



Rezoning Application

# Bottom Wood Lake Road Site

## Kelowna, BC

Submitted to City of Kelowna

by Arcadis Professional Services (Canada) Inc.

June 10, 2024



JUNE 10 2024

2024-06-11



## Executive Summary

Arcadis was retained by West Point Projects Inc. to prepare a rezoning and OCP amendment application for lots: 9595, 9751, 9819 Bottom Wood Lake Road and 672 Beaver Lake Road (the "Subject Site"). The Subject Site is situated in both the District of Lake Country and City of Kelowna municipalities covering approximately 8.65 acres site area. The objective of this rezoning application is to provide a conceptual master plan for a cohesive, four phased development on the Subject Site. This application package includes site design, landscape design, architectural massing, character guidelines, and servicing information for the proposed development.

The intent of the application is to permit the redevelopment of the brownfield site into a residential community-oriented development. This proposed development will include a diverse range of residential housing types such as family-style townhomes and one-to-three-bedroom apartment units with rich amenity spaces to promote healthy living and active lifestyles. Townhomes will be oriented at grade along the street and residential dwellings will be located on levels two through six. The proposed development features six mid-rise buildings and townhomes with a variety of indoor and outdoor private, semi-public, and

public spaces. The site will be well connected to the Okanagan Rail Trail (ORT), and parking will be primarily located below grade.

Currently the lands are zoned as I1 in the District of Lake Country and I2 in the City of Kelowna. The rezoning application proposes a rezoning following the City of Kelowna's MF-3 zone as a base reference for permitted uses, density, lot coverage, lot size, setbacks, building height, parking, landscaping and other zoning requirements.

The proposed project seeks a maximum density of 2.35 FAR. The proposed densities range from 0.80 FAR to 2.22 FAR depending on project phase, with proposed building heights of up to 6 storeys.

The conceptual master plan will consist of four separate phases (refer to phasing plan).

PRELIMINARY PROJECT STATISTICS				
SITE AREA (ACRES)	SITE AREA (SF)	EST. UNITS	EST. PARKING REQ'D.	FAR
8.65	376,873	±640	±769	1.58



Aerial Site Map



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# Site Analysis

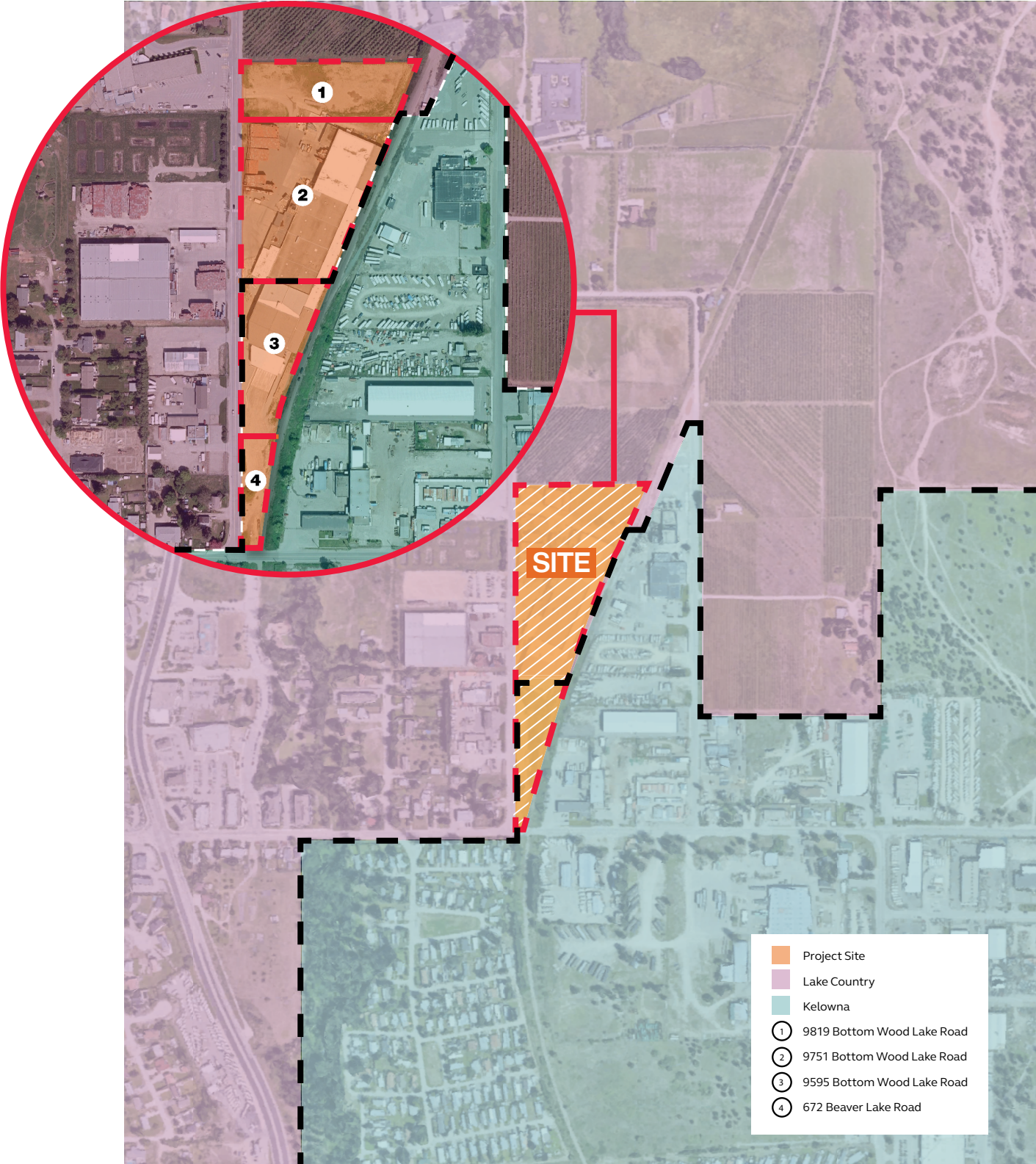
Site Summary

Site Summary

The Subject Site is comprised of four lots split between two municipalities. The two northern lots are located in the District of Lake Country and the two southern lots in the City of Kelowna. The four lots are:

- 9819 Bottom Wood Lake Road (Lake Country),
- 9751 Bottom Wood Lake Road (Lake Country),
- 9595 Bottom Wood Lake Road (Kelowna), and
- 672 Beaver Lake Road (Kelowna).

Taken together the four lots comprise a total site area of 8.65 acres.



Municipal Boundaries

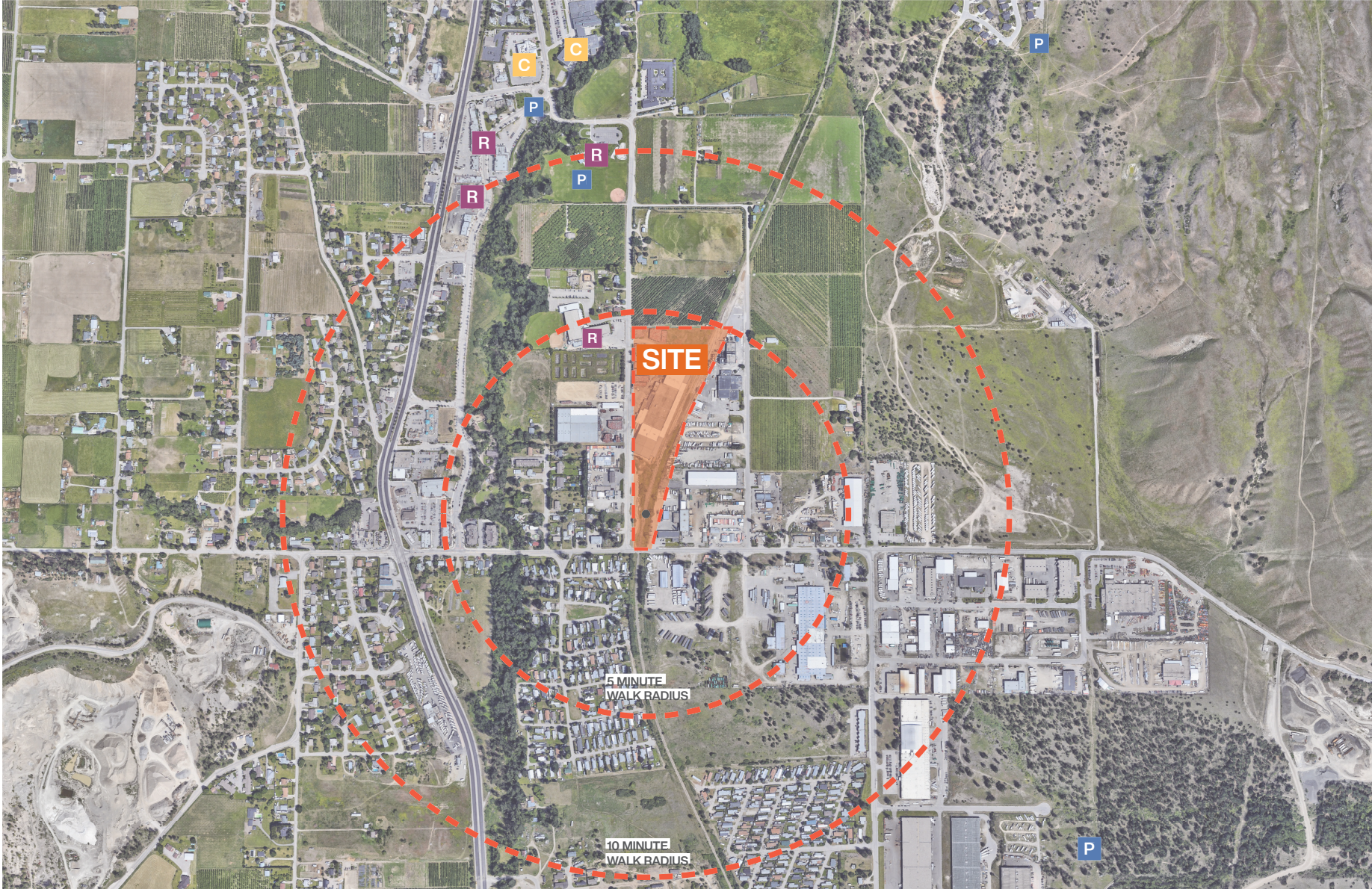


### Existing Parks, Public Space, and Recreation Facilities

#### Community Amenities

The Subject Site is located in close proximity to a variety of existing amenities. Within a 5-10 minute walking radius from the site are:

- Many retail shops and restaurants including Lake Country Town Centre.
- Several large park spaces and community facilities including Swalwell Park, Tretheway Splash Park and Lake Country Lions Memorial Park, and the Lake Country Library
- Cultural facilities including Creekside Theatre, Winfield Memorial Hall
- H.S. Grenada Middle School, and George Elliott High School



Community Amenities Map

C Cultural    R Recreation    P Park    5 min and 10 min walking radius



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## Existing Transportation Infrastructure

### Public Transportation

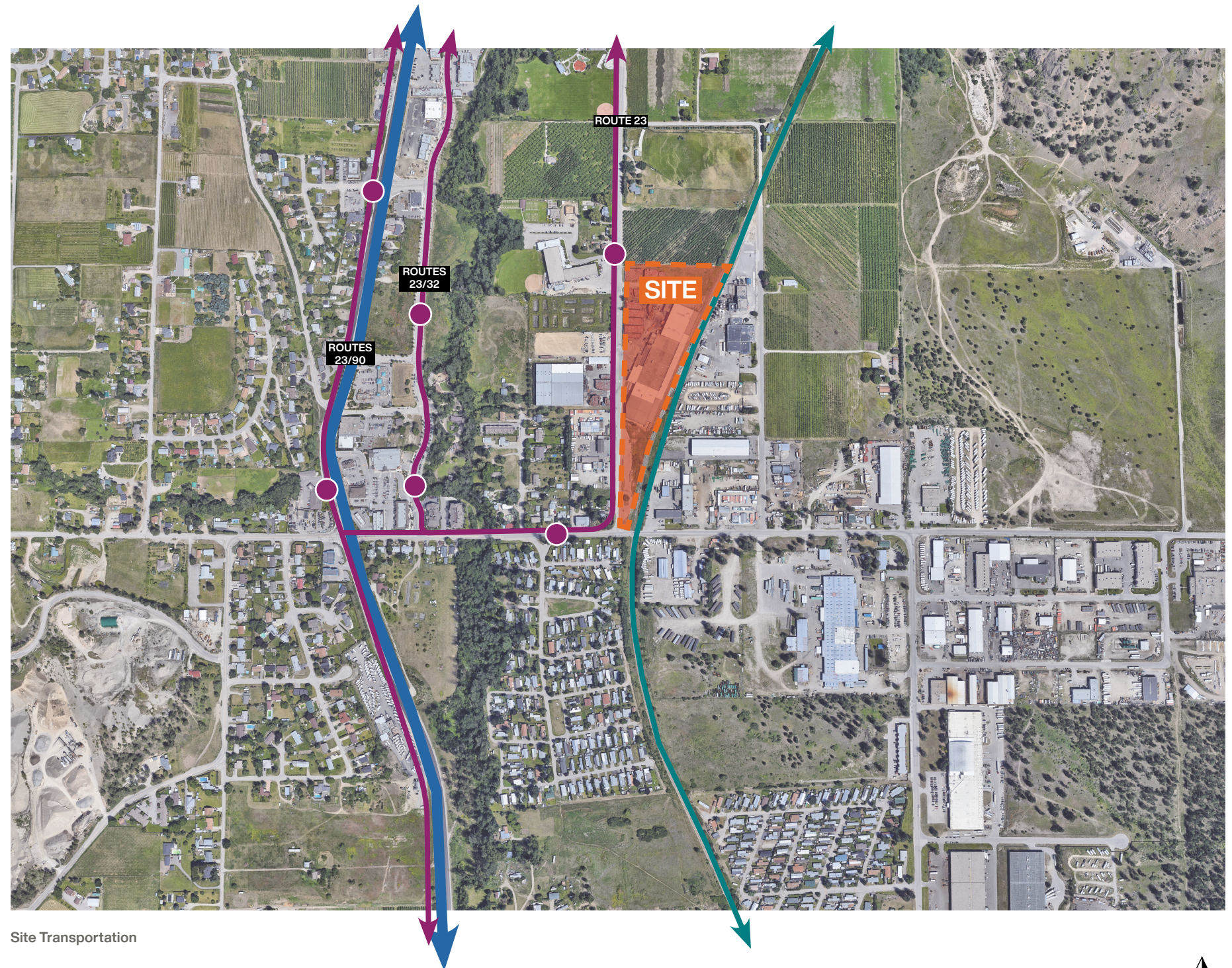
The Subject Site is located immediately adjacent to a Route 23 bus stop. This bus route runs between the UBC Okanagan bus exchange and Lake Country, with numerous stops within Lake Country's Town Centre, and a stop at YLW Airport. The Subject Site is also located near a bus stop at Beaver Lake Road and Highway 97 for Route 90. This route connects to the UBC Okanagan bus exchange in Kelowna to the south, and Okanagan College in Vernon to the north.

### Active Transportation





The Subject Site is located directly adjacent to the Okanagan Rail Trail. This bicycle and pedestrian trail leads from Vernon in the north to Kelowna in the south.

### Vehicle Transportation

The Subject Site has good access to Highway 97 via Beaver Lake Road, providing connections to the Oyama district of Lake Country and Vernon to the north, UBC Okanagan, YLW Airport and downtown Kelowna to the south.



Site Transportation

-  Highway 97
-  Bus Route
-  Bus Stops
-  Okanagan Rail Trail



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Existing Site Photos



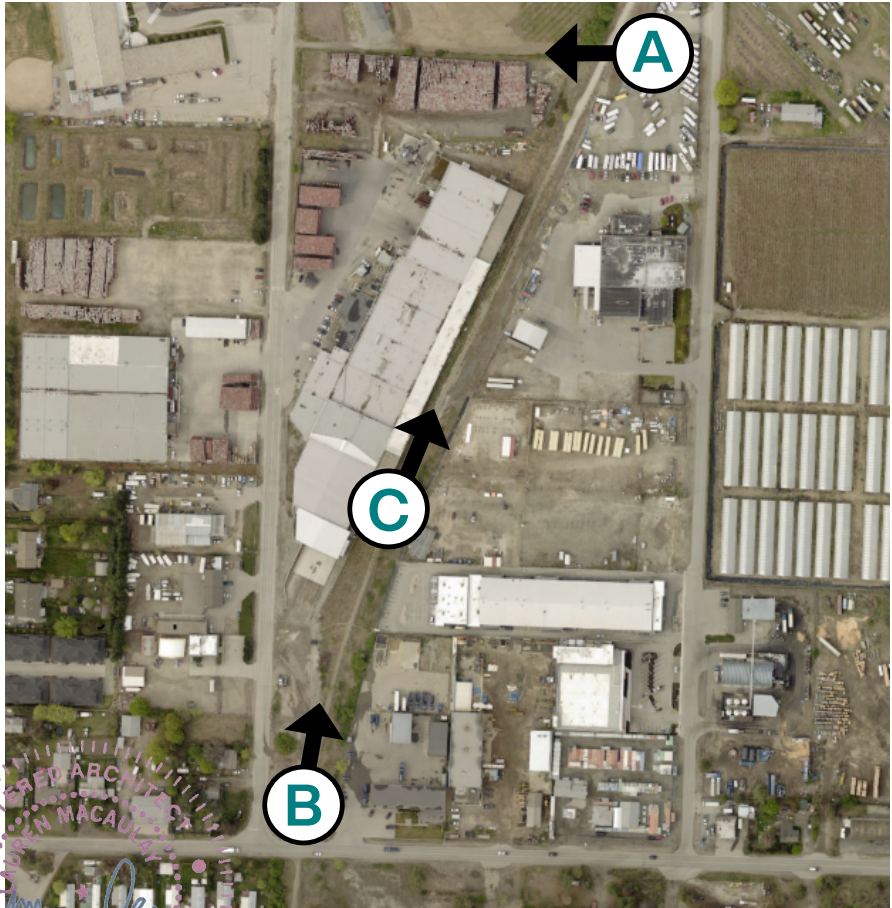
View A



View B



View C



REGISTERED ARCHITECT  
IN BRITISH COLUMBIA  
M. Massey  
KEL PLAN  
JUNE 10 2024

2024-06-11



## Soil and Contaminated Conditions

### Environmental Site Assessment

A Phase I and Phase II Environmental Site Assessment was completed for the Subject Site by Tetra Tech Canada Inc. The Phase II ESA found that:

*The Site was previously used by BC Tree Fruits Cooperative who have ceased operations on the Site. Historically and presently, no BC Contaminated Sites Regulation Schedule 2 activities were identified on the Site.*

*The Phase I ESA identified three on site Areas of Potential Environmental Concern ("APEC"s), hydrocarbon-stained ground from industrial roller storage, an ~8,000 L above ground storage tank containing ammonia and stockpiles of fill material of unknown quality.*

*Two offsite APECs were identified, both related to a historical remediation activated identified through the BC Site Registry.*

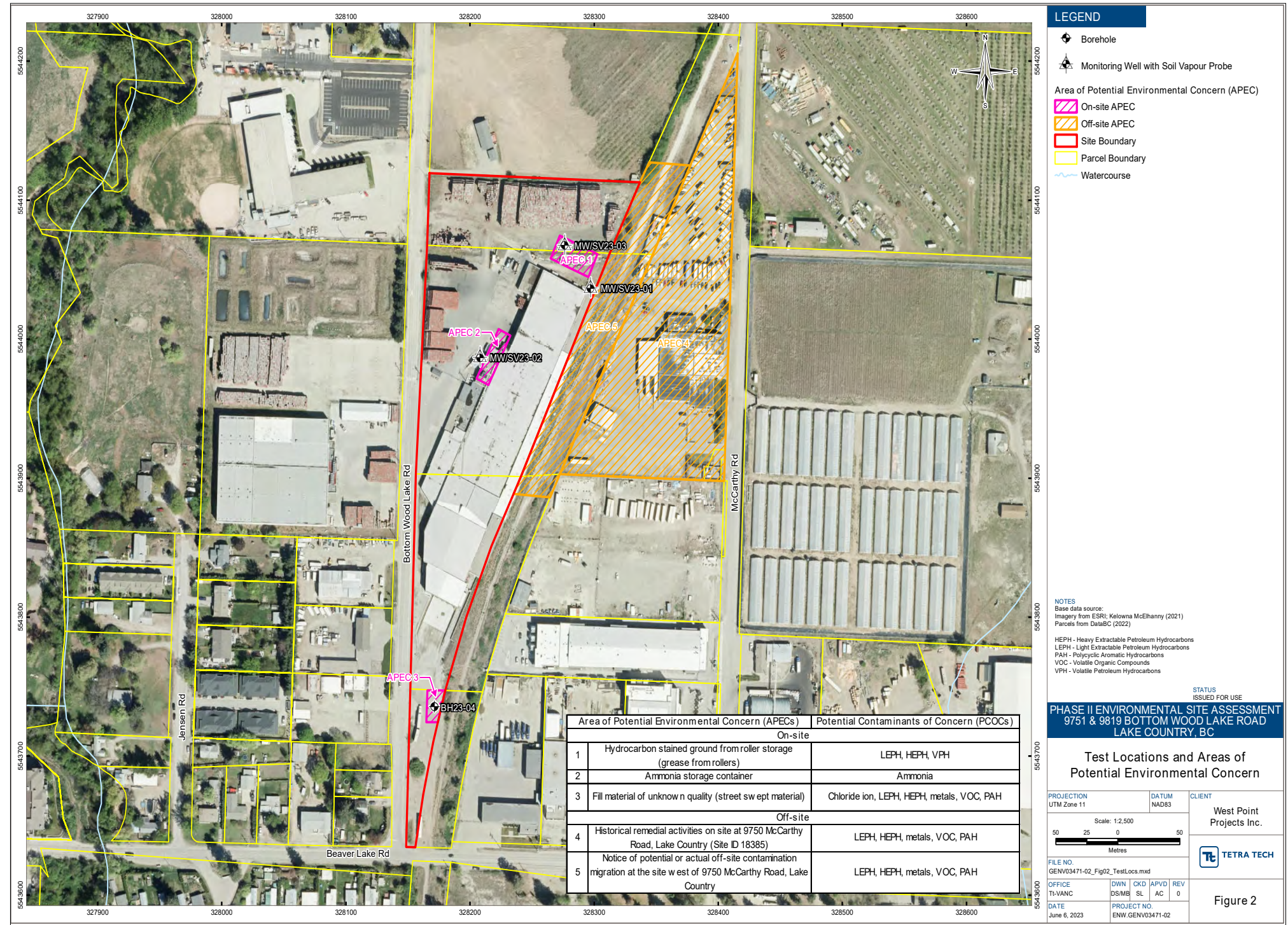
*The Phase II ESA included advancing four boreholes with three locations completed as groundwater monitoring wells (with three nested soil vapour probes). Each location was selected to investigate the APECs. Soil samples were collected from all four borehole locations. Groundwater samples were collected from the three groundwater monitoring wells.*

*The Phase II ESA did not identify contamination at the Site associated with APECs reported in the Phase I ESA.*

Refer to the document "Phase II Environmental Site Assessment 9751 and 9819 Bottom Wood Lake Road, Lake Country, BC" for full report.



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Environmental Site Assessment

## Geotechnical Conditions


A geotechnical field study was conducted by Interior Testing Services Ltd. (ITSL) on May 5 2023 and May 11, 2023 to identify the underlying soil and groundwater conditions for site development, building design and construction.

The ITSL Geotechnical Report notes the following:

7.1 *“Recommendations for site preparation and foundation design have been provided in the previous sections of this report. It is recommended that ITSL review the final proposed building foundation designs prior to construction. This is to confirm our assumptions with respect to building elevations and loading conditions, and so we can confirm our preliminary static settlement estimates.”*

7.3 *“It is further recommended that ITSL carry out site observations of the stripped subgrade to confirm soil conditions are as expected, or to advise of suitable alternative measures, if necessary. In addition, if structural FILLS are required, ITSL should carry out field density testing to confirm adequate compaction has been achieved.”*

Refer to the document: *“Geotechnical Report: Proposed Residential Development 9751 and 9819 Bottom Wood Lake Road Lake Country, BC”* for the full report.



MATERIALS TESTING • SOILS  
CONCRETE • ASPHALT • CORING  
GEOTECHNICAL ENGINEERING

#1 – 1965 MOSS COURT  
KELOWNA, B.C. V1Y 9L3  
250-860-6540  
INFO@INTERIORTESTING.COM

West Point Projects June 2, 2023  
612 Bernard Avenue Job 23.112  
Kelowna, BC V1Y 6P3

Attention: Mr. Jim Langill

Re: **Geotechnical Report**  
**Proposed Residential Development**  
**9751 and 9819 Bottom Wood Lake Road**  
**Lake Country, BC**

---

As requested, Interior Testing Services Ltd (ITSL) has completed a drilling investigation at the above noted site for the proposed residential building development. Please find attached a site plan with schematic logs and five pages of bore hole logs. Also attached is a copy of our two-page "Terms of Engagement," which forms the basis on which we undertake this work and was previously signed and accepted.

**1.0 INTRODUCTION & SCOPE OF WORK**

We understand future development with residential buildings is being considered for the subject property. We anticipate the proposed buildings may include underground and main floor parkade, main floor commercial spaces, and residential units above likely constructed with wood framing. In addition, ITSL anticipates that the proposed development will also include typical site servicing and access driveways.

The purpose of our field investigation was to identify the underlying soil and groundwater conditions with respect to geotechnical comments for site development, building design and construction. The following report presents our investigation and laboratory results, along with general geotechnical comments and recommendations for site preparation, foundation design, building drainage, utility service construction and pavement structure.

Page 1

ITSL Geotechnical Report

INTERIOR TESTING SERVICES LTD.

6.2 The onsite, granular soils could be suitably used as trench backfill material, provided they can be compacted to 95% MPD and particles larger than roughly 200 mm diameter are removed. Trench backfill should be placed in a structural manner, as outlined in Section 4.2 of this report.


**7.0 CONCLUSIONS**


7.1 Recommendations for site preparation and foundation design have been provided in the previous sections of this report. It is recommended that ITSL review the final proposed building foundation designs prior to construction. This is to confirm our assumptions with respect to building elevations and loading conditions, and so we can confirm our preliminary static settlement estimates.

7.3 It is further recommended that ITSL carry out site observations of the stripped subgrade to confirm soil conditions are as expected, or to advise of suitable alternative measures, if necessary. In addition, if structural FILLS are required, ITSL should carry out field density testing to confirm adequate compaction has been achieved.

We trust this meets your current needs. Please call if you have any questions.

Sincerely,  
Interior Testing Services Ltd.  
Permit to Practice No. 1001971

  
Eli Schock, EIT

  
Jennifer Anselmi, P.Eng

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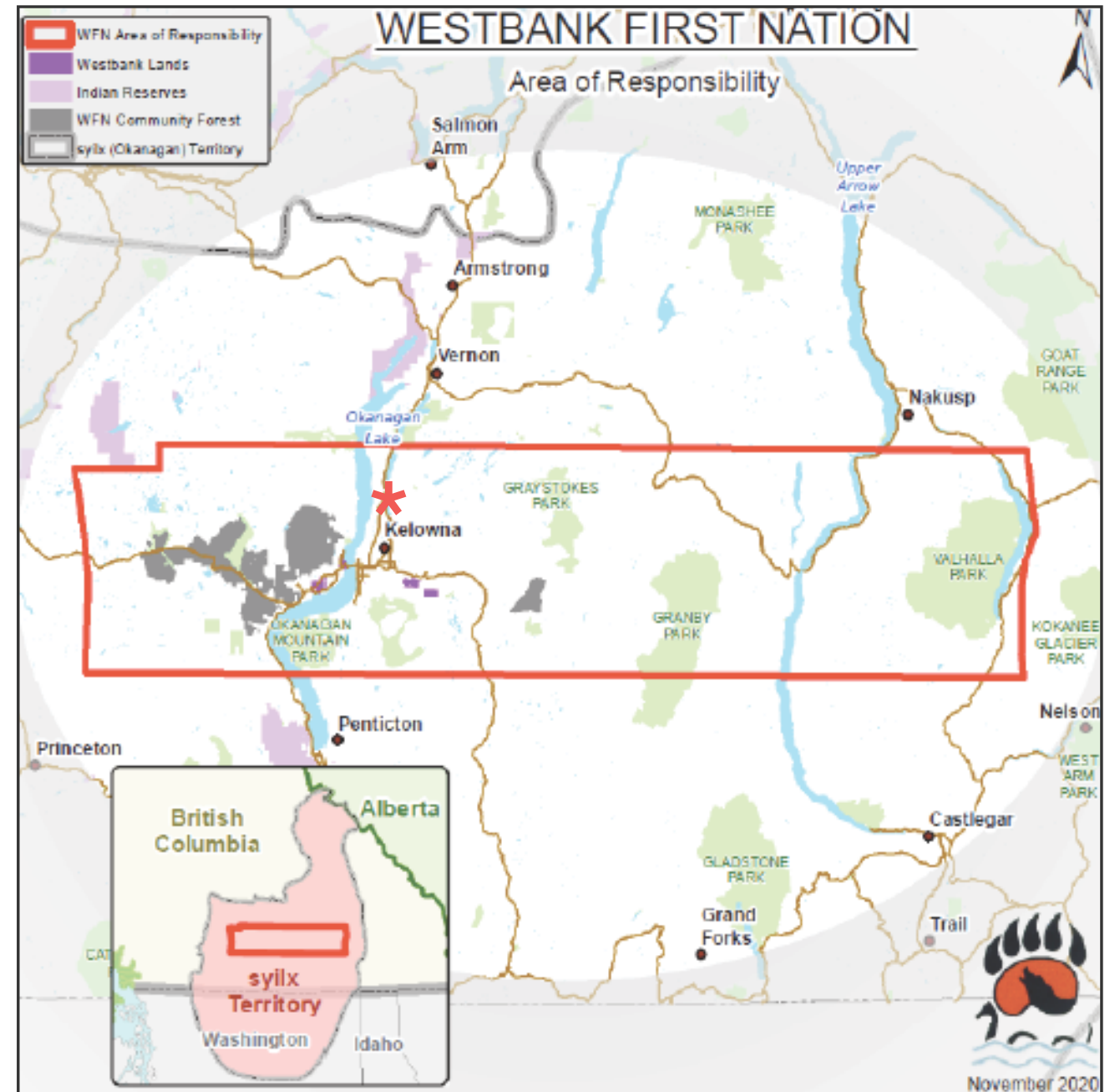


## Archaeological Assessment

A portion of the lands sits within the territory of the syilx Okanagan Peoples. Westbank First Nation (“Westbank”) is one of the seven communities of the syilx Okanagan Peoples (also known as the Okanagan Nation) in Canada.

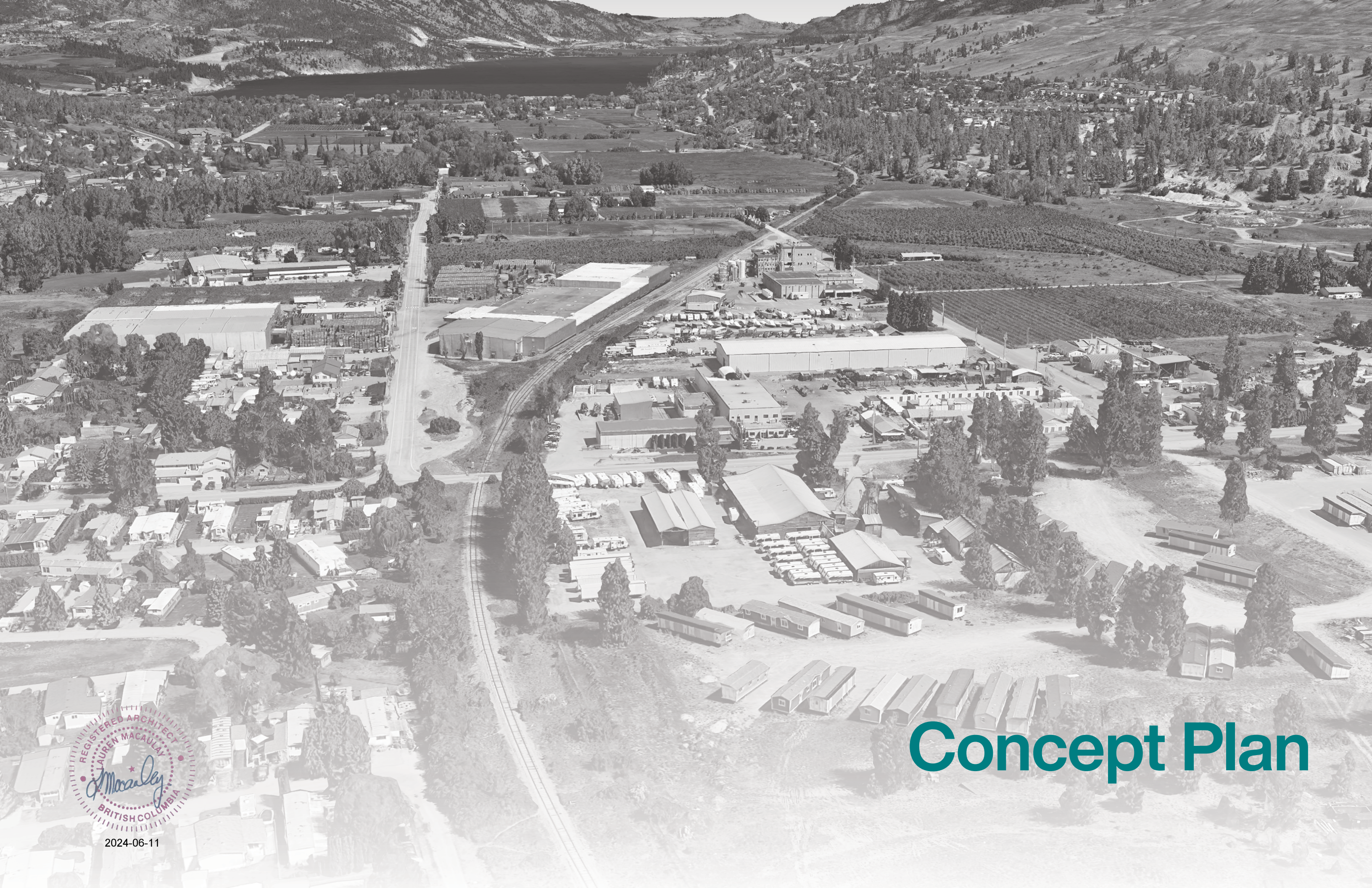
An archaeological overview assessment (AOA) was conducted by Ursus Heritage Consulting on behalf of West Point Projects Inc. at the end of May, 2024.

The proposed Project has been assessed with low archaeological potential. (Refer to Recommendations pg 8 of 16 in the report). For the full report please see the document titled: “RE: Archaeological Overview Assessment for the Proposed Bottom Wood Lake Road Townhouse Project, in Lake Country, BC.”



\* Site





# Concept Plan



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## Land Use Plan

The Subject Site is bounded by agricultural farmland to the north, Okanagan Rail Trail to the east, Beaver Lake Road to the south and Bottom Wood Lake Road to the west. The total site area is 8.65 acres.

The proposed development is envisioned as the first significant steps towards creating a complete, concentrated community in District of Lake Country. Improvements to the streetscape, landscape, block structure and public amenities, as well as the introduction of new building forms to the area, will enhance this location as a convenient, desirable, beautiful place to live, work, shop, and play.

The masterplan features six residential buildings and townhouses. The buildings are oriented around the edges, forming an internal street and pedestrian oriented plaza space with pocket parks, play areas, hardscape areas for weekend markets and generous tree and planting coverage.

At the full build out, the site will provide approximately 640 residential units in townhouse and apartment formats, ranging from one to three bedrooms. A shared amenity space overlooks the central courtyard space to create a vibrant, complete mixed-use community. Parking is primarily below grade.

The site features strong east-west pedestrian connections to connect to the Okanagan Rail Trail (ORT), as well as a primary north to south pedestrian spine that connects a series of smaller plazas together to promote healthy living and active lifestyles.



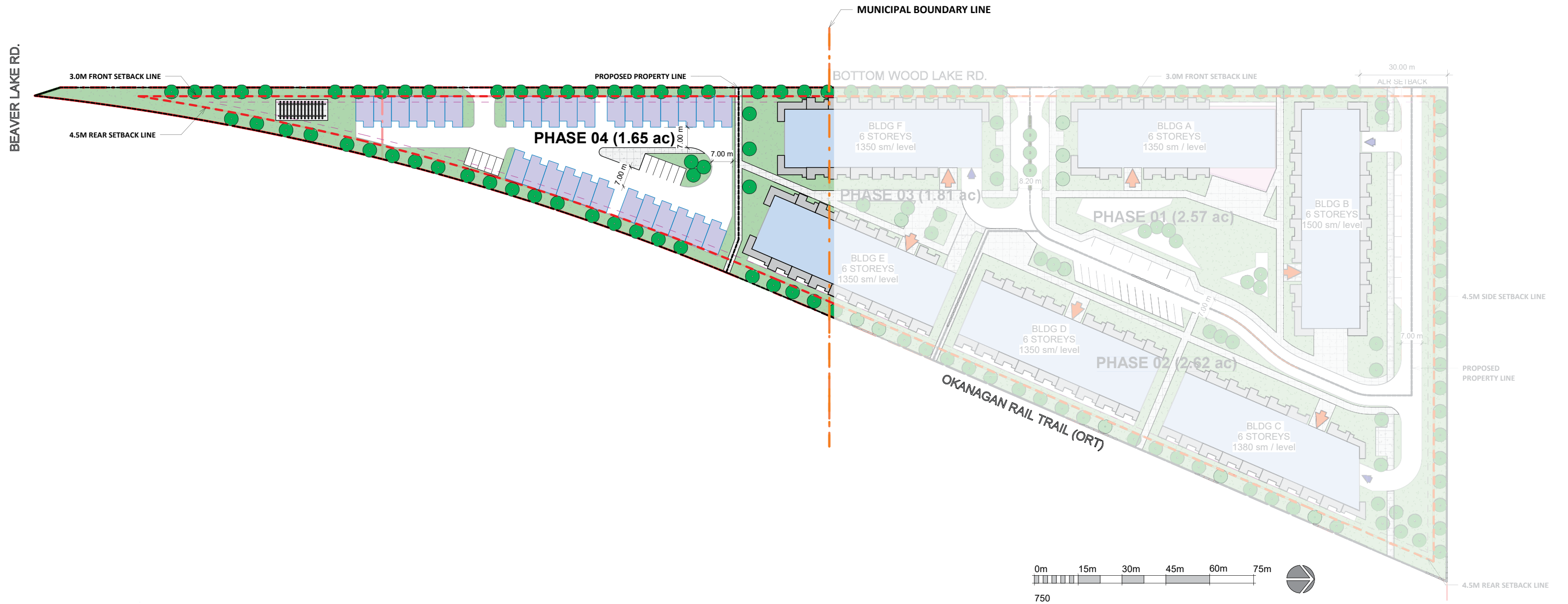
Conceptual Site Plan



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### Site Plan



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### Built Form Analysis

The proposed development will accommodate a mix of residential densities and typologies. The maximum height of multi-unit buildings will be six storeys, however, increased height may be considered based on topographic conditions, to the satisfaction of Approving Authority.

Building massing will allow for sunlight exposure to all units and minimize shadowing onto main outdoor park and amenity spaces.

Where possible, units at grade will have patios with direct access to the street to foster a sense of community and promote safety and security within the development.

Building facades will be designed to incorporate features, proportions, and characteristics of the community (e.g. articulation, building materials, building massing), with some variety in building colors, materials, and textures to enhance the community character.

Design emphasis will be placed at building corners and outdoor spaces to ensure a seamless high quality public realm is maintained throughout the development. There may be opportunities to incorporate historical elements related to the site's use as a packinghouse to establish a unique site identity and a create memorable experience for visitors and residents.



Aerial View of Proposed Development



View from Balcony Towards Central Courtyard

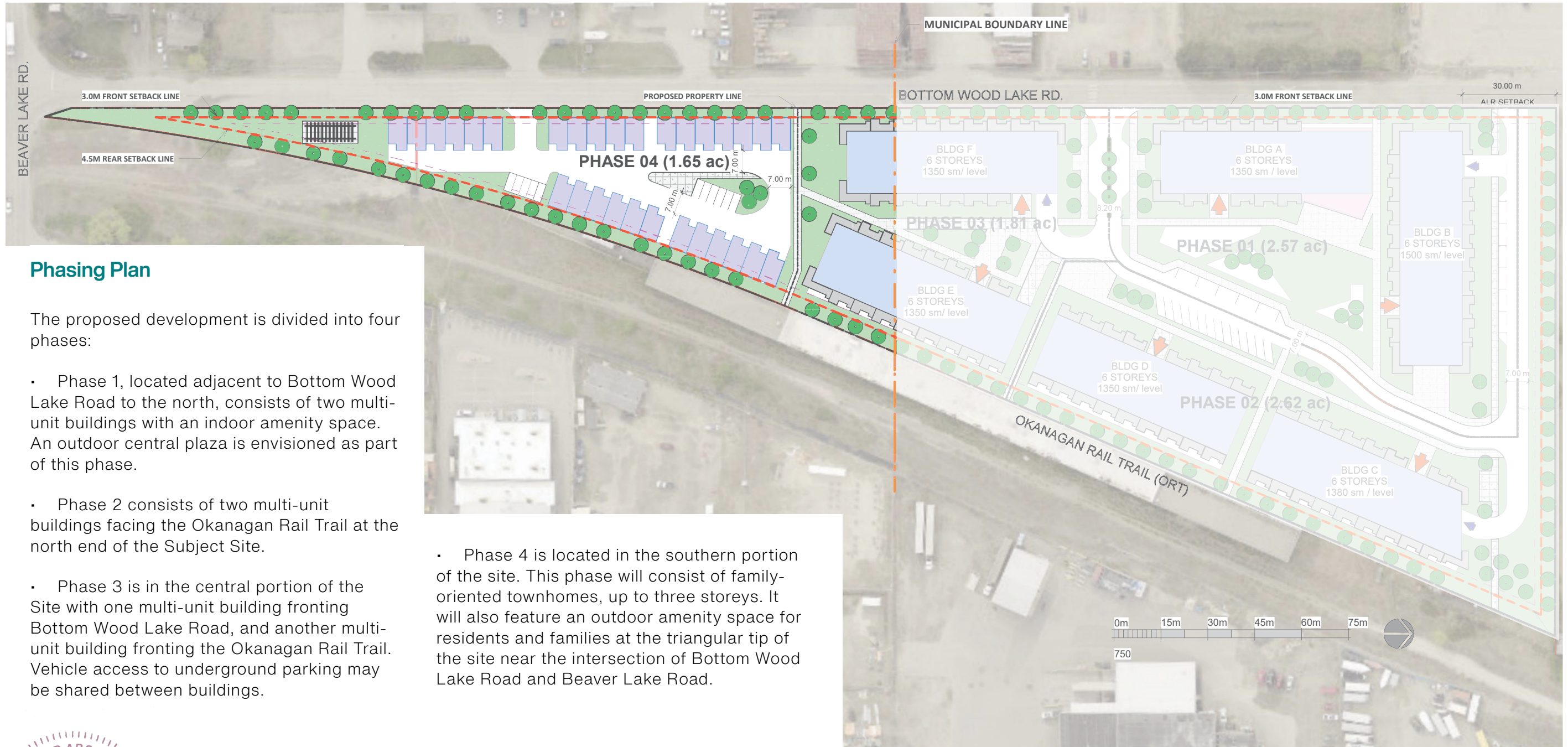


Built Form Inspiration



Built Form Precedents Images





### Phasing Plan

The proposed development is divided into four phases:

- Phase 1, located adjacent to Bottom Wood Lake Road to the north, consists of two multi-unit buildings with an indoor amenity space. An outdoor central plaza is envisioned as part of this phase.
- Phase 2 consists of two multi-unit buildings facing the Okanagan Rail Trail at the north end of the Subject Site.
- Phase 3 is in the central portion of the Site with one multi-unit building fronting Bottom Wood Lake Road, and another multi-unit building fronting the Okanagan Rail Trail. Vehicle access to underground parking may be shared between buildings.
- Phase 4 is located in the southern portion of the site. This phase will consist of family-oriented townhomes, up to three storeys. It will also feature an outdoor amenity space for residents and families at the triangular tip of the site near the intersection of Bottom Wood Lake Road and Beaver Lake Road.

Phasing Diagram



**Project Statistics Breakdown**

Phase	Proposed Bldg Area (SF)	Site Area (SF)	Site Area (Acres)	Proposed FAR (based on Gross Floor)	Max. Allowable FAR	Est. Unit Count	Proposed Bldg Height (Max storeys)	Est. Req'd.Parking (1.2 stalls per unit)
Phase 1 (District of Lake Country)	185,746	111,789	(2.57)	1.66	2.35	207	6	249
Phase 2 (District of Lake Country)	176,307	114,253	(2.62)	1.54	2.35	203	6	244
Phase 3 (City of Kelowna/District of Lake Country)	174,375	79,015	(1.81)	2.21	2.35	200	6	240
Phase 4 (City of Kelowna)	57,261	71,816	(1.65)	0.80	2.35	30	3	36

Phase	Proposed Bldg Area (SF)	Site Area (SF)	Site Area (Acres)	Proposed FAR (based on Gross Floor)	Max. Allowable FAR	Est. Unit Count	Proposed Bldg Height (Max storeys)	Est. Req'd.Parking (1.2 stalls per unit)
<b>Overall</b>	<b>593,689</b>	<b>376,873</b>	<b>8.65</b>	<b>1.58</b>	<b>2.35</b>	<b>640</b>	<b>6</b>	<b>769</b>



### Zoning Analysis

The Subject Site is currently zoned I2 - General Industrial for those portions in the City of Kelowna. To accommodate residential uses, a rezoning will be required in conjunction with the proposed OCP amendment. It is proposed that the portions of the Subject Site located in the City of Kelowna be rezoned MF3.

	Existing Zoning (I2)	Proposed Zoning (MF3)	Proposed
Maximum Density (FAR)	1.5	Base: 1.8 Bonus Density (Public Amenity and Streetscape): 0.25 Bonus Density (Rental or Affordable Housing): 0.3	Phase 3: 2.23 (Gross) Phase 4: 0.79 (Gross)
Maximum Building Height:	16m	Apartment Building: 22 metres or 6 Storeys	Apartment Building: 6 Storeys
Building Siting	Front Setback: 2.0 metres Rear Setback: 0.0 metres Side Setback (Flanking Street): 2.0 metres Side Setback (General): 0.0 metres	Front Setback: 3.0 metres Rear Setback: 4.5 metres Side Setback (Flanking Street): 3.0 metres Side Setback (General): 3.0 metres	Front Setback: 3.0 metres Rear Setback: 4.5 metres Side Setback (Flanking Street): 3.0 metres Side Setback (General): 3.0 metres
Subdivision Regulations	Minimum Lot Area: 4,000m <sup>2</sup>	Minimum Lot Area: 1,400m <sup>2</sup>	Lot Area: 6,700m <sup>2</sup>
Maximum Site Coverage	All Buildings: 60% All Buildings, Structures and Impermeable Spaces: 90%	All Buildings: 65% All Buildings, Structures and Impermeable Spaces: 85%	All Buildings: 30% All Buildings, Structures and Impermeable Spaces: 60%
Off Street Parking	Varies	Studio: 1.0 Stalls Per Unit 1-Bed: 1.25 Stalls Per Unit 2-Bed: 1.5 Stalls Per Unit 3-Bed: 2.6 Stalls Per Unit Visitor: 0.14 Stalls Per Unit	1.2 Stalls Per Unit (including visitor stalls)



## Parks & Public Space Plan

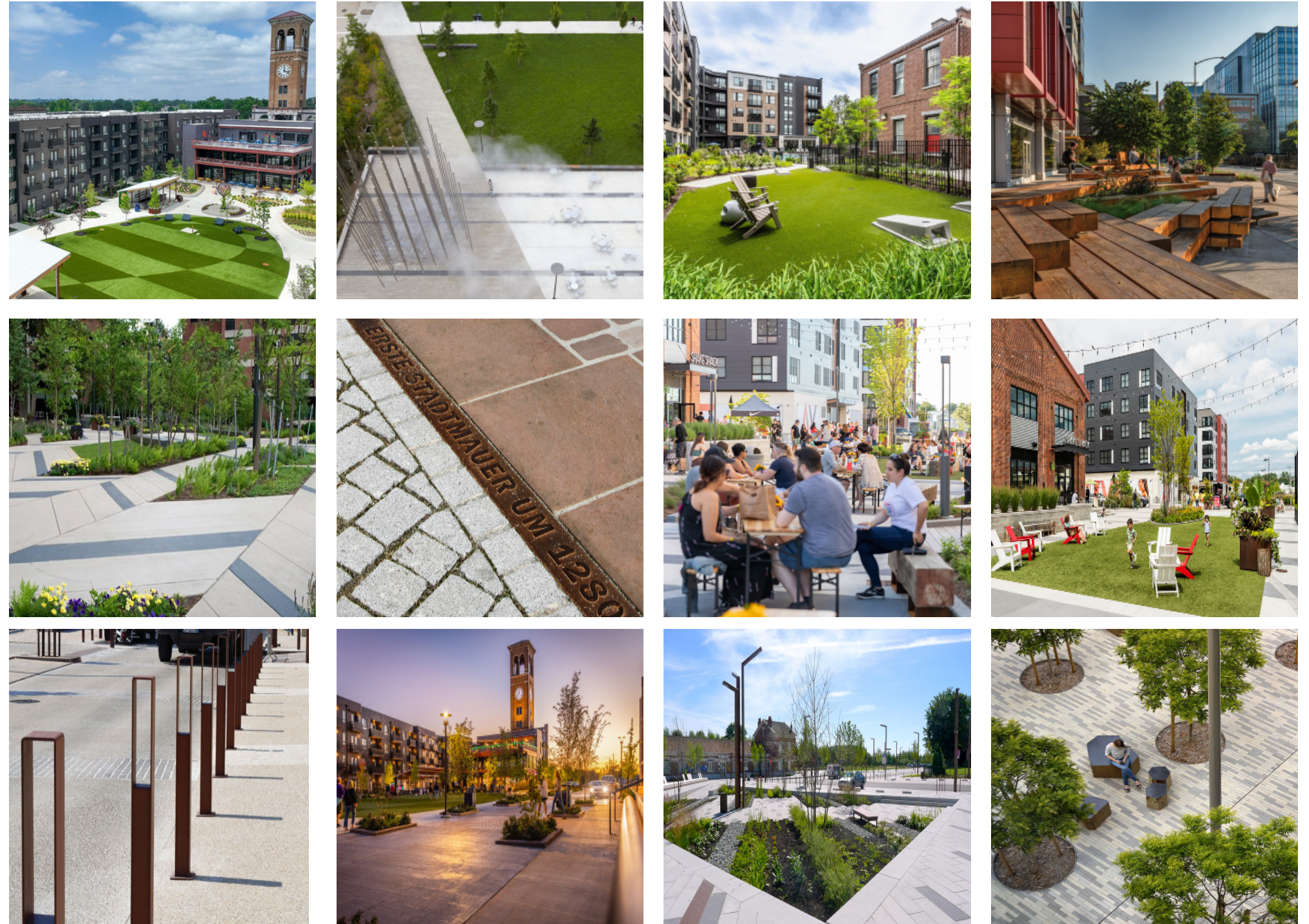
A network of parks and open spaces will support the proposed high-density residential development through a range of passive recreational opportunities that will be easily accessible for its residents. It will also promote connectivity between the residential blocks within the development, as well as to the broader community through the Okanagan Rail Trail (ORT) that serves as a major recreational corridor linking together various local and regional amenities.

Maintaining strong pedestrian connections to the ORT echo's the site's past use as a fruit packinghouse and will provide ample opportunities for re-interpretation of this historic use through new thematic landscape elements that will create a unique identity and experience within the outdoor spaces.

A palette of landscape planting and materials will be selected in response to the Okanagan's unique climate and regional character. This will further reinforce the development's unique identity.

In response to municipal landscape requirements, the appropriate landscape setbacks will be provided along Bottom Wood Lake Road (east) and the ORT (west) to buffer uses between the residential development and adjoining sites. To the north, a vegetative buffer will also be provided in response to the adjoining property's ALR designation.

Planting will also respond to specific site design requirements, such as the use vegetative swales and infiltration planting for any passive stormwater management, shade tree planting, and transitional planting between public spaces and private patios.

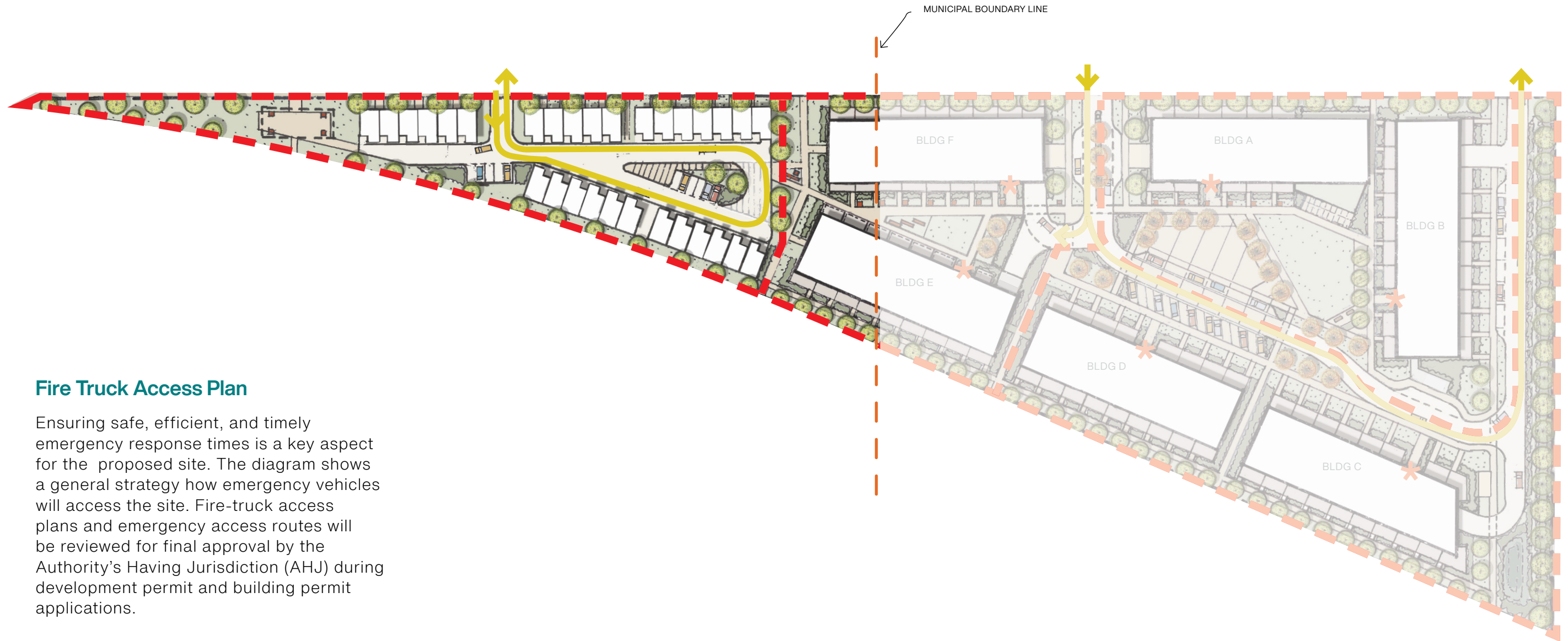


Landscape Precedents



Landscape Concept Plan





### Fire Truck Access Plan

Ensuring safe, efficient, and timely emergency response times is a key aspect for the proposed site. The diagram shows a general strategy how emergency vehicles will access the site. Fire-truck access plans and emergency access routes will be reviewed for final approval by the Authority's Having Jurisdiction (AHJ) during development permit and building permit applications.

-  Fire Truck Access
-  Phasing Line
-  Building Entrance





# Civil Site Servicing Strategy

## Existing Shallow Utilities

### BC Hydro

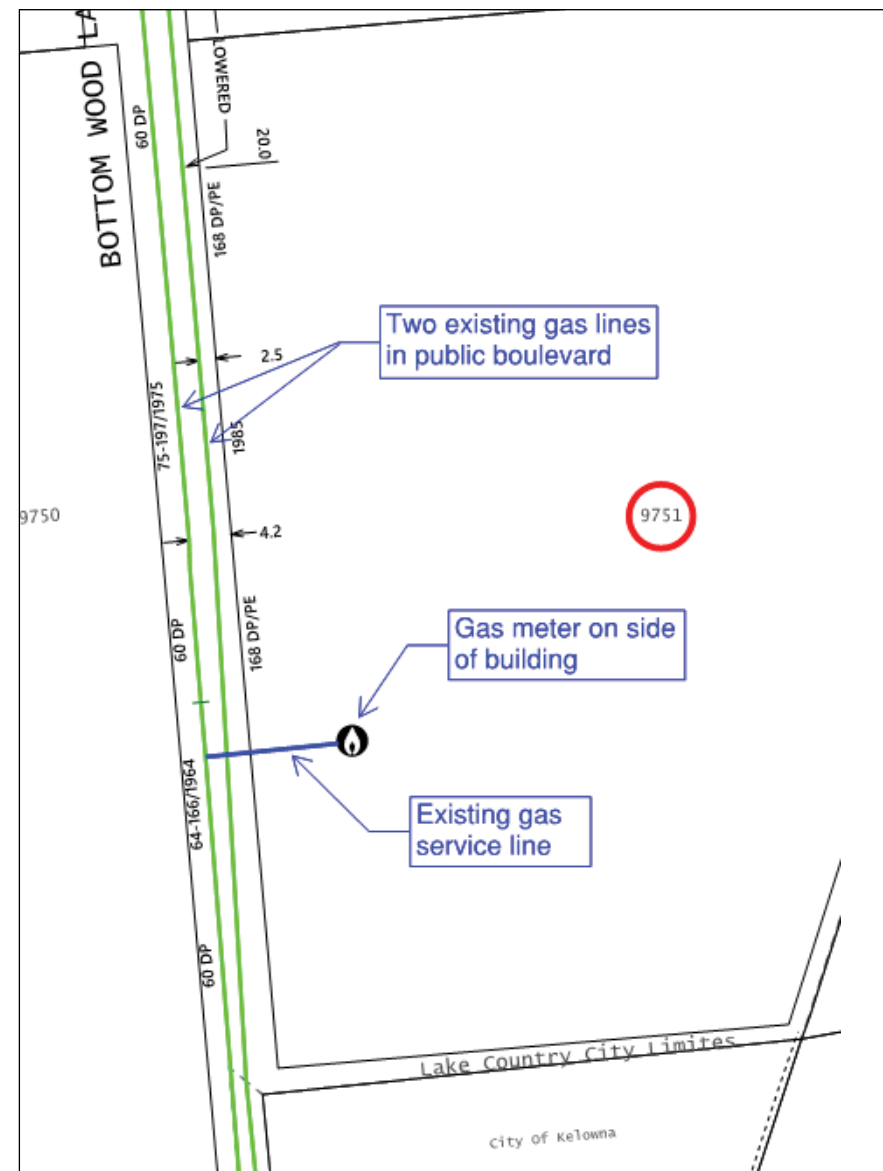
There is an existing three phase overhead pole line along the West side of Bottom Wood Lake Rd and a double circuit three phase overhead line along the adjacent Beaver Lake Rd. The property is currently serviced via a primary (25kV) service via overhead lines crossing Bottom Wood Lake Rd to a private pole within the site. There should be enough capacity on the existing BC Hydro infrastructure to provide service to this development without requiring any significant upstream upgrades

### Communications (Telus/Shaw)

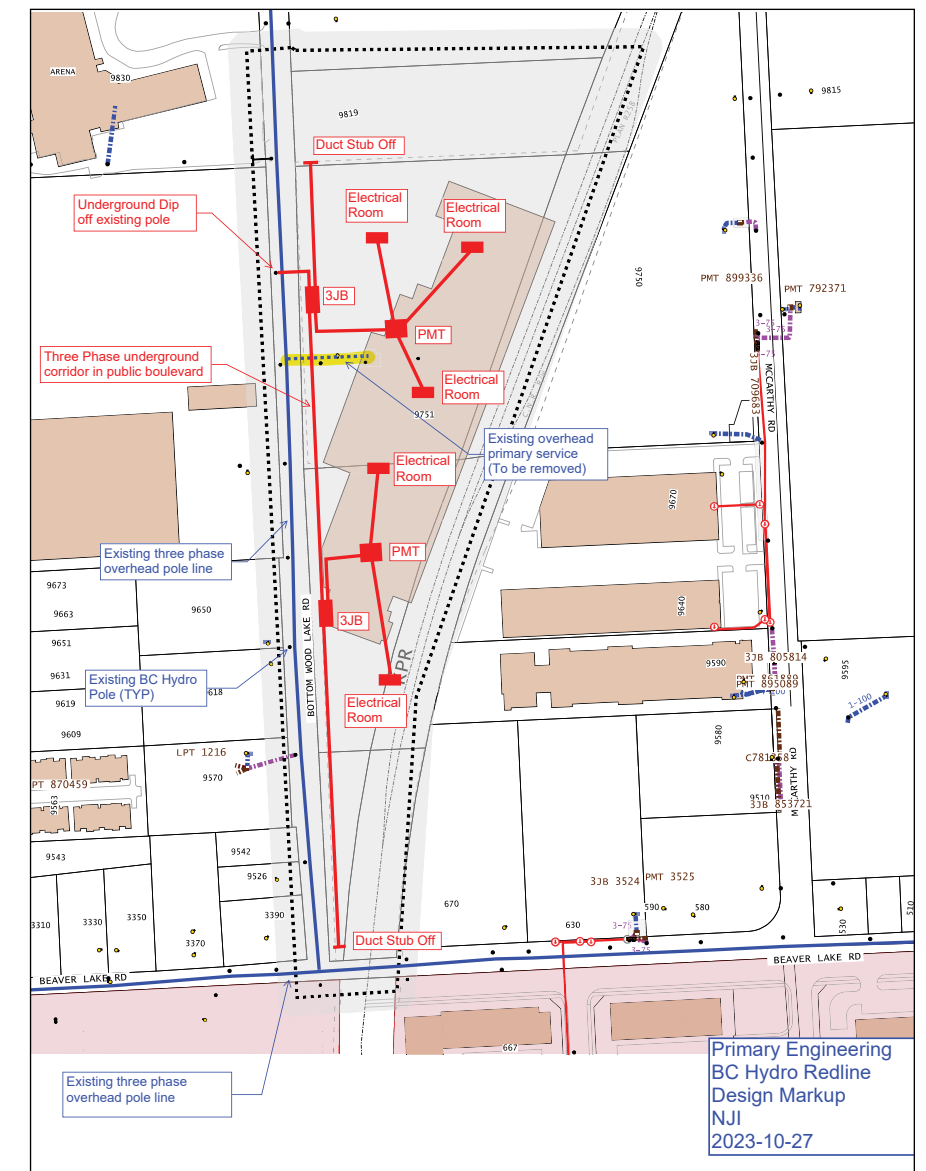
There is existing overhead Shaw & Telus lines along Bottom Wood Lake Rd. The site is currently fed via an overhead service from the same that is providing the BC Hydro service. This overhead service will not be required for the multi family development thus will need to be removed.

### Fortis Gas

There are two existing gas lines along Bottom Wood Lake Rd fronting the development site. There is currently a gas service into the site feeding a gas meter on the side of the building. This existing gas service will not be required for the new multi family development thus will need to be removed.



Existing Shallow Utility Locations



**Functional Service Report (FSR)**

The Functional Servicing Report ‘FSR’ is intended to present preliminary design concepts in order to demonstrate how the site may be serviced and developed in keeping with the applicable regulatory requirements (i.e. City of Kelowna Bylaws, District of Lake Country Bylaws, BC Building Code, etc.).

The design concepts presented herein represent a first step in the design process and do not represent detailed engineering designs for the project. Detailed designs will be prepared and submitted to the City, the District, and all other required regulatory agencies in due course following receipt of a Development Permit.

Refer to the document titled: “*Functional Service Report - Revision 2 Multi-Family Residential Development - 9751 Bottom Wood Lake Road*” for full report.



**Functional Servicing Report - Revision 2 Multi-Family Residential Development – 9751 Bottom Wood Lake Road**

May 30, 2024

Prepared for: 9751 Bottom Wood Lake Road Properties Ltd.  
Prepared by: McElhanney Ltd.


<b>Contact</b>	<b>Address</b>
Jesse Granberg Engineer of Record 778-739-3917 <a href="mailto:jgranberg@mcelhanney.com">jgranberg@mcelhanney.com</a>	2281 Hunter Road, Kelowna, BC Canada V1X 7C5

Our file: 2451-1632-061

Our File: 2451-1632-061 | May 30, 2024

**8. Closing**

We trust that this report meets your expectations, and we look forward to continuing to work with you to bring this project to fruition. If you have any questions, please contact the undersigned.

<p>Prepared By:</p>  <p>Jesse Granberg, P.Eng. Engineer of Record</p>	<p>Reviewed By:</p>  <p>Whitney Roe, P.Eng. Project Engineer</p>
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**PERMIT TO PRACTICE**  
McElhanney Ltd.  
PERMIT NUMBER: 1003299  
Engineers and Geoscientists of BC



**REZONING & MASTERPLANNING:**

**Arcadis Professional Services (Canada) Inc.**

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T 250-980-3432

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