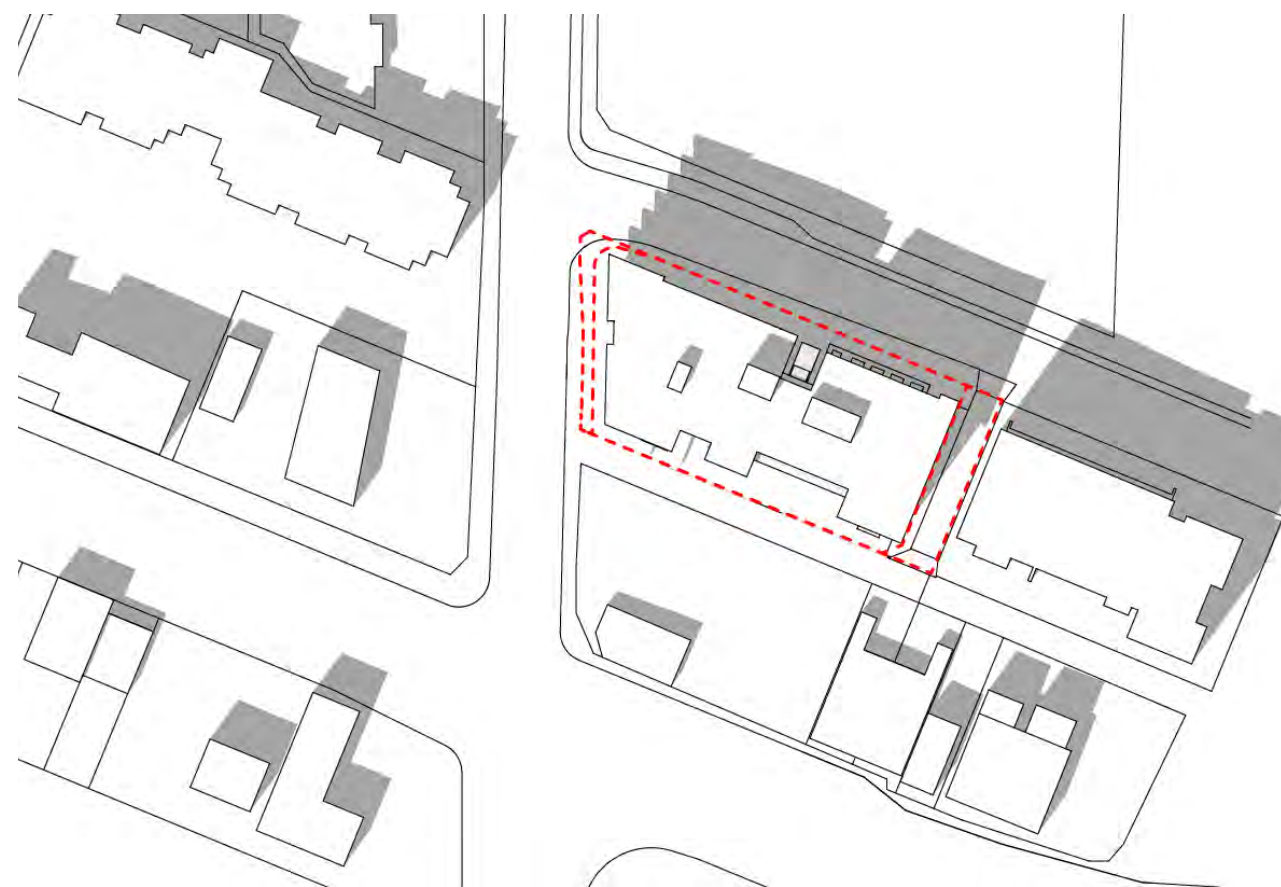
JUNE 21 6:00PM



SEPTEMBER 21 10:00AM



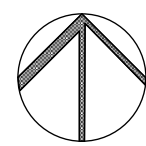
SEPTEMBER 21 12:00PM



SEPTEMBER 21 2:00PM



SEPTEMBER 21 6:00PM



TRICOR PACIFIC LANDS

REDIC
DEVELOPMENTS

eta
landscape architecture

NO — DATE — ISSUE —

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YAMAMOTO
ARCHITECTURE

202 - 33 East 8th Avenue
Vancouver, BC V5T 1R5
T - 604 731 1127 F - 604 731 1327

PROJECT —

Residential Apartment

220 Mountain Highway & 1555 Oxford Street
District of North Vancouver, BC

DRAWING TITLE —

Shadow Analysis

SCALE — 3/32" = 1'-0"

DATE — Nov 19, 2018

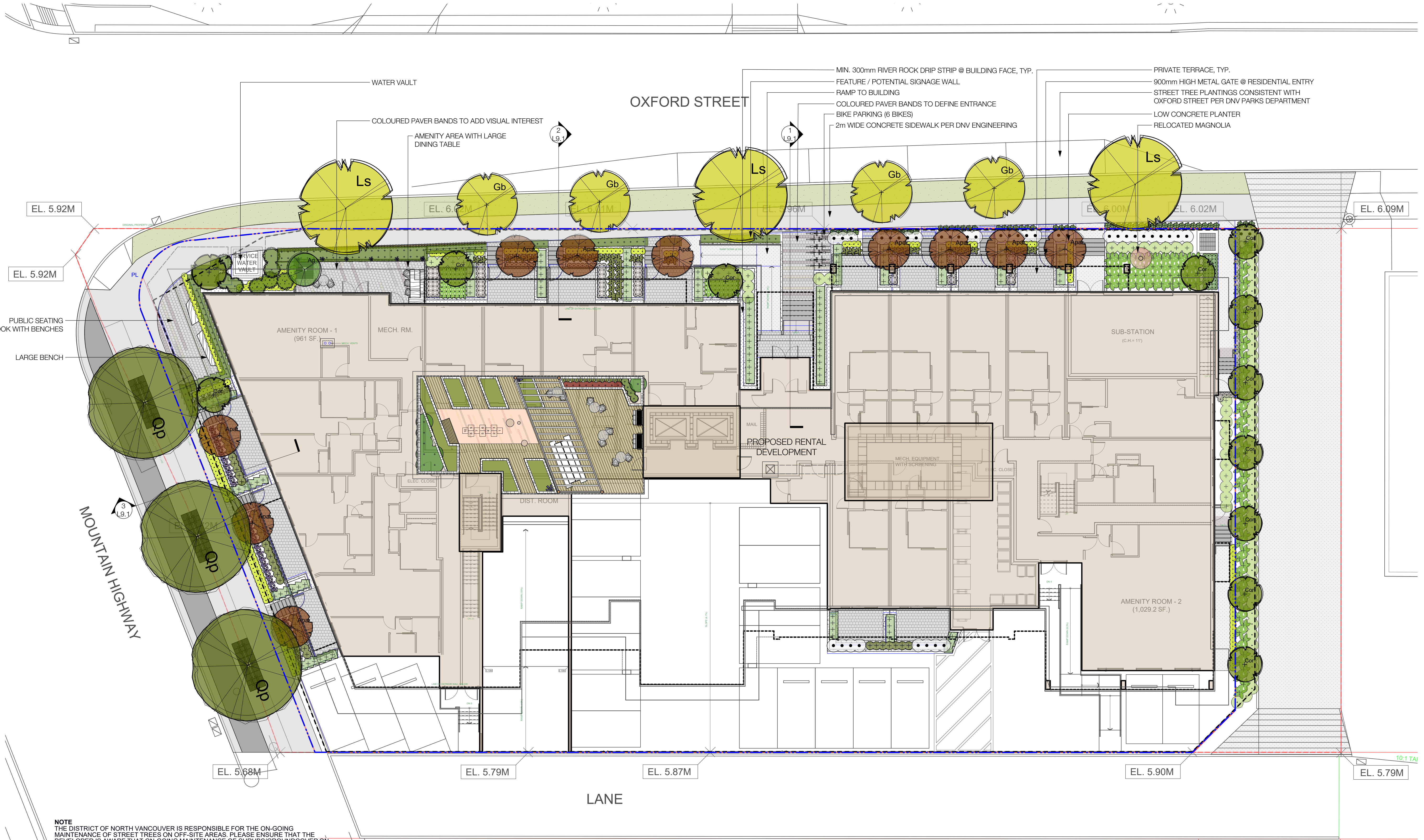
DRAWN — TY/JL

CHECKED —

SHEET NO. —

A0.3

PROJ NO — 1702



NOTE
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 ON-GOING MAINTENANCE OF SHRUBS/GROUNDCOVER ON OFF-SITE AREAS (I.E. BOULEVARDS) IS THE RESPONSIBILITY OF THE FUTURE PROPERTY OWNER

FINAL APPROVAL/SELECTION OF ANY OFF-SITE STREET TREES/SITE FURNITURE WILL BE MADE BY DNV STAFF. THE TREE SPECIES/FURNITURE TYPES SPECIFIED ON THIS PLAN COULD BE SUBJECT TO CHANGE.

Revision		
No.	Date	Revision Notes

Issue No.	Date	Issue Notes
A	18-11-11	Issued for Review
B	18-11-14	Issued for Review
C	18-11-27	Issued for DP
D	19-02-04	Open House
E	19-02-11	Re-Issued for Open House
F	19-02-14	Issued for ADP
G	20-06-09	Issued for Rezoning/ReDP

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Project

Oxford Street Rental

220 Mountain Highway to 1555 Oxford
Street, District of North Vancouver, B.C

Drawing Title

Illustrative Plan

Legal

220 Mountain Highway to 1555 Oxford

Project Manager VG	Project ID 21716
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No.
Date 2017.04.06	L0.2 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx

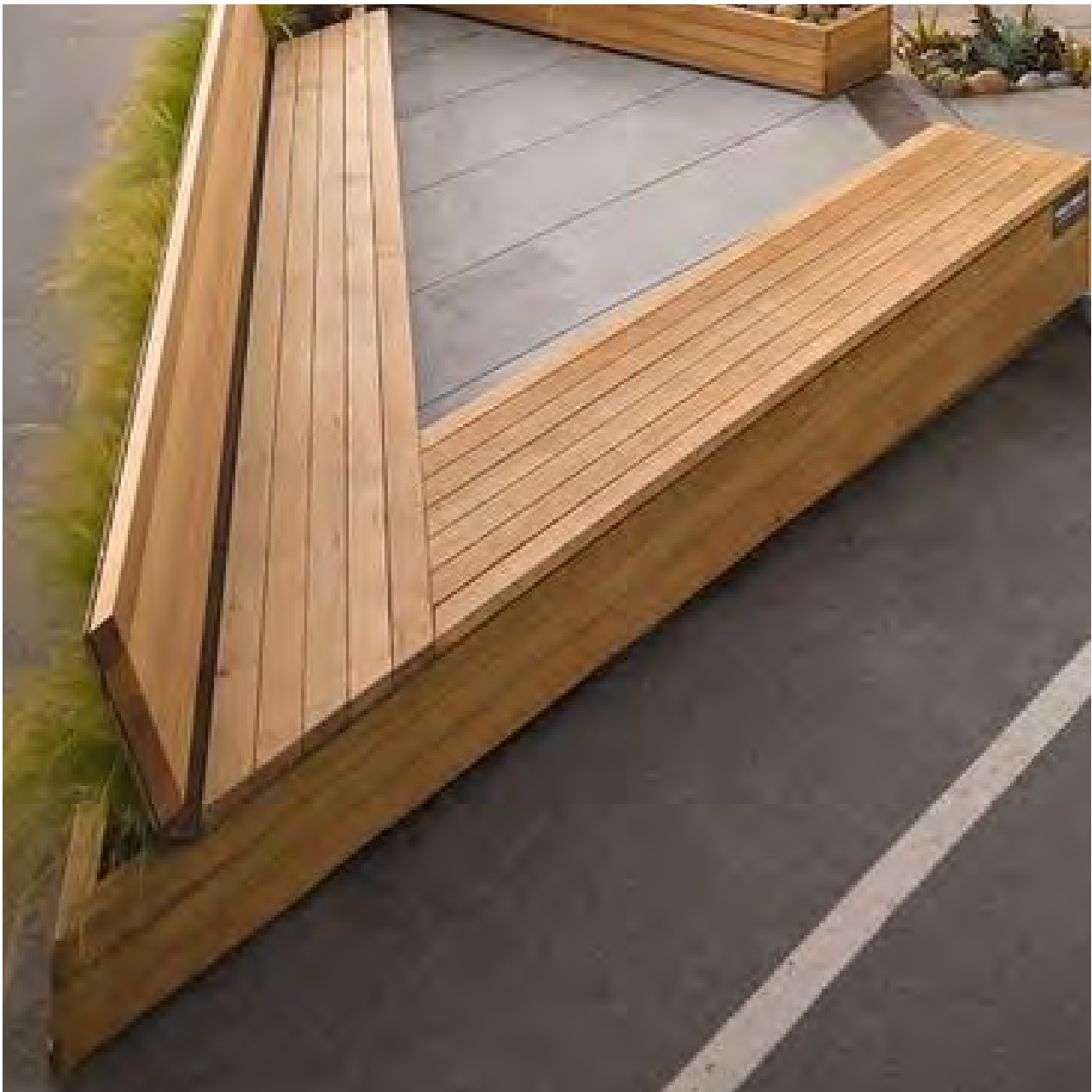
COLOURED PAVERS



ALUMINUM ARBOUR



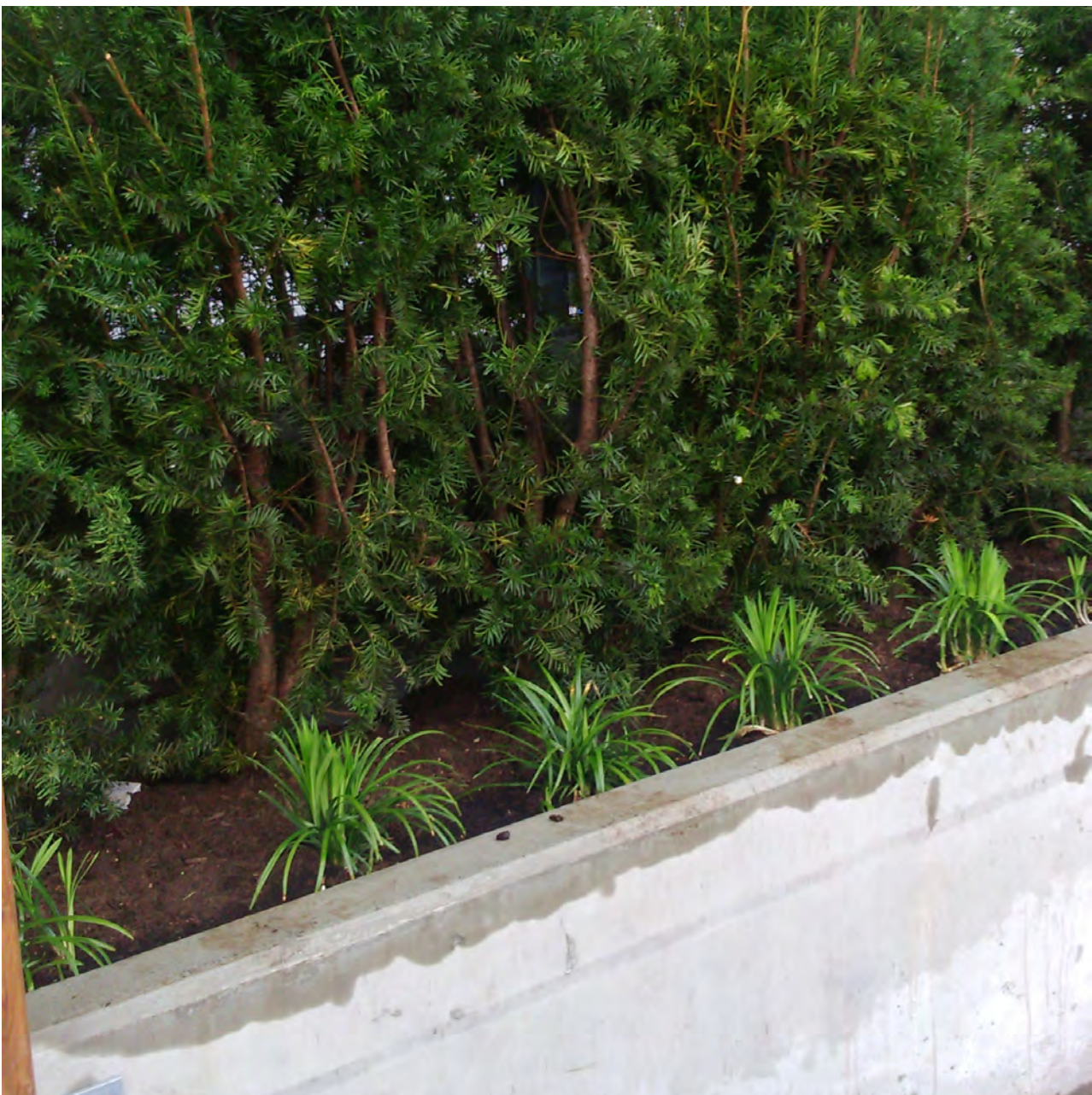
WOOD BENCHES



OUTDOOR DINNING TABLE



CONCRETE PLANTER



YELLOW BIKE RACK



Revision		
No.	Date	Revision Notes

Issue		
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Project

Oxford Street Rental

220 Mountain Highway to 1555 Oxford Street, District of North Vancouver, B.C

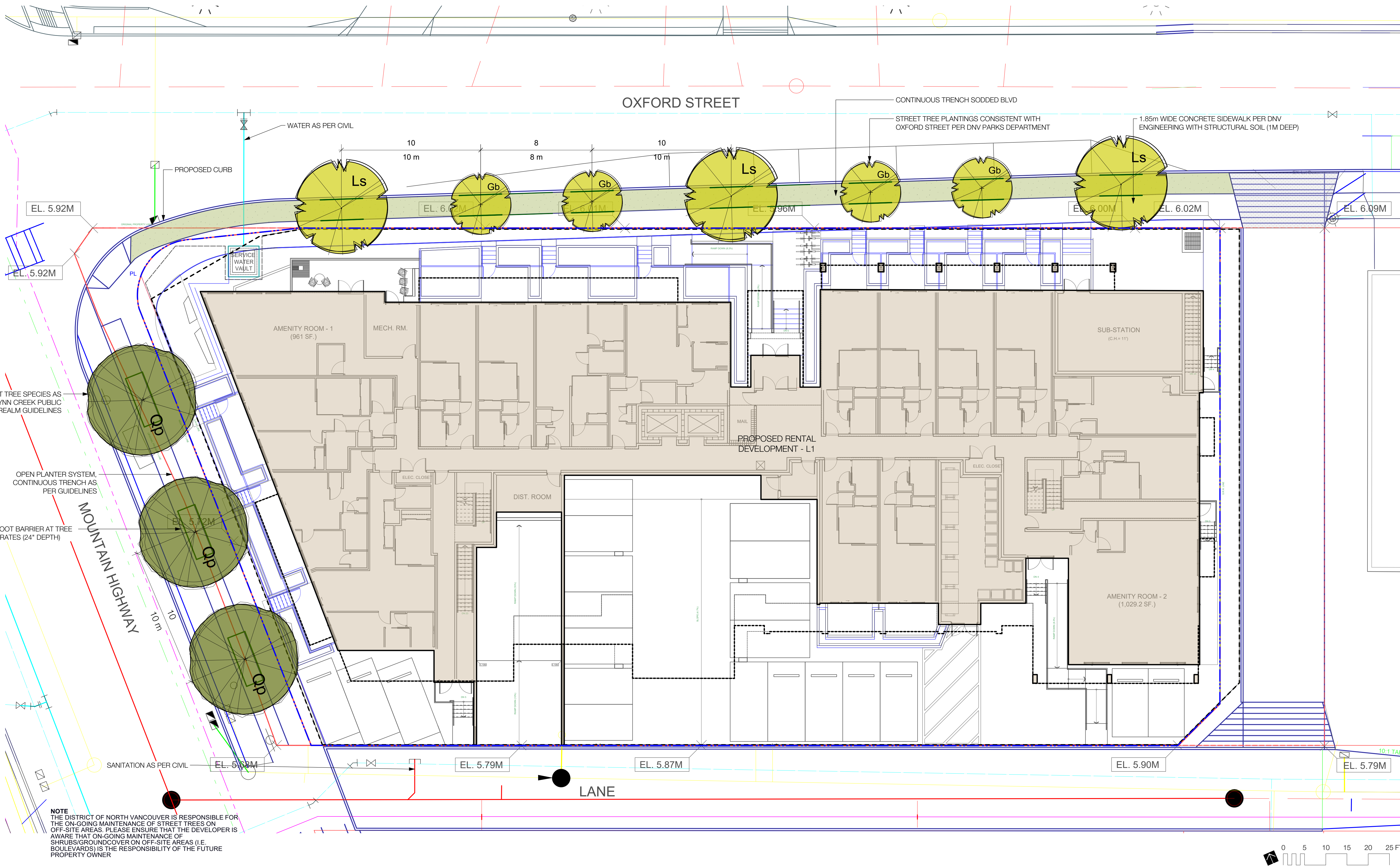
Drawing Title

Precedent Images

Legal
220 Mountain Highway to 1555 Oxford

Project Manager VG	Project ID 21716
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No.
Date 2017.04.06	L0.3 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx



Revision		
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Project

Oxford Street Rental

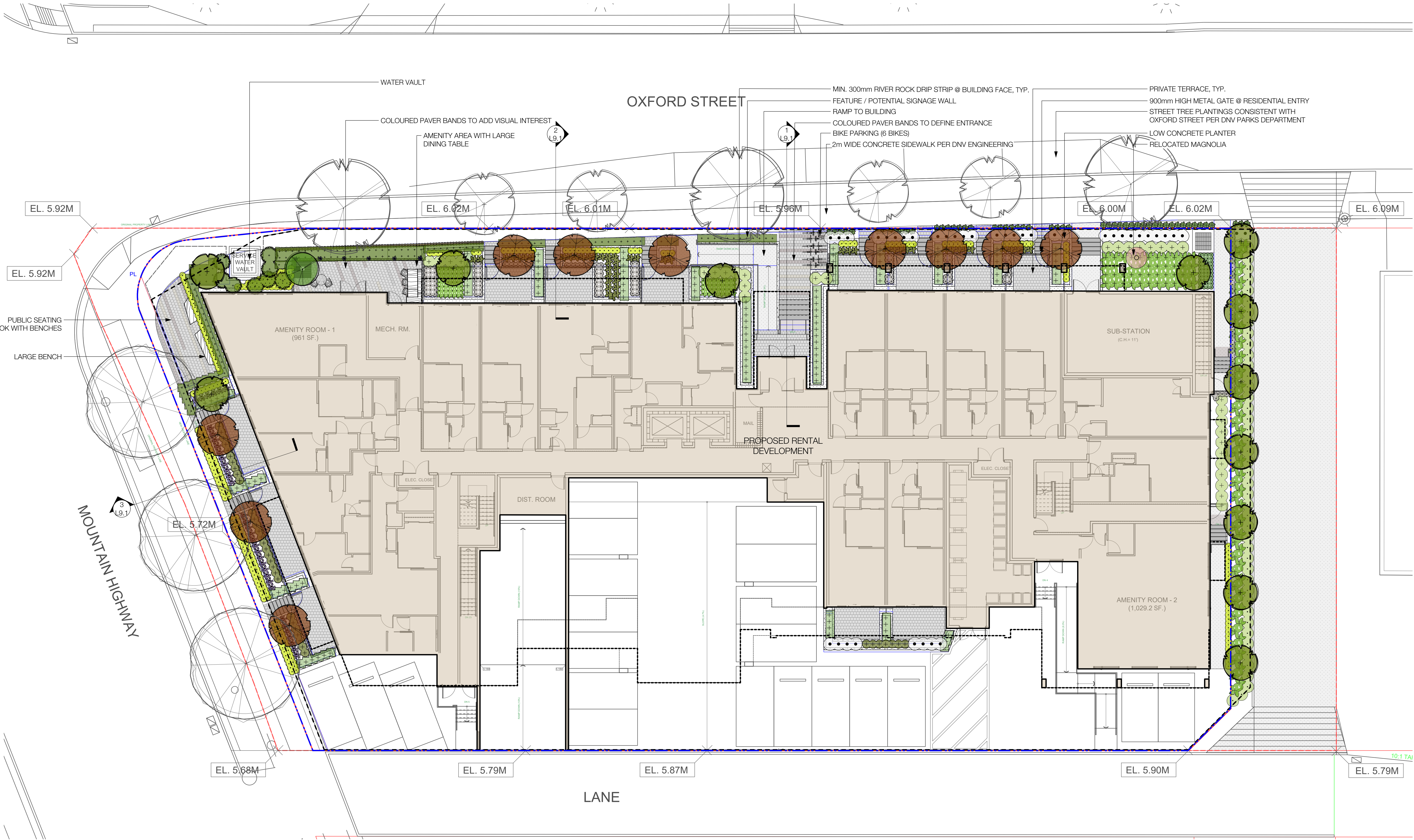
220 Mountain Highway to 1555 Oxford Street, District of North Vancouver, B.C

Drawing Title

Offsite Softscape Plan

Legal 220 Mountain Highway to 1555 Oxford	
Project Manager VG	Project ID 21716
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No.
Date 2017.04.06	L2.2 of 28

NOTE:
The final location and species selection will be to the satisfaction of the District
The DNV is responsible for the on-going maintenance of street trees on off-site areas. Please ensure that the developer is aware that on-going maintenance of shrubs/groundcover on off-site areas (i.e. blvds) is the responsibility of the future property owner.



Revision		
No.	Date	Revision Notes
Issue		
No.	Date	Issue Notes
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Project
Oxford Street Rental

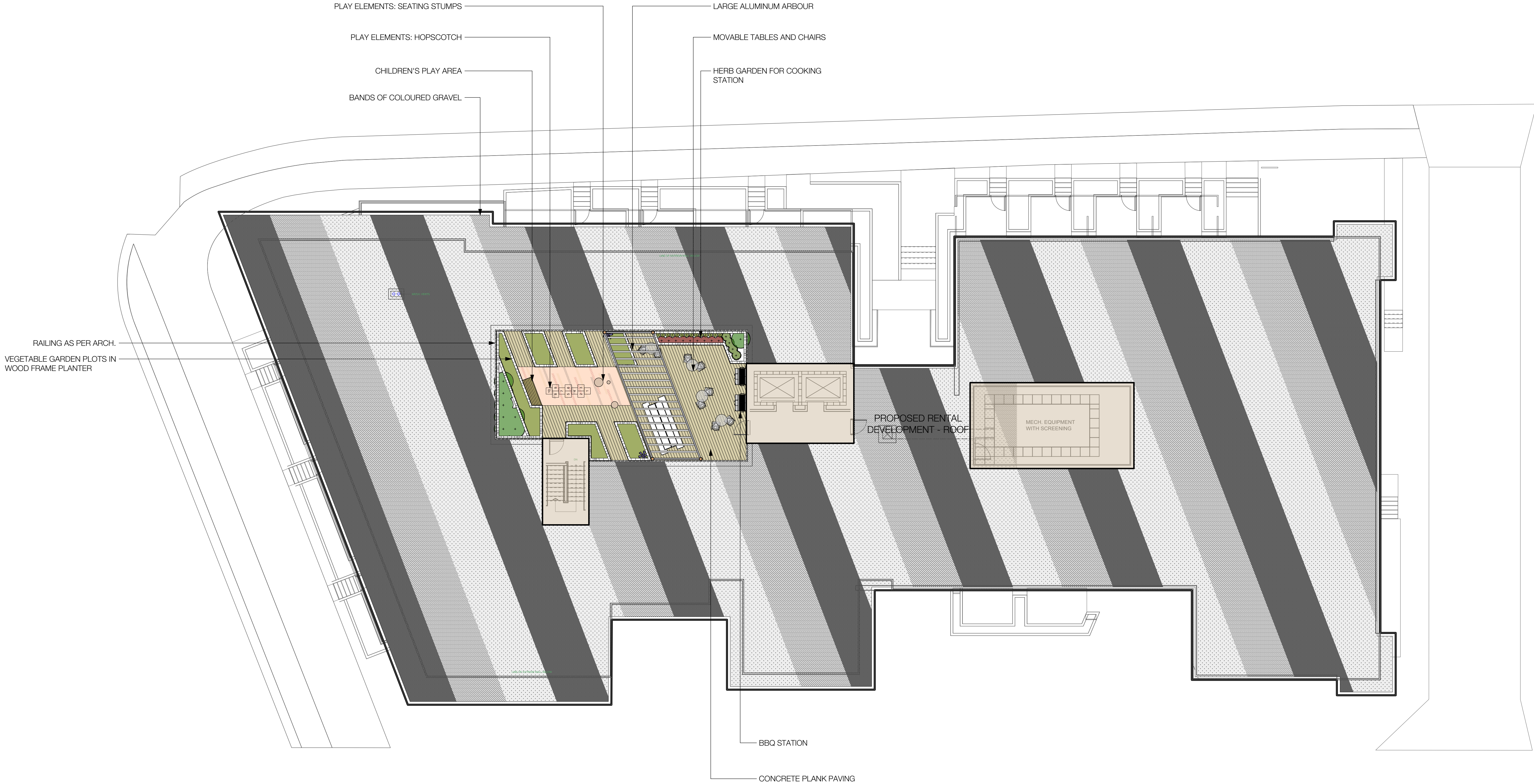
220 Mountain Highway to 1555 Oxford Street, District of North Vancouver, B.C

Drawing Title
Landscape Plan
L1

Legal
220 Mountain Highway to 1555 Oxford

Project Manager VG	Project ID 21716
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No.
Date 2017.04.06	L3.1 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx



Revision		
No.	Date	Revision Notes

Issue		
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Project

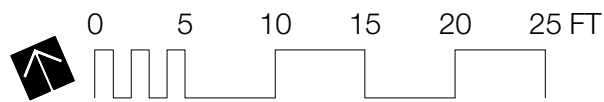
Oxford Street Rental

220 Mountain Highway to 1555 Oxford
Street, District of North Vancouver, B.C

Drawing Title

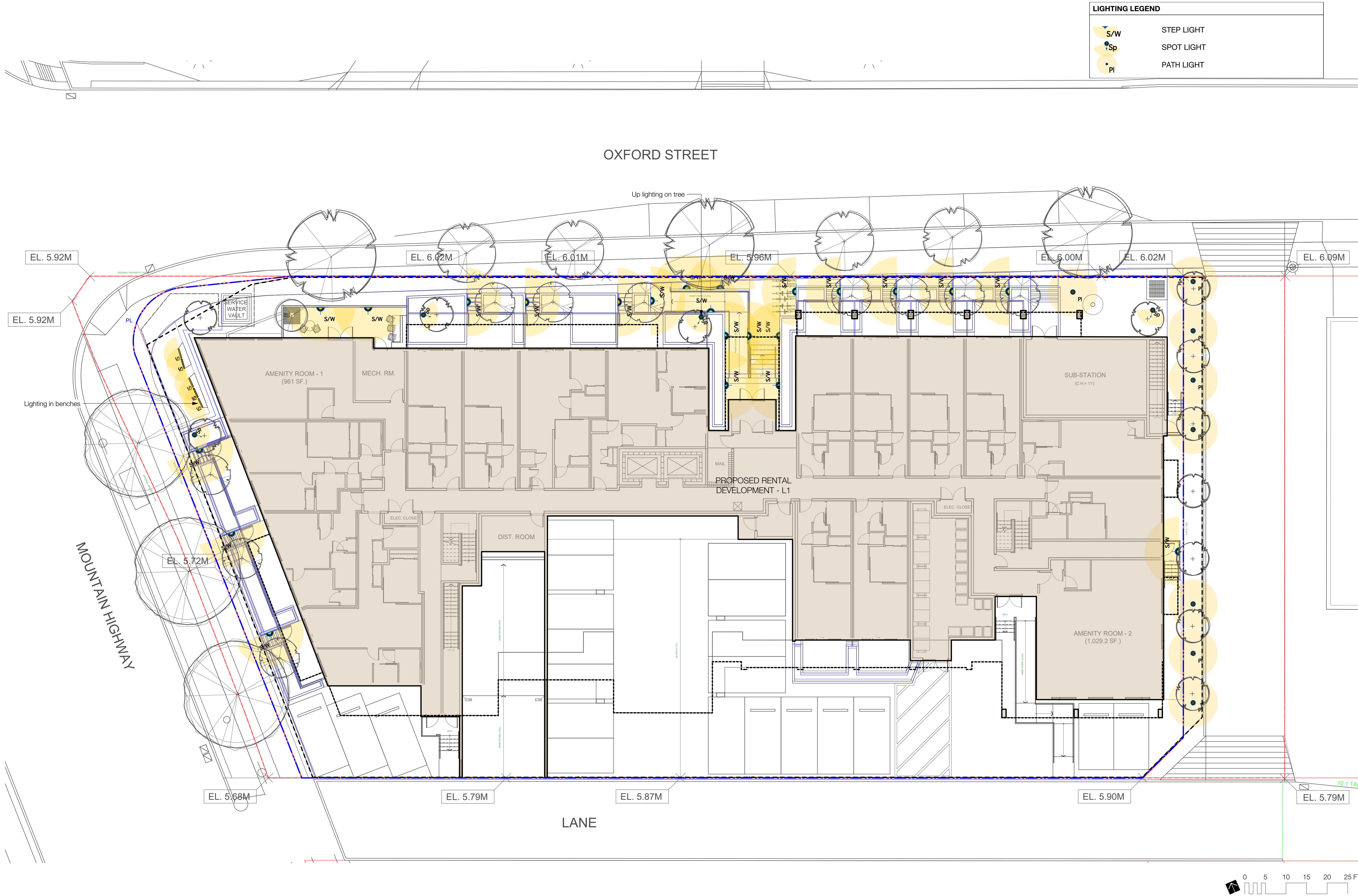
Landscape Plan Roof

Legal
220 Mountain Highway to 1555 Oxford



Project Manager VG	Project ID 21716
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No.
Date 2017.04.06	L3.2 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx



Revision		
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Project
Oxford Street Rental

220 Mountain Highway to 1555 Oxford Street, District of North Vancouver, B.C

Drawing Title
Lighting Plan
L1

Legal
220 Mountain Highway to 1555 Oxford

Project Manager VG	Project ID 21716
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No.
Date 2017.04.06	L4.3 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx



Revision		
No.	Date	Revision Notes

Issue No.	Date	Issue Notes
A	18-11-11	Issued for Review
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Project

Oxford Street Rental

220 Mountain Highway to 1555 Oxford
Street, District of North Vancouver, B.C

Drawing Title

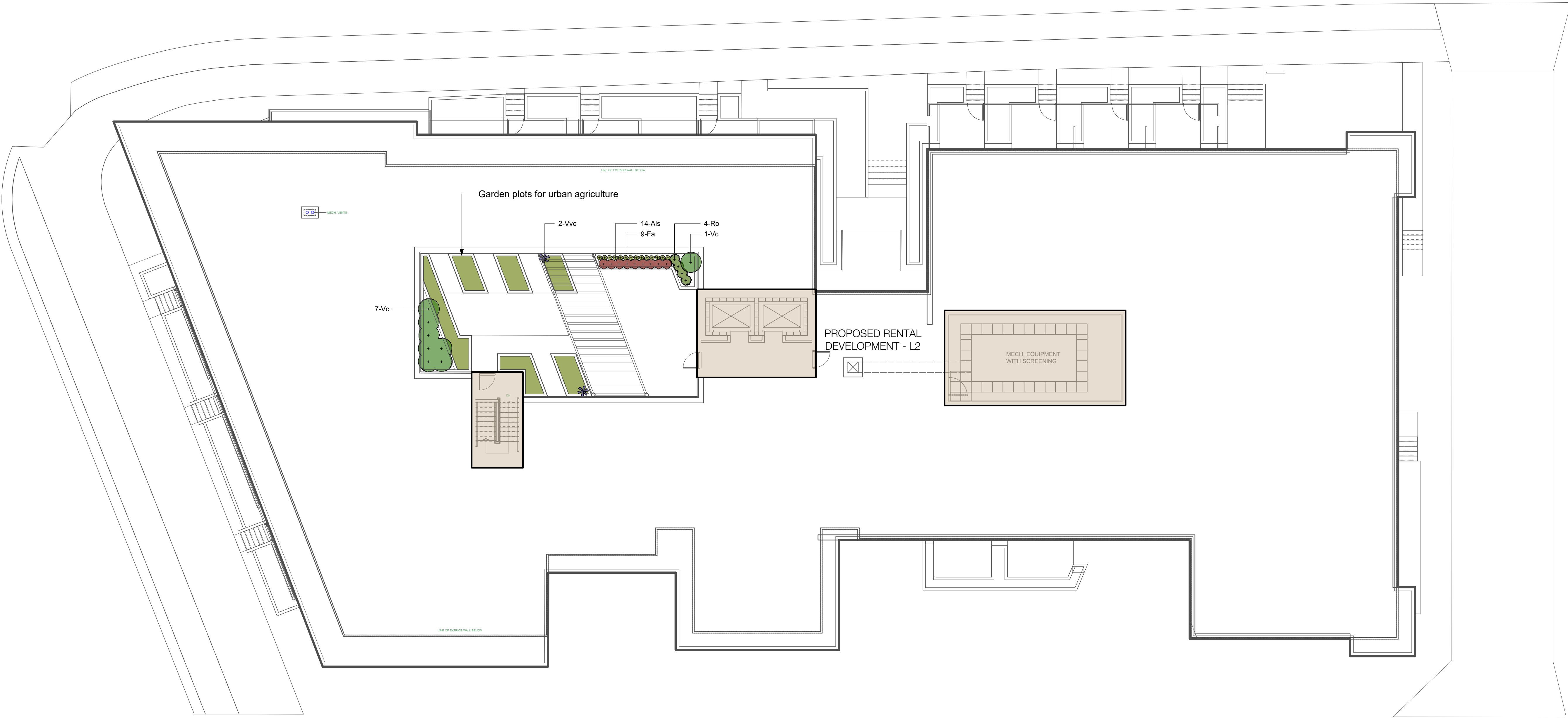
Tree Plan

L1

Legal
220 Mountain Highway to 1555 Oxford

Project Manager VG	Project ID 217116
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No.
Date 2017.04.06	L6.2 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx



Revision		
No.	Date	Revision Notes

Issue		
No.	Date	Issue Notes
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Project

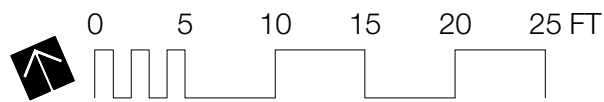
Oxford Street Rental

220 Mountain Highway to 1555 Oxford
Street, District of North Vancouver, B.C

Drawing Title

Planting Plan
Roof

Legal
220 Mountain Highway to 1555 Oxford



Project Manager VG	Project ID 21716
Drawn By VG	Scale 3/32"=1'0"
Reviewed By	Drawing No. L6.3 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx

Revision		
No.	Date	Revision Notes

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Project

Oxford Street Rental

220 Mountain Highway to 1555 Oxford Street, District of North Vancouver, B.C

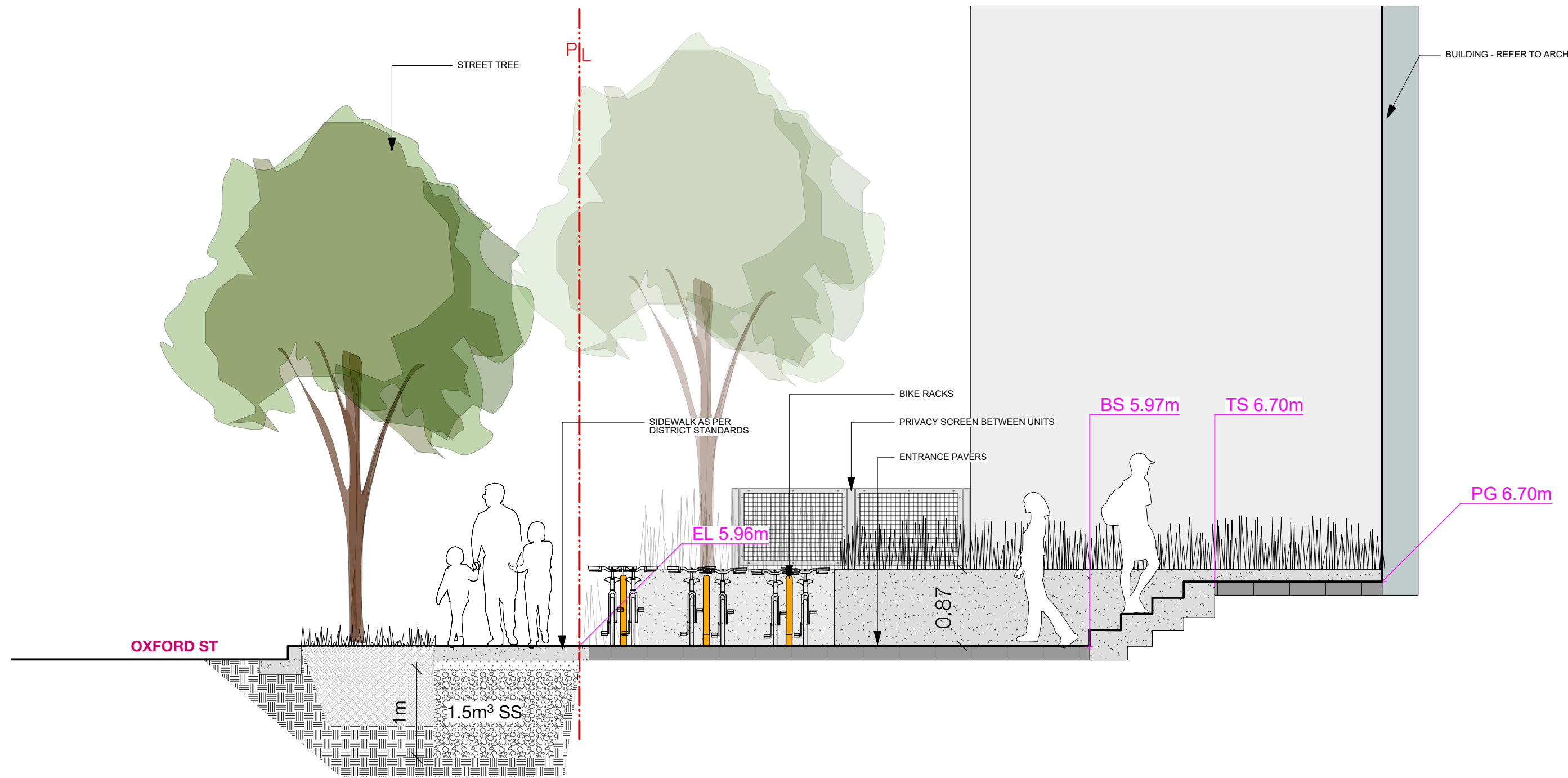
Drawing Title

Landscape Sections

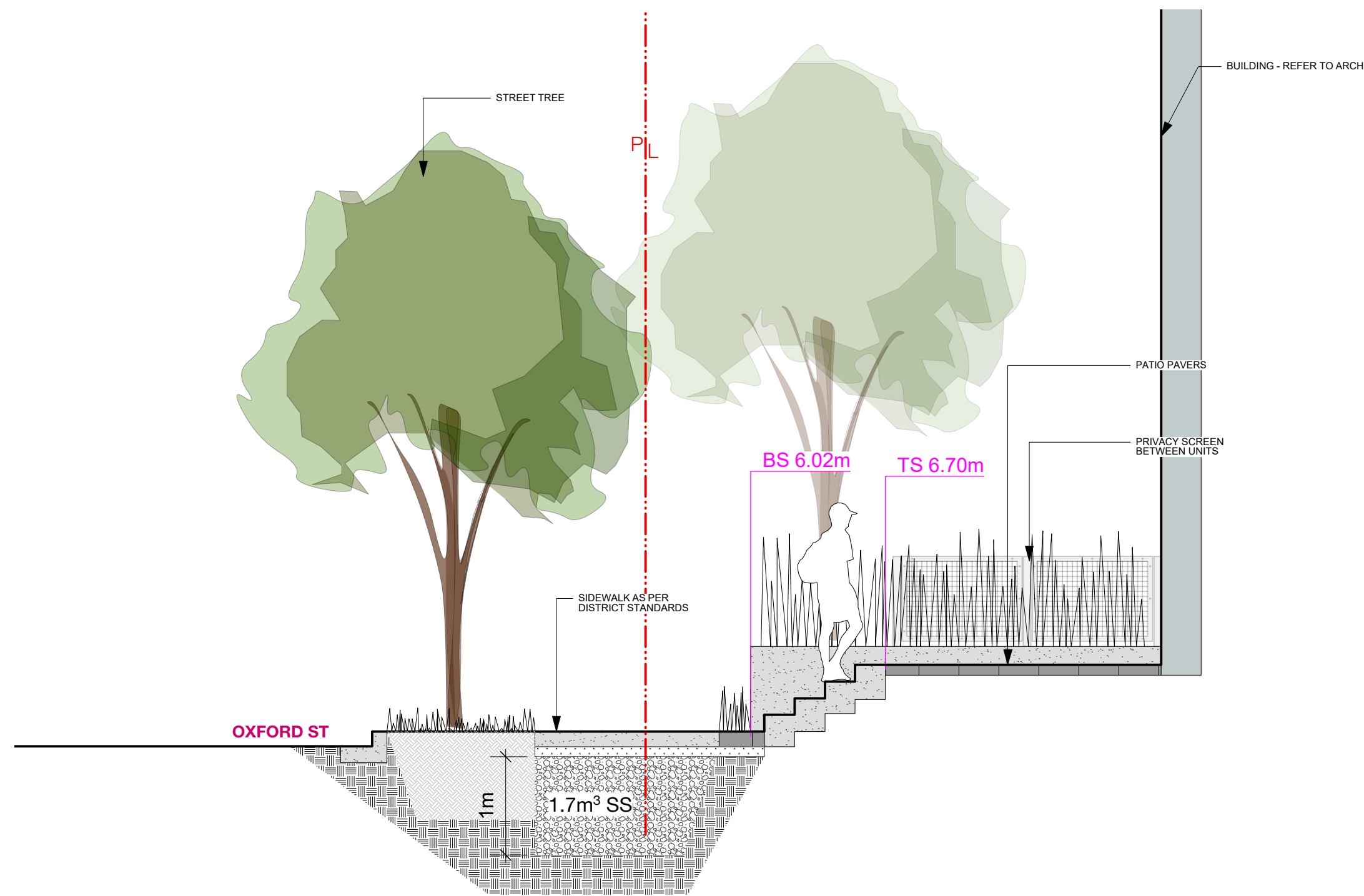
Legal
220 Mountain Highway to 1555 Oxford

Project Manager VG	Project ID 217116
Drawn By VG	Scale as noted
Reviewed By	Drawing No.
Date 2017.04.06	L9.0 or 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx



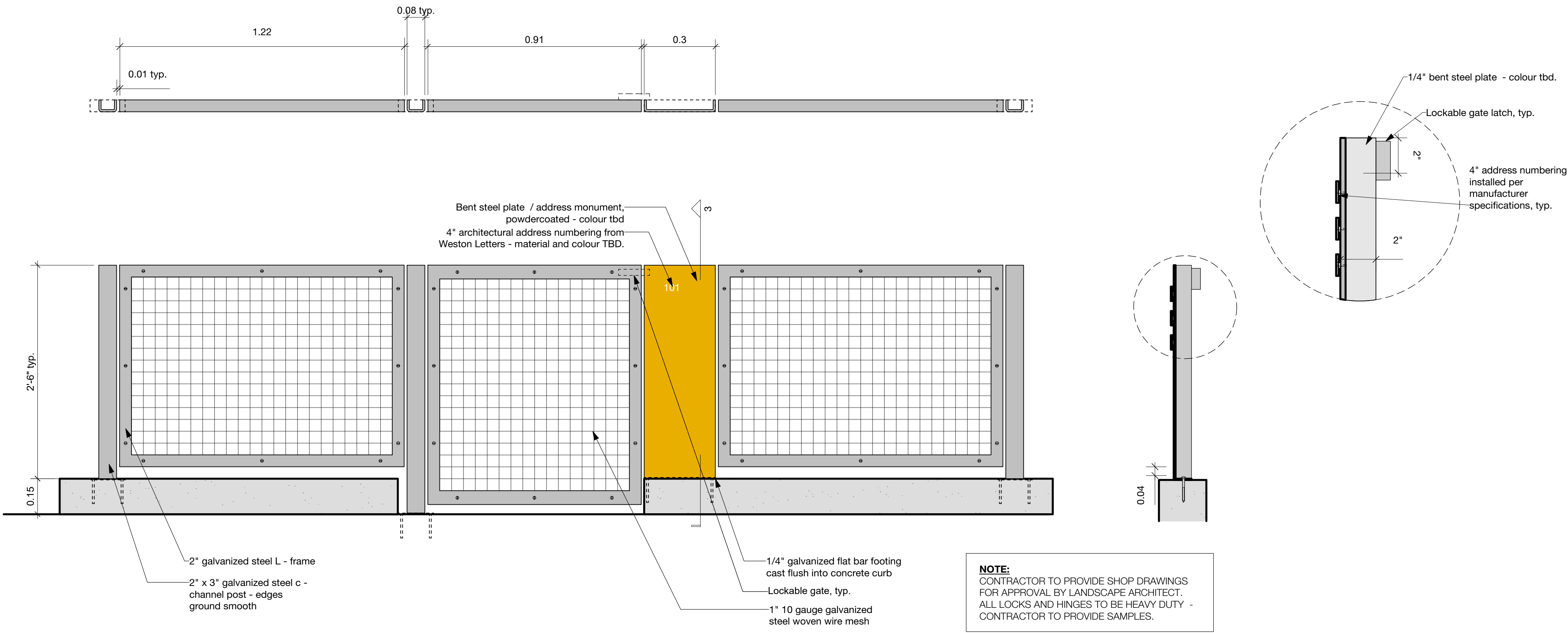
1 Section: Main Entrance at Oxford St
Scale: 1:48



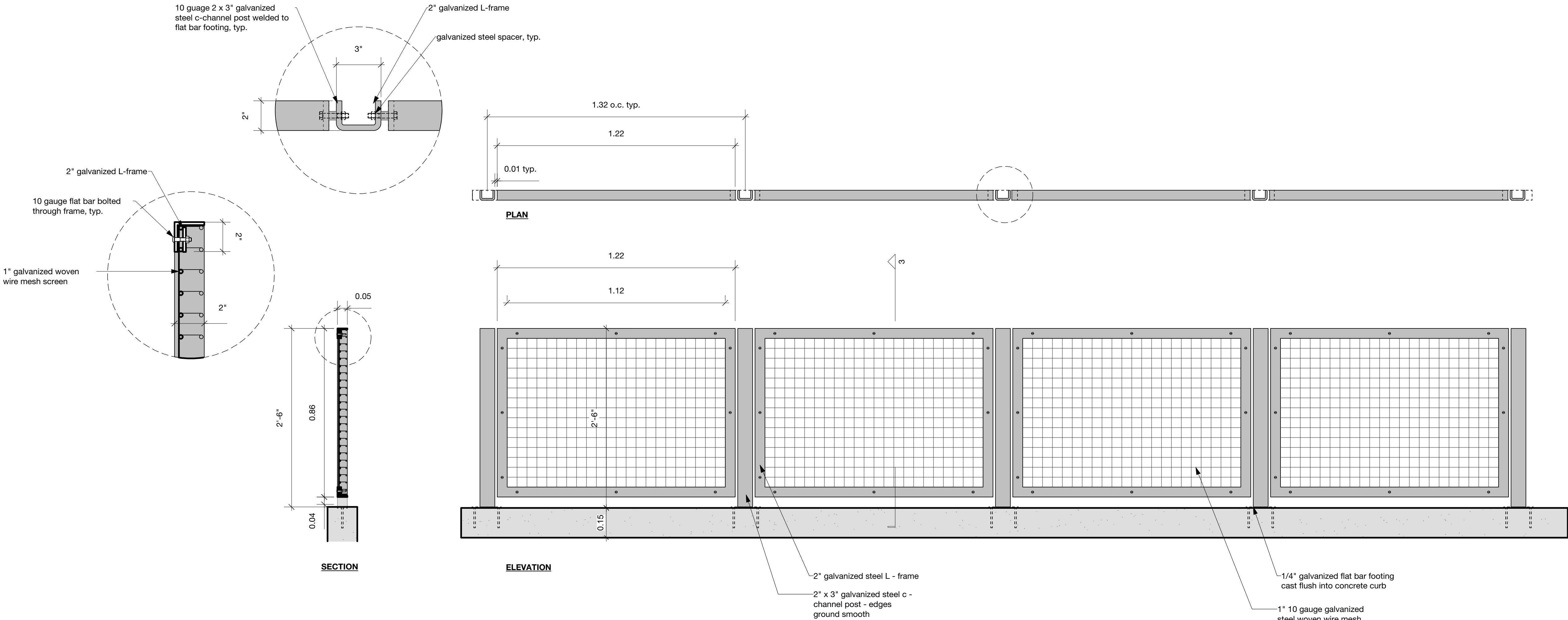
2 Section: Unit Entry at Oxford St
Scale: 1:48



3 Section: Building Face to Curb on Mountain Highway
Scale: 1:48



1 GATE AND ADDRESS PANEL
Scale: 1:12



2 METAL FENCE
Scale: 1:12

Revision		
No.	Date	Revision Notes

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Project

Oxford Street Rental

220 Mountain Highway to 1555 Oxford
Street, District of North Vancouver, B.C

Drawing Title

Landscape Details

Legal

220 Mountain Highway to 1555 Oxford

Project Manager VG	Project ID 21716
Drawn By VG	Scale as noted
Reviewed By	Drawing No. L10.3
Date 2017.04.06	— of — 28

Plot Date:
20-6-9
21716 Oxford Rental-2019.vwx

NOTES: GENERAL

- BENCH MARK: ELEVATIONS ARE TO DISTRICT OF NORTH VANCOUVER GEODETIC DATUM, AND ARE DERIVED FROM CONTROL MONUMENT 73H1299, PUBLISHED ELEVATION=5.588m, ISA NO.16,NAD 83,(C.S.R.S.) 2005.

TEMPORARY BENCHMARK 2.75m NORTH OF NORTH WEST PROPERTY LINE CORNER (LEAD PLUG) ELEV=7.616m
- ALL WORK SHALL BE IN ACCORDANCE WITH MASTER MUNICIPAL SPECIFICATIONS AND STANDARD DETAIL DRAWINGS AND THE DISTRICT OF NORTH VANCOUVER DEVELOPMENT SERVICING BYLAW 8145, WATERWORKS BYLAW 2279, SEWERWORKS BYLAW 6656, AND ENVIRONMENTAL PROTECTION BYLAW 6515.
- CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING AND COORDINATING WORK TO BE PERFORMED BY THE DISTRICT OF NORTH VANCOUVER CREWS.
- LOCATIONS, EXTENT AND DETAILS OF EXISTING UNDER-GROUND UTILITIES HAVE BEEN COMPILED FROM FIELD SURVEY AND FROM "AS-CONSTRUCTED" DRAWINGS. THE CONTRACTOR SHALL VERIFY LOCATIONS AND ELEVATIONS OF ALL PIPES AND OTHER UTILITY CROSSINGS PRIOR TO COMMENCING CONSTRUCTION, AND SHALL NOTIFY DAVID NAIRNE & ASSOCIATES LTD. OF ANY CONFLICTS, DISCREPANCIES, OR OMISSIONS. CONSULTANT ENGINEER WILL REVISE IFC DRAWINGS TO INCLUDE CONTRACTOR VERIFIED AS-BUILT INFORMATION AND CLEAR ALL CONFLICTS TO PROVE DESIGN WILL BE FUNCTIONAL. REVISED IFC DRAWINGS TO BE SENT TO DNV WITH ADJUSTED INFORMATION CLOUDED FOR REVIEW. CONTRACTOR WILL NOT COMMENCE WORK UNTIL THE REVISED IFC DRAWINGS HAVE BEEN REVIEWED AND ACCEPTED BY DNV.
- ALL UTILITY SERVICE TRENCHES EFFECTING EXIST. ASPHALT SHALL BE BACKFILLED WITH GRANULAR COMPACTED MATERIAL IN ACCORDANCE WITH MMCD STD DWG G4 & G5 ASPHALT EDGE SHALL BE SAW-CUT PRIOR TO PATCHING.
- FOR TREE RETENTION PLAN REFER TO LANDSCAPE DWG L .
- FOR STREET LIGHTING & SIGNALIZATION REFER TO DWG E .
- FOR ROAD WORKS AND LANES REFER TO DWG C2.

WATERWORKS

- INSTALL HYDRANT ASSEMBLY AS PER STD. DWG W-6
 - INSTALL AIR-VALVE ASSEMBLY AS PER STD. DWG W-12
 - INSTALL BLOW-OFF ASSEMBLY AS PER STD. DWG W-2 AND W-7
 - INSTALL GATE-VALVE COVERS AS PER STD. DWG W-1 AND W-9
 - INSTALL THRUST BLOCKS AS PER STD. DWG W-8
 - INSTALL WATER SERVICE CONNECTION AS PER STD. DWG W-4
- CONTRACTOR TO VERIFY THE LOCATION AND ELEVATION OF ALL EXISTING SERVICES PRIOR TO CONSTRUCTION AND TO NOTIFY THE ENGINEER OF ANY ERRORS, CONFLICTS OR OMISSIONS.
 - CONTRACTOR WILL BE RESPONSIBLE TO ENSURE THAT CURRENT SERVICE CONNECTION LISTS FROM TERASEN, BC HYDRO AND TELUS ARE ON SITE PRIOR TO CONSTRUCTION.
 - TRENCH WIDTH AND BACKFILL INSTRUCTIONS AS PER STD. DWG S-1. LAY WATERMAIN INVERT TO PROFILE GRADE SHOWN. ALL GRADE STAKE CUTS GIVEN ARE TO PIPE INVERT ELEVATIONS AND A MIN. OF 100mm MUST BE EXCAVATED BELOW THESE ELEVATIONS DEPENDING ON SOIL CONDITIONS.
 - ALL CUTS IN EXISTING PAVEMENTS, CURBS, GUTTERS, SIDEWALKS, ETC. REQUIRED FOR TRENCHING SHALL BE VERTICAL. CUT WITH A 100mm DEPTH CONCRETE PAVEMENT GRIT SAW, AND REPLACED WITH A MIN. 100mm ASPHALT OR EQUIVALENT AFTER BACKFILL AND COMPACTION. ALL PAVEMENTS, BOULEVARDS, FENCES, ETC. ARE TO BE RESTORED TO ORIGINAL OR BETTER CONDITION WHEN NO IMPROVEMENT IS PROPOSED UNDER THIS CONTRACT.
 - TESTING AND CHLORINATING OF WATERMAINS TO BE PERFORMED BY A THIRD PARTY TESTING COMPANY AND WITNESSED BY THE CONSULTING ENGINEER AND BY THE DISTRICT INSPECTOR.
 - ALL WATERMAIN TO BE AWWA C151 TR-FLEX CLASS 50 DUCTILE IRON (CEMENT MORAR LINED) UNLESS NOTED OTHERWISE.
 - CONTRACTOR TO SUPPLY AND INSTALL NEW 20mm COPPER WATER CONNECTIONS.
 - MINIMUM GRADE ON WATERMAIN IS TO BE 0.30%.
 - MINIMUM COVER ON WATERMAIN IS TO BE 1.2m.
 - ALL BEDDING MATERIAL IS TO BE 13mm MINUS SAND.

SANITARY SEWER

- SANITARY SEWER SERVICE PIPE SHALL BE P.V.C., S.D.R. 28. MAINLINE SDR 35.
 - ALL BEDDING MATERIAL TO BE TYPE 1 GRANULAR BEDDING AND SURROUND.
 - ALL BEDDING AND TRENCH BACK FILL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR, IN LIFTS OF 150mm MAXIMUM.
- STORM SEWER
- STORM SEWER SERVICE PIPE SHALL BE P.V.C., S.D.R. 35.
 - ALL BEDDING MATERIAL TO BE TYPE 1 - GRANULAR BEDDING AND SURROUND.
 - ALL BEDDING AND TRENCH BACK FILL SHALL BE COMPACTED TO 95% MODIFIED PROCTOR, IN LIFTS OF 150mm MAXIMUM.

UNLESS OTHERWISE NOTED

ALL STORM CONNECTIONS ARE 150 DIA. PIPE
ALL SANITARY CONNECTIONS ARE 100 DIA. PIPE
ALL WATER CONNECTIONS ARE 19 DIA. COPPER PIPE

"I, MELISSA FAHEY PROFESSIONAL ENGINEER, IN GOOD STANDING IN AND FOR THE PROVINCE OF BRITISH COLUMBIA, HEREBY CERTIFY THAT THE WORKS AS HEREIN SET OUT ON THE ATTACHED DRAWINGS HAVE BEEN DESIGNED TO GOOD ENGINEERING STANDARDS AND IN ACCORDANCE WITH THE DISTRICT OF NORTH VANCOUVER DEVELOPMENT SERVICING BYLAW, DATED JUNE 2017, THE MASTER MUNICIPAL CONSTRUCTION DOCUMENTS(MMCD), VERSION 2009 AND THE DISTRICT OF NORTH VANCOUVER SUPPLEMENTARY MASTER MUNICIPAL CONSTRUCTION DOCUMENTS (SUPPLEMENTARY SPECIFICATIONS AND SUPPLEMENTARY STANDARD DRAWINGS), ADOPTED BY THE DISTRICT OF NORTH VANCOUVER."

SIGNATURE

DRAWING No.

C1.1

DF#:

NOTE: METRIC DRAWING
Published : Jun 03, 2020

KEY PLAN
1515 OXFORD ST.
RESIDENTIAL DEVELOPMENT

SURVEY BOOK

SEAL

PEER REVIEW

REF DWG

REDIC
DEVELOPMENTS

REDICK WEST COAST OXFORD GP Ltd.
200-111 W. Hastings, Vancouver, B.C. Canada

DNA
project managers
planners
engineers
architects
David Nairne & Associates Ltd
DNA PROJECT # XXXX

Suite 250
171 West Esplanade
North Vancouver
BC V7M 3J9
CANADA
T 604 984 3503
F 604 984 0627
E dna@davidnairne.com

SCALE :
HOR. 1 : 250
VERT.
DATE :
NOV. 23, 2018

DESIGN : DJS
DRAWN : MF
CHECKED : MF
APPROVED : MF

DR. CHK.
JM MF
DJS MF
JJF MF

No.	DATE	REVISION
1	NOV 23.18	ISSUED FOR DETAILED RE-ZONING APPLICATION
2	MAY 3,19	ISSUED FOR RE-ZONING APPLICATION
3	FEB 14, 20	REISSUED FOR RE-ZONING APPLICATION

BENCH MARK :

15-B
MIN. 800mm (32") CLEAR DIMENSION FROM THE FRONT EDGE OF THE TOILET TO THE FACING WALL
SPACE FROM THE FRONT EDGE OF THE BATHTUB TO THE CENTRE OF THE TOILET IS MIN. 508mm (20")

10-B
MIN. 850mm (34") CLEAR OPENING WIDTH
A FORCE OF NOT MORE THAN 22N FOR HANDLE
MAX. 13mm (1/2") THRESHOLD

17-B
REINFORCEMENT FOR FUTURE GRAB BAR INSTALLATION

15-B
MIN. 760mm (30") x 1220mm (48")
CLEAR FLOOR AREA IN FRONT OF THE SINK/LAVATORY

20-B
LEVER FAUCET HANDLES
23-E
SPACE UNDER SINK NOT LESS THAN 810mm (32")
16-B
SLIP RESISTANT FLOORING

24-E
MIN. ONE BEDROOM WITH MIN. 1520mm (60") OF MANOEUVRING SPACE BETWEEN CLOSET AND BED

37-B
TELEPHONE JACK TO BE AT LEAST ONE BEDROOM
W/ APPROX. 200mm OR LESS FROM ELECTRICAL OUTLET

38-B
THREE WAY SWITCHED OUTLET NEAR BED AND DOORWAY

44-E
MIN. 860mm (34") CLEAR OPENING WIDTH

44-E
MIN. 1520mm (60") BALCONY DEPTH

45-E
WINDOWS ARE TO HAVE AN OPENING MECHANISM
NO MORE THAN 1170mm (46") ABOVE THE FLOOR AND
BE OPERABLE BY DEVICES TAHT DO NOT REQUIRE TIGHT GRASPING OR TWISTING
WINDOW SILLS ARE TO BE LOCATED NO MORE THAN 760mm (30") ABOVE THE FLOOR

11-B
MIN. 600mm (24") x 1500mm (60") SPACE

12-B
MIN. 800mm (32") CLEAR WIDTH DOOR W/
MAX. 13mm (1/2") THRESHOLD

14-E
MIN. ONE BATHROOM IS TO PROVIDE A
POCKET DOOR

26-B
SLIP RESISTANT FLOORING

29-E
D-SHAPED CABINET HANDLES

30-B
LEVER HANDLES FOR KITCHEN FAUCET

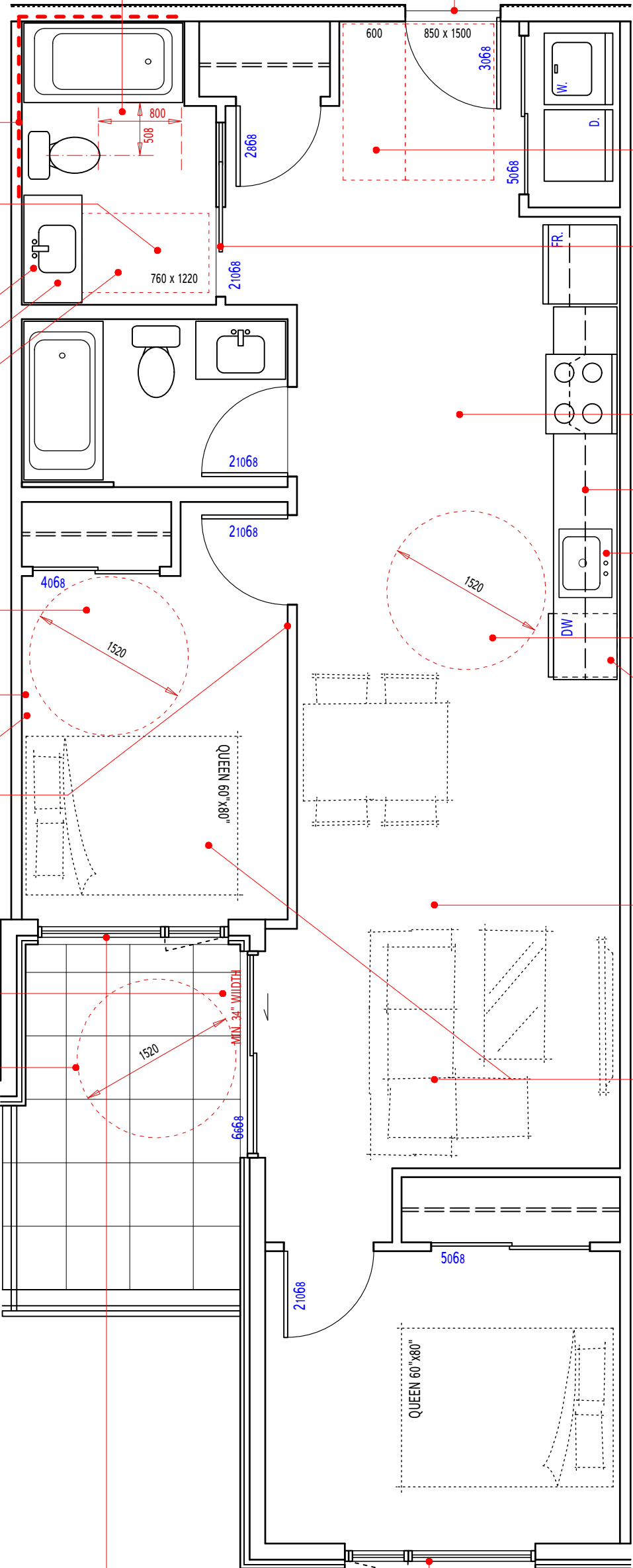
25-E
MIN. 1520mm (60") TURNING RADIUS
IN THE KITCHEN

35-E
READY AND SAFE ACCESS TO AT LEAST ONE
ELECTRICAL OUTLET UNITS

39-E
TYPICAL ELECTRICAL SWITCHES AND OUTLETS:
CONTROLS FOR THE OPERATION OF BUILDING SERVICE OR
SAFETY DEVICES, INCLUDING ELECTRICAL SWITCHES, THERMOSTATS AND
INTERCOM SWITCHES ARE TO BE ACCESSIBLE TO A PERSON IN A WHEELCHAIR,
OPERABLE WITH ONE HAND, AND BE LOCATED BETWEEN 900mm (35") and 1200mm (47")
ABOVE THE FLOOR.

ELECTRICAL, TELEPHONE, CABLE AND DATA OUTLETS FOR OCCUPANT USE ARE TO BE LOCATED
BETWEEN 455mm (18") and 1200mm (47") ABOVE THE FLOOR

41-E
INSTALL WIRING FOR VISUAL ALARM SYSTEM IN LIVING ROOM AND AT LEAST ONE BEDROOM
WIRING TO BE CONNECTED TO THE BUILDING'S FIRE ALARM SYSTEM.



TYPICAL ACCESSIBLE UNIT WITH ENHANCED ACCESSIBLE DESIGN FEATURES

SCALE : 1/4" = 1'-0"

TRICOR PACIFIC LANDS

REDIC
DEVELOPMENTS

eta landscape architecture

	JUNE 4 , 2020	DP RESUBMISSION
NO --	DATE --	ISSUE --

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the architect and may not be used in any way without the
written permission of this office.

**YAMAMOTO
ARCHITECTURE**

202 - 33 East 8th Avenue
Vancouver, BC V5T 1R5
T - 604 731 1127 F - 604 731 1327

PROJECT --

Residential Apartment
-

220 Mountain Highway & 1555 Oxford Street
District of North Vancouver, BC

DRAWING TITLE --
Accessible Measures

SCALE -- 3/32" = 1'-0"

DATE -- Nov 19, 2018

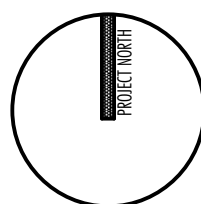
DRAWN -- TY/JL

CHECKED --

SHEET NO. --

A6.1

PROJ NO -- 1702



Attachment 2

ACCESSIBLE DESIGN CHECKLIST – TO BE SUBMITTED AT THE DETAILED PLANNING APPLICATION STAGE

Proposed Development 6 Storey Rental Apartment Building
Address 220 Mountain Highway to 1555 Oxford Street, North Vancouver
Date November 18, 2020

Type of Residential: multi-family apartment ☒ ~~mixed-use building~~ ☐ ~~ground-oriented multi-family~~
 Total number of residential units 140

Parking

Total number of parking stalls 99 plus 2 Car Share (residential component only)
 Total number of accessible parking stalls 2 (residential component only)

A. Basic Accessible Design

Total **apartment** units designed as **basic accessible** units 140 Unit numbers (if applicable) All units
 Building number/address (if applicable) n/a Unit sizes 444 sf. to 974 sf.

B. Enhanced Accessible Design

Total **apartment** units designed as **enhanced accessible** units 8 Unit numbers (if applicable) 105, 213, 214, 313, 314, 413, 414 & 514
 Building number/address (if applicable) n/a Unit sizes 481 sf to 808 s.f.

C. Ground-oriented Multi-Family Units

Total **ground-oriented m/f** units designed as **basic accessible** units 12 Unit numbers (if applicable) 101, 102, 103, 104, 107, 108, 109, 110, 111, 113, 114 & 115
 Building number/address (if applicable) n/a Unit sizes 703 sf. to 821 sf.

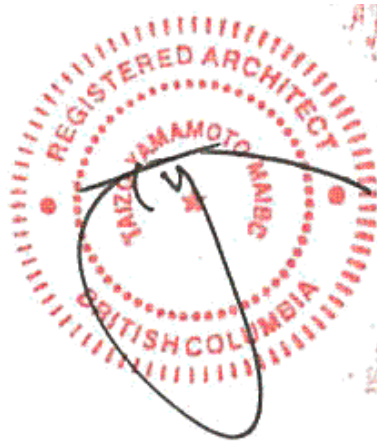
Total **ground-oriented m/f** units designed as **enhanced accessible** units 0 Unit numbers (if applicable) n/a
 Building number/address (if applicable) n/a Unit sizes n/a

I, the Registered Professional of Record for the project confirm that the above development will comply with the standards outlined in this policy.

(signature)

Nov. 18, 2020 (date)

 (stamp)



Non Market Unit Accessibility Summary

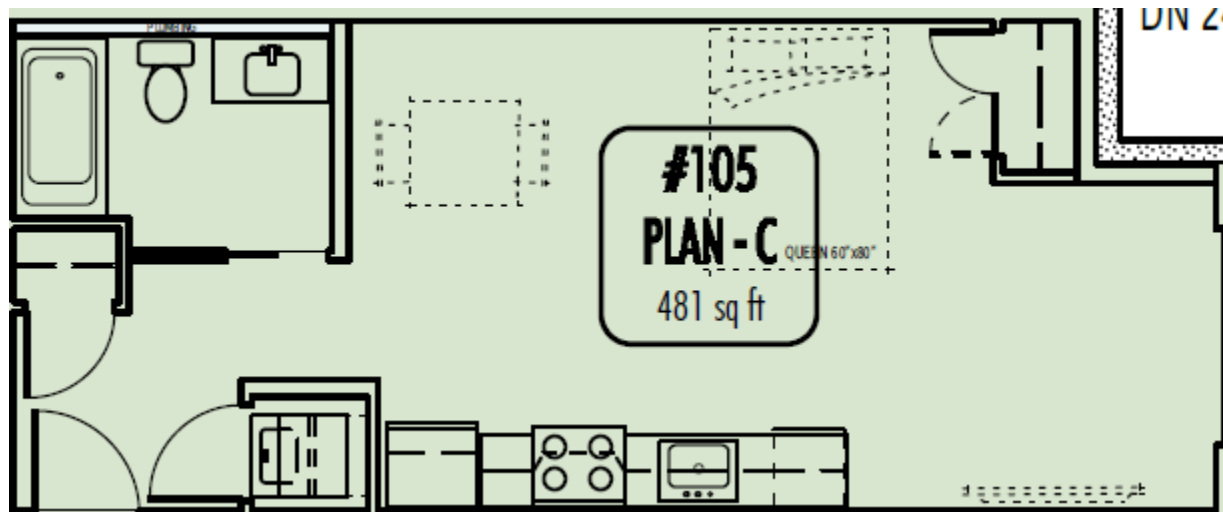
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Features;

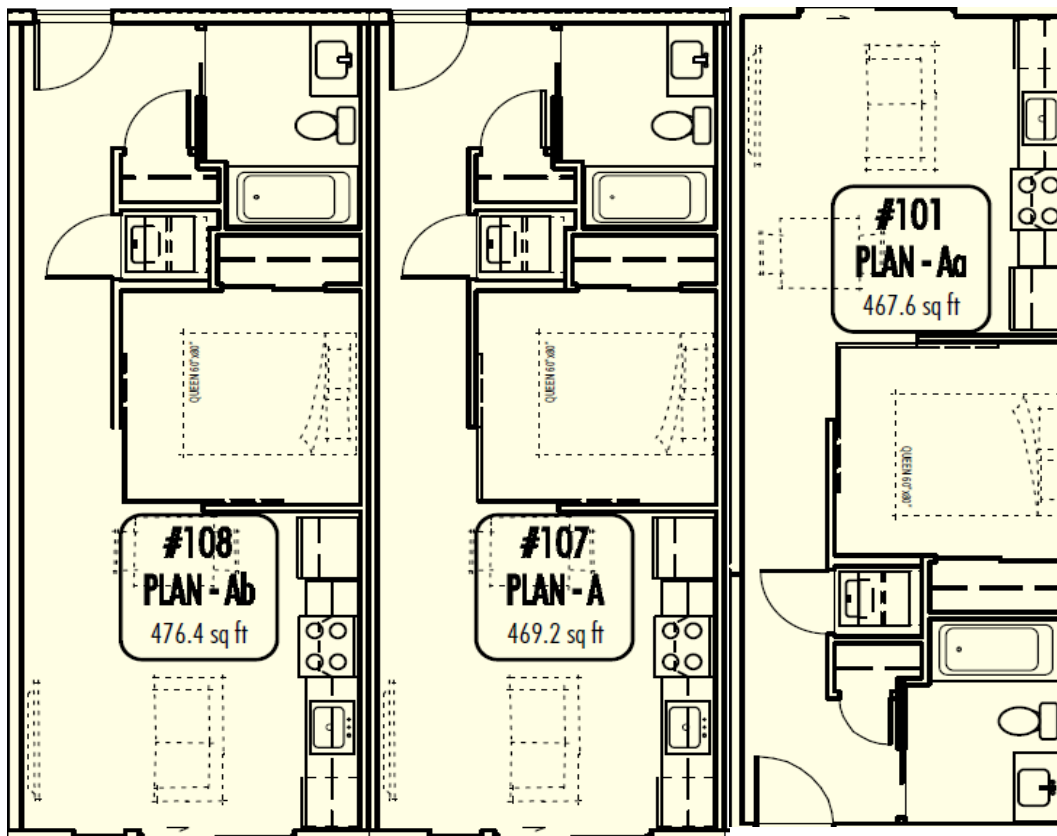
Ref	Enhanced feature
14-E	Min 1 Bathroom to have pocket door & Heavy duty Hardware
19-E	Pressure balanced tub and shower valves to minimize scalding risk (max water temp 49 deg c)
23-E	Min of 1 bathroom to provide space under sink of min 32 in wide. Can be achieved by providing a removable vanity cabinet
24-E	Min 1 bedroom to provide no less than 60" of maneuvering space between double closet and bed
25-E	Provide 60" turn radius in the kitchen
29-E	Provide D-Shaped cabinet handles for all kitchen cupboards that are intended to be accessible
31-E	Provide sufficient space for future installation of cook top, wall over and side/side fridge/freezer or bottom mounted freezer
32-E	Design kitchen so that the range and sink are adjacent or can have continuous counter space between them
35-E	Ensure ready and safe access to at least one electrical outlet in kitchen
39-E	Controls for operation of building services or safety devices are accessible to persons in wheelchair, operable with one hand and be located 35" to 47" above the floor. All Outlets to be between 18" and 47" above the floor
41-E	Visual alarm system wiring installed in living room and at least 1 bedroom. Connected to fire alarm system
44-E	Decks to be accessible to persons using wheelchair
45-E	Accessible operating mechanism for windows and window sills.

Non-Market Units; Plans: Aa, A,C, Ab

Plan C: 100% enhanced Accessible features



Plan A, Aa & Ab (essentially all the same unit type)



Features confirmed:

- 14E-Pocket doors for bathrooms
- 29-E D-Shaped cabinet handles
- 32-E Continuous workspace between kitchen range and sink
- 35-E electrical outlet in kitchen
- 39-E control operations are accessible to persons in wheelchairs.

Question:

- 24-E Maneuvering space next to bed
- 25-E Maneuvering space in kitchen

Excerpt from February 14, 2019 Advisory Design Panel

a.) 220 Mountain Highway and 1515-1555 Oxford street – Detailed Planning Application for a 134 unit, 6 storey rental building.

Ms. Casey Peters, Development Planner, introduced the project and explained the context.

The Chair welcomed the applicant team; Taizo Yamamoto from Yamamoto Architecture and Vanessa Goldrub from ETA Landscape Architects introduced the project.

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

Questions were asked and answered on the following topics:

- There was a question surrounding the B-line and how the timeline would impact this project.
- Response saying that there is about a 30% design for the B-line, and that this project is proposing some road dedications to accommodate for the B-line route.
- Clarification on parking – are you proposing more than required? We are providing more bike parking than required, and are meeting the motor vehicle requirement.
- Landscape – Are you proposing different details from one half of the building to the other? The Landscape details are the same.
- Access- there appear to be steps from the street to the patios, does that mean those units aren't accessible for people in mobility devices? The units are accessible through the interior corridor, but not from the street.
- Are there no guard rails/handrails? There would need to be a glazed guardrail in the parking area.
- Have you considered any handicap parking available for vans? We have provided accessible parking as per District of North Vancouver requirements.
- The area of the children's area is it stepped up? It is raised relative to the sidewalk, but level to the inside because it needs to be accessed from inside the building.
- Is the building accessible for low income people? That is something that the owner can speak to – we are noting that the ratio of multi-bedroom units is higher than normal.
- Slide showing interior floorplan – The pocket doors aren't an enhanced accessibility feature but are actually more difficult for the visually impaired or those in a chair. We have done projects with pocket doors with handles other than the little recessed pull, it would project past the jam of the door.
- The lane for access for trucks seems too narrow with the planters? The planters were added late in the design, so they would have to be coordinated to ensure the through lane was wide enough.
- In regards to the glazing, what is the extent of the aluminum? And what material is where? The window wall is limited to the area in between the halves of the buildings and the rest is vinyl to infill between vertical posts.
- Do the units on Oxford have an individual entrance? Are they unit numbers or street address? They are labeled with unit numbers.

- Is the rear parking secured in any way? No the rear parking is open.
- Landscape screening at the back, does that carry over to garbage area, parking, entrance etc? The area with loading, parking etc. is mainly paved, and access doors are located in this area.
- The roof elevation seems pretty high, what is it made of so that it would support itself? The screening would be a metal picket on a curb, it would have to be structurally sound to stand up to wind.
- Are you encroaching into height restrictions? From a zoning perspective this would be allowed, and it shouldn't be a Building Code problem.
- Is the elevator over height? What I'm seeing looks taller than it needs to be, why would you add that? The extra height is due to the elevator accessing the roof.

Mr. Alfonso Tejada, Urban Design Planner, provided a brief presentation and provided the following comments for consideration:

- Site plan – Questions the space dedicated for the children's area as it is on the north side, has a shadow almost all year- round as well as being on an active corner with buses passing by all the time.
- The potential for roof space came out of previous conversations.
- Turning radius of the garbage trucks etc. would create issues with the screening proposed in the back of the site.
- Front entrance to the street, has addressed the presence on the street in alignment with the design guidelines
- With a 6 story building, there are challenges with height and the guidelines ask for the upper level to recess.
- The applicant has done a good job at giving the impression that the upper level recedes by projecting the rest out.
- The tunnel is narrow, to fix this you could have a tapered entrance, starting wider and narrowing closer to the back.
- Roof top elevator, mechanical room and staircase height – This area should be constructed as part of the building with similar character as the rest of the building.

The Chair invited comments from the Panel members, and the following comments and items for consideration were provided:

- Concerns with play area location because it is on the busy corner.
- Attractive project, and a purpose built rental next to Phibbs exchange is fantastic.
- Support the progression of the project since the preliminary stage.
- Not concerned with the building length given break in the building.
- The new north south lane is positive, creates a nice permeability to the whole block.
- Good choice of plant material.
- Encourage relocating the play area.

- In the entrance, it is very deep and towards the inside the plant material is going to have a difficult time growing. Feels like a narrow dark entry point, is there an opportunity to reduce the depth and increase the size of the lobby?
- Good to see the planter and trellis on the south next to the lane.
- Are you at the maximum distance from the roadway for the entrance? Would this change the use of the entrance area?
- Wondering about the rooftop space – doesn't look particularly usable so far into the building and there is only one means of egress.
- Consider rethinking the exits so they are not going through the garbage area which could create an egress conflict.
- Echo comments about depth of entry, and problems with proposed landscape treatment at the entry.
- Architecturally the two sides are treated separately which helps break up the length of the building – consider using this approach on the landscaping so that it is also broken into two distinct styles along the frontage.
- The lane doesn't line up with others in the area, is there an opportunity for a mid-block crossing and treat it as a more pedestrian focused lane?
- Could the playfulness of the kids' area wall be carried in to the horizontal space as well?
- There is a proposal to relocate the magnolia but is there anywhere better for it with more soil?
- Commend the design team for a creative expression of a 6 storey building.
- Good project and right kind of project for the District of North Vancouver
- Agree with the Urban Designer's comments
- The vertical expression in the one half of the building could be stronger. For example a series of tall posts, columns etc. to hold up this element.
- Children's play area could be better located, and you could take the second set of stairs up for two accesses, tying it together with screening and railings.
- If the exit is by the garbage, it would help to provide a fireproof screen to separate staging and garbage.
- Commend the team for responding to the concerns from last time, many improvements and great features including the massing for such a large building.
- Programming is well thought through.
- Roof landscape, it would be ideal to have play centre on the ground level and on the rooftop.
- Could also look at the opportunity for a green roof to support some roof-top activities.
- Concerned that the rendering does not clearly depict the materials and that the actual material choices will be problematic.
- With two thoroughfares, units exiting onto the street and a recessed main entrance the challenge is to have easily identifiable units and building identification.
- Consider suitable signage and lighting.
- The rear area with parking is a thoroughfare to a transit hub and with unsecured parking, means there is going to have to be a balance between landscaping used to provide

territoriality and maintaining views of the parking. Don't want to reduce natural visibility or surveillance.

- This carries towards the garbage area, accesses are hidden from line of sight.
- Lighting is going to have to be amazing.
- There is a setback issue – page 11 shows how the massing steps back but the addition of the cap at the top defeats the purpose. To achieve the objective, you would have to remove the cap at the upper level.
- Building separation has been addressed and the applicants have done a nice job of doing this, it will read as 2 buildings rather than 1.
- Echoes comments about the visual that is presented not being what will be achieved by the material pallet. The promise of the design is reflected in the neighboring building where the detailing of the façade lets it down. Monolithic paneling will not be achievable with the materials selected.
- Explore the detailing of the materials you have chosen, as well as the detail of the joinery and connection in materials.

The Chair invited the applicant to respond to the Panel's comments, and the following comments were provided:

- The recess is a way to also deal with the grade change from sidewalk to access lobby and the length makes the ramp a low slope
- The balconies align with units so to shift them away from the entry to open up the entrance would mean they don't line up anymore.
- The roof line is attempting to differentiate the two sides of the building.
- In terms of the materials, we are going to be looking at step code 3 which is expensive while also being cognizant of what it will take to build the building and keep it as a reasonable rental rate.

Owner

- Thank you very much for all of your comments, appreciate all of the combined minds to provide feedback.
- The children's area is challenging where it is located, there will be an area on the roof as well, but also leaving an area for quieter moments. The roof area will be more clearly defined in later designs.
- Agrees with Sergeant Bracewell on the CPTED issues, there is lots of work to do there.
- Comment taken most to heart is in regards to materials - will work to make the next iteration more representative

The Chair invited the Panel to compose a motion:

MOVED by Steve Wong and **SECONDED** by Charles Leman

#3. That the ADP has reviewed the proposal and recommends approval of the project subject to addressing to the satisfaction of staff the items noted by the Panel in its review of the project.

CARRIED

Tenant Occupation Summary and Assistance Package

1. Current Occupancy Summary

- The average occupancy time by our tenants is approximately 2 years.
- At the time of their signing of the lease, all tenants were made aware of the short-term prospect of redevelopment of the site and that their respective leased properties are at the end of their lifespan
- There are only 2 family living in these 6 homes. The other tenants include students and young working professionals.

Address:	220 Mountain Highway
Number of Occupied Units:	1
Type of Tenancy:	Month-to-Month
Start of Tenancy:	November 2020
Number of bedrooms:	3
Mobility/Accessibility features:	-None-
Monthly Rent	\$1,547

Address:	1515 Oxford Street
Number of Occupied Units:	1
Type of Tenancy:	Month-to-Month
Start of Tenancy:	November 2014
Number of bedrooms:	2
Mobility/Accessibility features:	-None-
Monthly Rent	\$2,448

Address:	1525 Oxford Street
Number of Occupied Units:	1
Type of Tenancy:	Month-to-Month
Start of Tenancy:	October 2020
Number of bedrooms:	5
Mobility/Accessibility features:	-None-
Monthly Rent	\$3,742

Address:	1527 Oxford Street
Number of Occupied Units:	1
Type of Tenancy:	Fixed Term
Start of Tenancy:	July 2018
Number of bedrooms:	5
Mobility/Accessibility features:	-None-
Monthly Rent	\$2,448

Tenant Occupation Summary and Assistance Package

Address:	1545 Oxford
Number of Occupied Units:	1
Type of Tenancy:	Month-to-Month
Start of Tenancy:	October 2012
Number of bedrooms:	2
Mobility/Accessibility features:	-None-
Monthly Rent	\$1,230

Address:	1555 Oxford Street
Number of Occupied Units:	1
Type of Tenancy:	Month-to-Month
Start of Tenancy:	January 2018
Number of bedrooms:	4
Mobility/Accessibility features:	-None-
Monthly Rent	\$1537.5

2. Tenant's Assistance Package.

We will provide the following items as part of the Tenant's Assistance Package:

- a. An extended notice to the end of tenancy of five months.
- b. Three months of free rent.
- c. Priority Right to Rent in the new building.
- d. Moving allowance depending on start of tenancy:
 - \$3,000 for tenants who have been in the property for more than 6 years (2 properties)
 - \$1,500 for tenants who have been in the property for more than 2 years (2 properties)
 - \$750 for tenants who have been in the property for less than 1 year (2 properties)

3. Tenant Communications Plan

- The development team will provide each tenant with notice of input opportunities throughout the rezoning and development process.
 - Input opportunity notification for tenants will initially be provided via email
 - When confirmation of email receipt is not received, notification will be hand delivered or posted on the front door of each unit
 - Letters will also be sent via direct mail with details on the project's Public Hearing dates.
- Information on tenant resources such as those available from the Tenant Resource and Advisory Centre will also be provided via email.
- Written correspondence with tenants and municipal planning staff will be documented and provided at the time of the staff report to Council review and consideration.

Tenant Occupation Summary and Assistance Package

4. Tenant Relocation Coordinator

Tenant relocation coordinators:

Redic team Coordinator:	Ryan Rohani	778-668-4236	Ryan@redicdev.com
External Coordinator:	Oscar Barrera	604-688-6315	Oscar@obsold.com

Relocation coordinators will endeavor to:

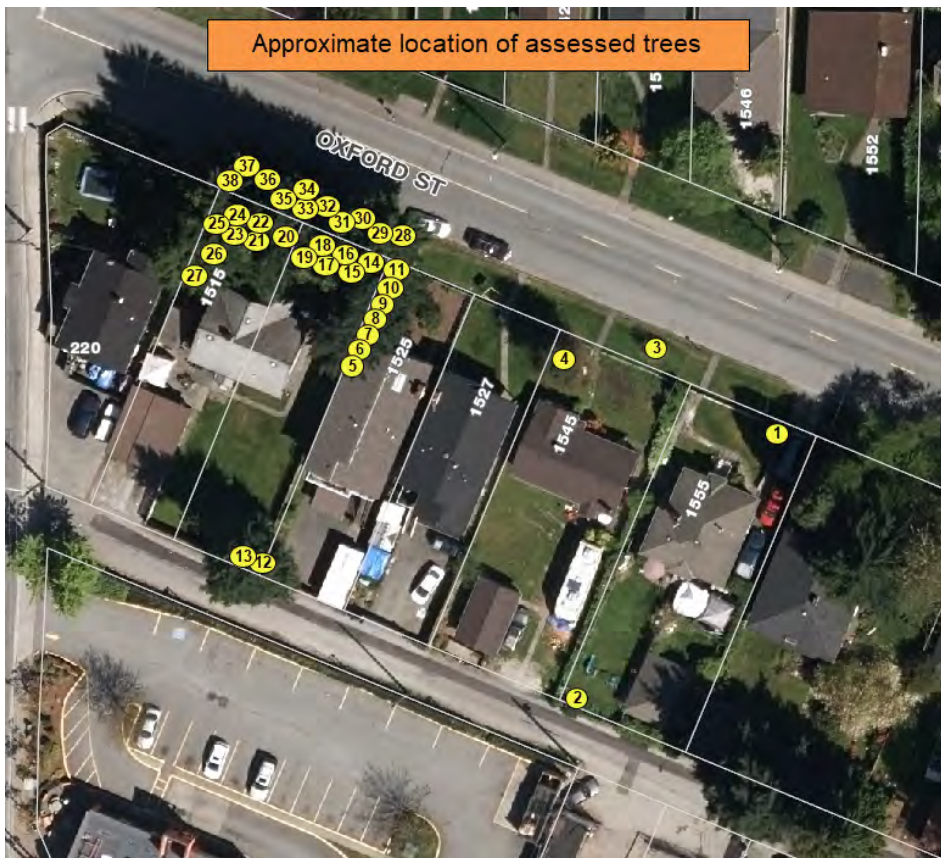
- Determine the factors which are most important to each tenant (size of space, housing form, number of rooms, location, rate etc..) and subsequently aid these tenants in finding up to three comparable rental units within the municipality, or on the North Shore, at the best possible rates available for units on the market.
- Be available between the hours of 8:00am and 8:00pm (or alternate times as agreed to with tenants, based on their schedule), to assist tenants with matters of relocation. Available hours of the Coordinator will be relayed directly to the tenant (with confirmation of its receipt by the tenant) or posted in a conspicuous place on-site.
- Track units found for each tenant and submit a status report to planning staff prior to issuance of the Demolition Permit.
- Present the District with a status report of all tenants, including those who wish to relocate to the new building, prior to issuance of an Occupancy Permit.



RE: Arborist report for trees at 220 Mountain Highway &
1515, 1525, 1527, 1545 & 1555 Oxford St, NV

ASSIGNMENT:

This report is in response to your request to assess some trees located at 220 Mountain Highway; 1515, 1525, 1527, 1545 and 1555 Oxford Street. The intent of this report is to determine the mode of tree protection that would be recommended to preserve these trees from any damage due to the proposed lot assembly and re-development of these sites. Also, to determine which trees would be candidates for removal based on the anticipated plans expected for the site and in consideration of their proximity to the assumed building envelope and the heavy excavation and construction activities that will likely to occur on these lots.



Picture 1. Aerial View of property



TREE & SITE DETAILS:

A site visit was conducted on August 29th where 38 trees were assessed for this report. A site survey was provided prior to the site visit and as I understand it these properties are proposed for a land assembly and rezoning proposal. No site plans have been reviewed at this time. These are mostly mature trees that have been growing in this location for some time and are well established. For the purpose of this report and for ease of identification the trees have been tagged with a plastic blue numbered tag affixed to the lower 2.0 m of their trunks or near their bases. All trees within 5.0 m of the property boundaries (outside the site) have also been considered and included in the inventory. The species have been identified; the diameters measured at 1.3 meters above grade (D.B.H), their heights approximated and any observations are represented in the Inventory and Recommendations table attached at the end of this report. A photo document is also attached at the end of this report as Appendix C.

It was observed that all six (6) lots are on a relatively level grade. The majority of the inventoried trees fall at the north and east sides of 1515 Oxford St. There is a laneway at the south side and 3-phase Hydro lines were noted as running parallel with the south and west sides as well as along the north side of the roadway along Oxford St. Based on the newly developed site immediately to the east, it is anticipated that an underground parkade would be likely for this development.

It was observed that a number of the trees have been previously topped at some point in past and multiple stems or co-dominant stems have grown. A number have also been heavily pruned to maintain clearance to the Hydro lines. The previous topping and heavy pruning has left the majority misshapen. The survival mechanism that causes a tree to produce multiple shoots below each topping cut comes at great expense to the tree. For deciduous trees, these shoots develop from buds near the surface of the old branches. Unlike normal branches that develop in a socket of overlapping wood tissues, these new shoots are anchored only in the outermost layers of the parent branches. As for conifers, they are more likely to have their branches turn upwards in a competition of growth attempting to re-establish terminal dominance. The multiple stems that result from the topping generally have weak attachments and are more susceptible to failure at these attachment points.

Consequently, the large open pruning wounds from the initial topping cut exposes the sapwood and heartwood, and as a result, it generally fails to compartmentalize. If you look at an old wound, you will notice it does not “heal” from the inside out, but eventually the callus wood will grow around the wound in an attempt to compartmentalize it from infection or decay. Trees that are previously topped generally have a high probability of decay within the tree. This also contributes to the high probability of stem failure if the canopy or top of the tree far outweighs what the lower decayed stems can bear. As the trees grow and the shoots increase in weight, the branches of a topped tree become susceptible to breaking off during storms, heavy winds, snow or precipitation loads.

A number of the trees were also noted as having a phototropic lean in the stems. *Phototropism* is a physiological growth response that plants have adapted themselves to be able



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to grow in the direction of its light source. This can result from trees growing within close proximity to one another or from growing on a sloped grade but generally occurs because of the conditions that trees are exposed to *in situ*. It is also important to note that a phototropic lean is not an indication of or representative of a potential failure.

As mentioned above these trees have been growing in this location for some time. It is reasonable to expect that as a result of this, many of these trees are working together to some degree to sustain the forces of nature that travel through this area. For example, their root systems are likely intertwined, their branches overlap and grow into one another and for all intents and purposes, a stand of trees acts like a team and works together, to a certain degree, which makes them more formidable as a group than a 'stand alone' tree. As a result it is important to acknowledge that a number of the trees along the boulevard at Oxford St are being afforded protection and support from a number of the site trees. The boulevard trees are located at the leeward side of the group and thus would be considered at an increased probability of failure should there be any significant loss or removal of the large conifers on the site within this group.

For the most part these trees are considered to be in fair condition overall with only a few being identified as in poor or marginal condition at best. For the most part the trees on these properties have had little in the way of management and or have not been well maintained over the long term. There are a few of them that would not be considered worthy of imposing material constraints on the proposed redevelopment of the site. There were no outward signs of chlorosis and only one tree showed excessive cone production. There were no visible fungal conks or outward signs of root decay. There is no apparent indication of shifting or heaving in the root plates at the time the site visit was conducted.

RECOMMENDATIONS:

1. Removal would be recommended for the 25 site trees (trees #1 and #4 through #27) located within the property boundaries of the subject lots as outlined in Removal, Retention & Protection Plan attached at the end of this report. They are recommended for removal because they are considered to be in either marginal or poor condition and or are dead; fall within what would be proposed as a building footprint or are within the zones of heaviest excavation & construction activities; or will experience an increased probability of failure due to the proposed changes to the stand support (ie: increased windthrow due to loss of stand support). It is also important to note that none of the inventoried trees are identified as being over the permit size. Furthermore as a result of the required grade changes which are expected for the excavation for any underground parking structures, the trees would be negatively impacted by any disruption within their critical root zones (CRZs) and therefore removal and replacement would be recommended at this time.
2. Removal is also recommended for 12 boulevard trees located within the laneway to the south and along the boulevard of Oxford St (trees #2 and #28 thru #38). Although these trees would reasonably fall outside the proposed bldg footprints they are expected to have an increased probability of failure due to loss of stand support once the removals of trees #14 thru #27 occur from 1515 Oxford St. Removal and replacement is also recommended for these trees to mitigate the probability of failure



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- due to windthrow. Please refer to the Removal, Retention & Protection Plan attached at the end of this report.
3. Please refer to Appendix A for further info on how construction impacts trees.
 4. One (1) tree (#3) is deemed reasonable for retention and monitoring at this time. It is located on the DNV boulevard along Oxford St. It is however expected to be in a zone of heavy construction activities so TPZ specifications are found within the Inventory & Recommendations Table and Removal, Retention and Protection Plan attached at the end of this report. It is however a suitable candidate for transplanting and could reasonably be relocated to another area on the site and or to another boulevard/park location nearby. Care and attention will be required to ensure its survival after transplanting and or throughout the course of construction until such time it becomes established; can be replanted to another part of the landscape or location. If this is not feasible, then removal may still be considered a viable option as no site plans have been reviewed at this time to determine the level of activity expected for this area. This recommendation is subject to change based on any additional info provided after this report is submitted.
 5. Any required protection zones are to be constructed to delineate a zone around the tree(s) with fencing to prevent encroachment of equipment as well as prevent items from being stored within the root zone. The fencing should be high enough (1.2 metres (4 ft)) to deter anyone from entering the root zones. Signage should be placed on the fencing to convey to workers the purpose for the fence. Wooden frame and orange poly fencing or something equivalent is suitable for this application. It is to remain in place for the duration of any construction activities until there is no further possibility that the trunk(s) and root zone(s) will be damaged. Care must be taken when construction activities occur within close proximity to the critical root zone (CRZ) of any tree. The tree protection zones have been determined based on site findings, the CRZ criteria and in consideration of the Corporation of the District of North Vancouver – Tree Protection Bylaw No. 7671.
 6. Please refer to Appendix B for further information on tree protection barriers.
 7. Please refer to the photo document attached as Appendix 'C' at the end of report.
 8. A qualified Certified Arborist **must be** on-site during any **ground works** or **periods of excavation or construction** that **falls within or within close proximity to the protection zones of the retained trees** to observe, assess and ensure that the integrity of the CRZs are maintained and conduct any subsequent root pruning (if req'd). Regular inspections throughout the course of the project are recommended and may be required to document the progress, observe and monitor the trees during and post construction. These inspections are to be executed by a qualified Certified Arborist to ensure that all aspects of their preservation are being adhered to and properly addressed.
 9. If installation of any utilities, or pipes required for drainage etc, are to be installed within, or cross sect the CRZs of any of these trees, then it is recommended to reconsider their placement and or conduct the excavation for these like items by using an Air Spade® or like equipment to ensure that there are no structural roots severed or damaged during their installation as well as attempting to maintain as many viable feeder roots as possible. This AirSpade® excavation and any subsequent



- root pruning are to be conducted by or under the direct supervision of a qualified Certified Arborist.
10. Replacement planting is recommended to ensure that the site has sufficient canopy coverage based on the parameters as set out by the Corporation of the District of North Vancouver – Tree Protection Bylaw No. 7671. No landscape plans were provided at this time however it is reasonable that any replacement plantings be incorporated as part of the overall landscape plans for each separate site. The location of the replacement plantings can be in any available areas remaining throughout the property(ies) or as part of the overall landscape plan. The replanting ratio required is at 3:1 for every significant tree removed. ***This will require verification by the DNV.***
 11. The installation of any replacement trees should be executed in accordance with the specifications as set out by the Canadian Landscape Standards (1st Edition) for proper planting practices. This includes but is not limited to the following items such as exposing the root flare prior to planting, planting it at a proper depth, watering in the plant once it's been installed, staking and mulching etc.
 12. Any new plant material requires care in the first 2 to 3 growing seasons until they get established. It is important to note that newly planted trees rely on the moisture held within their root balls until they can get their roots out and established. This may take a few seasons therefore it is important to ensure that the root ball ***does not dry out*** even if the soil around it is moist, the root ball could still be dry. It is important that from time to time to get in there and check with your hands. Regular and thorough watering to the selected replacement plant(s) is required. An automated in-ground irrigation system would be suitable for this site. It is important to note however that despite an automated system being in place many landscapes require additional supplementary water to meet the needs of the new or transplanted plant material. **One option** is to use soaker hoses to direct water directly to the root zone of the new plant(s). The soaker hose(s) can be attached to a supply hose directed to the closest hose bib and attached a battery operated timer to assist with watering within the guidelines provided through the GVRD Water Conservation Practices. The **second option** would be to manually provide water or use a tree watering bags which are commonly available at Rona, Home Depot and Lee Valley Tools.
 13. Organic mulch should be placed around the base of any newly planted trees within the critical root zone. This promotes moisture retention in the soil and helps reduce the establishment of competing weeds or grass. Do not place the mulch up against the tree itself; place it several inches away. Mulching at approximately 5 cm – 7.5 cm coverage over the entire root system area to improve overall tree health is recommended. The mulching should be spread out over the critical root zone and not placed right up against the trunk.
 14. It is recommended to maintain the existing grade within the CRZ of any retained trees. Changing the grade around the tree(s) proposed for retention could possibly change the water table and the sites drainage creating other problems such as standing water, anaerobic soil conditions & or root rot etc. It would be discouraged to change the grade by importing fill to level out an area.



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15. Monitoring the trees during and post construction is to be executed by a qualified Certified Arborist to ensure that all aspects of their preservation are being adhered to and properly addressed. Site visits to document the progress and observe the trees may be required through the duration of the project and beyond completion.
16. No vehicles, equipment or construction materials or like items are to be stored within the CRZ of these trees.
17. **Turf is not recommended** to be installed as part of the landscape within the root zone of any tree.

CONCLUSION:

In conclusion, care must be taken if construction activities occur within the root zone of any tree. Tree protection to enforce this is strongly recommended to prevent potential damage to the CRZ of these trees. Constructing a tree protection zone made of wooden frame and orange poly fencing will be an effective way to achieve the protection of the lower trunk and root zones from the heavy construction activities. It should remain in place for the duration of the construction until there is no further possibility of damage. In order to preserve trees on a construction site, it is important to understand that mature trees are much less adaptable to site changes that occur during or are associated with construction. Please refer to Appendices A and B accompanying this report for further information on the impact that construction can have on trees as well as additional parameters for tree protection barriers.

At this time 37 trees would be recommended for removal and replacement as it is concluded that they would be directly impacted by the proposed land assembly and re-development. These trees fall within the proposed building envelopes and or are within close proximity to the zones of heavy excavation and construction activities. Also they have had little in the way of maintenance through their entire growth period and a few of them are deemed to be in either marginal or poor condition overall. They would not be deemed worthy of imposing a material constraint on any construction related to the re-development of this site. Replacement planting in restitution for the removed trees is reasonable and can be incorporated as part of the overall landscape plan for the site.

The recommendations noted above are acceptable to achieve the balance of reducing the overall impact of the construction on the trees, acknowledging their preservation over the long term, and achieving the proper specifications required for any construction. Site visits by a qualified Certified Arborist at different stages of construction may be required to ensure that the temporary measures to preserve the retained trees and their CRZs is sufficient.

The recommendations outlined within this report may be subject to change based on any further information provided or findings that are uncovered after this report is submitted. It is important to note that there are many different factors causing stress to trees. For example, imposed stress could be things such as environmental factors like climate change to cultural conditions such as soil compaction or mechanical damage to the roots, but is likely to be a combination of factors. Trees play an important role in the urban ecology, and all of us must be stewards to ensure a tree's survival and our own safety.



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Testing and Analysis:

The assessment completed on the trees defined within this report, consisted of a visual and physical inspection from the ground and was based upon the principals of Visual Tree Assessments. No invasive tests, such as using a resistograph or increment borer, were used during the testing for this report.

Assumptions and Limiting Conditions:

1. The information contained in this report covers only those items that were examined and reflect the condition of these items at the time of inspection. The inspection is limited to visual examination of accessible components without dissection, excavation or probing. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees or property in question may not arise in the future.
2. The opinions in this Report are given based upon observations made using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage and disease, the results, observations, recommendations, and analysis as set out in this Report are valid only as at the date any such testing, observations and analysis took place. No guarantee, warranty, representation or opinion is offered or made by Radix Tree and Landscape Consulting Inc as to the length of the validity of the results, observations, recommendations and analysis contained within this Report.
3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the appraiser/company can neither guarantee nor be responsible for the accuracy of information provided by others.
4. All tree work is to be completed under the supervision of an ISA Certified Arborist and in compliance with ISA, BC Hydro and WCB standards.
5. Alteration of any part of this report invalidates the entire report.

If you have any questions or concerns please feel free to contact me.

Sincerely yours,

Michelle McEwen
ISA Certified Arborist (PN-6707A)
ISA Certified Tree Risk Assessor (544)
Wildlife/Danger Tree Assessor BC (P-1453)
CofQ #00317-LH-08
Certified Horticulturist
Radix Tree and Landscape Consulting Inc



RADIX TREE & LANDSCAPE CONSULTING INC

TREE INVENTORY & RECOMMENDATIONS

220 Mountain Hwy & 1515 to 1555 Oxford St, NV

Redic Developments
Attn: Armin Khatoonabadi
200 – 1111 W Hastings Street
Vancouver, BC
V6E 2J3

October 2, 2017



Tree Inventory and Recommendations

220 Mountain Highway & 1515, 1525, 1527, 1545 & 1555 Oxford St, NV

02-Oct-17

Tree Tag #	Species	DBH (cm)	Ht (m)	Canopy Radius (m)	Observations	Recommendations
1	English Holly - <i>Ilex aquifolium</i>	33	9.1	2.0	Fair - located at northeast corner of 1555 Oxford St; moderate trunk taper; moderate live crown ratio; Holly Leaf Blight infection present; falls within zones of heavy construction & excavation activities - removal is recommended	n/a
2	English Holly - <i>Ilex aquifolium</i>	10	3	0.5	Fair - located at southwest corner of 1555 Oxford St; maintained as a shrub; falls within proposed construction & excavation activities - removal is recommended	n/a
3	Saucer Magnolia - <i>Magnolia soulangiana</i>	9	3	1.5	Good - located at Blvd at north side of 1545 Oxford St; juvenile; possible candidate for transplanting to another location; falls within proximity to proposed construction & excavation activities - retain & monitor	TPZ placed at no less than 1.8 m (8 ft) from base of tree; to encompass tree on all sides affected; Certified Arborist req'd on site during any works that fall within proximity to tree & TPZ; **this tree is a candidate for transplanting to another location on the site or to another site; please refer to recommendations section of report for additional info
4	English Holly - <i>Ilex aquifolium</i>	28, 16, 17, 15 & 38	10.6	2.5	Good - located at northwest corner of 1545 Oxford St; phototropic lean to southeast; moderate trunk taper; high live crown ratio; falls within proximity to proposed zones of heavy construction & excavation activities - removal is recommended	n/a
5	Douglas Fir - <i>Pseudotsuga menziesii</i>	48.5	18.2	6.0	Fair - located at west PL of 1525 Oxford St; dead & hanging branches; moderate trunk taper; moderate live crown ratio; falls within proposed bldg footprint & within zones of heavy construction & excavation activities - removal is recommended	n/a

6	Douglas Fir - <i>Pseudotsuga menziesii</i>	55	18.2	6.0	Fair - located at west PL of 1525 Oxford St; previously topped at 9.1 m; good trunk taper; moderate live crown ratio; falls within proposed bldg footprint & within zones of heavy construction & excavation activities - removal is recommended	n/a
7	Douglas Fir - <i>Pseudotsuga menziesii</i>	14	10.6	0.0	Dead - located at west PL of 1525 Oxford St; dead; low trunk taper; no live crown ratio; subdominant within stand; falls within proposed bldg footprint & within zones of heavy construction & excavation activities - removal is recommended	n/a
8	Douglas Fir - <i>Pseudotsuga menziesii</i>	33	18.2	6.0	Fair - located at west PL of 1525 Oxford St; previously topped at 9.1 m; moderate trunk taper; moderate live crown ratio; falls within proposed bldg footprint & within zones of heavy construction & excavation activities - removal is recommended	n/a
9	Douglas Fir - <i>Pseudotsuga menziesii</i>	21.5	13.7	5.0	Dead - located at west PL of 1525 Oxford St; low trunk taper; low live crown ratio; subdominant within stand; falls within proximity to proposed construction & excavation activities - removal is recommended	n/a
10	Douglas Fir - <i>Pseudotsuga menziesii</i>	40	18.2	6.0	Fair - located at west PL of 1525 Oxford St; good trunk taper; moderate live crown ratio; falls within proposed bldg footprint & within zones of heavy construction & excavation activities - removal is recommended	n/a
11	Douglas Fir - <i>Pseudotsuga menziesii</i>	38	18.2	6.0	Fair - located at northwest corner of 1525 Oxford St; previously topped at 9.1 m; moderate trunk taper; moderate live crown ratio; falls within proposed bldg footprint & within zones of heavy construction & excavation activities - removal is recommended	n/a

12	Western Hemlock - <i>Tsuga heterophylla</i>	47 & 45	21.3	6.0	Fair - located at southeast corner of 1515 Oxford St; double stemmed; phototropic lean to south; pruned for Hydro clearance; excessive cone crop; falls within zones of heavy excavation & construction activities - removal is recommended	n/a
13	Western Red Cedar - <i>Thuja plicata</i>	64	21.3	6.0	Fair to Good - located at southeast corner of 1515 Oxford St; pruned for Hydro clearance; good trunk taper; moderate live crown ratio; falls within zone of heavy excavation & construction activities - removal is recommended	n/a
14	Western Red Cedar - <i>Thuja plicata</i>	18	12.2	3.0	Fair - located at north PL of 1515 Oxford St; phototropic lean to northeast; low trunk taper; low live crown ratio; being out competed; subdominant within stand; falls within the proposed bldg footprint & within the zones of heavy excavation & construction activities - removal is recommended	n/a
15	Western Red Cedar - <i>Thuja plicata</i>	13	12.2	5.5	Fair to Good - located at north PL of 1515 Oxford St; phototropic lean to northeast; low trunk taper; low live crown ratio; subdominant within stand; falls within the proposed bldg footprint & within the zones of heavy excavation & construction activities - removal is recommended	n/a
16	Western Red Cedar - <i>Thuja plicata</i>	42	18.2	4.5	Good - located at north PL of 1515 Oxford St; moderate trunk taper; moderate live crown ratio; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a
17	Western Red Cedar - <i>Thuja plicata</i>	22.5	18.2	4.5	Fair to Good - located at north PL of 1515 Oxford St; moderate trunk taper; moderate live crown ratio; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a

18	Western Red Cedar - <i>Thuja plicata</i>	32.5	12.2	4.5	Good - located at north PL of 1515 Oxford St; moderate trunk taper; moderate live crown ratio; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a
19	Western Red Cedar - <i>Thuja plicata</i>	27	18.2	4.5	Good - located at north PL of 1515 Oxford St; moderate trunk taper; moderate live crown ratio; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a
20	Western Hemlock - <i>Tsuga heterophylla</i>	55	19.8	7.5	Fair - located at north PL of 1515 Oxford St; good trunk taper; moderate live crown ratio; falls within the proposed bldg footprint & within the zones of heavy excavation & construction activities - removal is recommended	n/a
21	Western Red Cedar - <i>Thuja plicata</i>	37	18.2	4.5	Fair - located at north PL of 1515 Oxford St; good trunk taper; moderate live crown ratio; previously topped at 6.1 m; falls within the proposed bldg footprint & within the zones of heavy excavation & construction activities - removal is recommended	n/a
22	Western Hemlock - <i>Tsuga heterophylla</i>	35	18.2	5.0	Fair - located at north PL of 1515 Oxford St; phototropic lean northeast; deadwood; moderate trunk taper; moderate to low live crown ratio; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a
23	Western Hemlock - <i>Tsuga heterophylla</i>	19 & 28	16.7	5.0	Fair - located at north PL of 1515 Oxford St; phototropic lean northeast; deadwood; low trunk taper; low live crown ratio; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a

24	Western Hemlock - <i>Tsuga heterophylla</i>	23	12.2	4.0	Fair - located at north PL of 1515 Oxford St; phototropic lean to northeast; deadwood; low trunk taper; low live crown ratio; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a
25	Western Hemlock - <i>Tsuga heterophylla</i>	41.5	19.8	5.0	Fair - located at northwest corner of 1515 Oxford St; phototropic lean to northeast; deadwood; moderate trunk taper; moderate live crown ratio; falls within the proposed bldg footprint & within the zones of heavy excavation & construction activities - removal is recommended	n/a
26	Western Hemlock - <i>Tsuga heterophylla</i>	25.5	19.8		Fair - located at west PL of 1515 Oxford St; low trunk taper; moderate to low live crown ratio; deadwood; oblong trunk; falls within the proposed bldg footprint & within the zones of heavy excavation & construction activities - removal is recommended	n/a
27	Western Hemlock - <i>Tsuga heterophylla</i>	69.5	21.3	6.0	Fair to Poor - located at west PL of 1515 Oxford St; good trunk taper; moderate to high live crown ratio; reaction wood ridges in lower bole; falls within the proposed bldg footprint & within zones of heavy excavation & construction activities - removal is recommended	n/a
28	Western Hemlock - <i>Tsuga heterophylla</i>	44	19.8	7.5	Fair - located at blvd north of 1515 Oxford St; previously topped at 9.1 m; phototropic lean to northeast; moderate trunk taper; moderate live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a
29	Western Red Cedar - <i>Thuja plicata</i>	52	19.8	5.5	Fair - located at blvd north of 1515 Oxford St; phototropic lean to north; moderate trunk taper; moderate live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a

30	Western Red Cedar - <i>Thuja plicata</i>	14	15.2	4.0	Fair - located at blvd north of 1515 Oxford St; phototropic lean to north; subdominant within stand; low trunk taper; low live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a
31	Western Red Cedar - <i>Thuja plicata</i>	23 & 12	19.8	5.0	Fair to Good - located at blvd north of 1515 Oxford St; low trunk taper; moderate live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a
32	Western Hemlock - <i>Tsuga heterophylla</i>	31 & 27	19.8	7.5	Fair - located at blvd north of 1515 Oxford St; double stemmed; phototropic lean to north; moderate trunk taper; moderate live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a
33	Western Hemlock - <i>Tsuga heterophylla</i>	38	19.8	7.5	Fair - located at blvd north of 1515 Oxford St; phototropic lean north; moderate trunk taper; moderate live crown ratio; falls within the proposed bldg footprint & within the zones of heavy excavation & construction activities - removal is recommended	n/a
34	Western Red Cedar - <i>Thuja plicata</i>	31	19.8	5.5	Fair - located at blvd north of 1515 Oxford St; phototropic lean to west; decay column; moderate trunk taper; moderate to low live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a
35	Western Red Cedar - <i>Thuja plicata</i>	39	19.8	5.5	Fair - located at blvd north of 1515 Oxford St; good trunk taper; moderate live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a

36	Western Red Cedar - <i>Thuja plicata</i>	17 & 15	19.8	5.5	Fair to Good - located at blvd north of 1515 Oxford St; double stemmed; low trunk taper; moderate live crown ratio; falls zones of heavy excavation & construction activities - removal is recommended	n/a
37	Western Hemlock - <i>Tsuga heterophylla</i>	42	18.2	7.0	Fair - located at blvd north of 1515 Oxford St; phototropic lean to northeast; moderate trunk taper; moderate live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a
38	Western Red Cedar - <i>Thuja plicata</i>	47.5 & 14.5	19.8	6.0	Fair to Good - located at blvd north of 1515 Oxford St; phototropic lean to west; good trunk taper; moderate live crown ratio; falls within zones of heavy excavation & construction activities - removal is recommended	n/a

*DBH defn: Diameter at Breast Height = Diameter measurements were made at 1.3 m from grade. See attached Report for further info

*Previously topped could be as a result of mechanical or natural means

LEGEND

N# = neighbour tree or tree located on neighbouring property but was inaccessible

S# = site tree or tree located on one of the subject sites that was inaccessible (high water or overgrown brambles)

tag # = site tree that has been tagged with a coloured plastic or silver metal numbered tag within the lower 2.0 m of the trunk or at the base

Condition Ratings: **Good, Fair & Poor** - **Good** = optimal or ideal specimen with little to no issues; **Fair** = very broad category (Fairly Poor to Fairly Good); trees with varying degrees of issues that may or may not require removal or have good possibilities of improvement through improved care & maintenance practices (most trees will fall within this category); **Poor** = generally weakened, highly diseased or have a high probability of failure and or in a state of decline.

BC LAND SURVEYOR'S PROPOSED SUBDIVISION AND TOPOGRAPHICAL SURVEY PLAN OF LOT A EXCEPT: PART DEDICATED ROAD ON PLAN BCP17008, AND LOTS 3 TO 6, AMENDED LOT 7(SEE 219838L) AND AMENDED LOT 9(SEE 219839L) ALL OF BLOCK 41 DISTRICT LOT 204 GROUP 1 NWD PLAN 1340

(LOT A)PID: 013-694-944
(LOT 3)PID: 014-742-527
(LOT 4)PID: 014-742-535
(LOT 5)PID: 014-742-543
(LOT 6)PID: 002-622-165
(AMD LOT 7)PID: 014-742-551
(AMD LOT 9)PID: 010-856-731

Civic Address:

LOT A: 220 - Mountain Hwy
LOT 3: 1515 - Oxford Street
LOT 4: 1515 - Oxford Street
LOT 5: 1525 - Oxford Street
LOT 6: 1527 - Oxford Street
AMD LOT 7: 1545 - Oxford Street
AMD LOT 9: 1555 - Oxford Street
District of North Vancouver, B.C.

Elevation Derivation

Elevations are geodetic derived from the District of North Vancouver Control Monument No. 6719 Datum CVD28GVRD 2005 Elevation=11.062m

Note:

The storm and sanitary pipe diameter may have a little difference with the real pipe size, as some pipes are deep, and we can not see the exact edge of pipe. It must be confirmed with the District of North Vancouver before adoption.

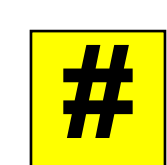
Note:

Preliminary Layout, subject to approval. Areas and Dimensions are subject to detailed Legal Survey and calculations, and may vary.

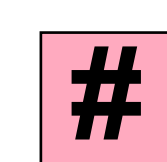
LEGEND :

RM Denotes Retaining Wall
UMH Denotes utility manhole
SAM Denotes sanitary manhole
STM Denotes storm manhole
IC Denotes inspection chamber
SW Denotes traffic sign
WASH Denotes bus stop sign
PW Denotes power pole
GW Denotes guy wire
DT Denotes deciduous tree
CT Denotes coniferous tree
FV Denotes fire hydrant
SDB Denotes square catch basin
RCB Denotes rectangular catch basin
WV Denotes water valve
WM Denotes water meter
LS Denotes lamp stand
GV Denotes gas valve
UB Denotes Underground Utility Box
CC Denotes current contours (based on field survey)

LEGEND



= retain & monitor; tree protection req'd



= removal is recommended



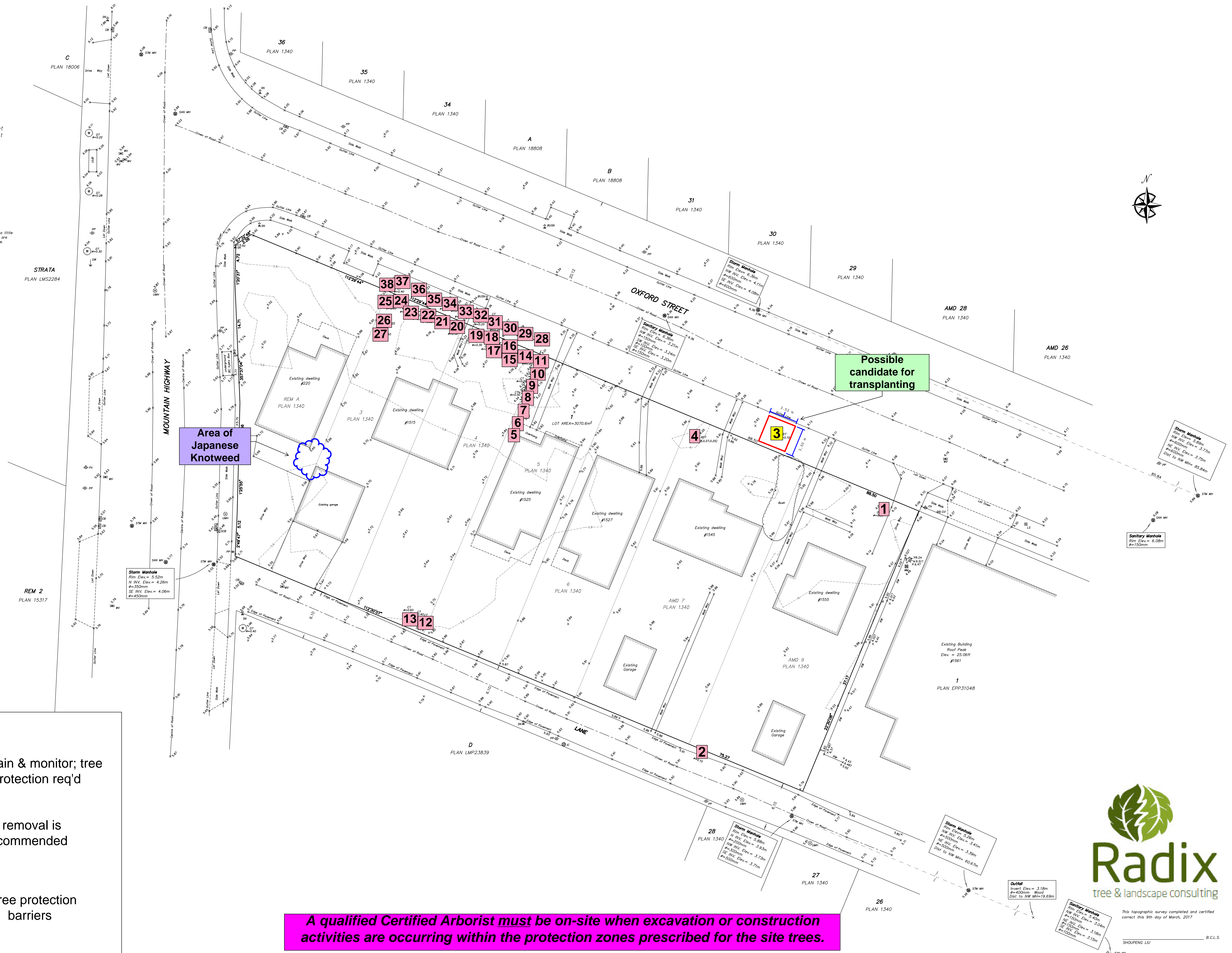
= tree protection barriers

REMOVAL, RETENTION & PROTECTION PLAN

220 MOUNTAIN HIGHWAY, 1515, 1527, 1527, 1545 & 1555 Oxford St, NV

Please refer to Recommendations section of report for further info on protection parameters for site trees

SCALE 1 : 150
0 3 6 9 12
ALL DISTANCES ARE IN METRES AND DECIMALS



Radix
tree & landscape consulting

This topographic survey completed and certified correct this 9th day of March, 2017

SHOUFENG LIU B.C.L.S.

A qualified Certified Arborist must be on-site when excavation or construction activities are occurring within the protection zones prescribed for the site trees.



APPENDIX 'A'

IMPACT OF CONSTRUCTION ON TREES

BACKGROUND OF APPROACH

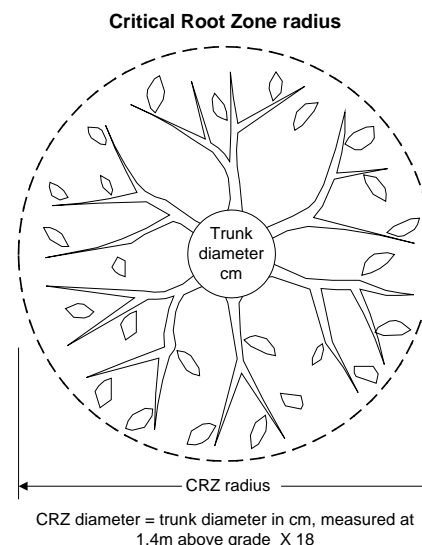
A tree's decline and mortality on construction sites results primarily from damage to the root system. During construction, roots are frequently cut when installing foundations, water, sewer lines or other utilities, driveways, curbs, sidewalks etc. Many roots are also lost when soil is removed during grading. Fine absorbing roots occur primarily within the top 6 to 8 inches of soil. Removing just a few inches of soil during grading can result in the elimination of many of these roots. Loss of fine roots will reduce water and nutrient absorption which will eventually lead to decline. Cutting larger roots could compromise stability and increase the probability of failure.

Compaction of the soil or placing fill over a tree root system during grading is equally as destructive. All plant cells, including those in the roots, require oxygen to survive. Root cells obtain oxygen from the pores space in the soil. When the soil over the root systems is compacted, or fill soil is added during construction, the amount of soil air is greatly reduced. At the same time, gases toxic to plant roots tend to accumulate in the soil. These adverse factors result in root mortality and tree decline.

Mechanical injuries to the stems and limbs also contribute to tree decline. Bark injuries inhibit transport of water and nutrients to the crown and allow entrance of decay and other disease organisms. Storing of supplies and materials within the root zone and soil contamination due to spills of materials such as fuel etc will also damage the root system

The Critical Root Zone (CRZ) is the area of soil around the tree where the majority of the roots are located. The roots within this area provide stability and are responsible for the uptake of water and nutrients to maintain tree health. Any level of compaction limits root growth due to lack of available oxygen.

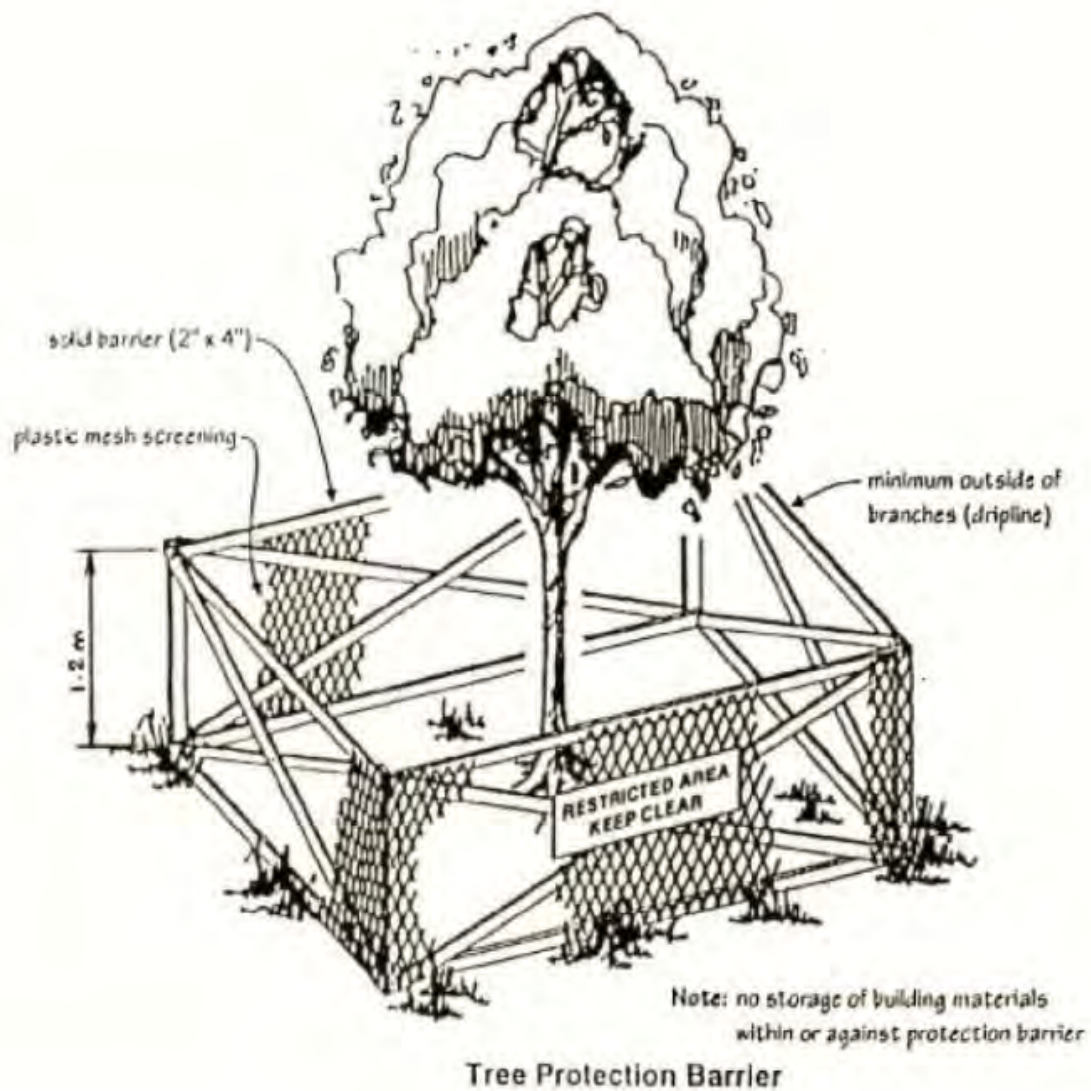
The stress of compaction and low soil fertility, coupled with other physical, environmental and human forces acting against these trees, it is reasonable to expect that the Critical Root Zones of these trees will be impacted, to some degree, due to the proposed construction activity that will occur near the trees. Providing protection for the trees is recommended to reduce any impact to the trees and their root systems.





APPENDIX 'B'

TREE PROTECTION BARRIERS FOR TREES





APPENDIX 'C'

(Assessment Photo Documentation)

220 Mountain Hwy & 1515 to 1555 Oxford St, NV

Redic Developments
Attn: Armin Khatoonabadi
200 – 1111 W Hastings Street
Vancouver, BC
V6E 2J3

October 2, 2017

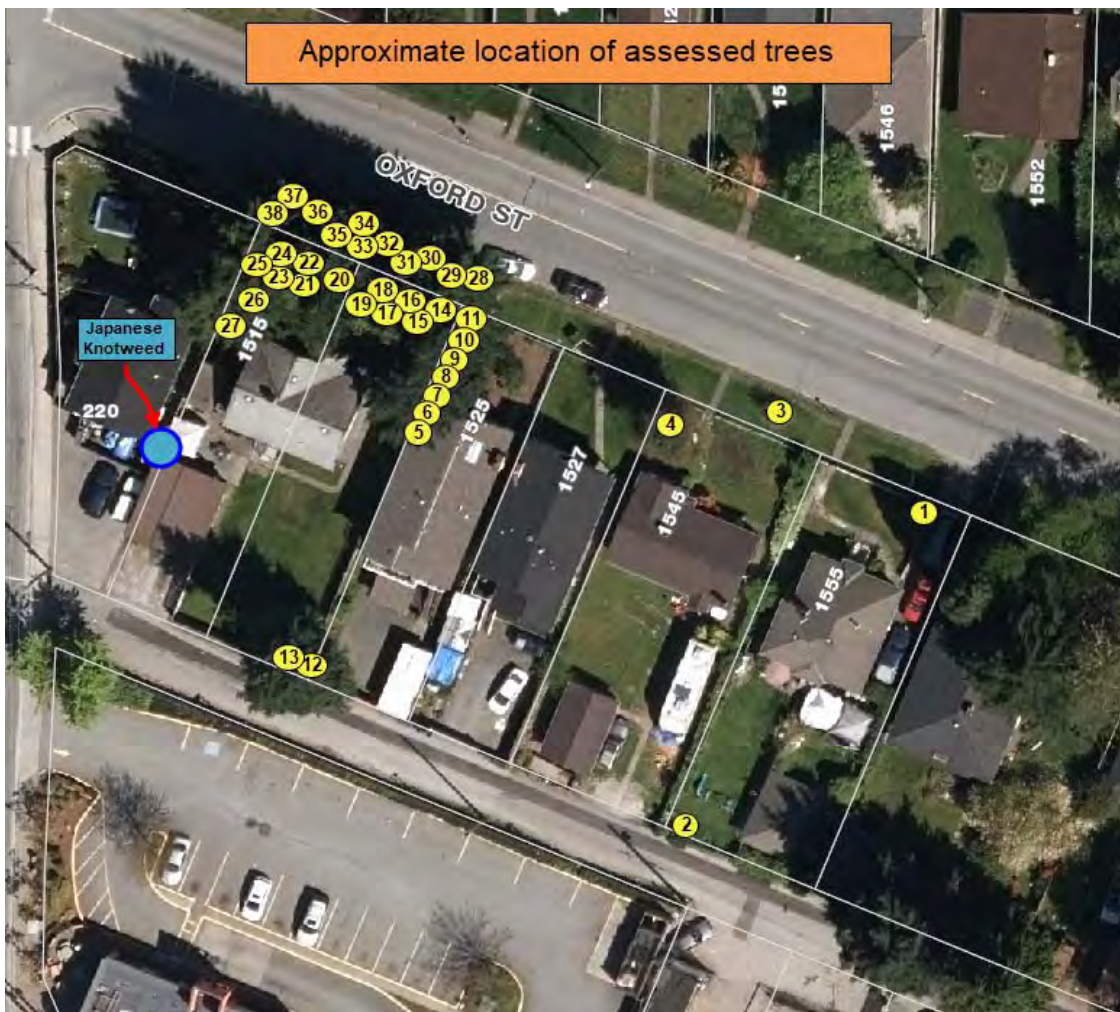


October 2, 2017

Redic Developments
Attn: Armin Khatoonabadi
200 – 1111 W Hastings Street
Vancouver, BC
V6E 2J3

APPENDIX “C”

RE: Photo Documentation for trees at 220 Mountain Highway
1515, 1525, 1527, 1545 & 1555 Oxford Street, NV



Picture 1. Aerial View of property



Picture 2. View south towards site trees from roadway along Oxford St



Picture 3. Tree #1



Picture 4. Tree #1



Picture 5. Tree #2 – blvd tree



Picture 6. Tree #3 – blvd tree



Picture 7. Tree #4



View southwest towards site tree at northwest corner of 1545 Oxford St

Picture 8. Tree #4



View north towards site trees located along north PL along Oxford St

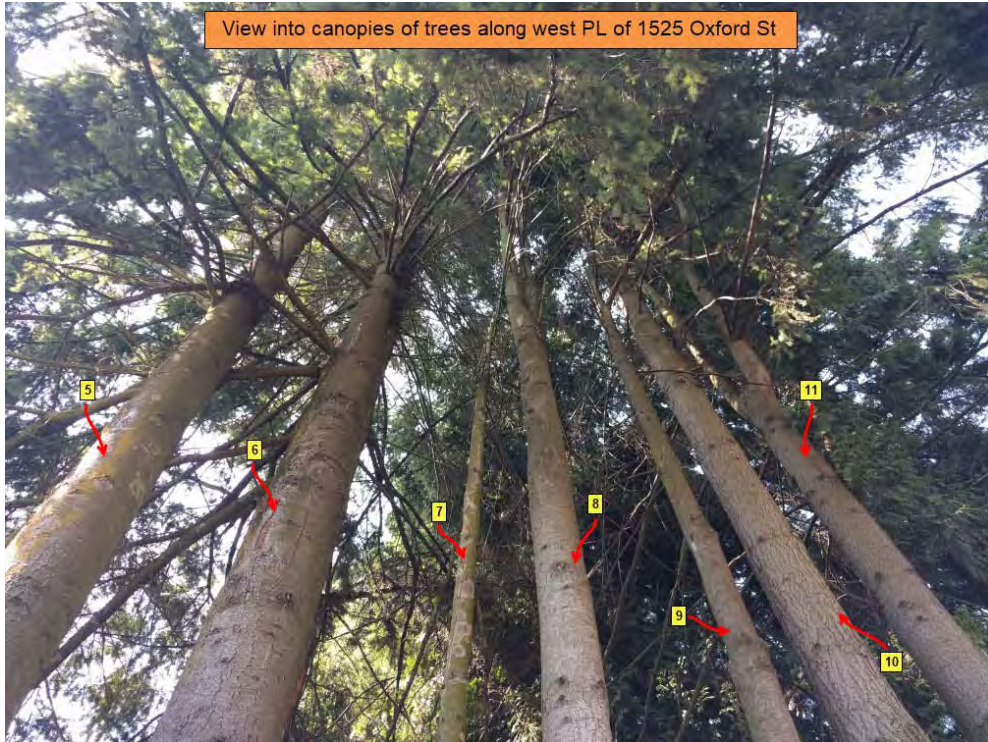
Picture 9.
Trees #5 to
#27 – view
north



Picture 10. Trees #5 thru #11



Picture 11.
Trees #5
thru #11-
lower
trunks



Picture 12.
Trees #5
thru #11



Picture 13. Trees #5 to #7 – lower trunks



Picture 14. Trees #8 to #11 – lower trunks



Picture 15. Trees #12 & #13



Picture 16. Trees #12 & #13 – lower trunks



Picture 17. Trees #12 & #13



Picture 18. Trees #14 thru #19 – lower trunks



Picture 19. Trees #20 & #25 – lower trunks



View southwest towards site trees at west PL of 1515 Oxford St

Picture 20. Trees #26 & #27 – lower trunks



View southeast towards blvd trees north of 1515 Oxford St

Picture 21. Trees #28 thru #32 – blvd trees lower trunks



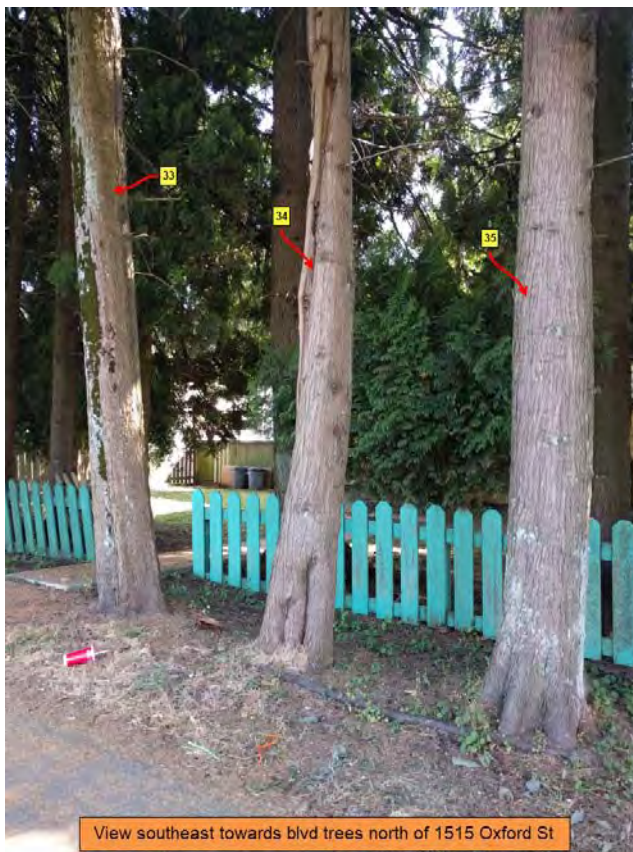
Picture 22. Trees #28 & #29 – blvd trees



Picture 23. Trees #30 to #32 – blvd trees



Picture 24.
Trees #32
thru #38-
blvd trees



Picture 25. Trees #33 thru #35 – lower trunks



Picture 26. Tree #34 – extensive decay throughout stem



Picture 27. Trees #36 thru #38 – blvd trees



Picture 28. Japanese Knotweed observed on site

Testing and Analysis:

The assessment completed on the trees defined within this report, consisted of a visual and physical inspection from the ground and was based upon the principals of Visual Tree Assessments. No invasive tests, such as using a resist-o-graph or increment borer, were used during the testing for this report.

Assumptions and Limiting Conditions:

1. The information contained in this report covers only those items that were examined and reflect the condition of these items at the time of inspection. The inspection is limited to visual examination of accessible components without dissection, excavation or probing. There is no warranty or guarantee, expressed or implied, that problems or deficiencies of the trees or property in question may not arise in the future.
2. The opinions in this Report are given based upon observations made using generally accepted professional judgment, however, because trees and plants are living organisms and subject to change, damage and disease, the results, observations, recommendations, and analysis as set out in this Report are valid only as at the date any such testing, observations and analysis took place. No guarantee, warranty, representation or opinion is offered or made by Radix Tree and Landscape Consulting Inc as to the length of the validity of the results, observations, recommendations and analysis contained within this Report.



RADIX TREE & LANDSCAPE CONSULTING INC

3. Care has been taken to obtain all information from reliable sources. All data has been verified insofar as possible; however, the appraiser/company can neither guarantee nor be responsible for the accuracy of information provided by others.
4. All tree work is to be completed under the supervision of an ISA Certified Arborist and in compliance with ISA, BC Hydro and WCB standards.
5. Alteration of any part of this report invalidates the entire report.

If you have any questions or concerns please feel free to contact us.

Sincerely yours,

Michelle McEwen

ISA Certified Arborist (PN-6707A)

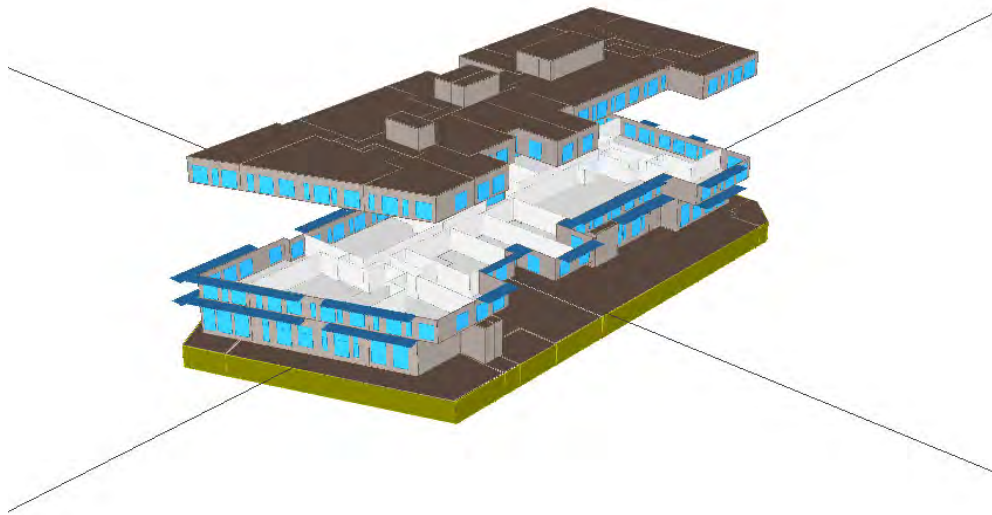
ISA Qualified Tree Risk Assessor (TRAQ)

Wildlife/Danger Tree Assessor BC (P-1453)

CofQ #00317-LH-08

Certified Horticulturist

Radix Tree and Landscape Consulting Inc



Preliminary Step Code Compliance & Compliance against NECB 2015 for Rental construction financing initiatives Energy Modeling Report

220 Mountain Highway & 1555 Oxford Street District of North Vancouver, BC

Prepared for:

Redic Development

200-1111 West Hastings Street

Vancouver, BC V6E 2J3

Prepared by:

EMEC

Suite 242- 8138 128th Street

Surrey, BC, V3W 1R1

November 19, 2020

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7.	CLOSURE	11

1. INTRODCUTION

This report has been prepared for Redic Development to determine the project energy efficiency under BC Energy Step Code to obtain development permit and to assess the project compliance with requirements of Rental Construction Financial Intuitive program for the project proposed rental housing building.

The project energy efficiency level to obtain permit is to meet Step 3 for the residential occupancy under BC energy Step Code. The project minimum eligibility requirements for Rental Construction Financial Initiative is to show minimum of 15% decrease in energy intensity and Greenhouse gas (GHG)emissions relative to the 2015 model building code (i.e 2015 NECB Baseline Building)

The analysis and the results present the annual energy use for the Proposed building design and NECB-2015 baseline building design. The baseline and the Proposed calculations are applicable only for determining compliance with BC Energy Step Code and Rental Construction Financial Initiative program. They are not predictions of actual energy use or costs of the Proposed design after construction. Actual experience will differ from these calculations due to the variations such as occupancy, building operation and maintenance, weather, energy use not covered by NECB 2015, and precision of the calculation tool.

2. EXECUTIVE SUMMARY

The energy analysis is based on the requirements stated in the National Energy Code for Buildings (NECB) in its latest version, 2015, namely, Part 8, Building Energy Performance Compliance Path in combination with the City of Vancouver Energy Modeling Guideline, that defines the rules and assumptions for BC Energy Step Code.

This analysis indicates the Proposed Building energy efficiency level under BC Energy Step Code, and it compares the consumption of the Proposed building with the NECB 2015 baseline model, which is defined by the minimum requirements set in National Energy Code of Canada for Buildings 2015. The details of both the Proposed and the Baseline parameters are outlined in section 3 "Summary of Key Input Parameter" of the report.

The results of energy modeling indicate that the proposed Building

Total Energy Use Intensity (TEUI) is 96.8 kWh/m² per year,
and
Thermal Energy Use Intensity (TEDI) is 24.7 kWh/m² per year,

that meets the project target of: **TEUI: 120 kWh/m² and TEDI: 30 kWh/m² per year,**

The proposed building performs 36% better than NECB 2015 Baseline Building in terms of energy use per year, and saves 48.8 % greenhouse gas emission per year compared to NECB 2015 Baseline Building; meeting the minimum eligibility requirements for Rental Construction Financial Initiative.

The proposed building (GHGle) per year (CO₂ emission per year and CO₂emission intensity per year) is **2.9 kgCO₂e/m²/year).**

3. PROJECT NARRATIVE

In this report we present the modelling approach and the main assumptions for the Proposed and Baseline design models. We also describe the main energy efficiency measures incorporated in the energy model. Both regulated and non-regulated (process) energy uses for the Proposed building design in comparison to the Baseline building design were included.

This project involves a 6-Storey rental housing development; located at 220 Mountain Highway & 1555 Oxford Street, District of North Vancouver.

The selected Residential Suits HVAC system is heating and cooling with air-cooled variable refrigerant drive (VRF) system, and highly efficient energy recovery energy ventilators for ventilation. The rest of the units HVAC system is heating only via electric baseboards, no mechanical cooling and cooling via natural ventilation, and high efficiency energy recovery ventilators for ventilation. Corridors' heating and ventilation is via roof top mounted make-up air unit with heat pump heating coil. The domestic hot water system will be preheat by condenser water from VRF system and supplement by combination of electric and gas fired DHW heaters. LED lighting fixtures are designed for parkade and all common areas.

The main modelling assumptions and inputs for both the Proposed and the Baseline energy models are presented in Section below.

4. **SUMMARY OF KEY INPUT PARAMETERS**

The following summarizes the building characteristics for the baseline and Proposed designs.

		Proposed Design Model Characteristics
General		
Location	District of North Vancouver, B.C.	
Simulation Weather File	Vancouver 2016 CWECC	
Climatic information	NECB 2015 Climate Zone 4 Heating Degree Days (HDD): 2910, as per NECB-2015 Table C-1	
Modeling Software	eQUEST 3.65 ANSI/ASHRAE 140 – 2011 compliant	
Building Area	Modeled Floor Area (MFA)-Above ground: 102,859 ft² Gross Floor Area (on Arch Drawings): 101,711 ft² Total Modeled floor area is with 5% difference from gross floor areas shown on Arch drawing, meets the City of Vancouver Energy Modeling Guideline % area difference between model and drawings.	
Hours of Operation	As per National Energy Code of Canada for Buildings 2015 (NECB 2015) & City of Vancouver Energy Modeling Guideline V 2.0 <ul style="list-style-type: none">Residential: as per NECB 2015-Table A-8.4.3.2(1)GResidential Corridors: Lighting at 24 hours per dayEnclosed Parking Garages: Lighting at 24 hours per day, Fans at 4 hours per dayAmenity: as per NECB 2015-Table A-8.4.3.2(1)BStairways, Mechanical and Electrical rooms, Storages: as per NECB 2015-Table A-8.4.3.2(1)G	
Envelope Performance		
Overall Roof U-value (BTU/h·ft²·°F)	U _{Effective} -0.04 (R _{Effective} -25), as per NECB 2015 Table 3.2.2.2	Typical Roof <ul style="list-style-type: none">U_{Effective}-0.039 (R_{Effective}-35.6)
Overall Wall U-value (BTU/h·ft²·°F)	Above Grade Wall: U _{Effective} -0.055 (R _{Effective} -18), as per NECB 2015 Table 3.2.2.2 Derated U-value as per CoV Energy Modeling Guideline V2.0: <ul style="list-style-type: none">Residential: U-0.117 Below Grade Wall: U _{Effective} -0.1 (R _{Effective} -9.99), as per NECB 2015 Table 3.2.3.1	Overall Above Grade Wall: <ul style="list-style-type: none">U_{Effective}-0.123 (R_{Effective}-8) Preliminary assumptions. Complete Thermal Bridges calculations based on Building Envelope Thermal Bridge Guideline is required to include the impact of all thermal bridges within the building overall wall calculation.
Floor U-value (BTU/h·ft²·°F)	Above grade floor: U _{Effective} -0.04 (R _{Effective} -25), as per NECB 2015 Table 3.2.2.2 Slab on Grade Floor: U _{Effective} -0.133 (R _{Effective} -7.5) for 1.2 m, as per NECB 2015 Table 3.2.3.1	Typical Floor between Heated and Parking <ul style="list-style-type: none">U_{Effective}-0.05 (R_{Effective}-20)
Percentage Glazing	40%	30%, As per Arch Drawings

		Proposed Design Model Characteristics																			
Overall Glass U-value including frame (BTU/h·ft²·°F), and Solar Heat Gain Coefficient (SHGC)	Fenestration & Doors U _{Effective} -0.423 SHGC-NR As per NECB 2015 Table 3.2.2.3	Balcony doors <ul style="list-style-type: none">U_{Effective}-0.30SHGC-0.4 Windows <ul style="list-style-type: none">U_{Effective}-0.30SHGC-0.4																			
Infiltration (Air-tightness)	Based on <i>ENERGY MODELLING GUIDELINES</i> section 2.4.1 Reduced Infiltration Rates Fixed rate of 0.0394 cfm/ft2 (0.20 L/s/m²) at operating pressure is applied to the modelled above-ground wall area (i.e. walls and windows) Note: Airtightness test shall be performed during and after construction is completed by the responsible party, and the resulted airtightness rate shall be less than the above-mentioned value. The energy model will be submitted again at the occupancy stage with the measured airtightness rate during occupancy permit.																				
Internal Loads																					
Occupancy Density (ft2/person)	Residential: #Bedrooms+1 Rest of the space types: Based on NECB Table A-8.4.3.3. (1) <table><tr><td>Space by Space Method</td><td>Occupant Density [ft²/person]</td></tr><tr><td>Corridor/Transition</td><td>1076</td></tr><tr><td>Electrical/Mechanical</td><td>2153</td></tr><tr><td>Parking garage</td><td>10000</td></tr><tr><td>Lounge/Recreation</td><td>108</td></tr><tr><td>Restrooms</td><td>323</td></tr><tr><td>Stairway</td><td>2153</td></tr><tr><td>Storage</td><td>1076</td></tr></table>			Space by Space Method	Occupant Density [ft²/person]	Corridor/Transition	1076	Electrical/Mechanical	2153	Parking garage	10000	Lounge/Recreation	108	Restrooms	323	Stairway	2153	Storage	1076		
Space by Space Method	Occupant Density [ft²/person]																				
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Parking garage	10000																				
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Restrooms	323																				
Stairway	2153																				
Storage	1076																				
Lighting Power Density (LPD) (W/ft²)	Preliminary assumptions based on NECB-2015. <table><tr><td>Space by Space Method</td><td>Proposed Lighting Power Density [W/ft²]</td></tr><tr><td>Corridor/Transition</td><td>0.92</td></tr><tr><td>Electrical/Mechanical</td><td>0.43</td></tr><tr><td>Parking garage</td><td>0.20</td></tr><tr><td>Residential Suites</td><td>0.465</td></tr><tr><td>Lounge/Recreation</td><td>0.73</td></tr><tr><td>Restrooms</td><td>0.98</td></tr><tr><td>Stairway</td><td>0.69</td></tr><tr><td>Storage</td><td>0.63</td></tr></table>	Space by Space Method	Proposed Lighting Power Density [W/ft²]	Corridor/Transition	0.92	Electrical/Mechanical	0.43	Parking garage	0.20	Residential Suites	0.465	Lounge/Recreation	0.73	Restrooms	0.98	Stairway	0.69	Storage	0.63	Note: No lighting saving is considered for Residential suites. Parking garage: 40% LPD reduction Other space types assumed the same as NECB 2015.	
Space by Space Method	Proposed Lighting Power Density [W/ft²]																				
Corridor/Transition	0.92																				
Electrical/Mechanical	0.43																				
Parking garage	0.20																				
Residential Suites	0.465																				
Lounge/Recreation	0.73																				
Restrooms	0.98																				
Stairway	0.69																				
Storage	0.63																				
Plug-Loads (W/ft2)	Residential: 0.464 Electrical/Mechanical, Storages, Amenity, Restroom: 0.093 As per NECB-2015, Table A-8.4.3.2.(2)-A Internal loads has been modeled the same, as per NECB 2015-A-8.4.2.7.(1)																				
Elevators	2 @ 3 kW, as per CoV Energy Modeling Guideline V2.0 Section 2.3 Operating schedule based on BC Hydro New Construction Program Guideline																				
Exterior Lighting	As per lighting designer, exterior lighting power and control design meet Sections 4.2.3 – Exterior Lighting Power and 4.2.4 – Exterior Lighting Controls of NECB 2015. Exterior lighting wattage: TBC																				
Lighting Controls	OS is modeled as per 4.3.2.10 as per requirements of NECB 2015	OS is modeled as per 4.3.2.10 as per requirements of NECB 2015																			

		Proposed Design Model Characteristics
Domestic Hot Water Consumption	Residential: 0.025 gpm per person, as per CoV energy modeling guideline for Step Code. Amenity: 60 W/P Storage: 300 W/P As per NECB 2015 Table A-8.4.3.2.(2)-B	35% flow reduction assumed using low flow fixtures
Mechanical Systems		
System Description	<ul style="list-style-type: none"> Residential selected units: Heating only with electric baseboards, no mechanical cooling, ventilation by individual HRVs & WC Exhaust fans Residential selected units: Heating and cooling by packaged unitary rooftop heat pump system, ventilation by Continuous WC Exhaust fans, as per NECB-2015 Table 8.4.4.13. <p>Corridors Pressurization:</p> <ul style="list-style-type: none"> Rooftop makeup air unit with heat pump heating coil (identical to the proposed, fresh air is provided at 21C (70 F) maintaining the corridors at 68 F, the same as proposed as per Table 8.4.4.7-B Note (2) <p>Amenity:</p> <ul style="list-style-type: none"> Heating and cooling by packaged unitary rooftop heat pump system, ventilation by Continuous WC Exhaust fans, as per NECB-2015 Table 8.4.4.13. <p>Elevator machine room and Electrical room, mechanical room, Storage room:</p> <ul style="list-style-type: none"> Exhaust fans 	<ul style="list-style-type: none"> Residential selected units: Heating only with electric baseboards, no mechanical cooling, ventilation by individual HRVs & WC Exhaust fans Residential selected units: Heating and cooling by air cooled Variable Refrigerant Frequency drive (VRF) system, ventilation by individual HRVs & WC Exhaust fans <p>Corridors Pressurization:</p> <ul style="list-style-type: none"> Rooftop makeup air unit with heat pump heating coil, fresh air is provided at 21C (70 F), maintaining the corridors at 68 F <p>Elevator machine room and Electrical rooms:</p> <ul style="list-style-type: none"> Exhaust fans

		Proposed Design Model Characteristics
Fan Control	<ul style="list-style-type: none"> Residential suites, and corridor pressurization: Fans run continuously Amenity: Heating, cooling, ventilation is on as per NECB schedule B, and cycles on/off in occupied hours to meet the setpoint Residential suites: Fans run continuously Parkade: operates 4 hours a day 	
Fan Power	<p>Fan Power:</p> <ul style="list-style-type: none"> Retail system: static pressure of 640 Pa and a combined fan-motor efficiency of 40%, as per NECB 2015 8.4.4.18.(3)(b). Residential ventilation fans (WC fans): The same as proposed fan power used for ERV Corridor pressurization fans, Exhaust fans: The same as proposed 	<p>Fan Power:</p> <ul style="list-style-type: none"> VRF indoor fancoil units: 0.32 W/cfm HRV Units: 1.4 W/cfm MUA: 0.5 W/cfm, Amenity, Meeting, and Electrical rooms: 0.32 W/cfm, Parkade, Exhaust fans: 0.3 W/cfm <p>Assumption, final mechanical selections to confirm</p>
Total Ventilation Rates	Same as proposed as per NECB 2015-8.4.4.15	<p>Residential: based on ASHRAEA 62.1-2001</p> <p>Non-Residential: based on ASHRAE 62.1-2007</p> <ul style="list-style-type: none"> Residential: 5,300 cfm Corridor pressurization: 3,500 cfm (25 cfm/person) Amenities: 2011 cfm
Ventilation control	Economizer is provided for Non-residential HVAC system (systems 3) as per NECB-2011-5.2.2.7, with high limit shut offs of 75.2 F, as per NECB-2011, Table A-5.2.2.8	None
Heat Recovery	Not Required as per NECB 2015, 5.5.10.	<p>Individual energy recovery units:</p> <ul style="list-style-type: none"> Apparent Sensible recovery effectiveness: 85% Sensible heat recovery: 72.6% Latent heat recovery: 54%
Central Plant		
Heating Type & Hot Water Loop	<p>Residential:</p> <ul style="list-style-type: none"> Residential selected units: Electric Baseboards Residential selected units: Vertical heat pump, 3.1 COP, as per NECB 2015, Table 5.2.12-1 Amenity: Electric Resistance for heating Corridor Pressurization: Heat pump <ul style="list-style-type: none"> Efficiency: 3.1 COP, as per NECB 2015, Table 5.2.12-1 	<ul style="list-style-type: none"> Residential selected units: Electric Baseboards Residential selected units: VRF fancoil units: <ul style="list-style-type: none"> Design COP: 4.01 Amenity: <ul style="list-style-type: none"> Efficiency: 4.01 COP Corridors MUA: Heat pump <ul style="list-style-type: none"> Efficiency: 3.5 COP
Cooling	<ul style="list-style-type: none"> Residential selected units: No mechanical cooling Residential selected units: Single package vertical heat pump <ul style="list-style-type: none"> EER 10 <p>Amenity areas:</p>	<ul style="list-style-type: none"> Residential selected units: No mechanical cooling Residential selected units: Cooling by air cooled VRF system <ul style="list-style-type: none"> Efficiency: 4.07 COP Amenity areas, Elevator machine and Electrical rooms: Direct expansion,

		Proposed Design Model Characteristics
	Direct Expansion: Capacity < 65,000 btu/hr: 15 SEER, as per NECB 2015-Table 5.2.12.1	<ul style="list-style-type: none"> Efficiency: 4 COP
DHW	Combination of: <ul style="list-style-type: none"> Electric DHW heaters & (50%) Gas fired condensing DHW heaters (50%) <ul style="list-style-type: none"> Efficiency ~80% 	Electric DHW heater <ul style="list-style-type: none"> Preheat by condenser water from VRF system, 25% Supplemented by electric DHW heaters (25%) & Gas fired condensing DHW heaters (50%) <ul style="list-style-type: none"> Efficiency ~96%

5. SUMMARY OF ENERGY EFFICIENCY TARGET & RESULTS

5.1 Step Code Results

The Step Code 3 for the Residential portion of the building requires **TEUI: 120 kWh/m² & TEDI: 30 kWh/m² as per BCBC 2018 part 10, Table 10.2.3.3-A.**

Table 10.2.3.3.-A
Energy Performance Requirements for Residential Occupancies
Forming part of Sentences 10.2.3.3.(1) and (2)

Step	Hotels and Motels	Other Group C Occupancies	Hotels and Motels	Other Group C Occupancies
	Equipment and Systems – Maximum Total Energy Use Intensity, kWh/(m ² -year)		Building Envelope – Maximum Thermal Energy Demand Intensity, kWh/(m ² -year)	
1	Conform to Part 8 of the NECB			
2	170	130	30	45
3	140	120	20	30
4	120	100	15	15

Below Table shows the Proposed Design annual energy use, and Total Energy Use Intensity (TEUI), and Thermal Energy Demand Intensity (TEDI). The energy use intensity is shown based on modeled floor areas of **102,859 m², (9,556 m²).**

Energy End Use	Fuel Type	Proposed [kWh]	Proposed TEUI [kWh/m ² /year]
Internal Lighting	Electricity	202,981	21.2
External Lighting	Electricity	0	0.0
Misc Equip	Electricity	156,852	16.4
Elevators	Electricity	12,924	1.4
Space Heating Fossil Fuel	Fossil Fuel	0	0.0
Space Heating Electricity	Electricity	191,170	20.0
Space Cooling	Electricity	51,698	5.4
Pumps & Aux	Electricity	0	0.0
Vent Fans	Electricity	238,501	25.0
Domestic Hot Wtr	Electricity	0	0.0
Domestic Hot Wtr Fossil Fuel	Fossil Fuel	50,291	5.3
Total Electricity		904,417	94.6
Total Fossil Fuel		96,977	10.1
Total		1,001,395	104.8

Annual Heating Demand [kWh]	TEDI [kWh/m ² /year]
331927	34.7

The building TEUI & TEDI **before corridor pressurization** adjustment factor is:

TEDI [kWh/m ² /year]	TEUI [kWh/m ² /year]
34.7	104.8

Calculated adjustment factor is: 12.86 kWh/m², but only maximum of 10 kWh/m² can be claimed under City of Vancouver Energy Modeling Guideline, and the resulted Adjusted Building TEDI & TEUI are:

TEDI [kWh/m ² /year]	TEUI [kWh/m ² /year]
24.7	94.8

5.2 Energy Efficiency Results against to NECB 2015 Baseline Building

Below Tables, and chart compares the NECB 2015 Baseline and Proposed Design annual energy use, and energy use intensity (TEUI). The proposed building thermal energy demand intensity (TEDI) is also provided. The energy use intensity is shown based on floor areas of 6,166 m². The results show **the projects performs 36% better than NECB Baseline Building in terms of energy performance.**

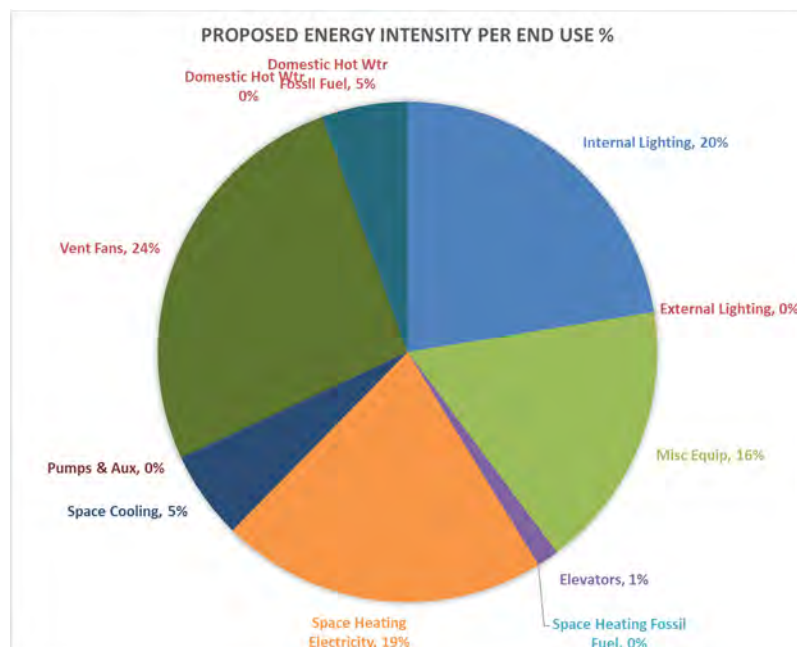
Energy End Use	Fuel Type	Baseline [kWh]	Proposed [kWh]	% Reduction	Baseline TEUI [kWh/m ² /year]	Proposed TEUI [kWh/m ² /year]
Internal Lighting	Electricity	221,562	202,981	8%	23.2	21.2
External Lighting	Electricity	0	0	0%	0.0	0.0
Misc Equip	Electricity	156,852	156,852	0%	16.4	16.4
Elevators	Electricity	12,924	12,924	0%	1.4	1.4
Space Heating Fossil Fuel	Fossil Fuel	0	0	0%	0.0	0.0
Space Heating Electricity	Electricity	318,158	191,170	40%	33.3	20.0
Space Cooling	Electricity	46,745	51,698	-11%	4.9	5.4
Pumps & Aux	Electricity	0	0	0%	0.0	0.0
Vent Fans	Electricity	435,504	238,501	45%	45.6	25.0
Domestic Hot Wtr	Electricity	155,416	50,291	68%	16.3	5.3
Domestic Hot Wtr	Fossil Fuel	214,440	96,977	55%	22.4	10.1
Total Electricity		1,347,160	904,417	33%	141.0	94.6
Total Fossil Fuel		214,440	96,977	55%	22.4	10.1
Total		1,561,395	1,001,395	36%	163.4	104.8

The proposed and baseline greenhouse gas emission (GHGe) per year, and greenhouse gas emission intensity (GHGle) per year (CO₂ emission per year and CO₂emission intensity per year) are provided in table below. **The results indicate that the Proposed Building saves 48.8% GHG greenhouse gas emission per year.**

The proposed building (GHGle) per year (CO₂ emission per year and CO₂emission intensity per year) is 2.9 kgCO₂e/m²/year).

Energy End Use	Fuel Type	Baseline [kgCO ₂ e/year]	Proposed TEUI [kgCO ₂ e/year]	Baseline [kgCO ₂ e/m ² /year]	Proposed TEUI [kgCO ₂ e/m ² /year]	Emission Factor
Internal Lighting	Electricity	2,437	2,233	0.26	0.23	0.011
External Lighting	Electricity	0	0	0.00	0.00	0.011
Misc Equip	Electricity	1,725	1,725	0.18	0.18	0.011
Elevators	Electricity	142	142	0.01	0.01	0.011
Space Heating Fossil Fuel	Fossil Fuel	0	0	0.00	0.00	0.011
Space Heating Electricity	Electricity	3,500	2,103	0.37	0.22	0.011
Space Cooling	Electricity	514	569	0.05	0.06	0.011
Pumps & Aux	Electricity	0	0	0.00	0.00	0.011
Vent Fans	Electricity	4,791	2,624	0.50	0.27	0.011
Domestic Hot Wtr	Electricity	1,710	553	0.18	0.06	0.011
Domestic Hot Wtr	Fossil Fuel	39,671	17,941	4.15	1.88	0.185
Total Electricity		14,819	9,949	1.55	1.04	
Total Fossil Fuel		39,671	17,941	4.15	1.88	
Total		54,490	27,889	5.70	2.92	48.8%

Below Chart represents proposed building energy use % of total per end-use.



6. CONCLUSIONS

This project meets the sustainability requirement of meeting Step Code-3 for Residential Occupancy based on the assumptions and inputs provided in the summary of inputs and assumption section of this report.

The Proposed building performs **36%** better than NECB 2015 Baseline Building in terms of energy use per year, and saves **48.8%** greenhouse gas emission per year which meets the minimum requirements for compliance with requirements of Canada Mortgage and Housing Corporation (CMHC) Energy-Efficient Properties program.

7. CLOSURE

We trust the enclosed provides helpful information for the design team to be used as part of the integrated design process and building permit application submission. Many of inputs and assumptions provided in this report are preliminary, and any deviations from them can result in non-compliance in later stage.

This simulation is not a prediction of actual energy use, energy performance or energy cost which may vary due to variations in weather, occupancy, accuracy of simulation tools used, installed equipment capacities and efficiencies, operator's procedures or system loads not covered under the energy standard.

If any additional information is required, please do not hesitate to contact us.

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Proj. Ref: 3001704

Dated: 2017 September 26

Revised: 2018 November 27

REDIC West Coast Oxford GP
200 – 1111 West Hastings St
Vancouver, BC V6E 2J3

Attention: Hamid Ahmadian
Via Email: hamid@redicdev.com

Re: Flood Hazard Assessment
220 Mountain Highway to 1555 Oxford Street

This letter report summarizes the flood hazard assessment (FHA) study conducted for the proposed development to be located at 220 Mountain Highway to 1555 Oxford Street (the subject property) within the District of North Vancouver (DNV).

1 INTRODUCTION

The development proposed at 220 Mountain Highway to 1555 Oxford Street is to construct 134 residential units in a 6-storey building. The building is proposed to include underground parking with access from a lane to the south of Oxford Street. Site plans and topographic survey are attached in **Appendix A**. In addition to underground vehicle parking and bike storage the design has proposed a rainwater retention tank (below parkade ramp) and water entry/sprinkler room below grade.

The subject property is located on the historic floodplain of Lynn Creek, at an elevation of approximately 5.5 m to 6.1 m. The mainstem channel of Lynn Creek is approximately 500 m to the west; the Seymour River is approximately 700 m to the east; and Burrard Inlet is approximately 500 m to the south (**Figure 1**). All three bodies of water could impose hydrotechnical hazards¹ on the subject property. DNV recognizes the hazards and has mapped the property within the DNV's Creek Hazard Development Permit Area, and a flood hazard assessment is required prior to obtaining building permits.

This report is to identify and evaluate flood hazards that may affect the safe development and use of the property with respect to the proposed development. The assessment is based on the criteria specified by:

- DNV's SPE 106 Creek Hazard Report and SPE 107 Flood Hazard Report Master Requirements; and
- *Professional Practice Guidelines - Legislated Flood Assessments in a Changing Climate in BC* prepared by the Association of Professional Engineers and Geoscientists of BC (APEGBC, 2012).

¹ Hydrotechnical hazard refers to hazards such as flooding, erosion, deposition, scour, and avulsion imposed by channelized or coastal waters.

Based on the scale of the proposed development, the risk of exposure of vulnerable populations appears to be moderate to high. This warrants a Class 3 flood hazard assessment as defined by the provincial flood assessment guidelines (AEPGBC, 2012). For compliance with local and provincial guidelines, completed DNV Master Requirements SPE 106 and SPE 107 as well as the APEGBC Flood Hazard and Risk Assurance Statement are attached in **Appendix B**. The preliminary drawings of the subject property have been reviewed for the purposes of this FHA, however the final design package should be reviewed by a qualified professional to ensure that they confirm to the determined flood construction level (FCL). The preliminary drawings do not include elevations.



Figure 1. Subject property overview map

2 SITE DESCRIPTION

A site inspection was conducted by Greg Grzybowski, EIT (NHC) on May 3, 2017 to evaluate the current condition and flood hazard context of the site. A digital surface of the area was constructed using 2014 'bare-earth' LiDAR data at 1 m resolution obtained from DNV's Open Data GIS to assist with the site assessment. **Figure 2** shows the topographic map of the study area based on the digital surface. The proponent provided topographic survey information attached in **Appendix A**.

The subject property currently consists of six single-detached homes with ground elevations ranging between 5.5 m and 6.1 m (**Photo 1 and 2, Appendix C**). The local community is in an area of mixed development that includes multi-family and single-family residences, and low-rise commercial and

industrial sites. The proposed development is bounded by Oxford Street to the north, Mountain Highway to the west, a lane to the south, and adjacent residential properties to the east. Oxford street (**Photos 3 and 4**) runs east-west and leads to Phibbs Exchange (**Photos 5 and 6**), a major public transit bus exchange, is located southeast of the proposed development.

In general, the ground slopes south towards Burrard Inlet. West of the project, Mountain Highway slopes gradually down from north to south. Phibbs Exchange, 150 m east of the site, is the lowest ground near the site, with a ground elevation as low as El. 2.2 m. The railway 240 m south of the subject property provides an east-west aligned embankment with an elevation of roughly El. 7.0 m.

Based on the provided survey data, the elevation of Oxford Street on the north side of the project varies from El. 6.0 m at the northeast to El. 5.8 m at Mountain Highway (northwest corner). Along the lane at the south side of the project (**Photos 7 and 8**), the elevation ranges from El. 5.8 m at the southeast corner of the site to El. 5.7 m at Mountain Highway (southwest corner). Localized high and low elevations exist along Oxford Street (El. 5.8 to 6.2 m) and along the lane (El. 5.4 to 5.9 m). Photos at the end of this document illustrate the grounds surrounding the subject property.

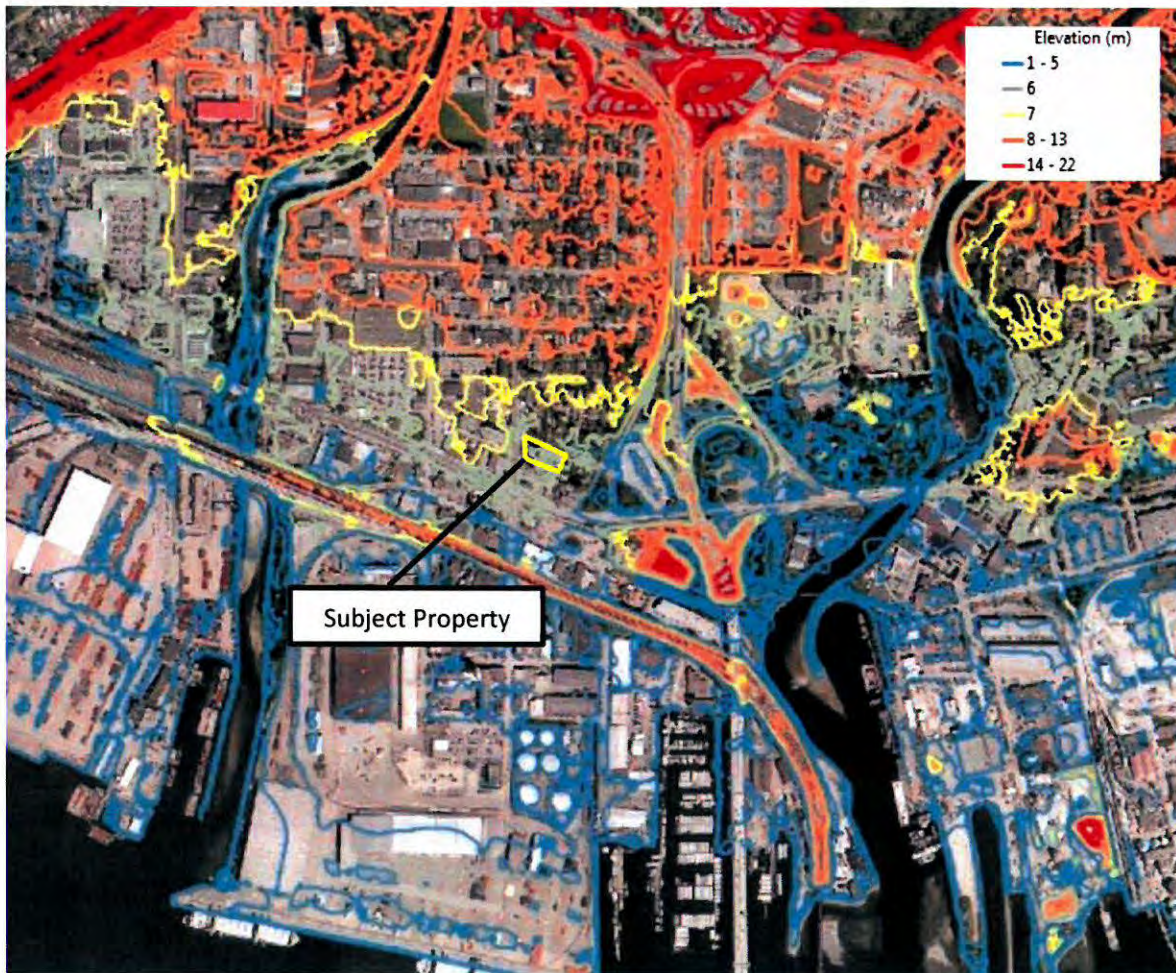


Figure 2. Topographic map of the subject property, compiled using 2014 DNV LiDAR data, north at top of page

3 BACKGROUND REVIEW

The following information has been reviewed as part of our assessment:

- *Floodplain Map 93-5: Floodplain Mapping, Seymour River, North Vancouver* (BC MoE, 1995)
- *Design Brief on the Floodplain Mapping Study: Seymour River, North Vancouver* (BC MoE, 1995b)
- *Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard Land Use* (BC MoE, 2011)
- *Flood Hazard Report – Section 219 Covenant, Master Requirement SPE 106* (DNV, 2011)
- *Creek Hazard Report – Section 219 Covenant, Master Requirement SPE 107* (DNV, 2011b)

- *Schedule B Development Permit Areas* (DNV, 2012)
- *Creek Hazard Development Permit Area Map 2.2* (DNV, 2012b)
- *Coastal Floodplain Mapping Guidelines and Specifications* (FLNRO, 2011)
- *Lynn Creek Management Plan* (KWL, 2004)
- *Lynnmour / Inter-River Local Plan, Flood Protection Assessment* (KWL, 2006)
- *Creek Hydrology, Floodplain Mapping and Bridge Hydraulic Assessment study, North Vancouver* (KWL, 2014)
- *Flood Assessment Study, North Vancouver* (NHC, 2010).

Applicable background review findings are discussed later in the report.

4 FLOOD HAZARD ASSESSMENT

The subject property is located approximately 700 m west of the Seymour River, 500 m east of Lynn Creek, and 500 m north of Burrard Inlet (Lynnwood Marina). Each could pose hydrotechnical hazards and are separately assessed in the sub-sections that follow.

4.1 River Flood Hazard Assessment

Seymour River and Lynn Creek can impose hydrotechnical hazards on properties within their floodplain through:

- High water level inundating property with flood water and debris,
- Erosion of river banks,
- Scouring of the river bed potentially undermining and failing adjacent banks,
- Deposition or blockage within the river directing flow towards or over bank and possibly leading to erosion (gradual lateral migration of the river) or avulsion (sudden relocation of the river channel)

Such hazards have been assessed based on site conditions, river hydrology (flood flow), and expected hydraulics. Hydraulic conditions have been estimated through hydraulic modelling for a range of flood scenarios based on flood flow, channel deposition, and partial channel blockage.

4.1.1 Seymour River Watershed and Reach Description

The Seymour River has a watershed area of 176 km² which drains the southern slopes of the Pacific Ranges from an elevation of 1,727 m at Cathedral Mountain to sea level at Burrard Inlet. The river is regulated by Seymour Falls Dam at the south end of Seymour Lake, approximately 16 km upstream from the river mouth at Burrard Inlet.

Downstream from Seymour Lake, Seymour River flows within a relatively confined bedrock canyon surrounded by undeveloped forest. Development along the shores begins roughly 3.5 to 3.8 km upstream from the river mouth. On December 7, 2014, a rock slide occurred within the canyon, temporarily blocking the river less than 1 km upstream of urban development. Although not directly affecting the subject property, this event does reinforce the expectation that debris can be sourced downstream of Seymour Lake and can play a role in flooding of the lower Seymour River.

4.1.2 Lynn Creek Watershed and Reach Description

Lynn Creek has a drainage area of approximately 58 km² and is the largest unregulated watershed on the North Shore. The main stem of the creek originates at Lynn Lake (El. 800 m) and flows in a southerly direction for 17 km before draining into Burrard Inlet.

The creek is often considered as three main reaches:

- i) Upper reach - the reach roughly upstream of Rice Lake Bridge (KM 6.8+, El. 180 m+)
- ii) Lynn Canyon reach - between Rice Lake Bridge and Inter-River Park (KM 3.8 to 6.8, El. 40 to 180 m)
- iii) Downstream reach - the reach from Inter-River Park to Burrard Inlet (KM 0 to 3.8, El. 0 to 40 m).

The upper reach generally dictates the flow in downstream reaches. High flow events are a result of intense fall and winter storms, often intensified due to recent snow accumulation to a moderate to low elevation.

The canyon reach is the reach most likely to affect the site through sediment and debris. This reach consists of a series of cascading bedrock canyons separated with intermittent boulder, cobble, and gravel deposition zones within high steep banks of till. The channel is confined within the canyon. Natural blockages can form within this reach from deposition or failed banks. Such blockages can fail suddenly during high flows triggering a debris flood. The gradient is sufficiently steep to initiate and transport large amounts of bedload, suspended sediment, and woody debris.

Downstream of the canyon, the creek flows through a confined valley before it reaches the apex of its alluvial fan, roughly 3.5 km upstream from Burrard Inlet. The valley opens at this point, exposing a floodplain along the left bank (downstream portion of Inter-River Park). The channel gradient continues to decrease from roughly 2.5% to closer to 1% as the channel crosses under the Trans-Canada Highway with further flattening to Burrard Inlet. DNV periodically provides channel maintenance removing gravel from the lower reach. An informal search of historic removals suggested a gravel removal volumes of 16,000 m³ in 1984, 8,000 m³ in 1985, 9,500 m³ in 1995, 7,500 m³ in 2004-2006, and 3,000 m³ in 2013.

4.1.3 Previous Studies

NHC and other consulting engineers have conducted several studies of the major water courses within the DNV, primarily for bridge design and flood hazard identification. These studies incorporated hydraulic analysis using one-dimensional (1D) and two-dimensional (2D) steady flow numerical models.

Notable water elevations presented by these studies are tabulated in **Table 1** (Seymour River) and **Table 2** (Lynn Creek). These flood water surface elevations provide the basis for hydraulic analysis of the study site, in conjunction with topography.

Although the studies presented all use a 200-year instantaneous flow² the calculation of such a flow varies slightly between studies. This is a result of various statistical distributions being used to plot and fit historic flow data, extent of available flow data at time of study, and approach used to account for future climate change.

The simulations are predominantly dependent on the simulated flow. However, the lower portion of the models become increasingly dependent on the downstream boundary condition. For these models the downstream water surface elevation (DS WSEL) at Burrard Inlet represents the downstream boundary condition. The DS WSEL value varies depending on the design tide, storm surge, wind setup, and allowances for future sea level rise (SLR); variations in DS WSEL can impact simulated water levels within the lower reaches of the river.

Table 1. Year 2100 flood elevation from previous hydraulic studies of Seymour River

Study	Model	Inflow (m ³ /s)	DS WSEL (m)	Location	Flood El. (m)
NHC (2010)	HEC-RAS 1D	808	3.4	Mount Seymour Parkway Vehicle Bridge	9.2
NHC (2010)	HEC-RAS 1D	808	3.4	Dollarton Hwy Vehicle Bridge	4.4
KWL (2014)	MIKE 11	791	2.8	Mount Seymour Parkway Vehicle Bridge	9.5
KWL (2014)	MIKE 11	791	2.8	Dollarton Hwy Vehicle Bridge	6.6

Table 2. Year 2100 flood elevation from previous hydraulic studies of Lynn Creek

Study	Model	Inflow (m ³ /s)	DS WSEL (m)	Location	Flood El. (m)
KWL (2014)	MIKE 11	229	2.8	Proposed Crown St to 4 th Ave Bridge	5.5
KWL (2014)	MIKE 11	229	2.8	Cotton Road / Main St Vehicle Bridge	4.2

In addition to the studies above, in 2006, Kerr Wood Leidel (KWL) prepared a flood assessment of Lynnmour and Inter-River Park area, located about 1.2 km north of the study site. The study reported that the possibility of channel blockage within the lower reach could lead to overbank flooding of the left³ floodplain, especially during less frequent events, such as a 500-year event. The report further suggests that Orwell Street is a natural floodway and is likely to convey overbank floodwaters from Inter-River Park down to Highway 1. The routing of floodwaters from Orwell Street once south of Highway 1 and approaching the study site is not included in the 2006 KWL report. Based on the topography, the rise in ground of the interchange of Keith Road and Fern Street above Highway 1 is

² Instantaneous flow refers to peak flow in contrast to the maximum daily average flow. A 200-year flow is the flow expected to occur once every 200 years, alternatively the flow with a 0.5% probability of being exceeded in any single year.

³ References to left and right banks assume a downstream-facing orientation.

expected to direct flow either - or a combination of - south down Highway 1, east towards Seymour River or west towards Lynne Creek; limiting the impact to the subject property from flooding upstream of Highway 1.

4.1.4 River Hydraulic Analysis

DNV has adopted the 200-year flood levels presented by the 2014 KWL report for the 200-year flood expected under the flow and tidal conditions projected for the year 2100 since new development planning typically estimates 100-year maximum building life. Within areas deemed at risk to flood hazard the DNV consider mapped flood inundation and potential overflow. **Figure 3** provides an overview map of areas inundated through direct connection to the Seymour River and Lynn Creek with a depth of inundation 0.05 m or greater. The figure shows that inundation could occur in the area east and southeast of the subject property, but not directly over it.



Figure 3. Seymour River and Lynn Creek simulated flood depth, 200-year flood based on year-2100 conditions (KWL, 2014)

The predicted future 200-year Seymour River flood level at Dollarton Hwy Vehicle Bridge is about El. 6.6 m. Inundation mapping of the flood extent from the simulated 200-year Seymour River flow event (for the year 2100) (**Figure 3**) shows that inundation does not reach the subject property. The inundated area closest to the subject property is at Phibbs Exchange. The modelled water surface elevation at Phibbs Exchange during a 200-year (year 2100) flood is 4.5 m, which is below the study site's elevation of 5.5 m to 6.1 m.

The predicted future 200-year Lynn Creek flood level at Crown Street is El. 5.5 m (300 m upstream of and 450 m adjacent to the subject property) and El. 4.2 m at the Main Street bridge (500 m adjacent to the subject property). The corresponding top of the bank elevations at these two locations are about 7.0 m and 4.6 m respectively. Flood inundation mapping shows that Lynn Creek flow is expected to remain within the channel's banks during a 200-year flood event (year 2100) near the subject property (**Figure 3**).

4.2 Coastal Flood Hazard Assessment

Coastal flood hazard at the study property is derived from high water at the adjacent shore of Burrard Inlet, incorporating the combined effects of tide, storm surge, wind setup, wave run-up, and sea level rise (SLR).

In January 2011, the BC Ministry of Environment (MOE) published Climate Change Adaptation Guidelines for Sea Dikes and Coastal Flood Hazard Land Use (MOE, 2011a). The guidelines present an approach for developing a flood construction level (FCL) calculated as the summation of:

$$\begin{array}{lcl}
 \text{FCL} = & \text{Higher High Water Level Large Tide (HHWLT)} & \\
 & + \text{the 200-year storm surge} & \\
 & + \text{sea level rise (SLR)} & \\
 & + \text{local subsidence} & \\
 & + \text{wave effects from a 200-yr storm} & \\
 & + 0.6 \text{ m freeboard} & \\
 & \left. \vphantom{\begin{array}{l} \text{HHWLT} \\ \text{storm surge} \\ \text{SLR} \\ \text{subsidence} \\ \text{wave effects} \end{array}} \right\} & \begin{array}{l} \text{Referred to as} \\ \text{Designated} \\ \text{Flood Level (DFL)} \end{array} \\
 & & \left. \vphantom{\begin{array}{l} \text{HHWLT} \\ \text{storm surge} \\ \text{SLR} \\ \text{subsidence} \\ \text{wave effects} \end{array}} \right\} \begin{array}{l} \text{Referred to as the} \\ \text{Flood Construction} \\ \text{Reference Plane (FCRP)} \end{array}
 \end{array}$$

The 2014 floodplain mapping study conducted by KWL provides coastal flooding analysis in addition to the river flood scenarios presented in the previous section. The FCL within this area⁴ of the north shore of Burrard Inlet for the year 2012, 2100, and 2200 from the KWL flood study are summarized in **Table 3**.

⁴ Shoreline section referred to as "Tidal Flats" in the study, which is located 700 to 900 m east of the subject property.

Table 3. Coastal flood construction levels.

FCL Components	2012	2100	2200
200-year Water Level (m GD) (including tide, surge, wind set-up and wave run-up)	3.20	3.20	3.20
Sea Level Rise (m)	0.12	1.0	2.0
Local subsidence (m)	0.0	- 0.12	- 0.24
Designated Flood Level (m)	3.32	4.08	4.96
Freeboard (m)	0.6	0.6	0.6
Flood Construction Level (m GD)	3.92	4.68	5.56

DNV has adopted the year-2100 value for its FCL requirement. A map of KWL's year-2100 coastal flood inundation projection is shown in **Figure 4**. The figure shows that the subject property is beyond the inundation boundaries. The current ground elevation at the subject property ranges between El. 5.5 m and 6.1 m. Therefore, the site is not expected to be inundated with coastal flood waters for events up to the 200-year event under current and future coastal high water conditions, however, the required freeboard allowances would not be in place for the year 2200 scenario. There is no known reason to suggest further study on the coastal hazard is warranted.

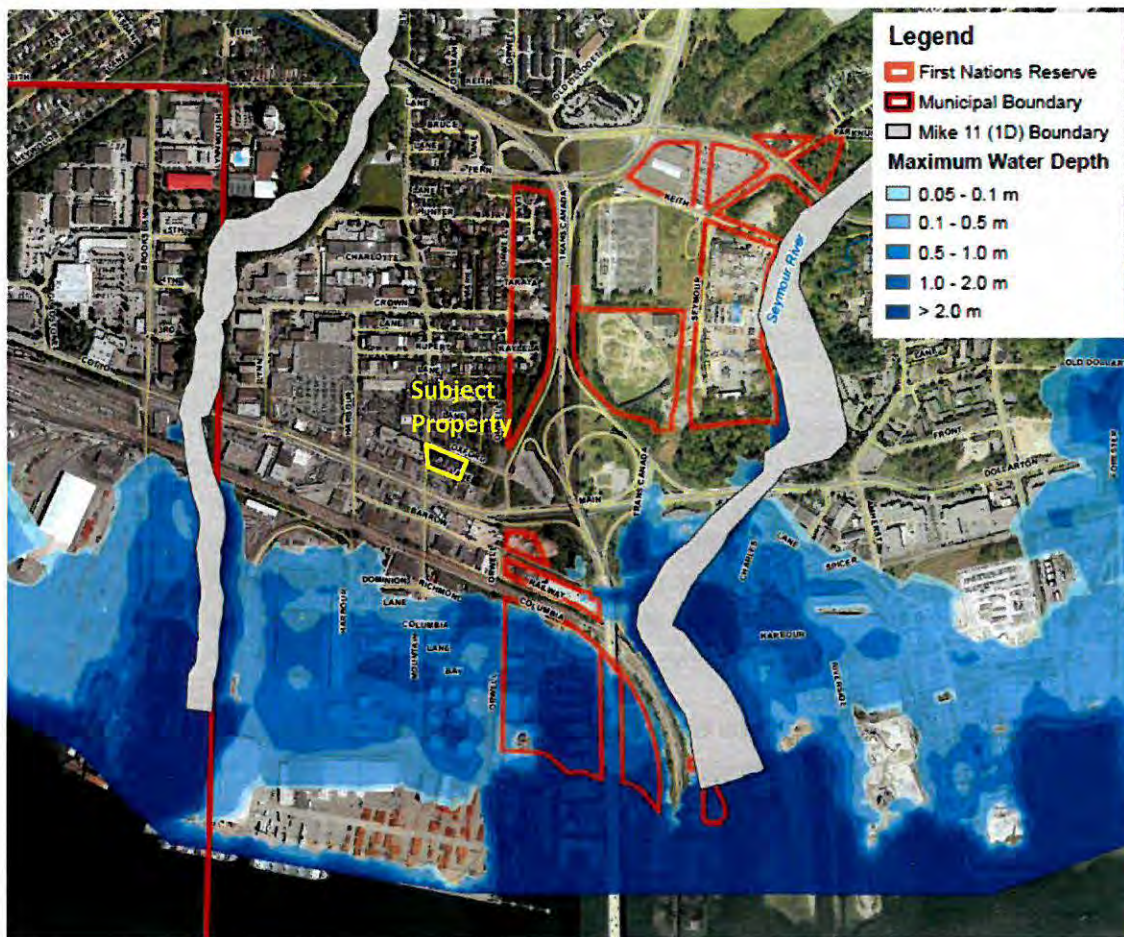


Figure 4. Burrard Inlet simulated flood depth, 200-year flood based on year-2100 conditions (KWL, 2014)

4.3 Hazards and Mitigation

The subject property is beyond the year-2100 inundation boundaries (i.e. the expected flood extents for a design flood event occurring following roughly 100 years of climate change) for Lynn Creek, Seymour River and Burrard Inlet. The site is set far enough back from the active river channels, with substantial infrastructure between the rivers and the site, and no expectation of developing a preferential flow path near the subject property; there is minimal risk of channel migration or avulsion towards the subject property. The primary flood risk is from additional channel blockage from debris or sediment deposition, resulting in overbank flow reaching the site. The recommended mitigation to this risk is applying a minimum flood construction level (FCL).

The DNV provides suggested FCLs within flood hazard areas. Within areas mapped as inundated during the 200-year flood (year-2100), the flood levels presented by DNV are the simulated flood levels plus 0.6 m freeboard. Areas not mapped as inundated but still considered at risk of flooding are assigned by the DNV an FCL equal to the ground elevation plus a 0.6 m freeboard. Based on this criterion, DNV

recommends FCL values for the subject property 0.6 m above existing ground. Ground elevations range from El. 5.5 m to 6.1 m.

While inundation due to river and coastal flooding is not anticipated for the subject property up to the 200-year event, it is recommended that an FCL be adopted for the site to provide freeboard above the surrounding ground to allow passage of surface flow during river or coastal flood events that exceed the 200-year event. NHC recommends an FCL of El. 6.6 m for the subject property. The FCL of El. 6.6 m is 0.6 m above the ground for the east side of the site, the area of the site expected to be most prone to flooding (from Seymour River) and 0.5 to 0.7 m above potential north south flow paths adjacent to the site along the west side of the site and at the southeast corner.

5 SUMMARY AND RECOMMENDATIONS

A hydrotechnical hazard assessment was conducted based on 200-year flood (0.5% annual exceedance probability) for up to the year 2100 including climate change projections. NHC recommends a flood construction level of El. 6.6 m be adopted for the subject property. This flood hazard assessment was conducted following APEGBC 2012 Class 3 flood hazard assessment guidelines. A summary of the APEGBC criteria for such an assessment is presented in **Table 3**.

Table 3. Summary of APEGBC Typical Class 3 Flood Hazard Assessment Methods and Deliverables

APEGBC Flood Hazard Assessment Component	Notes
<i>Typical hazard assessment methods and climate/environmental change considerations</i>	
Site visit and qualitative assessment of flood hazard	Completed by NHC 2017
Identify any very low hazard surfaces in the consultation area (i.e., river terraces)	Completed by NHC 2017
Estimate erosion rates along river banks	Subject property set back from the active river channel - any erosion is expected to be mitigated well before reaching the subject property
2-D modelling of user-specified dike breach scenarios, modelling of fluvial geomorphic processes using 2-D morphodynamic models and their respective effects on flood hazard	Site not protected by dike, but overland flood scenario was considered as the design event. Erosion risk deemed low and no morphodynamic modelling analysis was conducted.
Identify upstream or downstream mass movement processes that could change flood levels (e.g., landslides leading to partial channel blockages, diverting water into opposite banks)	Potential blockage of bridge or sediment deposition in the channel considered possibly mechanism of the flood scenario.
Conduct simple time series analysis of runoff data, review climate change predictions for study region, include in assessment if considered appropriate	Completed by others and used in this assessment (KWL 2014)
Quantify erosion rates by comparative air photograph analysis	N/A – erosion risk deemed low

APEGBC Flood Hazard Assessment Component	Notes
Typical deliverables	
Letter report or memorandum with at least water levels and consideration of scour and bank erosion	Completed
Cross-sections with water levels, flow velocity and qualitative description of recorded historic events, estimation of scour and erosion rates where appropriate with maps showing erosion over time	Not Required
Maps with area inundated at different return period, flow velocity, flow depth, delineation of areas prone to erosion and river bed elevation changes, estimates of erosion rates	Completed

6 SAFE CERTIFICATION

NHC has not assessed the property for hazards related to site drainage (local runoff), fire, debris flow, debris flood, landslide, or any other hazards besides those resulting directly from flood and/or erosion emanating from Seymour River and Lynn Creek, or Burrard Inlet. With respect to flood and erosion hazard, for flood events less than or equal to the 200-year peak instantaneous flow in the Seymour River, Lynn Creek and 200-year high water of Burrard Inlet, NHC certifies that the subject property is considered safe for the use intended if:

1. An FCL of El. 6.6 m is to be adopted for the subject property.
2. The underside of any wooden floor system, or the top of any concrete floor system used for habitation, business, the storage of goods damageable by floodwater, or the installation of fixed equipment is above the FCL.
3. Changes to the property are as described herein, and as shown in **Appendix A** and the proposed building will be used as described herein. If building use changes from residential this document will be null and void.
4. Building openings on the north and east side of the building must be no lower than El. 6.6m.
5. Any ingress or egress routes on the perimeter of the building must exit above El. 6.6 for both vehicles and pedestrians and must be adequate for evacuation during a flood or lack of electrical power.
6. The floor of the electrical and mechanical equipment room and main switch gear is to be located above the FCL. The transformer and generator proposed for the southeast corner of the site is to be installed at or above the FCL (El. 6.6 m).
7. Any electrical supply below the FCL (i.e. parking lighting, kitchen, laundry, etc.) must be protected by GFCI (ground fault circuit interruption) located above the FCL.
8. The parkade entrance is below the FCL which may result in nuisance flooding. Residual risk from overland stormwater flows should be dealt with through appropriate drainage designed by a QEP or by raising the parkade entrance by 0.3 m above the gutter El. End users and/or future property owners must be notified of the risk of storage and/or parking below the FCL; possibly

through signage, tenancy agreement, and/or property covenant.

9. Storage of critical equipment and supplies (i.e. medication), hazardous materials, or those with the potential to negatively impact fish or fish habitat is not to be allowed below the FCL.
10. Any windows or openings below the designated design levels are to be accessible and easily sealed against floodwaters by persons without special training and adequately designed to withstand flood waters to the designated design elevations.
11. Subject to determination by a professional geotechnical engineer, the structure below the FCL may need to be designed to limit seepage and withstand hydrostatic loading up to the FCL.
12. All flood protection works are designed by a qualified registered professional. Short and long term maintenance requirements for the flood protection works are outlined by a qualified registered professional and followed by the owner/operator of the property.
13. Site drainage and seepage mitigation internal to the property are designed by a qualified registered professional.
14. Final building plans and as-built conditions have been assessed and approved for compliance with the conditions specified herein by a qualified registered professional.
15. Any future flood works constructed by DNV or others between the subject property and Burrard Inlet – such as a sea dike – should incorporate adequate drainage to allow any Seymour River or Lynn Creek overflow to drain to Burrard Inlet (i.e. culverts with flood gates).

7 CLOSURE

We hope this work and report meets your current needs. If you have any questions or would like to further discuss these findings, please contact Matt Gellis or Greg Grzybowski at our North Vancouver office at (604) 980-6011 or by email (mgellis@nhcweb.com | ggrzybowski@nhcweb.com).

Sincerely,

Northwest Hydraulic Consultants Ltd.

Prepared by:


Greg Grzybowski, EIT
Project Engineer

Reviewed by:


Matt Gellis, PEng
Associate

DISCLAIMER

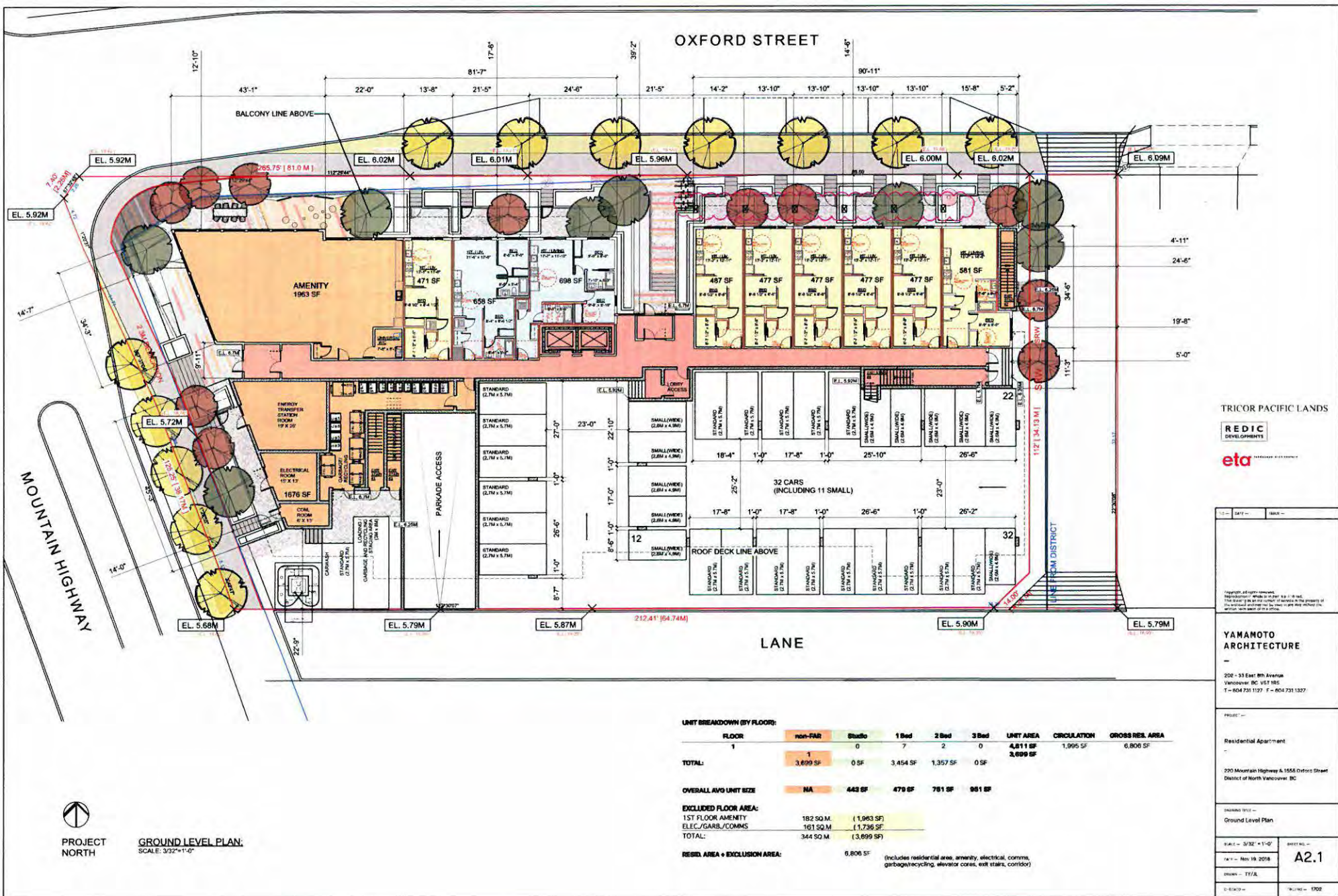
This document has been prepared by Northwest Hydraulic Consultants Ltd. in accordance with generally accepted engineering practices and is intended for the exclusive use and benefit of REDIC West Coast Oxford GP, and their authorized representatives for specific application to the 2017 flood hazard assessment for the property at 220 Mountain Highway to 1555 Oxford Street. The contents of this document are not to be relied upon or used, in whole or in part, by or for the benefit of others without specific written authorization from Northwest Hydraulic Consultants Ltd. No other warranty, expressed or implied, is made. Northwest Hydraulic Consultants Inc. and its officers, directors, employees, and agents assume no responsibility for the reliance upon this document or any of its contents by any parties other than REDIC West Coast Oxford GP.

REFERENCES

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- Northwest Hydraulic Consultants Ltd. (2010). Flood Assessment Study, North Vancouver. Prepared for Natural Resources Canada and District of North Vancouver.

ATTACHMENT A SITE SURVEY AND PRELIMINARY DESIGN

(for reference)



ELEVATION KEY NOTES

- (1) LONGBOARD - "WOOD GRAY" (SHING, SMOOTH)
- (2) HARDIE PANEL WALL (SOFT CLADDING - PAINTED)
- (3) HARDIE PANEL CLADDING IN "IRON GREY"
- (4) VINYL FRAME DOUBLE GLAZED WINDOW - PAINTED TO MATCH HARDIE PANEL
- (5) ALUM. GUARDRAIL W/ GLASS PANEL
- (6) ALUM. WINDOW WALL
- (7) HARDIE PANEL IN "IRON GREY" - W/ PAINTED REVEAL JOINTS
- (8) METAL PANEL ON GUARD
- (9) ALUM. GUARDRAIL
- (10) VINYL WINDOW WALL
- (11) BOARD-FORM CONCRETE
- (12) METAL DOOR - PAINTED
- (13) CONCRETE - PAINTED, SEALED

ALL LISTED MATERIALS REQUIRE SAMPLE REVIEW PRIOR TO PRODUCTION OR INSTALLATION

TRICOR PACIFIC LANDS

REDIC DEVELOPMENTS

eta

YANAMOTO ARCHITECTURE

202 - 33 East 8th Avenue
Vancouver, BC V6T 1C6
T: 604.231.1127 F: 604.731.3327

Residential Apartment

201 Mountain Highway & 1500 Cordova Street
District of North Vancouver BC

Building Elevations

A3.1

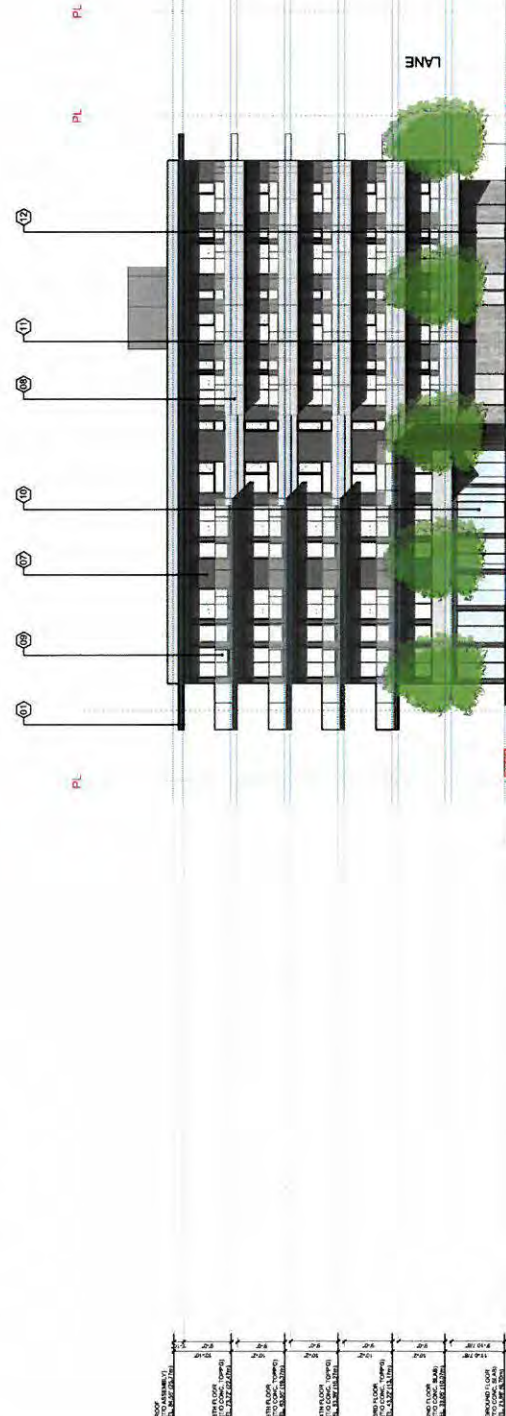
DATE: 11/14

BY: 11/14

SCALE: 1/8" = 1'-0"



OXFORD STREET ELEVATION
SCALE: 3/32"=1'-0"



MOUNTAIN HIGHWAY (WEST) ELEVATION
SCALE: 3/32"=1'-0"

ATTACHMENT B
FLOOD HAZARD AND RISK ASSURANCE STATEMENT

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: November 27, 2018

Planning, Permits & Properties, 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:

220 Mountain Highway to 1555 Oxford Street, North Vancouver

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
 - ☒ 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
 - ☒ 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.

8. Where the *Approving Authority* has not adopted a level of flood risk or flood hazard tolerance I have:

N/A 8.1 described the method of flood hazard analysis or flood risk analysis used

N/A 8.2 referred to an appropriate and identified provincial or national guideline for level of flood hazard or flood risk

N/A 8.3 compared this guideline with the findings of my investigation

N/A 8.4 made a finding on the level of flood hazard or flood risk tolerance on the Property based on the comparison

N/A 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.

- ☐ 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 building permit, 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".

Matt Gellis

Name (print)

Signature

30 Gostic Place, North Vancouver, BC, V7M 3G3

Address

604-980-6011

Telephone

November 27, 2018

Date



(Affix Professional seal here)

If the *Qualified Professional* is a member of a firm, complete the following.

I am a member of the firm Northwest Hydraulic Consultants Ltd.

and I sign this letter on behalf of the firm.

(Print name of firm)

M Flood Hazard Report – Section 219 Covenant Master Requirement SPE 106



Purpose

The *Flood Hazard Report* assesses the impact of flood hazards on a proposed development and outlines such conditions as may be required to ensure that the proposed development is safe for the use intended.

Background

Development may be directly affected by surface water flooding or, indirectly, by elevated ground water levels. Development and properties not directly adjacent to a river or creek may be at risk as flooding represents a hazard to a wide area.

In order to avoid unnecessary delays, complications or expense applicants are advised to ask a Plan Checker early in the design stages if a *Flood Report* will be necessary. A *Pre-Application Request for Service* may be required to confirm the requirement for a *Flood Report*. A *Flood Report* will be required if;

- ☒ the development is located within the provincially designated Seymour River Floodplain,
- ☐ the development is located adjacent to the designated Seymour River Floodplain and proposes basements or finished space below Flood Construction Levels,
- ☐ the development proposes basements or finished space below the High Water Mark,
- ☐ pursuant to s. 56 of the Community Charter the Building Inspector considers that construction would be on land that is subject to flooding or elevated ground water levels.

A building permit application will be accepted on the condition that:

- 1) the *Flood Report* has been submitted by a specialist professional engineer and such engineer certifies, subject to conditions contained within the report, that the land may be used safely for the use intended,
- 2) the *Flood Report* MUST provide a response to all headings identified in the *Flood Report - Terms of Reference* identified below. Incomplete reports will not be found acceptable and will result in delays,

- 3) the Building Inspector has reviewed and accepted the report,
- 4) the owner of the land covenants with the District to:
 - a) use the land only in the manner determined and certified by the engineer as enabling the safe use of the land for the use intended,
 - b) the covenant contains conditions respecting reimbursement by the covenantor for any expenses that may be incurred by the covenantee as a result of a breach of the covenant,
 - c) the covenant be registered under section 219 of the Land Title Act.

Prior to constructing work within 30 metres of the top of bank of a watercourse an applicant will require District of North Vancouver Environmental approval with respect to the removal and importation of soil, tree cutting and proximity to sensitive aquatic areas.

Requirements

Content: **Flood Report - Terms of Reference**

- ✓ **Credentials:** *Flood Reports* are to be performed by a specialist professional engineer or professional geoscientist with experience or training in geotechnical study and geohazard assessments.
- N/A ☐ **Statutes:** Section 56 of the Community Charter is applicable where the study is undertaken for the purpose of addressing flooding issues for a Building Permit.
- ✓ **Background Information:** *Flood Reports* shall include a review of available background information.
- ✓ **Property Description:** *Flood Reports* shall include both legal and street addresses of the subject property, and also a plan showing the location of the property relative to the pertinent creek, river or coastal area. Any existing restrictive covenants relative to land use or natural hazards shall be identified and attached to the report.
- ✓ **Flood Hazards:** *Flood Reports* shall provide a clear assessment of hazards associated with floods including surface and subsurface water. ~~Uplift, hydrostatic pressure and the effects on perimeter drainage, storm water management and sanitary drainage must be addressed.~~ The design magnitude of

each of these processes will be assessed to a level of accuracy appropriate for the project.

- ✓ **Other Hazards:** For waterfront properties, the risk of flooding and erosion from the sea shall be addressed. Where other hazards, such as rockfall, are apparent, they shall be noted.
- ✓ **Design Criteria for Floods:** For floods, the design flow shall be the 200-year return period peak instantaneous flow. New culverts should be capable of passing this flow with no surcharging. New bridges should be capable of passing this flow with a minimum of 1 metre of freeboard.
- ✓ **Safe Certification:** A clear certification, subject to conditions contained in the report, that the land may be used safely for the use intended. The conditions shall be with respect to the siting, structural design and maintenance of buildings, structures and works, the maintenance of planting or vegetation, the placement of landfill and other such conditions respecting the safe use of the land, buildings, structures or works.

Any assumptions regarding future watershed conditions as they relate to the hazard assessments are to be clearly stated.

- N/A ☐ **Building Setbacks:** Proposed building setbacks shall be clearly defined. In most cases, it would be appropriate to consult with the Environmental Protection Department in determining setbacks.
- ✓ **Flood Construction Levels:** Proposed FCL's for proposed building sites shall be clearly defined, preferably in Geodetic Survey of Canada datum. In general, FCL's will be based on the 200-year return period flood criteria, plus a minimum of 0.6m freeboard allowance, plus a reasonable allowance for sedimentation. Behind dykes or other flood protection works, determination of appropriate FCL's will be site-specific.
 - ✓ **Proposed Mitigative Works:** Proposed mitigative works are to be permanent, and shall be designed to a conceptual level for the purpose of report submission. If the proposed works will result in transfer of risk to a third party, this will be clearly noted. The location and land ownership for proposed works is also to be noted. Following acceptance of the report, the requirements for design and construction of the works will be defined.

N/A ☐ **Environmental Approvals:** Where environmental approvals are required for construction of mitigative works, it may be necessary to obtain such approvals prior to acceptance of the report.

☒ **Maintenance Requirements:** *Flood Reports* shall fully outline short and long term maintenance requirements.

☒ **Report Submission:** *Flood Reports* shall be sealed by the engineer of record. Where required, engineering reports will be included **within** a restrictive covenant registered against the land title.

OK ☐ **Peer Review:** The District regularly obtains a peer review of creek reports by independent engineering consultants. Any concerns resulting from a peer review will be directed to the engineer of record for consideration. Creek reports will not be accepted until concerns arising from a peer review are satisfactorily resolved.

Section 219 Covenant

☐ Per sample

Timing: The *Flood Report* must be found acceptable by the Building Inspector prior to a permit application being accepted. The *Section 219 Covenant* must be registered on title prior to permit issuance.

Owner: Retain appropriate professional(s) to prepare *Flood Reports*. Registered Section 219 Covenant on land title.

Related Requirements/Documents/Forms

Master Requirement SPE107 *Creek Hazard Report*

Contacts

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

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Fax 604-984-9683
email building@dnv.org

M **Creek Hazard Report – Section 219 Covenant** **Master Requirement SPE 107**



Purpose

The *Creek Hazard Report* assesses the impact of creek hazards on a proposed development and outlines such conditions as may be required to ensure that the proposed development is safe for the use intended.

Background

Development may be adversely affected by creek hazards by a number of mechanisms including flooding, debris floods, debris flows, erosion and accretion. Development and properties not directly adjacent to a creek may be at risk as flooding, debris floods and debris flows represent a hazard to a wide area.

In 1999 the District of North Vancouver published "*Overview Report on Debris Flow Hazards*". The report identified potential debris flow hazard ratings for creeks within the District. The report is a public document and is available for review at the Parks and Engineering Division and the Planning Building & Environment Division counters at the Municipal Hall. The report is also available through North Vancouver public libraries.

In order to avoid unnecessary delays, complications or expense applicants are advised to ask a Plan Checker early in the design stages if a Creek Hazard Report will be necessary. A *Pre-Application Request for Service* may be required to confirm the requirement for a *Creek Hazard Report*. A *Creek Hazard Report* will be required if:

- ☒ the development is located within a creek fan as designated in the "*Overview Report on Debris Flow Hazards*". Property is shown within DPA Creek Hazard boundary on DNV GEOweb
- ☐ the development is located below the top of bank of a creek designated in the "*Overview Report on Debris Flow Hazards*" as medium or higher risk.
- ☐ pursuant to s. 56 of the Community Charter the Building Inspector considers that construction would be on land that is subject to flooding, mud flows, debris flows, debris torrents, erosion, land or slip rock falls.

A building permit application will be accepted on the condition that:

- 1) the *Creek Hazard Report* has been submitted by a specialist professional engineer and such engineer certifies, subject to conditions contained within the report, that the land may be used safely for the use intended,

- 2) The *Creek Hazard Report* MUST provide a response to all headings identified in the *Creek Hazard Report - Terms of Reference* identified below. Incomplete reports will not be found acceptable and will result in delays,
- 3) the Building Inspector has reviewed and accepted the report,
- 4) the owner of the land covenants with the District to:
 - a) use the land only in the manner determined and certified by the engineer as enabling the safe use of the land for the use intended,
 - b) the covenant contains conditions respecting reimbursement by the covenantor for any expenses that may be incurred by the covenantee as a result of a breach of the covenant,
 - c) the covenant be registered under section 219 of the Land Title Act.

Prior to construction work within 30 metres of the top of bank an applicant will require District of North Vancouver Environmental approval with respect to the removal and importation of soil, tree cutting and proximity to sensitive aquatic areas.

Requirements

Content: Creek Hazard Report - Terms of Reference

☒ **Credentials:** *Creek Hazard Reports* are to be performed by a specialist professional engineer or professional geoscientist with experience or training in river engineering, hydrology, and in some cases, debris flow processes

N/A ☐ **Statutes:** Section 56 of the Community Charter is applicable where the study is undertaken for the purpose of addressing creek hazard issues for a Building Permit.
Not within the DPA slope hazard boundary on GEOweb

☒ **Background Information:** Creek studies shall include a review of available background information. The District's *Overview Report on Debris Flow Hazards* (Kerr Wood Leidal Associates and EBA Engineering Consultants, April 1999) provides a preliminary assessment of debris flood and debris flow hazards on most creeks in the District and should be a starting point for background review. Hydrologic reports are also available for many of the creeks.

☒ **Property Description:** Creek reports shall include both legal and street addresses of the subject property, and also a plan showing the location of the property relative to the pertinent creek system. Any existing restrictive covenants relative to land use or natural hazards shall be identified and attached to the report.

- ✓ **Creek Hazards:** Creek reports shall provide a clear assessment of hazards associated with floods, debris floods, debris flows, erosion, landslip, rockfalls and accretion. The design magnitude of each of these processes will be assessed to a level of accuracy appropriate for the project.
- ✓ **Design Criteria for Floods:** For floods, the design flow shall be the 200-year return period peak instantaneous flow. New culverts should be capable of passing this flow with no surcharging. New bridges should be capable of passing this flow with a minimum of 1 metre of freeboard.
- ✓ **Design Criteria for Debris Floods:** Debris flood magnitudes is to be estimated to at least the 200-year return period level.
- N/A ☐ **Design Criteria for Debris Flows:** Debris flow magnitude is to be estimated to at least the 500-year return period level.
- ✓ **Safe Certification:** A clear certification, subject to conditions contained in the report, that the land may be used safely for the use intended. The conditions shall be with respect to the siting, structural design and maintenance of buildings, structures and works, the maintenance of planting or vegetation, the placement of landfill and other such conditions respecting the safe use of the land, buildings, structures or works.

Any assumptions regarding future watershed conditions as they relate to the hazard assessments are to be clearly stated.
- N/A ☐ **Building Setbacks:** Proposed building setbacks shall be clearly defined. In most cases, it would be appropriate to consult with the Environmental Protection Department in determining setbacks.
- ✓ **Flood Construction Levels:** Proposed FCL's for proposed building sites shall be clearly defined, preferably in Geodetic Survey of Canada datum. In general, FCL's will be based on the 200-year return period flood criteria, plus a minimum of 0.6m freeboard allowance, plus a reasonable allowance for sedimentation (in view of the debris flood assessment). Behind dykes or other flood protection works, determination of appropriate FCL's will be site-specific.
- ✓ **Proposed Mitigative Works:** Proposed mitigative works are to be permanent, and shall be designed to a conceptual level for the purpose of report submission. If the proposed works will result in transfer of risk to a third party, this will be clearly noted. The location and land ownership for proposed works is also to be noted. Following acceptance of the report, the requirements for design and construction of the works will be defined.
- N/A ☐ **Environmental Approvals:** Where environmental approvals are required for construction of mitigative works, it may be necessary to obtain such approvals prior to acceptance of the report.

✓ **Maintenance Requirements:** Creek reports shall fully outline short and long term maintenance requirements of the creek channel and any works construction. For creek channels, this shall address ongoing bedload and debris deposition. For creek works, this shall include both regular maintenance and any special maintenance requirements following an extreme event.

✓ **Report Submission:** *Creek Hazard Reports* shall be sealed by the engineer of record. Where required, engineering reports will be included within a restrictive covenant registered against the land title.

OK ☐ **Peer Review:** The District regularly obtains a peer review of creek reports by independent engineering consultants. Any concerns resulting from a peer review will be directed to the engineer of record for consideration. Creek reports will not be accepted until concerns arising from a peer review are satisfactorily resolved.

Section 219 Covenant

Per sample attached

Timing: The *Creek Hazard Report* must be found acceptable by the Building Inspector prior to a permit application being accepted. The *Section 219 Covenant* must be registered on title prior to permit issuance.

Owner: Retain appropriate professional(s) to prepare *Creek Hazard Report*.
Registered Section 219 Covenant on land title.

Related Requirements/Documents/Forms

MASTER Requirement 2000-18: Flood Hazard Report

Contacts

Planning, Permits & Properties
District of North Vancouver
355 West Queens Road
North Vancouver, BC V7N 4N5

Tel 604-990-2480
Fax 604-984-9683
email building@dnv.org

ATTACHMENT C SITE PHOTOS



Photo 1 View of homes at northwest corner of proposed development, 220 Mtn Hwy, facing south

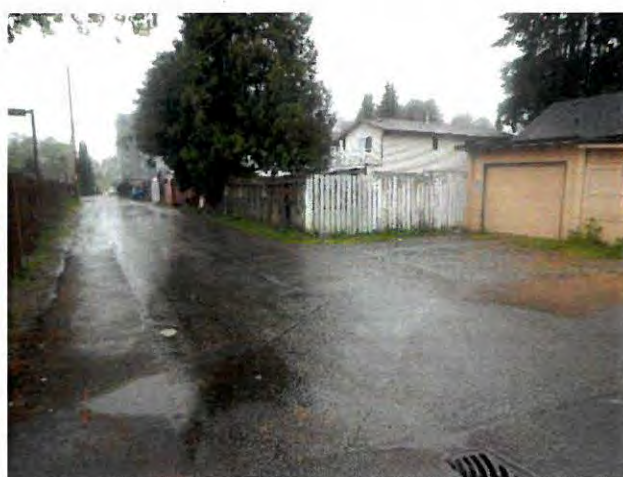


Photo 2 View of homes from lane at southeast corner of proposed development, facing west

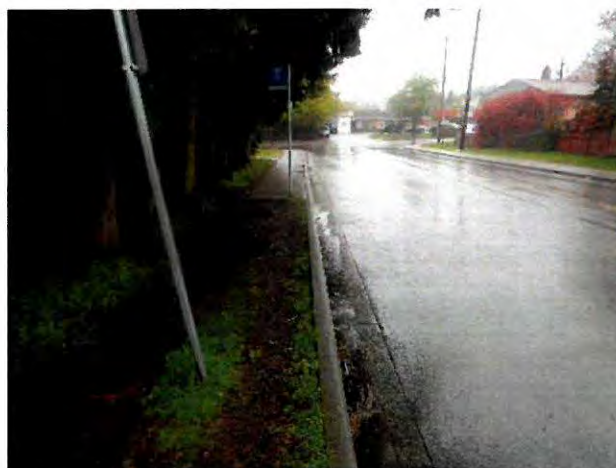


Photo 3 Oxford Street, facing west towards Mtn Hwy



Photo 4 Oxford Street facing east towards Phibbs Exchange



Photo 5 Phibbs Exchange, facing east from Oxford Street



Photo 6 Topographic low point at Phibbs Exchange, facing southeast from Oxford Street



Photo 7 Lane, facing east



Photo 8 Lane Facing West



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REDIC West Coast Oxford GP LTD
220 – 1111 W Hastings Street
Vancouver, B.C.
V6E 2J3

May 29, 2017
Job Number: 14904

Attention: Hamid Ahmadian

**Re: Geotechnical Report: Proposed Residential Development
220 Mountain Highway to 1555 Oxford Street, North Vancouver, B.C.**

1.0 INTRODUCTION

We understand that a new residential development is proposed at 220 Mountain Highway to 1555 Oxford Street, North Vancouver, B.C. Preliminary plans prepared by Yamamoto Architecture show a 6 storey structure over one level of below grade parking. We expect reinforced concrete construction below grade and wood frame above.

This report presents the results of a geotechnical investigation undertaken and provides geotechnical recommendations for the proposed development. This report has been prepared exclusively for our client, for their use and the use of others in their design and construction team for this project. We also expect this report would be used by the District of North Vancouver during the development and permitting process. This report remains the property of GeoPacific Consultants Ltd.

2.0 SITE DESCRIPTION

The site is made up of five residential lots located on the south side of Oxford Street, east of Mountain Highway in North Vancouver. All lots are currently improved with 1 to 2 storey single family residential dwellings. The area is generally level and bounded by a 6 storey residential development to the east, Oxford street to the north, Mountain Highway to the west and a city laneway to the south.

The location of the site and existing improvement are shown on the attached plan, Drawing 14904-01.

3.0 FIELD INVESTIGATIONS

GeoPacific Consultants Ltd. was on-site May 2nd, 2017 to conduct an investigation of the subsurface soils and groundwater conditions. At that time a total of three test holes were advanced with an ODEX to a maximum depth of 8 m below current grades using a track mounted drill rig. Dynamic Cone Penetration Tests (DCPT) were undertaken at 0.3 m intervals all of the test holes to determine the relative density of the soils encountered. At the completion of drilling, two PVC monitoring wells were installed in test holes TH17-01 and TH17-03 for groundwater monitoring purposes. The site investigations were supervised by a member of our engineering staff and backfilled in accordance with provincial requirement upon completion of logging and sampling.

Test hole depths are referenced from the existing ground surface and detailed soil logs are presented in Appendix B. The approximate locations of the test holes/monitoring wells are shown in Appendix A.

4.0 SUBSURFACE CONDITIONS

4.1 Subsurface Conditions

According the Geological Survey of Canada Map 1484A, the surficial soils consist of channel deposited Salish Sediments of medium to coarse gravel and sand up to 15 metres thick, or more, over glacial till. In our experience bedrock would be very deep at the site.

Fill

Fill material varies somewhat across the site ranging in depth from 1.4 to 2 metres below site grades. Fill comprises of loose to compact sand to sand and gravel, with trace cobbles and silt.

Sand and Gravel

Gravel and Sand with trace of cobbles and silt. The sand and gravel was observed to be moist and grey and brown colour. Based on the observation and DCPT data this stratum is generally compact with interbedded loose to dense layers having a wide range of DCPT penetration value from 1 to over 100 per 0.3 m. DCPT results for TH17-03 show a loose layer of sand up to a depth of 4 m.

Please refer to the test hole logs located in Appendix A for specific subsurface soil descriptions.

4.2 Groundwater Conditions

Groundwater was measured at 3.19 m and 2.98 m below grade, for monitoring wells TH13-01 and TH13-03 respectively, 10 days following the initial investigation. Based on the proximity of the site to Lynn Creek to the west, as well as our experience groundwater levels are expected to vary seasonally with the water level in the creek that are dependent on precipitation rates. From May 11, 2017 groundwater at the site has been continuously monitored using an electronic piezometer and results would be presented in an updated version of the report.

We expect the lowest level parking slab on grade to be situated approximately 0.5m above or at the ambient groundwater level.

5.0 DESIGN RECOMMENDATIONS

5.1 General Discussion

The proposed development will consist of six storeys above grade construction over one level of below grade parking. We anticipate reinforced concrete construction below grade and wood frame above grade. Architectural drawings show that the below grade development will be constructed close to or at property lines at the perimeter of the site. Temporary shoring will likely be required to facilitate the construction of the below-grade structure.

We would expect that the proposed parkade would be founded within loose to compact sand and gravel. Based on DCPT data the sand and gravel under the foundation is locally prone to liquefaction. As a result, densification is required to improve the ground below the foundations. Though, we expect that

buildings may be supported using conventional spread foundations over densified sand and gravel. Alternatively, the shallower loose sand layer lies above groundwater can be removed and replaced with engineered fill.

We consider it likely that the proposed development can be founded on conventional spread foundations bearing upon the underlying sands and gravels following in place densification of any loose soils or sub-excavation and replacement with engineered fill.

Based upon the lowest elevation of the underground parkade the building will be set above the current groundwater level and thus will not require any tanking, permanent groundwater cut-off walls or special de-watering techniques to facilitate excavation to final grade. Though, deeper excavations for foundations or mechanical sumps below the water table would be prone to medium to heavy groundwater seepage below a depth of 3.0 m. The maximum groundwater elevation will be confirmed in subsequent reporting using groundwater monitoring data.

In general the subsurface gravelly soils are not expected to be prone to liquefaction or other forms of ground softening under the design earthquake defined in the 2012 British Columbia Building Code. Some loose sand and silt zones may exist beneath the water table directly above the sand and gravel and these are expected to have a moderate to high risk of seismically induced liquefaction. In place densification immediately beneath shallow foundations or excavation and replacement with engineered fill will eliminate the liquefaction potential.

We confirm from a geotechnical point of view that the proposed development is feasible provided the following recommendations are implemented in the design and construction of the development

6.0 DESIGN RECOMMENDATIONS

6.1 Site Preparation

All topsoil, non-engineered fill and soft soils located beneath any proposed structures or pavements should be removed prior to construction.

We expect that the proposed structures will all be founded at a depth of around 3 to 3.5m below current site grade. Non-suitable fill material and loose sand deposits are likely to be removed during the associated bulk excavation; however, any remaining non-suitable material should be removed to appropriate depths as determined by the geotechnical engineer. Some over-excavation and removal of cobbles and coarse gravel may be required within the building envelope. **Engineered fill**, should be used for any areas requiring fill placement and is generally defined as:

Clean sand to sand and gravel containing 5 percent fines by weight, compacted using appropriate plant in 300mm loose lifts to a minimum of 98% of the ASTM D698 (Standard Proctor) maximum dry density at a moisture content that is within 5% of optimum for compaction.

For construction below existing grade and above the groundwater table we recommend the loose to compact gravels and sands beneath shallow foundations are densified in advance of construction. Typically in place compaction using a hoe pack vibration is the most economically feasible approach for the depth of treatment. Some temporary de-watering may be required during implementation of the compaction required works. This will likely take the form of pumped sumps.

Groundwater encountered during construction can be expected to vary seasonally, though in general we expect that the structure will be founded above the present groundwater table. We expect that any inflow

from perched zones may be controlled using conventional construction techniques, such as trenching, sumps and pumps.

The geotechnical engineer shall be contacted for the review of stripping, engineered fill placement and compaction.

6.2 Spread Foundations

We expect that the underlying sand and gravel deposits will provide satisfactory support for the proposed development on conventional strip and pad foundations and recommend that footings be designed using a serviceability limit state (SLS) bearing pressure of 300 kPa, following suitable densification or over excavation and replacement with engineered fill.

Factored ultimate resistance can be assumed to be 1.5 x the serviceability limit state bearing pressures provided above. Irrespective of allowable bearing pressures, footings should not be less than 450 mm in width for strip footings and not less than 600 mm in width for square or rectangular footings.

We estimate for foundations designed as recommended above settlements will not exceed 25 mm total and 2 mm per metre differential.

All foundation subgrades must be reviewed by a geotechnical engineer prior to footing construction.

6.3 Slab-On-Grade Floors

In order to provide suitable support for slab-on-grade floors we recommend that a 150 mm thick layer of 1933 clear crushed gravel be placed under the slab. The fill should be 19 mm clear crushed gravel and compacted to equivalent of 95% Standard Proctor (ASTM D698) maximum dry density.

All slab subgrades must be reviewed by a geotechnical engineer prior to slab construction.

6.4 Seismic Site Class

We consider that following suitable densification as described in Section 5.2 the structural design can be completed in accordance with a Site Class C design spectrum, as defined in Table 4.1.8.4.A. of the 2012 British Columbia Building Code.

According to Natural Resources Canada, the design earthquake with a 2% probability of exceedance in 50 years will produce a peak ground acceleration (PGA) of 0.451g at the subject site.

Following the densification of any loose saturated sand or silt lenses as discussed in Section 5.2, we do not consider seismically induced liquefaction to be a hazard at the subject site.

6.5 Temporary Excavations and Shoring

As noted above, shoring will be required on all sides of the excavations in order to construct the proposed underground parking. We anticipate that excavation depths will be no greater than 4 m below existing grades. We consider the site can be shored conventionally, using an anchored shotcrete membrane. The use of hollow bar injection anchors (IBO) for support of the excavation is expected to be required for this site due to the granular soils encountered. In addition, face saving measures and temporary support of the shoring face with the use of vertical spiles, drainage mats, plywood and sand bags are expected to be required due to the water table.

Some ground movements should be expected during installation of the shoring system. Based on the soil conditions identified in the test holes and our experience with similar sites, we expect movements of up to 25 mm should be expected at face of excavation, decreasing to 10 mm at 3 m back of the excavation face. Normally improvements on City property can tolerate this magnitude of movement without sustaining damage. The impact of these potential movements on adjacent structures and services should be evaluated.

Our observations during our site investigation as well as our experience in this area indicate that cobbles and boulders may be present within the native soils. Cobbles and small boulders can typically be removed with conventional excavation equipment. However, large boulders may require splitting/blasting to facilitate their removal from the site.

The geotechnical engineer should be contacted for the review of all temporary excavations.

6.6 Temporary and Permanent Groundwater Control

We recommend that any building elements below the groundwater table be tanked to provide permanent groundwater control. Construction of these elements, including any elevator pits and sumps will require temporary de-watering to permit construction in these areas. For two levels of below grade construction, we expect that the slab-on-grade would be near the static groundwater table and any penetrations through the basement slab during the high peak rainfall could be locally de-watered using sumps and sump pumps.

The groundwater elevation relative to the basement floor slab should be reviewed prior to construction, once additional groundwater data and design drawings are available.

6.7 Lateral Pressures on Foundation Walls

Earth pressures against the foundation walls are dependent on factors such as, available lateral restraint along the wall, surcharge loads, backfill materials, compaction of the backfill and drainage conditions. We assume that the walls will be backfilled with granular fill, such as clean sand or pitrun sand and gravel, compacted to achieve a minimum of 95% of its Modified Proctor Maximum Dry Density (ASTM D1557). We recommend that the foundation walls be designed to resist the following lateral earth pressures:

- Static: Triangular soil pressure distribution of $4.5H$ kPa, where H is equal to the total wall height in metres.
- Hydrostatic: Water pressure equivalent to $9.8H$ kPa, beginning at the high water mark and extending to the base of the foundation wall. The high water mark will be confirmed based on the final slab elevation and the groundwater study.
- Seismic: Inverted triangular soil pressure distribution of $3.5H$ kPa, where H is equal to the total wall height in metres

Uplift at the base of the slab or raft should be taken as a uniform pressure of $9.8D$ kPa, where D is the depth of the slab below the design groundwater elevation. The design groundwater level shall be further evaluated based on the results of the groundwater monitoring program.

Any additional surcharge loads located near the foundation walls should be added to the earth pressures given.

The geotechnical engineer should be contacted for the review of all backfill materials and procedures.

7.0 DESIGN REVIEWS & CONSTRUCTION INSPECTIONS

The preceding sections make recommendations for the design and construction of the proposed development. We have recommended that we be retained for the review of certain aspects of the design and construction. It is important that these reviews are carried out to ensure that our intentions have been adequately communicated. It is also important that any contractors working on the site review this document prior to commencing their work.

It is the responsibility of the contractors working on-site to inform GeoPacific a minimum of 48 hours in advance that a field review is required. In summary, reviews are required by a geotechnical engineer for the following portions of work:

- | | |
|--------------------|---|
| 1. Stripping | Review of stripping depth; |
| 2. Excavation | Review of temporary cut slopes and excavation depth; |
| 3. Shoring | Review of shoring stages; |
| 4. Engineered fill | Review of fill material and compaction; |
| 5. Foundation | Review of foundation subgrade; |
| 6. Slab-on-grade | Review of subgrade, under-slab fill materials, drainage and compaction; |
| 7. Backfill | Review of backfill materials and placement against foundation walls. |

7.0 CLOSURE

This report has been prepared exclusively for our client, for the purpose of providing geotechnical recommendations for the design and construction of the proposed Residential Development, temporary excavations and related earthworks. The report remains the property of GeoPacific Consultants Ltd. and authorized use of, or duplication of, this report is prohibited.

We are pleased to assist you with this project and we trust this information is helpful and sufficient for your purposes at this time. However, please do not hesitate to call the undersigned if you should require any clarification or additional details.

For:
GeoPacific Consultants Ltd.

Boris Kolev, M.A.Sc.

Farshid Bateni, PhD., E.I.T.
Geotechnical Engineer-in-Training

Reviewed By: 
JUN 01 2017

Matt Kokan, M.A.Sc., P.Eng
Principal



LEGEND:

- TH#-# - TEST HOLE (TH) LOCATION
- MW#-# - MONITOR WELL (MW) LOCATION

SITE PLAN

*TEST LOCATIONS ARE APPROXIMATE

REFERENCE:



GEO PACIFIC
VANCOUVER KAPLOOPS CALGARY

3779 West 75th Ave.
Vancouver, B.C. V6P 4P2
P 604.435.0922
F 604.435.5189

DATE:	2-May-2017		
DRAWN BY:	SH	APPROVED BY:	FB
SCALE:	AS SHOWN		

152 RENTAL BUILDING
220 MOUNTAIN HWY AND 1555 OXFORD ST, NORTH VANCOUVER, BC
TEST HOLE SITE PLAN

FILE NO:	14904
DWG. NO.:	14904-01
REVISIONS:	
A.	
B.	
C.	

APPENDIX A
TEST HOLE LOGS

Test Hole Log: TH17-01 (MW17-01)

File: 14904

Project: 152 RENTAL BUILDING

Client: REDIC WEST COAST OXFORD GP LTD

Site Location: 220 MOUNTAIN HWY AND 1555 OXFORD ST, NORTH VANCOUVER, BC



GEOPACIFIC
CONSULTANTS

1733 West 78th Avenue, Vancouver, BC, V6P 6P2
Tel: 604-439-0922 Fax: 604-439-9189

INFERRED PROFILE				Moisture Content (%)	DCPT (blows per foot) 10 20 30 40	Groundwater / Well	Remarks
Depth	Symbol	SOIL DESCRIPTION	Depth (m)/Elev (m)				
0		Ground Surface	0.0				
0.1		Asphalt [101.6mm]					
1.4		Sand and Gravel [FILL] compact to loose silty SAND AND GRAVEL fill, fine to medium grained sand, 5-10mm gravel clasts, trace cobbles, brown to grey, slightly moist	1.4		22 30 13 5		
4.3		Sand and Gravel compact to dense SAND and GRAVEL, trace cobbles, grey to light grey, wet	4.3				
5.8		Sand compact SAND, some gravel, fine to medium grained sand, trace silt, wet	5.8				
7.3		Gravel and Sand compact to dense GRAVEL and SAND, fine to medium grained sand, trace cobbles/boulders becomes sandy and silty from 7.0-7.3m	7.3				
7.3		End of Borehole	7.3				



Logged: SH
Method: ODEX
Date: 2017-May-2

Datum: Ground elevation
Figure Number: A.01
Page: 1 of 1

Test Hole Log: TH17-02

File: 14904

Project: 152 RENTAL BUILDING

Client: REDIC WEST COAST OXFORD GP LTD

Site Location: 220 MOUNTAIN HWY AND 1555 OXFORD ST, NORTH VANCOUVER, BC



GEOPACIFIC
CONSULTANTS

1779 West 7th Avenue, Vancouver, BC, V6P 6P2
Tel: 604-439-0922 Fax 604-439-9189

INFERRED PROFILE				Moisture Content (%)	DCPT (blows per foot) 10 20 30 40	Groundwater / Well	Remarks
Depth	Symbol	SOIL DESCRIPTION	Depth (m)/Elev (m)				
0 ft 0 m		Ground Surface	0.0				
1		Asphalt [76.2mm]			5		
2		Sand [FILL]			7		
3		loose to compact SAND fill, fine grained sand, trace silt, trace gravel, tan to brown, moist		41.1	5		
4		becomes medium grained from 0.6-1.8m			16		
5					16		
6					5		
7		Sand	1.8		4		
8		loose becoming dense to very dense at depth silty SAND, fine grained sand, grey to dark grey, moist		32	2		
9					1		
10		becomes wet after 3.4m			3		
11					1		
12					35		
13					>50		
14				45.4			
15							
16							
17							
18				18.9			
19							
20							
21		Sand and Gravel	6.1				
22		compact to dense silty SAND and GRAVEL, fine to medium grained sand, trace cobbles, brown, wet		17.2			
23							
24							
25		End of Borehole	7.3				
26							
27							
28							
29							
30							
31							
32							

3.4m estimated water table depth

Logged: SH

Method: Solid stem auger

Date: 2017-May-2

Datum: Ground elevation

Figure Number: A 02

Page: 1 of 1

Site Location: 220 MOUNTAIN HWY AND 1555 OXFORD ST, NORTH VANCOUVER, BC
179 West 7th Avenue, Vancouver, BC, V6P 6P2
Tel: 604-439-0922 Fax: 604-439-9189



GEOPACIFIC
CONSULTANTS

INFERRED PROFILE				Moisture Content (%)	DCPT (blows per foot) 10 20 30 40	Groundwater / Well	Remarks
Depth	Symbol	SOIL DESCRIPTION	Depth (m)/Elev (m)				
0		Ground Surface	0.0				
0.5		Asphalt [76.2mm]					
1.0		Sand [FILL] loose SAND fill, fine grained sand, trace silt, tan to light grey becomes medium grained sand at depth					
2.0		Sand and Gravel compact SAND and GRAVEL, trace cobbles, grey to light grey, wet	2.0				
3.4		Sand loose silty SAND, fine to medium grained sand, grey, moist to wet becomes wet after 3.4m					
4.7		Sand and Gravel dense to very dense SAND and GRAVEL, medium to coarse grained sand, 5-12mm subround gravel clasts, wet	4.7				
6.1		End of Borehole	6.1				

Logged: [SH](#)

Method: Solid stem auger

Date: 2017-May-2

Datum: Ground elevation

Figure Number: A.03

Page: 1 of 1

APPENDIX B
LABORATORY TESTING RESULTS



MOISTURE CONTENT REPORT
(ASTM D2216)

CLIENT:	REDIC WEST COAST OXFORD GP LTD	JOB #:	14904
PROJECT:	152 RENTAL BUILDING - RESIDENTIAL DEVELOPMENT	RECEIVED:	4-May-17
LOCATION:	220 MOUNTAIN HIGHWAY - 1555 OXFORD STREET, NORTH VANCOUVER	TESTED:	4-May-17

HOLE #:	TH17 - 02	TH17 - 02	TH17 - 02	TH17 - 02	TH17 - 02
DEPTH:	2'	7'	13'	18'	22'
M/C:	41.1%	32.0%	45.4%	18.9%	17.2%

HOLE #:					
DEPTH:					
M/C:					

HOLE #:					
DEPTH:					
M/C:					

HOLE #:					
DEPTH:					
M/C:					

HOLE #:					
DEPTH:					
M/C:					

HOLE #:					
DEPTH:					
M/C:					

COMMENTS:

DISTRIBUTION:

Steve Hasegawa - GeoPacific

Per: Kootenay Alder

Junior Lab Technician

Reviewed By: Dion Lauriente, B.A.Sc., EIT

MAY 08 2017

Lab Manager