

# SCHEDULE

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# Z20-0080

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CITY OF KELOWNA

## MEMORANDUM

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**Date:** September 21, 2020  
**File No.:** Z20-0080  
**To:** Suburban and Rural Planning (TC)  
**From:** Development Engineering Manager (JK)  
**Subject:** 855 DeHart Rd. RU1 to RU6

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The Development Engineering Department has the following comments and requirements associated with this application to rezone the subject property from RU1 to RU6. The road and utility upgrading requirements outlined in this report will be a requirement of this development. The Development Engineering Technician for this project is Aaron Sangster.

### 1. Site-Related Issues

- a) Driveway access must be investigated by a traffic engineer to ensure the sight lines distance meeting City of Kelowna standard, bylaw 8120 Schedule J. Shared driveway access and location away from the west property line is recommended to reduce blind corner access.

### 2. Road Improvements

- a) DeHart Rd. must be upgraded to a urban standard along the full frontage of this proposed development, curb and gutter, drainage system, pavement removal and replacement, and re-location or adjustment of utility appurtenances if required to accommodate the upgrading construction. The road cross section to be used is a SS-R6. A one-time cash payment in lieu of construction must be collected from the applicant for future construction by the City. The cash-in-lieu amount is determined to be **\$57,092.58. not including utility service cost.**

### 3. Domestic Water and Fire Protection

- a) The subject property is currently serviced with a 19mm water service. One metered water service will be required for the development. The disconnection of the existing small diameter water services and the tie-in of a larger service is the developer's responsibility. You can engage an engineer and contractor to manage the work on your behalf or it can be provided by City forces at the developer's expense. If you chose to have it completed by City forces, you will be required to sign a Third-Party Work Order and pre-pay for the cost of the water service upgrades. For estimate inquiries please contact Mike Thomas, by email [mthomas@kelowna.ca](mailto:mthomas@kelowna.ca) or phone, 250-469-8797.

### 4. Sanitary Sewer

- a) This property is currently serviced with a 100-mm sanitary service. The developer's consulting mechanical engineer will determine the development requirements of this proposed development and establish the service needs. Only one service will be permitted for this development. The applicant, at their

cost, will arrange for the removal and disconnection of the existing services and the installation of one new larger service, if necessary. You can engage an engineer and contractor to manage the work on your behalf or it can be provided by City forces at the developer's expense. If you chose to have it completed by City forces, you will be required to sign a Third-Party Work Order and pre-pay for the cost of the water service upgrades. For estimate inquiries please contact Mike Thomas, by email [mthomas@kelowna.ca](mailto:mthomas@kelowna.ca) or phone, 250-469-8797.

## 5. Storm Drainage

- a) The developer must engage a consulting civil engineer to provide a storm water management plan for the site, which meets the requirements of the Subdivision, Development and Servicing Bylaw No. 7900. The storm water management plan must also include provision of lot grading plan, minimum basement elevation (MBE), if applicable, and provision of a storm drainage service for the development and / or recommendations for onsite drainage containment and disposal systems. Only one service will be permitted for this development. The applicant, at his cost, will arrange the installation of one overflow service if required.

## 6. Subdivision Requirements

- a) Grant statutory rights-of-way if required for utility services.

## 7. Electric Power and Telecommunication Services

- a) All proposed service connections are to be installed underground. It is the developer's responsibility to make a servicing application with the respective electric power, telephone and cable transmission companies to arrange for these services, which would be at the applicant's cost.

## 8. Erosion Servicing Control Plan

- a) Provide a detailed ESC Plan for this development as per the Subdivision, Development and Servicing Bylaw #7900.
- b) The developer must engage a consulting civil engineer to provide an ESC plan for this site which meets the requirements of the City Subdivision Development and Servicing Bylaw 7900.
- c) Civil consultant is responsible for all inspection and maintenance.
- d) A Security Deposit for ESC Works equal to 3% of the Consulting Engineer's opinion of probable costs of civil earthworks and infrastructure will be added to the Servicing Agreement.

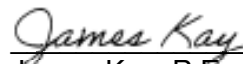
## 9. Geotechnical Report

Provide a geotechnical report prepared by a Professional Engineer competent in the field of hydro-geotechnical engineering to address the items below: NOTE: The City is relying on the Geotechnical Engineer's report to prevent any damage to property and/or injury to persons from occurring as a result of problems with soil slippage or soil instability related to this proposed subdivision. The Geotechnical reports must be submitted to the Development Services Department (Subdivision Approving officer) for distribution to the Development Engineering Branch and Inspection Services Division prior to submission of Engineering drawings or application for subdivision approval.

- (i) Area ground water characteristics, including any springs and overland surface drainage courses traversing the property. Identify any monitoring required.
- (ii) Site suitability for development.
- (iii) Site soil characteristics (i.e. fill areas, sulphate content, unsuitable soils such as organic material, etc.).
- (iv) Any special requirements for construction of roads, utilities and building structures.
- (v) Recommendations for items that should be included in a Restrictive Covenant.
- (vi) Recommendations for roof drains, perimeter drains and septic tank effluent on the site.
- (vii) Any items required in other sections of this document.

#### 10. Charges and Fees

- a) Development Cost Charges (DCC's) are payable.
- b) Fees per the "Development Application Fees Bylaw" include:
  - i) Survey Monument, Replacement Fee: \$1,200.00 (GST exempt) – only if disturbed.
  - ii) Survey Monument Fee: \$50.00 per newly created lot for a total of **\$100.00** (GST exempt)
  - iii) Engineering and Inspection Fee: 3.5% of construction value (plus GST).
  - iv) A hydrant levy charge of \$250.00 per lot (Total of **\$500.00**)
- c) Cash-in-lieu Fee = **\$57,092.58**
- d) Third Party Work Order for additional services = TBA

  
James Kay, P.Eng.  
Development Engineering Manager

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ENGINEERING

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# Memorandum

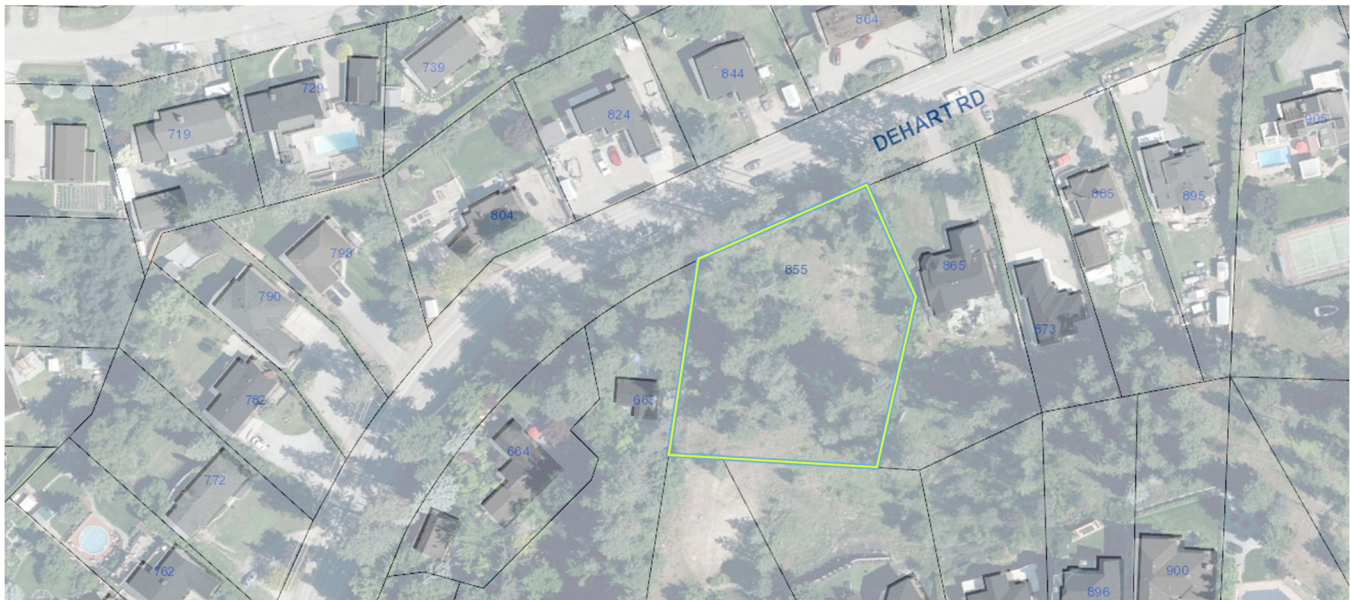
Attention:	Owen Brown	File No.:	A21-006
Organization:	Sharpshooter Development Company	Project:	855 DeHart Road
Phone:	778-897-1319	Date:	January 12, 2021
Email:	<a href="mailto:coine@me.com">coine@me.com</a>	Revision:	0
cc:	Robin Puche ( <a href="mailto:ropuche84@gmail.com">ropuche84@gmail.com</a> ); David Notte ( <a href="mailto:DavidN@AlignEng.ca">DavidN@AlignEng.ca</a> )		

**RE: 855 DeHart Road Sight Line Assessment**

## 1 Introduction

Align Engineering Ltd was retained by Sharpshooter Development Company to investigate the sight lines for the proposed 855 DeHart Road driveway. This memorandum provides an assessment of sight lines for the proposed three-lot residential driveway access.

The proposed residential development is located along DeHart Road, a two-lane arterial roadway with a posted speed limit of 50 km/h, between Gordon Drive and Swamp Road. Speeds drop to 50 km/h in proximity of the development and increase to 60 km/h to the east. The property is located east of the inside of a horizontal curve on DeHart Road that limits the sight line around the corner and to the driveway (see **FIGURE 1**). The combination of the horizontal curve and high operating speeds have led to a request to investigate the available sight lines.



**Figure 1: Subject Property Location**





## 2 Assessment

A sight line and operating speed assessment was conducted on January 11, 2021. Average speeds range from 65-70 km/h and there is a large portion of heavy trucks related to construction activity. The developer plans to relocate the driveway to the east property line to maximize the sight distance from the horizontal curve. This will achieve a stopping sight distance of 100 m. Clearing of surrounding foliage in the sight triangle can free a total of 114 m of stopping sight distance. The turning sight distance from the relocated driveway to traffic approaching from the west (looking left from the proposed driveway) would be approximately 100 m (see **FIGURE 2**).



Figure 2: Turning Sight Distance (Red)

Stopping sight distance requirements are 65 m at 50 km/h, 86 m at 60 km/h, and 105 m at 70 km/h. The turning sight distance for a driver looking left before turning right from a stopped position is 95 m at 50 km/h, 110 m at 60 km/h, and 130 m at 70 km/h. The turning sight distances are met for 50 km/h and stopping sight distance for 70 km/h.

## 3 Conclusion & Recommendations

Operating speeds appear to be well in excess of posted speed limits. Locating the driveway access to the east property line and clearing overgrowth maximizes the sight light from the horizontal curve. Turning sight distances from a residential single-family dwelling driveway are typically not a design criterion but are pragmatic to consider. The risk is much lower with low volume driveways (7.5 trips per household per day in the Mission as per 2018 Okanagan Travel Survey). Meeting the minimum requirement for stopping sight distance at 50 km/h must be provided. The available stopping sight distance of 114 m exceeds the 70 km/h operating speed requirement (105 m). A sight line covenant can be established to assure the

turning sight distance to the west is maintained in the long term. The combined access for the three lots will allow vehicles to turnaround on the property thereby reducing the risk of conflicts with backing movements on DeHart Road. The end of the combined access will need a turnaround to accommodate the same action for all properties.

In addition to the driveway being relocated to the east property line supporting one combined access for the proposed three lots, it is recommended that:

- A sight line covenant is established to maintain a clear sight line to achieve a minimum of 95 m (100 m preferable) turning sight distance to the west; and
- A turnaround is established at the end of the proposed shared driveway access to prevent vehicles from backing onto or from DeHart Road.

Please contact me at 250-870-3865 if there are any questions or comments. Thank you.

Sincerely,

**Align Engineering Ltd**



Tom Baumgartner, MSc, P.Eng., RSP,  
Senior Transportation Engineer | Principal

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# 855 DEHART ROAD Proposed Rezoning and Subdivision



Proposed By:  
Sharpshooter Development Company.  
C/O 270 Hwy 33 W.  
Kelowna, BC, V1X 1X7  
TEL 250-899-2529  
coine@me.com

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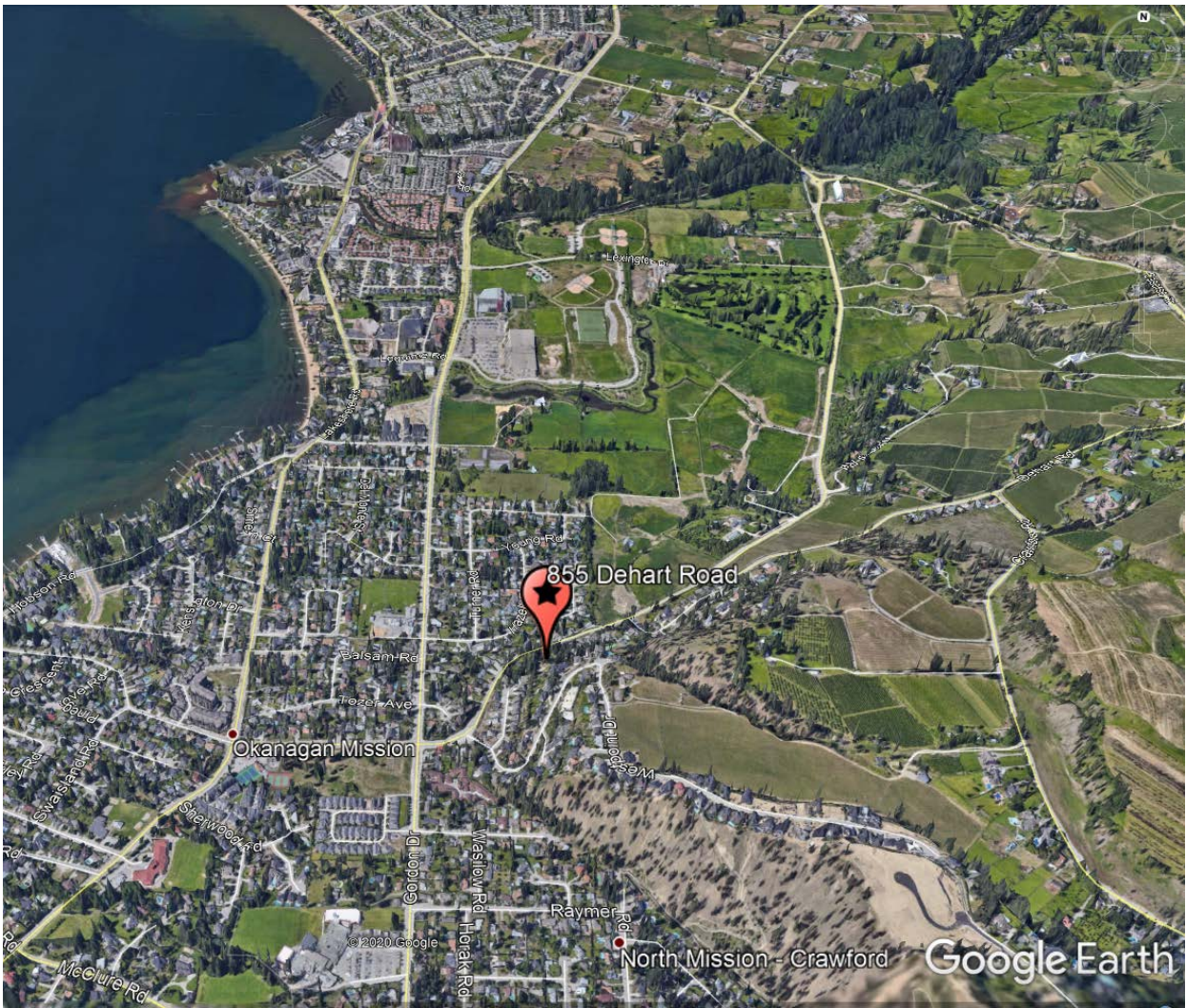




# PROJECT OVERVIEW

## Introduction

The subject property is located at 855 Dehart Road, in the Lower Mission Area in the City of Kelowna, BC (City). The property is 0.837 acres in land size and sits currently vacant. The property is in near proximity to Dorothea Walker Elementary School and the Okanagan Mission Secondary School. The property has ease of access to Transit Routes 5, 1, 15,16, and 17, and it’s just a short 3-5 mins drive to either the H2O Centre to the north or Okanagan Lake to the west, with Mission Creek Linear Park near-by providing access to trails and gorgeous outdoor amenities. See Figure below:



## Objective

We propose to rezone the subject property from its current RU1 (Large Lot Housing) zoning to RU6 (Two Dwelling Housing). Furthermore, we propose to subdivide the existing property and create a three lots out of it. One lot would be large enough to be suitable for two-dwelling housing, and the other two would be best suited for a single family dwelling with a suite or perhaps a carriage house.

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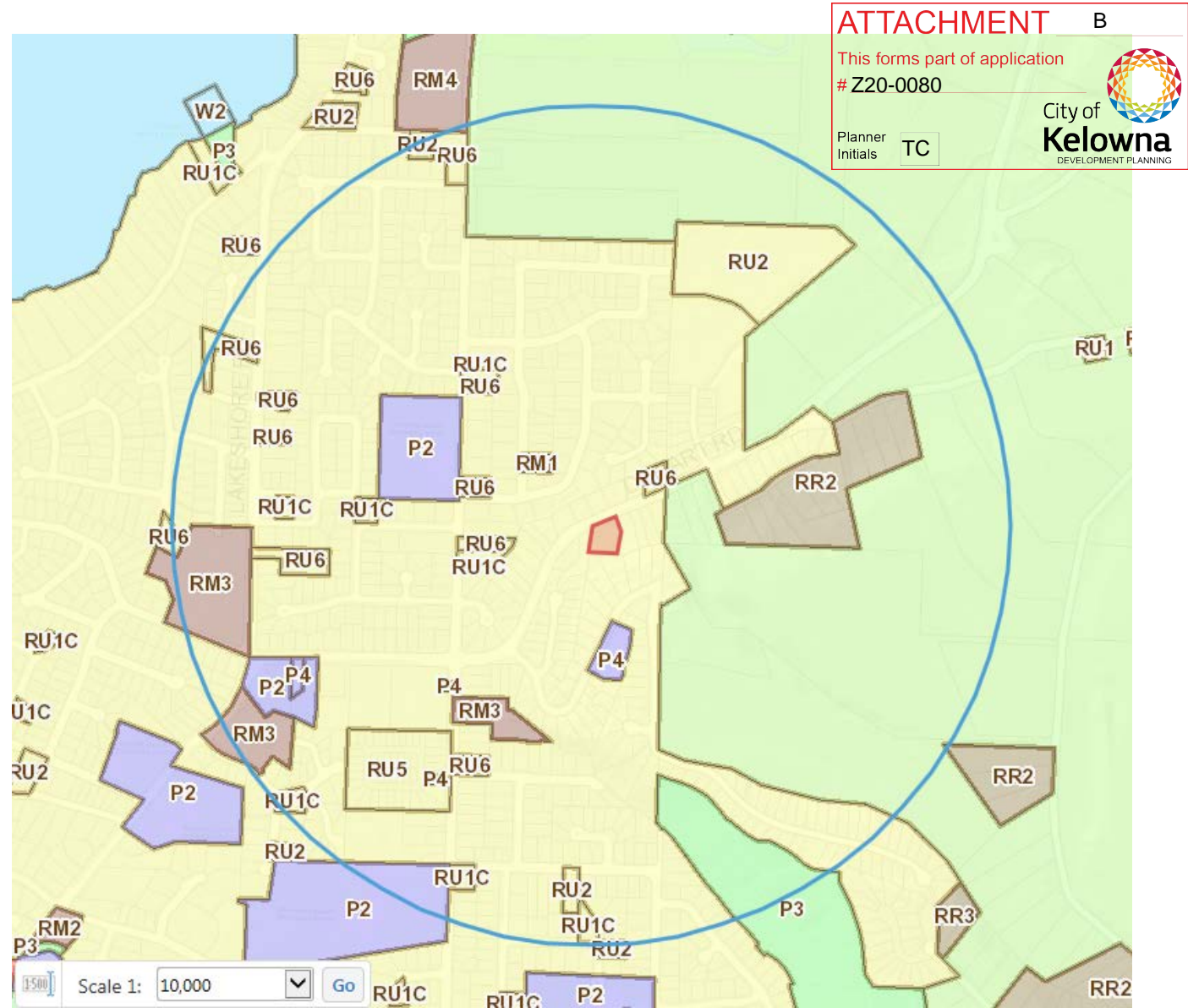
# PROJECT RATIONALE

It’s no secret that City of Kelowna is a hot market and new builds continue to fall short when compared to the constantly growing demand. The City and its residents understand the need for building a housing inventory that is healthy and resilient that focuses on diverse housing options, particularly the “missing” middle housing level.

We strongly believe the proposed project aims to help in addressing, if even in a small scale, the above noted goal and/or concern.

## Current Zoning

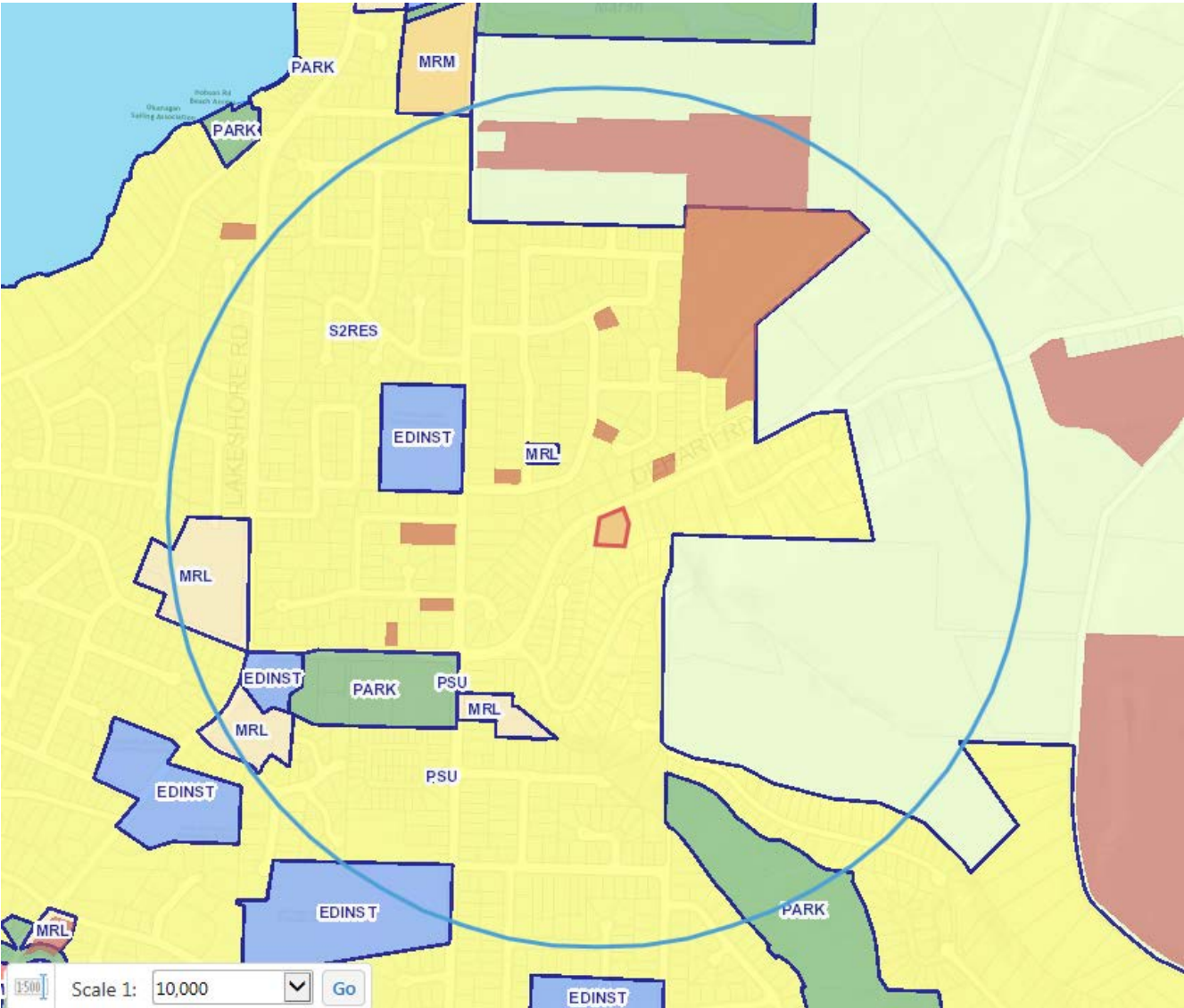
The current property zoning is RU1-Large Lot Housing. However, it’s noted that there are 12 properties within a 800 m radius from the subject property that have already been rezoned to RU6-Two-Dwelling Housing, including 894 Dehart Road which is located less than 80 m up the street from the subject site. See figure below:





Official Community Plan – Future Zoning Designation

The property’s future land use zoning as per the Official Community Plan (OCP) is designated Single / Two Unit Residential (S2RES). Much of the area is already transitioning with many homeowners already having rezoned, additionally to the number of re-development applications (subdivision and rezoning) currently active (seen in “brown”). Please see figure below:



The proposed project perfectly aligns with the City’s Vision outlined in the OCP. Furthermore, the proposed new property lot frontages, depths and overall size exceeds all the required criteria under the City’s Zoning Bylaw. This project as previously mentioned also addresses the dire need of providing alternative housing in the City.

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## OFF-SITE SERVICING

### Lot Servicing

#### Sanitary, Water, and Storm Drainage

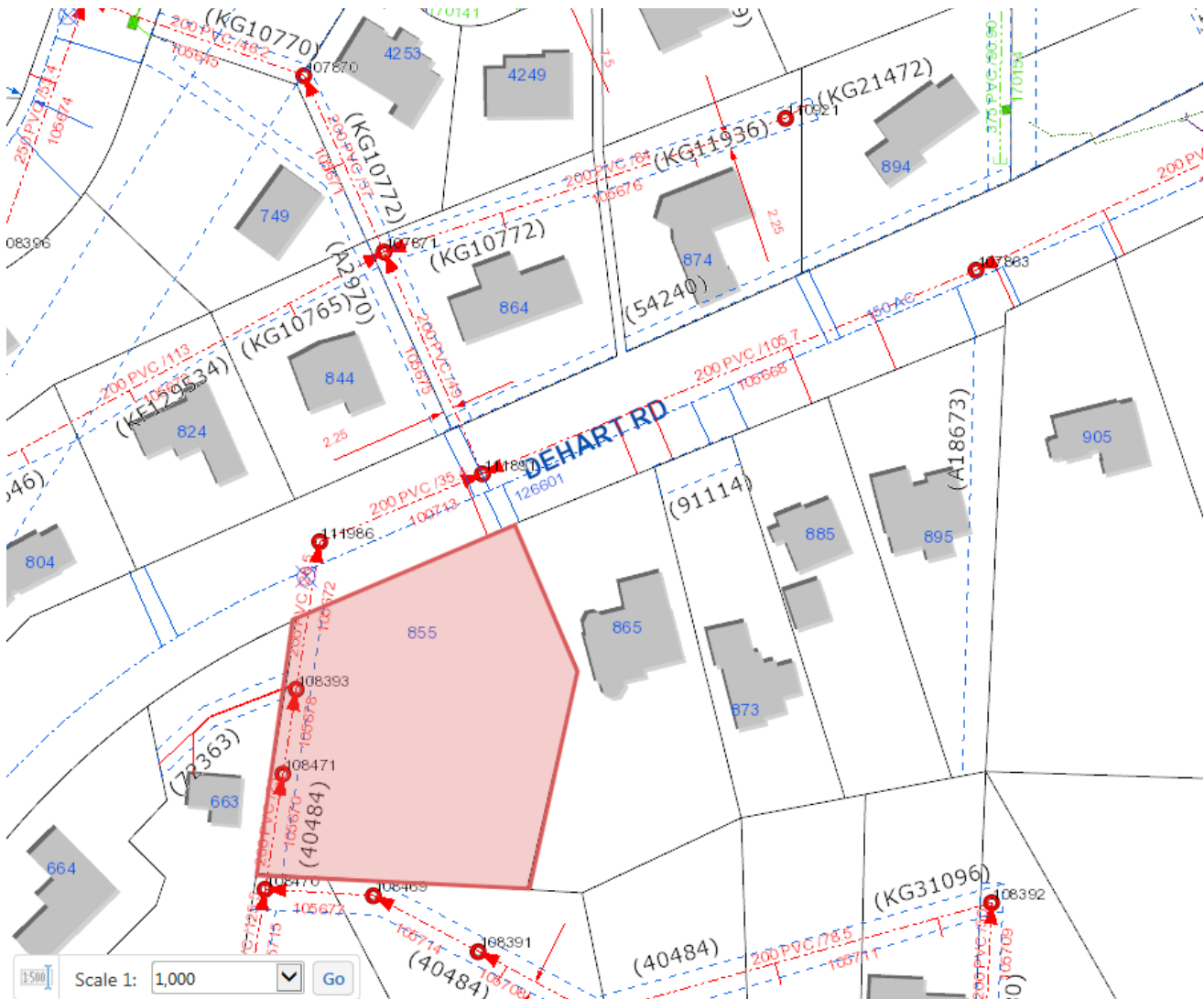
There are Sanitary sewers on an SRW along the westerly property line, downstream along Dehart Road with water distribution mains in front of the property running along Dehart Road as well. A fire Hydrant fronting the subject property provides fire protection coverage. Local drainage currently conveyed by ditch and road surface run-off to a 350 mm PVC storm sewer approximately 120 m east from the subject site. Servicing requirements will be addressed in accordance to the City's Subdivision & Development Servicing Bylaw (Bylaw 7900).

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Please refer to attached Site Plan for further details.

## Site Grading & Site Coverage

The proposed subdivision layout has been strategically designed to maximize the usable gentle sloping area of the site whilst avoiding disturbance to the identified boundaries of the geotechnical hazard condition development permit area, as well as the natural environment development permit areas for sensitive drainage and sensitive ecosystem.

The identified usable area on the property has a natural gentle south-to-north average slope of about 4.0% with a maximum site different in elevation of about 2.0 m from back to front.

The maximum site coverage in accordance with the City's Zoning Bylaw will be 40% and together with driveways and parking areas, will not exceed 50%.

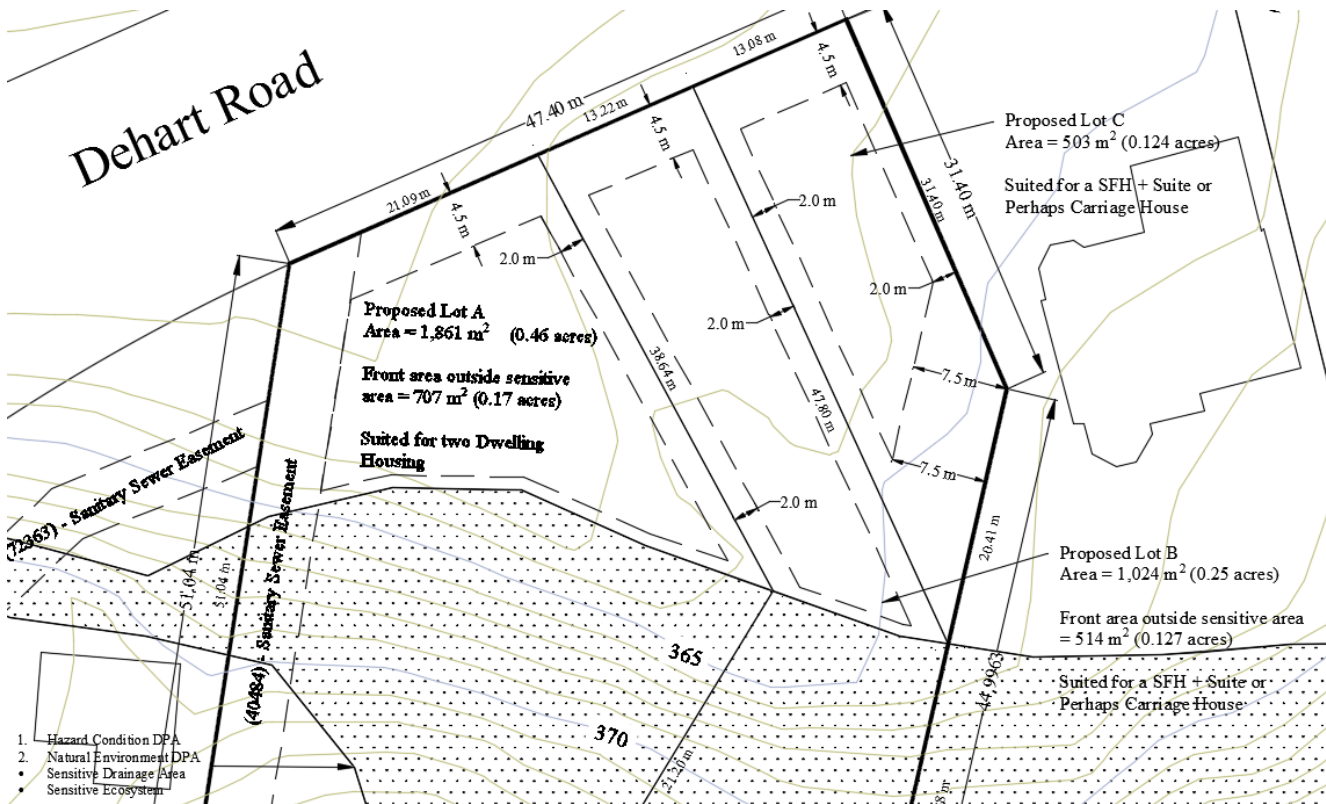
## Development Permit Areas (DPA)

### Hazardous Condition DPA

The goal would be to achieve the exemption to the Hazardous Condition Development Permit under condition "a" or "b" of the 2030 Official Community Plan, Chapter 13.

### Environment DPAs for Sensitive Drainage Area & Sensitive Ecosystem

The goal would be to achieve the exemption to the Hazardous Condition Development Permit under condition "a" or "b" of the 2030 Official Community Plan, Chapter 12. Please see figure below:



### Wildland Fire Hazard DPA

Shall be addressed through the subdivision process in accordance to Section 1.0 of the 2030 Official Community Plan, Chapter 13.

## NEW BUILD PROPOSED FORM & CHARACTER

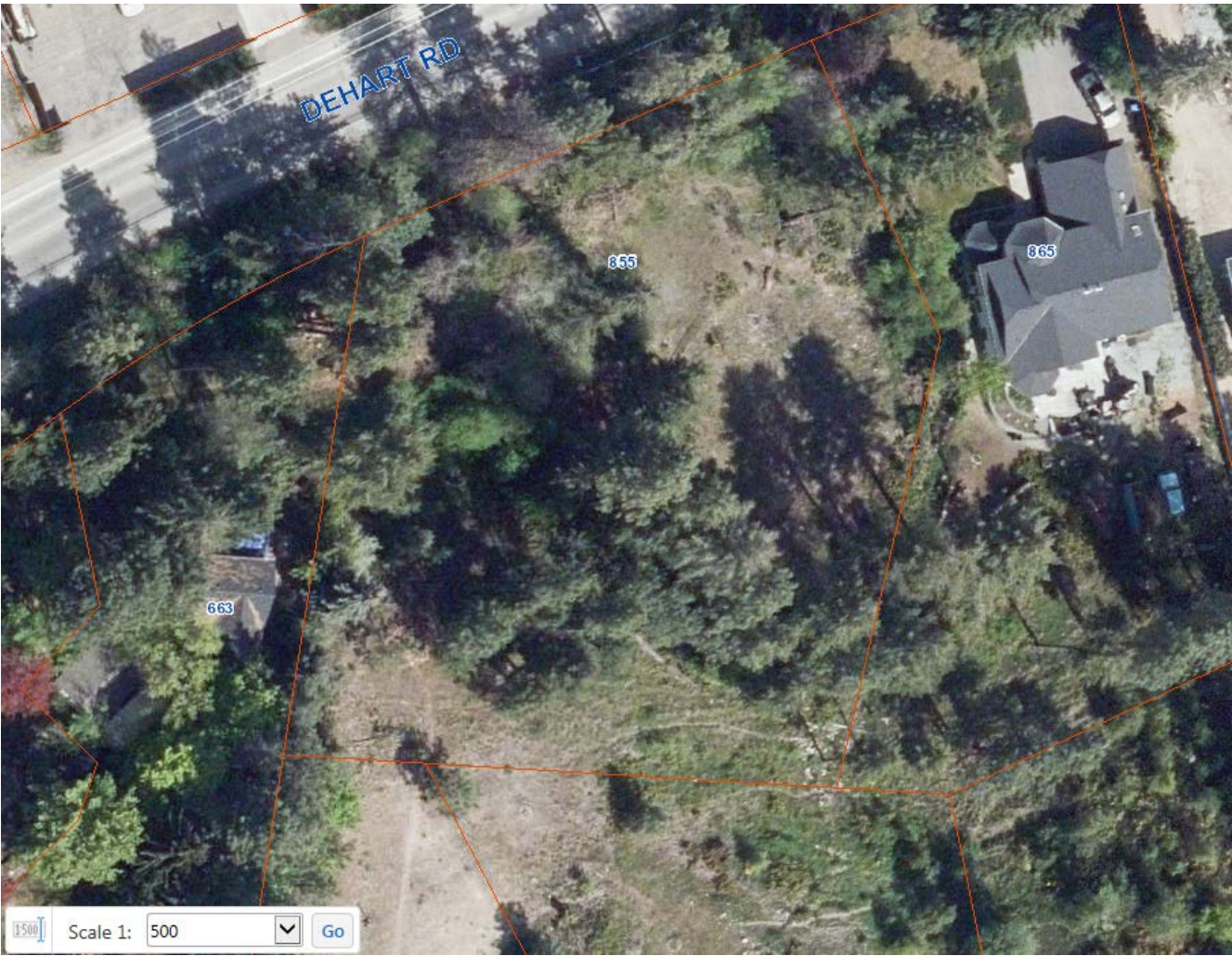
It is proposed that the new build will conform with the form and character of the area. We're currently going over the selection process and no specific plans have been picked yet. However, the samples below illustrate the form and character we would be aiming to achieve. We find this form of new build will help brighten, elevate, and enhance the look and feel of the neighborhood.





SITE PICTURES

Subject Site Plan View:



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Site Picture Looking into property from Dehart Road:



Site frontage Looking south-west on Dehart Road Depicting Existing Fire Hydrant:



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