WILDLAND URBAN INTERFACE FIRE MITIGATION REPORT

Kopp Residence – 13595 Forest Hills Dr, Lake Country, BC

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RESOURCE MANAGEMENT
WWW.CABINWORKS.CA

Kyle Broome, RPF

Wildfire Division Manager & Principal

kbroome@cabinworks.ca

Lauren Bevandick, AAg

Local FireSmart Representative Project Manager

lbevandick@cabinworks.ca

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20A 100 KALAMALKA LAKE RD
VERNON, BC, V1T9G1
778-475-3655

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RPF Printed Name : Kyle Broome	RPF 4672
Date Signed: 29 November 2023	

I certify that the work described herein fulfills the standards expected of a member of the Association of British Columbia Forest Professionals and that I did personally supervise the work.

Statement of Limitations:

This report is prepared only for the client(s) and the District of Lake Country. This report is not intended for dissemination to other parties, nor for use on other projects not detailed in this report. The information provided in this report may be subject to any of the following limitations:

- Availability and accuracy of information relevant to the project location
- Availability and accuracy of information provided by the client relevant to site plans and building materials
- Changes/amendments to federal, provincial, or municipal legislation

The information provided in this report was prepared to the best of the Qualified Professional's knowledge and expertise.

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INTRODUCTION

As per the District of Lake Country's Official Community Plan (2018), Section 12.12.22, a Fire Mitigation Report is required for Development Permits within Wildland Fire Development Permit Areas. The following report has been completed for the building site of a proposed addition in the place of an existing accessory building at 13595 Forest Hills Dr, Lake Country, BC, PID: 018-311-644. The purpose of this report is to assess the current wildfire risk on the property and to provide mitigation strategies for the proposed building. This report scope is limited to the proposed development and does not provide mitigation strategies for the existing home.

Wildfire risk was determined through a site visit and review of the proposed building materials. A site visit was conducted on August 9th, by Lauren Bevandick, AAg. During the field visit site level data was collected, including: slope, aspect, ocular estimates of surface fuel loading, documenting fuel types composition, and distribution, documenting understory vegetation (shrub and herb layers), and soil qualities. The assessment also considers the proposed building materials, site plan and landscape plan. These were reviewed and discussed with the designer and prime contractor, Cody Walsh of Jade Bay Constructors. Methods of assessment included: visual estimates of surface fuels and vegetation percent covers, a Wildfire Threat Assessment, BCWS CSI calculator, and FBP system.

The property is subject to multiple applicable development permit areas, including hillside, drainage, greenhouse gas reduction, agri-tourism, natural environment, and wildfire.

The 1.04-acre property is located on the eastern hillslope overlooking Okanagan Lake in Carrs Landing, on a steep hillslope in a dry Interior Ponderosa Pine ecotype (PPxh1). Wildland forested areas are located ~ 300 m to the east and upslope within Spion Kopp park. This neighbourhood has been developed in manner that has retained some of the natural characteristics of the dry Interior Ponderosa Pine ecosystem, with small patches of mature ponderosa pine and bunchgrass habitats retained throughout (on municipal right of ways and on private property).

Figure 1. Extended zone, the drive way, downslope of proposed construction.

The proposed building site is immediately adjacent to the existing home and upslope of Forest Hills Drive. Currently there is an accessory building situated on the proposed building site that will be demolished and replaced with the proposed structure. The planned development is utilizing a FireSmart approach and will replace a high-risk structure with one designed with improved wildfire resiliency.

The property has been mostly landscaped, however there are some more naturalized areas, including the slope immediately downhill of the proposed structure. There are junipers, cedar hedges, ponderosa pine, and spruce growing within 10 m of the proposed structure.

The slope below the proposed building site is steep, ranging from 45-50%. This slope has a mixture of bunch grass, low growing shrubs, and ponderosa pine. Upslope of the proposed building site, the property has been landscaped with retaining walls, hardscaping, turf, and most plantings are deciduous trees and shrubs.

Current wildfire risk levels on the property are considered **moderate**. This ranking considers the site to have low threat fuel factors, high threat topographic features, moderate threat fire spread patterns. The exposure rank of the site is high due to proximity of fuels to the values at risk (<10 m).

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Wildfire Factors

There are three key factors that influence fire behavior: weather, topography, and fuel.

Weather

Weather influences fire behavior and spread through the drying of fuels and driving the rate and direction of fire spread. For fire behavior and modelling predictions we use the 90th percentile weather conditions, these represent the most extreme recorded fire weather conditions. Weather station data for temperature, humidity, and wind direction are used to determine BUI, ISI, and ISI Roses:

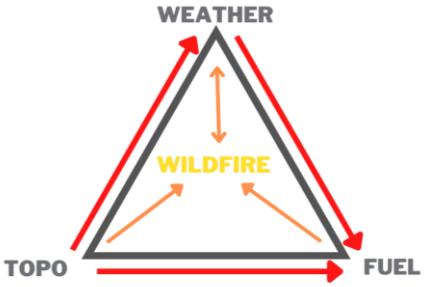

Figure 2. ISI Rose for Fintry Weather Station (1996-2015).

- Build Up Index (BUI), the total amount of fuel available for combustion;
- Initial Spread Index (ISI), rate of fire spread due to wind direction; and
- ISI Roses, wind direction and speed diagram that is a useful indicator of fire spread patterns;

BUI and ISI are used to estimate fire rates of spread and are dependent on the fuel type. ISI Roses are used to determine the most likely wind driven fire movements. Threat to structures is greater for those values that are downwind of prevailing winds.

The representative weather station utilized for the assessment is Fintry (298), located at 670 m elevation, 50.21 latitude, and -119.48, longitude.

Table 1. Representative Weather Station Data

Weather Station	BUI	ISI	Prevailing Wind Direction
Fintry (298)	212	12.06	Southeast

Based on the BUI and ISI, the resulting rate of spread for an C-7 fuel type is 4 m/s during 90th percentile conditions. Utilizing this method to assess potential wildfire intensity represents the most extreme conditions and does not consider site specific fuel loading. As such, this method a conservative estimate of potential fire intensity.

ISI Roses are used to determine the most likely wind driven fire movements. 13595 Forest Hills Dr is located downwind to the prevailing wind direction — from the south and southeast. The prevailing wind direction puts the property at a greater hazard rating. During a wildfire event, the property would most likely be impacted by a head fire driven by winds from the south (Figure 3. ISI Rose for Fintry Weather Station (1996-2015).). Due to the location of the lot on the east shore of Okanagan Lake, we also considered headwinds from the southwest travelling up the lake (Windy.app).

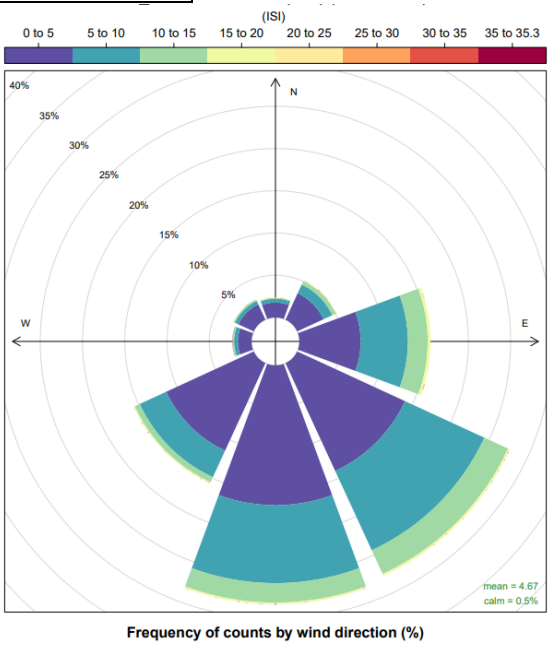

Figure 3. ISI Rose for Fintry Weather Station (1996-2015).

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Topography

Topography influences the rate of spread and trajectory/direction of flame as well as fuel composition and characteristics. Topography factors considered include slope location, steepness, and aspect. Slope location influences the momentum of fire gain uphill. Values at risk are at a greater threat at the top of a hill compared to values located at the bottom of the hill. Steepness influences flame length and the direction and speed at which fire moves. In general fires move upslope, and with greater speed at steeper inclines. Flat topography is less predicable, and more influenced by wind. Aspect influences the composition and characteristic of fuels. Cool aspects are moist and surface fuels do not dry out as readily, however there is often greater vegetative growth and accumulations of fuels. Warm aspects may have less fuel accumulations, however, these fuels are often dry and more readily ignitable.

Topography factors at 13595 Forest Hills Dr have a greater influence and present a higher threat level at this location. These factors include, location that is mid-slope, steep with slopes of > 45% on the property and downslope, and the western aspect. A mid-slope position increases threat when a wildfire occurs downslope. The fire behaviour is more intense during this situation, as the fire will increase with speed an intensity as it reaches the property. However, multiple road crossings divide the slope and will reduce the intensity of a head fire moving upslope and provide access for fire suppression. The steep slopes and western aspect may also produce more intense and rapid wildfire activity. Steep slopes increase pre-heating of fuels and fire rates of spread typically are faster moving up steep slopes. The western aspect will result in dryer surface fuels and increased drought stress of shrubs and trees.

Fuels

Fuels for wildfires are any combustible materials including, but not limited to, trees (alive and dead), shrubs, herbs, woody debris, pine needles, duff, construction materials, garbage, wood storage, outbuildings, and houses. The different characteristics of fuel influence wildfire behaviour, including the rate of spread and head fire intensity. These characteristics include fuel type, continuity, size, and loading (each of which is measured in the fuel assessment). The size of fuel influences how easily it will ignite; while continuity and distribution impacts rate and amount of wildfire.

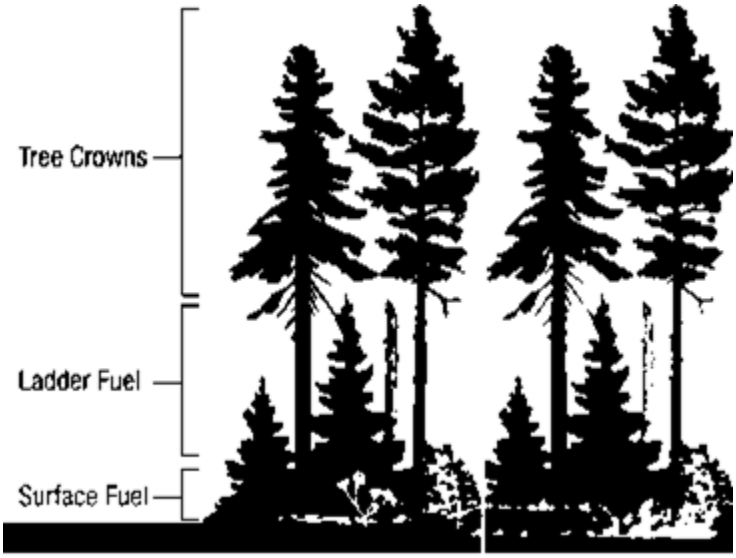

Figure 4. Example of Fuel Layers in Forest Ecosystems

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This assessment utilizes the Canadian Forest Fire Behavior Prediction System (FBP) to assess fire behavior potential to determine potential fire behaviour including the initial spread index, rate of spread, and fire intensity. This system is based on observations of experimental fires and wildfires of some common fuel types.

The FBP fuel type of relevance to this report are C-7. C-7 fuel types are mixed stands of uneven aged ponderosa pine and Douglas-fir. Wood surface fuel accumulations are light and scattered. The understory is dominated by scattered shrubs, perennial grasses, and herbs.

Surface fuels occur on the ground surface and may include the duff layer, litter from dead wood, needles, living and matted grass, and other vegetation.

The building site's surface fuels are primarily the litter from mature conifers, and surface vegetation (bunch grass). The surface fuels are in general sparse and discontinuous, with minimal accumulation. Ocular estimates of surface fuel loading ranged from 0.5-2 kg/m^2, with the average accumulation across the property is estimated at 0.5 kg/m^2. At these average accumulations the predicted wildfire intensity during 90th percentile fire weather conditions is 600 kW/m (assuming a 4 m/s ROS).

Ladder fuels are any combustible material that may transfer surface fire to the crown of trees. This typically includes understory vegetation, and lower branches of mature trees. In an urban setting ladder fuels may also include piles of garbage, firewood storage, and other ignitable items. Ladder fuel composition, horizontal continuity, and amount of understory are all considered to assess the capacity / risk of crown fire ignition. Crown fires are the most intense and consequently the most dangerous fires.

There were very few ladder fuels observed during the assessment. Noted ladder fuels included the limbs of conifer branches, deciduous shrubs, and smaller conifers underneath mature timber. Pruning, increases the fuel strata gap (distance between surface fuels and ladder fuels). It is an effective way to reduce risk of intense wildfire behaviour. At a pruning height of 2.5 m it is estimated the critical surface fire intensity required to initiate crown combustion during drought conditions is 626 kW/m. This is greater than the intensity of fire likely to be generated by the sit's surface fuel accumulations (600 kW/m). Therefor, initiation of crown fire of retained trees at the site will be mitigated by increase the fuel strata gap / pruning lower branches of to trees to 2.5 m.

Crown fuels include needles/foliage of the trees canopy as well as branches and cones. Overstory composition, crown closure, fuel strata gap, the amount of overstory, and percent of dead/dying stand are all considered in a wildfire threat assessment.

Crown fuels at 14595 Forest Hills Dr are discontinuous and sparse (<100 stems per ha) consisting of immature Douglas-fir and ponderosa pine that have not formed a canopy. Torching of individual stems may occur at this site, but crown fire is not likely.

Priority Zones

Working from the priority value, the residence, into the surrounding landscape is the most effective way to carry out fuel management. The FireSmart Homeowners Manual divides properties into three zones that encompass working from the home, outwards (FireSmart Canada, 2018).

Figure 5. Priority Zones from www.FireSmartBC.ca

The zones considered in this assessment were limited to the proposed addition footprint and do not consider the house. The primary zones map on the following pages for the locations of these zones relative to the proposed addition.

Immediate Zone includes the house and the surrounding property within a 1.5 m radius. This zone has been highlighted on the Priority Zone Map in red. There should be no easily ignitable fuels in this area (FireSmart BC).

The Immediate zone of the proposed addition at 14959 Forest Hills Dr is currently hardscaped with retaining wall, driveway, and pea-gravel. Currently, debris accumulations of leaf litter and needles occur within this zone. Post construction, hardscaping of 1.5 m surrounding the proposed addition should be maintained and these areas should be routinely cleaned to remove debris accumulations.

Intermediate Zone within 1.5 m to 10 m of the home should be a fire-resistant zone, that is free of all materials that could easily ignite from a wildfire. Select low growing vegetation that is not highly-flammable.

At 14595 Forest Hills Dr the intermediate zone is currently landscaped with flammable coniferous shrubs (cedar and juniper hedges) on the north and southwest sides. These hedges will be removed to facilitate construction activities of the proposed addition.

Extended Zone spans from 10 to 30 m outside of the proposed house location. This zone has been highlighted on the Priority Zone Map in green. Trees within this zone should be pruned and well spaced.

Half of the extended zone at 14595 Forest Hills Dr falls within the District easement along Forest Hills Dr and on neighbouring properties. The portion of the extended zone the falls within the property is primarily hardscaped or landscaped with deciduous trees and shrubs, including the pool and surrounding cement deck area, the driveway. There are conifers in the back southeast corner of the property that have already been pruned to a sufficient height, exceeding 2.5 m.

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Priority Zones Map

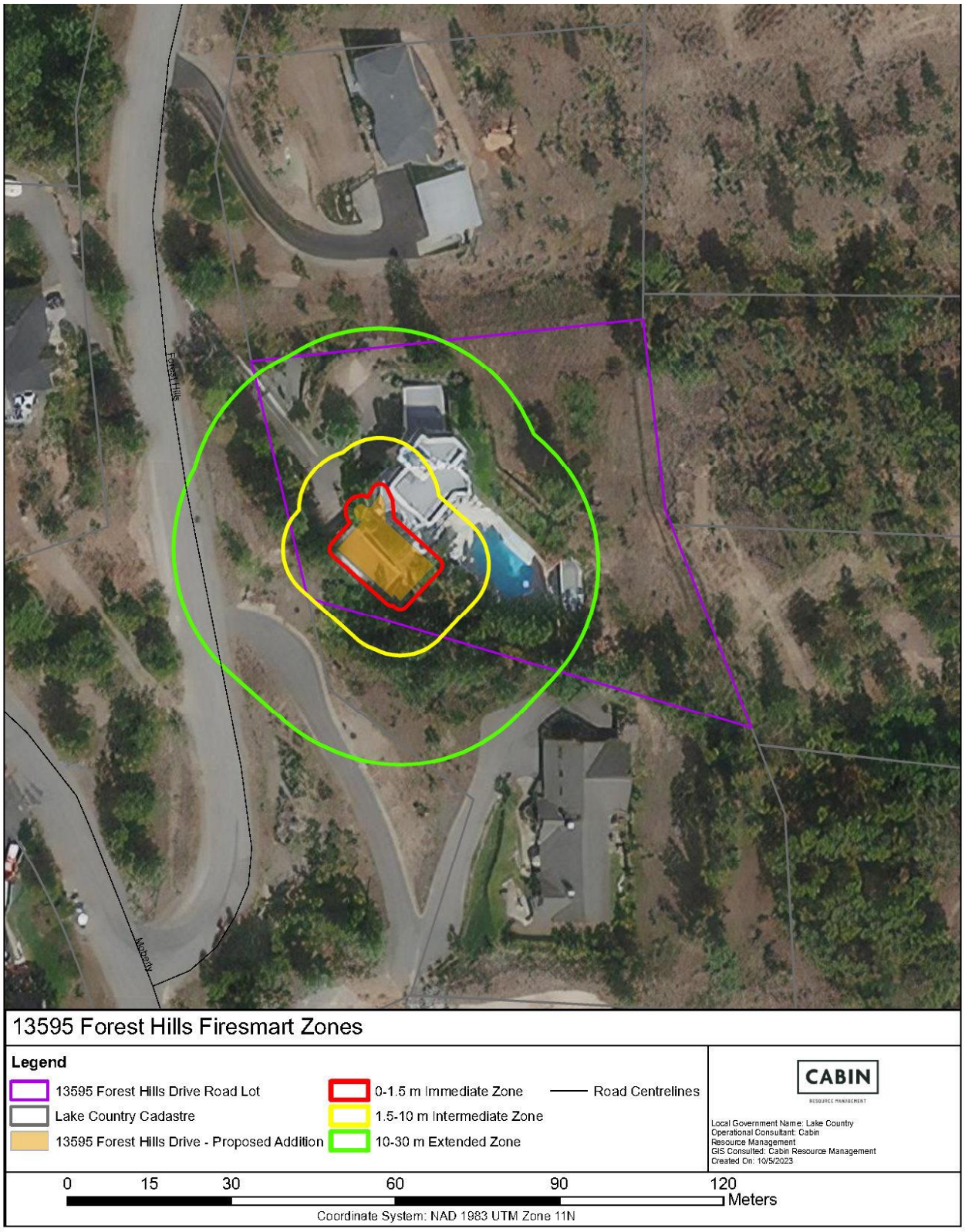

Figure 6. Priority Zones Map of the Proposed Addition at 13595 Forest Hills Dr

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Summary of Site-Specific Wildfire Factors

Table 2. Summary of Fire Behaviour Implications of Site Weather and Topography Factors.

	FIRE BEHAVIOUR IMPLICATIONS	
SLOPE LOCATION	Mid slope (bench) - Impacted by increase rates of spread. Position on a bench may reduce the preheating near the value (value is offset from the slope).	
SITE SLOPE CLASS	5-45%	31-45% Flame tilt preheats fuel and begins to bathe flames into fuel, high rate of spread.
ASPECT	West - Light dry fuel, good sun exposure with considerable impact of solar radiation drying out fuels.	
PREDOMINANT WIND DIRECTION	South	Downwind - Wind blowing from the value to treatment area with a high to extreme ISI value (>18). The value at risk would be impacted by a backing wildfire.

Table 3. Summary of Site Fuel Loading and Composition.

	SURFACE FUEL		LADDER FUEL		CROWN FUEL	
	Load (kg/m^2)	Composition and Distribution	Composition	Fuel strata gap (m)	Composition	Distribution
INTERMEDIATE ZONE AND EXTENDED ZONE	0.5-2.0 Average < 0.5 (< 7 cm fine woody)	Predominately, deciduous leaf litter, and conifer needles, Duff depth < 2 cm	absent	0-3 m	Mixed, conifer and deciduous	Well spaced, non-continuous

Table 4. Summary of Potential Wildfire Intensity During 90th Percentile Fire Weather Conditions.

ISI	BUI	FUEL TYPE	RATE OF SPREAD m/min	WILDFIRE INTENSITY* kW/m	CSI** kW/m	CROWN FIRE INITIATION	WILDFIRE INTENSITY
12	212	C-7	5	750	626	No	2

* Wildfire intensity due to average surface fuel loading at the site, 0.5 kg/m^2.
** Critical Surface Fire intensity required to ignite the crown with a 2.5 m fuel strata gap.

Wildfire Intensity Class 1 - Smoldering ground or creeping surface fire. Little visible flame. Firebrands and active fires tend to be self-extinguishing, except with high DC and/or BUI.

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WILDFIRE RISK

Wildfire risk is the sum of the hazard multiplied by the vulnerability.

HAZARD			VULNERABILITY	
Likelihood	Intensity	X	Exposure	Susceptibility
Probability that any local may experience wildfire in any given year.	Wildfire intensity as result of wildfire factors: weather, topography, and fuels.		Any community located where there is a chance of wildfire to occur is exposed to wildfire.	Vulnerability of a home or community to be damaged if a wildfire occurs.

Site specific wildfire factors are quantified to determine the current wildfire risk (see Appendix C: Threat Assessment for more detail). The following matrix is modified from the 2020 Local Wildfire Threat Assessment Process. It quantifies the current wildfire risk associated with wildfire intensity and exposure. Likelihood and structure susceptibility are not considered.

Table 5. Wildfire Risk Score

	Intensity			Exposure	
	Local Threat Score *	Fire Spread Patterns**	Topography	Proximity***	
Rank	Low	Moderate	High	0-10 m	
Score	2.9/10	6.6/10	7.3/10	10/10	Wildfire Risk Score
Weight	30%	25%	15%	30%	
Weighted score	0.87	1.65	1.09	3	6.61

*Local threat score is based on site specific fuel characteristics (i.e., type, composition, and distribution).
**Fire spread patterns are based on Fire Weather conditions: predominant wind direction and wildfire rank.
***Proximity is distance of value to wildland areas where wildfire may occur.

Relative wildfire risk is ranked on a scale of zero to ten, see the Table 6 below for the current wildfire risk level.

Table 6. Relative Wildfire Risk Score.

Relative Risk	Score
Low	0-3.9
Moderate	4-6.9
High	7-8.9
Extreme	9-10

The current wildfire risk score at 13595 Forest Hills Dr is assessed as Moderate.

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MITIGATION

Mitigation strategies can reduce the risk of home and structure loss by reducing the wildfire intensity and the vulnerability of the structure. Mitigation does not change the likelihood or potential exposure to wildfire.

The following works are to be completed as part of the proposed development at 13595 Forest Hills Dr. These measures will reduce wildfire hazard and meet the requirements of the District's Official Community Plan for Wildland Fire Development Permit Areas.

The plan in place for the site includes measures that will mitigate wildfire risk. The current structure and site conditions will be improved by the construction of the addition. The following guidance is developed to ensure the activities of the development align with the DLC's OCP and address applicable items of the DLC's checklist for Wildland Fire Development Permit Areas.

Mitigation

Site Guidelines – the following mitigation shall occur prior to commencement of construction at the site.

1. Within in the Immediate zone (0-1.5 m) maintain a fuel free area, with hardscaping (driveway, rock, etc). Regular maintenance of this zone should include removal of weeds/vegetation and debris (leaves, needles, cones, etc.).
2. Within the Intermediate zone (1.5-10 m) there will be no vegetation that supports fire spread. To facilitate construction, the vegetation within this zone will cleared. The cedar hedge and conifers on the west side of the existing garage should be removed as part of the construction of the addition. The group of conifers on the west side of the driveway should be either: a) thinned to 1-2 trees and lower branches pruned to 2.5 m, or b) retain all trees and prune all lower branches to 2.5 m.
3. Within the Extended zone (10-30 m) maintain hardscaped surfaces with annual cleaning of debris (needles, cones and leaves) in the spring and fall as required. Needle accumulations > 1 cm depth should be removed.
4. Remove any debris generated from removal, pruning, or thinning of vegetation.
5. Removal of trees should be avoided during migratory bird nesting periods – from February 18th to September 12th. A nest sweep should be performed by a Qualified Environmental Professional if mitigation work is to occur during migratory bird nesting periods.

See page 14, Figure 7 for locations of conifers to be removed, pruned, and fuel free zone.

Note, the District does not encourage tree removal, however, for areas where fire risk is high, the above mitigation strategies should be considered acceptable.

Building and Structure Guidelines – the following mitigations will occur as part of the construction of building.

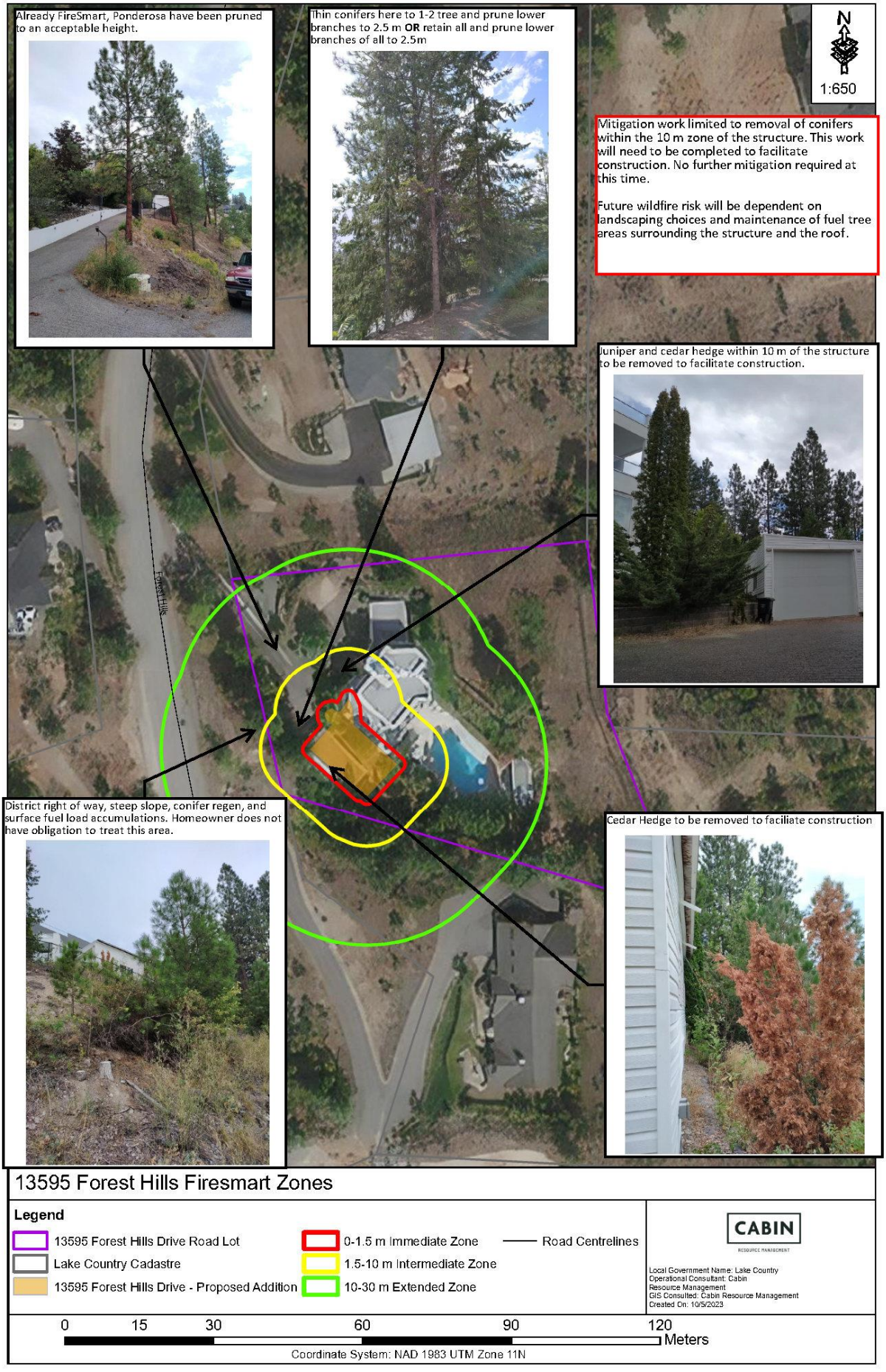
1. The building will be constructed using fire resistant materials. This includes stucco, metal, class A fire rated materials, either torch on or PVC, double paned glass windows, and aluminum soffit and gutters.
2. The roof will be constructed of fire-resistant Class-A rated materials. PVC membrane is preferred over EPDM. The flat roof will require cleaning on a seasonal basis to remove pine needle and leaf litter from the adjacent landscaped areas. Cleaning of debris in the spring and fall, or as often as needed, is an effective mitigation for the increased wildfire risk associated with debris accumulations (needles, leaf litter, etc.) on the flat roof.
3. Exterior walls materials are fire-resistant and includes metal and stucco.
4. There are no proposed buildings to store wood. Any future firewood storage is to occur more than 10 m away from the house.
5. Installation of 3 mm non-combustible mesh to all vents and openings (excluding dryer vents).
6. Outside stairways and decks built of fire-resistant materials, either concrete or pavers,

Landscaping Guidelines – the following mitigations will be completed post construction:

1. No landscaping plan is provided at this time. However, future landscaping will establish a fuel free zone around the proposed structure, with hardscaping materials (concrete, pavers, gravel, etc).
2. Landscaping to include drought tolerant and non-highly combustible vegetation that is planted > 1.5 m from the structure.

HIGHLY FLAMMABLE PLANT CHARACTERISTICS	FIRE-RESISTANT PLANT CHARACTERISTICS
• Produce fine, dry, dead material within the plant (i.e., twigs, needles, and leaves) • Loose papery bark • Stems, branches or leaves contain volatile waxes, terpenes or oils (i.e., leaves are aromatic when crushed, and/or have gummy resinous sap with a strong odour) • Coniferous species	• Moist, supple leaves • Little deadwood or accumulated dead material • Open branching habits • Fewer total branches and leaves • Water-like sap with little or no odour • Produce little sap or resin • Low growth habit

Figure 7. Summary of Mitigation to Occur Prior to Construction.



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APPENDIX A: PHOTOS

Immediate and Intermediate Zone Photos

East side of exisitng structure to be replaced.

Front (north) side of exisitng structure to be replaced. Cedar hedge along the west side.

East side of structure to be replaced, flashy grass fuels along this side.

Mature tree may be retained, immature trees within the dripline should be removed. If this tree is retained maintain a branch height of 2.5 m above the ground.

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Backside of structure to be replaced. Hardscaped with debris accumulations (needles, litter etc).

Hardscaped with debris accumulations (needles, litter etc). Surface fuel accumulations 3 kg/m^2.

West side of structure to be replaced. Cedar hedget to be removed to facilitate construction. Future landscaping to include a 1.5 m fuel free area adjacent to the structure and plant low growing and flame resistant species.

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Extended zone photos > 10 m from the structure

Extended zone, > 30 m from proposed structure. Downslope of proposed addition, drive way hardscaped, primarily decidious trees, and mature conifers are pruned to > 2 m. Pine needle and cone debris accumulations outside of propertyline.

Conifers downslope of west side of proposed addition.

Downslope of proposed addition, cones and debris accumulations downslope and outside of propertyline. 5 kg/m^2.

APPENDIX B: DLC DPA CHECKLIST – WILDLAND FIRE

WILDLAND FIRE

Consideration has been given to the following issues as identified in Section 21.12 of the Official Community Plan relating to Wildland Fire Development Permit Areas:

	Site Guidelines						
1)	Will vegetation which supports fire spread be cleared in a 10 m radius from all proposed structures?	Yes	☑	No	☐	N/A	☐
2)	Will vegetation within 30 m of all proposed structures be pruned and thinned?	Yes	☑	No	☐	N/A	☐
3)	Have (or will) deadfall and other flammable materials be removed?	Yes	☑	No	☐	N/A	☐
4)	Have remaining trees within 30 m safe area been adequately spaced (a minimum of 3m to 6m apart) to minimize potential fire spread?	Yes	☑	No	☐	N/A	☐
5)	Have lower branches been trimmed to a minimum 2.5 m in height?	Yes	☑	No	☐	N/A	☐
6)	Has vegetation been cleared a minimum of 3m away from any propane tanks and power lines?	Yes	☐	No	☐	N/A	☑
7)	Where sensitive environmental features have been identified has the importance of these features been weighed against the risk of wildfire prevention?	Yes	☐	No	☐	N/A	☑
	Building and Structure Guidelines						
8)	Will buildings (including roofing) be constructed of fire resistant materials? (i.e. metal, clay tile, asphalt shingles and treated wood).	Yes	☑	No	☐	N/A	☐
9)	Is the roof pitch steep enough to prevent collection of debris or combustible materials?	Yes	☑	No	☐	N/A	☐
10)	Are exterior wall materials constructed of fire-resistant materials, such as metal, brick, stucco, rock and concrete? Although less effective, heavy timbers or logs may also be used.	Yes	☑	No	☐	N/A	☐
11)	Are any buildings used to store wood at least 10 m away from any dwelling units?	Yes	☐	No	☐	N/A	☑
12)	If the outbuildings are proposed within 10m of a dwelling unit, does the construction method utilizing fire resistant materials for the roof and exterior walls?	Yes	☐	No	☐	N/A	☑
13)	Do all chimneys have spark arresters and are closed with 3mm non-combustible wire?	Yes	☐	No	☐	N/A	☑
14)	Have all chimneys, eves, attic vents and other openings been screened using 3 mm non-combustible wires?	Yes	☑	No	☐	N/A	☐
15)	Are outside stairways, decks, porches or balconies constructed or covered with fire resistant materials?	Yes	☑	No	☐	N/A	☐
	Landscaping Guidelines						
16)	Does the landscaping include vegetation that is drought tolerant and not highly combustible?	Yes	☐	No	☐	N/A	☑

APPENDIX C: THREAT ASSESSMENT

Modified Version of PSTA 2017 Priority Setting Score Sheet.

Wildfire Threat Assessment Worksheet – Priority Setting Scoring

Location: Forest Hills Drive | Date: 9AUG2203 | Assessor: Lauren Bevandick

PSTA Threat: N/A | FBP fuel type: C-7

Fire Spread Patterns					
Treatment Placement Using the predominant wind direction/ fire spread pattern, what is the treatment location in relationship to the value(s) location?		Downwind 0	270⁰ offset to prevailing wind/ highest ISI values 7	90⁰ offset to prevailing wind/ highest ISI values 10	Upwind/ highest ISI values 15
Fire Intensity class, based on intensity of fire generated from surface fuel loading.	Class 1-2 5	Class 3 10	Class 4 12	Class 5 14	Class 6 15
				Total Score:	20/30 (6.6/10) **Moderate**

Topographical Factors					
Topography: Slope	< 20% 0	21-30% 1	31-45% 3	46-60% 4	> 60% 5
Topography: Aspect (> 20% slope)		North 0	East/Flat 3	West 4	South 5
Slope position of value (only applies if slope is > 20%)		Bottom of slope/ valley bottom 0	Mid slope - bench 1	Mid slope - continuous 3	Upper 1/3 of slope 5
				Total Score:	11/15 (7.3/10) **High**

Proximity					
Proximity of fuels to value (m)	0-10 25	10-30 20	30-100 15	>100 5	
				Total Score:	25/25 (10/10) **High**

	Intensity			**Exposure**	**Wildfire Risk Score**
	Local Threat Score*	Fire Spread Patterns**	Topography	Proximity****	
Rank	Low	Moderate	High	High	
Score	2.9/10	6.6/10	7.3/10	10/10	
Weight	30%	25%	15%	30%	
Weighted score	0.87	1.65	1.09	3	**6.61**
				Relative Risk	**4-6.9 Moderate**

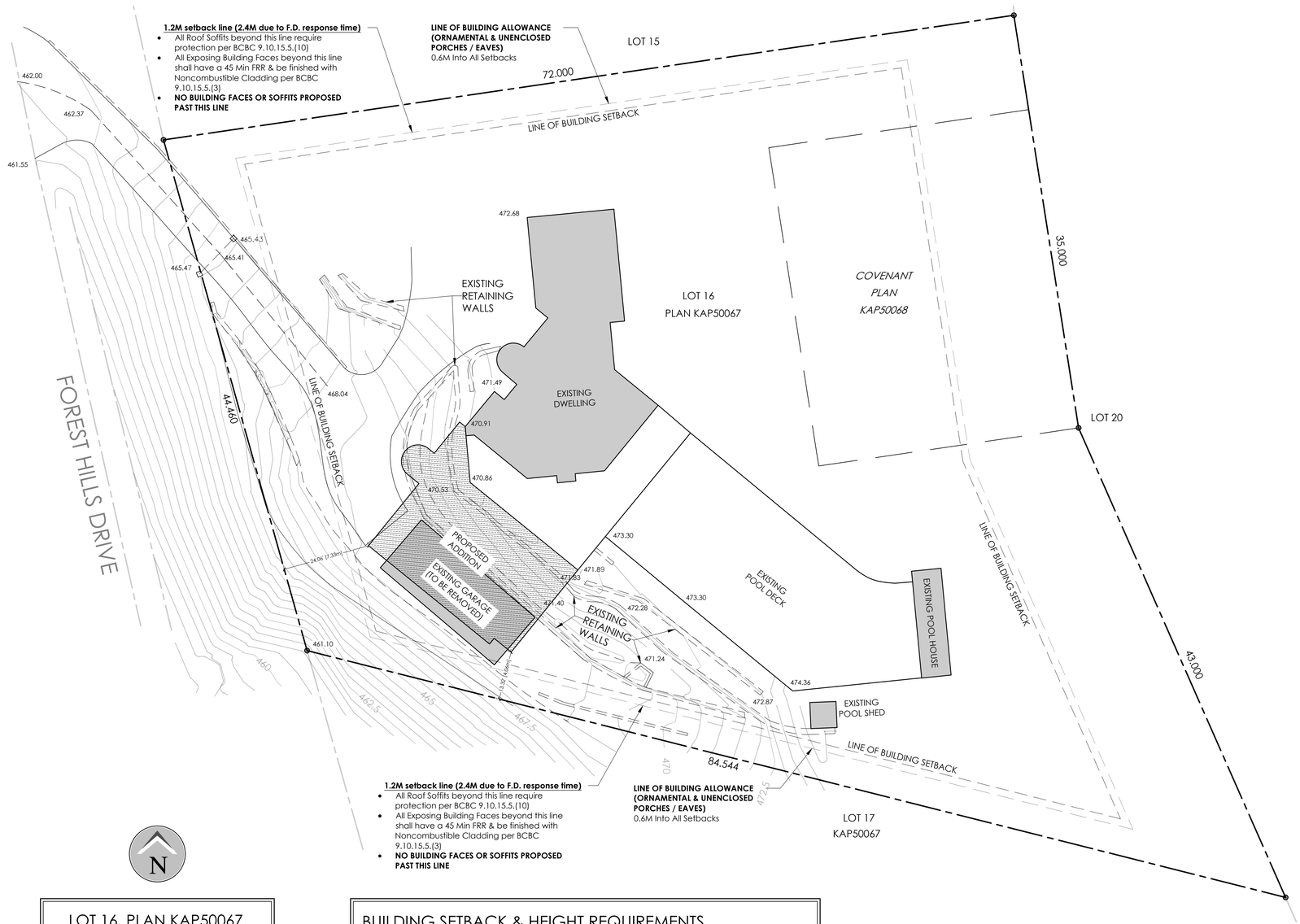
APPENDIX D: SITE PLAN

A.1
1.0

SITE PLAN

SCALE: 1/16" = 1'-0"

SITE SURVEY INFORMATION PROVIDED BY MCPHERSON MADDOX - LAND SURVERYING. - FILE #R11426



LOT 16, PLAN KAP50067,
SEC 33, TWP 20, O.D.Y.D.

PID: 018-311-644

BUILDING SETBACK & HEIGHT REQUIREMENTS (DoLC BYLAW 561):

RR1 - RURAL RESIDENTIAL ZONE	
FRONT YARD	6.00
REAR YARD	10.00
INTERIOR SIDE YARDS	3.00
PROJECTIONS INTO SETBACK (ORNAMENTAL) - ALL SIDES	0.60
PROJECTIONS INTO SETBACK (EAVES) - ALL SIDES	0.60
*Setback requirements indicated on Site Plan	
TOTAL SITE AREA = ____.___ SQ. FT. (____.___m^2)	
MAXIMUM SITE COVERAGE FOR BUILDINGS AND STRUCTURES	10.0%
PROPOSED SITE COVERAGE FOR BUILDINGS AND STRUCTURES	__._**%**
MAXIMUM BUILDING HEIGHT	9.50
PROPOSED BUILDING HEIGHT	_.__

BUILD BY:

DESIGN BY:

JADE BAY
Design. Construct.
4108B Evans Road
Oyama, B.C. V4V 2E9
t. 250.548.3262
e. design@jadebayconstructors.ca

project:
KOPP
RESIDENTIAL ADDITION
LOT 16

13595
FOREST HILLS DRIVE
LAKE COUNTRY, BC

revision:

note:
*ALL MEASUREMENTS ARE SHOWN IN METERS UNLESS OTHERWISE INDICATED

date drawn:
FEBRUARY 15th, 2023

date issued:
DECEMBER 15th, 2022

scale:
1/16" = 1'-0"
*If printed on 36"x24" sheet

drawing:
A.1 - SITE PLAN
~~T.1 - BCBC REQUIREMENTS BYLAW REQUIREMENTS & GENERAL NOTES~~

sheet:
1.0 OF 7.0