# Neptune Pocket Neighbourhood Design Rationale



#### Overview

On behalf of the site developer, Davara Holdings, the development proposal includes 19 single family homes with associated roads and parking. The site proposal also includes a 11,400 SF park to be shared by the residence.

The site totals 1.5 hectares located in the Rutland area and currently features a church and associated parking (P2 - Education and minor industrial zoning). The existing church is used infrequently and the intent is to turn the site into a functional and comfortable living space that would include the following:

- Nine lots (7-10 & 15-18) 3 bedroom houses at approximately 1,400 1,500 SF. They will be  $1\frac{1}{2}$  storey 1. houses, each with min 1 parking space on site and 1 parking space in shared parking. The houses will also feature their own private outdoor space.
- 2. Four lots (11-14) 2 bedroom houses at approximately 1,100 SF. They will be single storey houses, each with 1 parking space in the shared parking, 1 car detached garage and their own private outdoor space.
- 3. Seven lots (1-6 & 19) 2 bed + den houses at approximately 1,200 SF. They will be single storey houses, each with 2 parking spaces on site.
- 11,400 SF shared park land with access to houses. This space will feature new trees, pathways and other 4. landscaping with access to the existing pathway on easement which is used by the public to walk up the hill.
- 5. Fire access lane to enable fire truck access to the site with no need for a turn around. This access will include a locked gate to maintain security to the site. This lane would not be useable by the residents or public and would only be used in an emergency. This access was designed in conjunction with the local fire chief.
- 6. Garbage and recycling area. This space is located to maximise ease of use for the residents whilst also being hidden from view from the entrance to the site and neighbouring residents.
- Shared parking for residents and guests with stepped retaining walls. 7.
- 8. Rideshare parking at the entrance to the site.

#### Site Design and Road Access

There were many schematic designs to the site prior to the proposed scheme, including Suburbia, Typical Subdivision and 2 Pocket Housing Hybrid plans. The idea behind the design of the site was to minimise the roads and maximise the shared park space whilst also suiting the topography of the site and easements.

The proposed site plan features 2 roads from the existing Neptune Road. The first runs towards the south for 8om at 6m width to access the lots 1-10 with a turning area at the end. This road also connects via pathway to the existing path easement which runs east-west up the hill. The parking is all off-road and well spaced with good access to each house. There are to be additional trees and landscaping to create a functional yet aesthetically pleasing space.

The second road runs east along the site boundary and curves to a turning area at the shared park. We opted for having the road along the boundary to space the proposed houses away from the neighbouring residents and create some breathing space between neighbourhoods. The curved parking along this road is one of the main features of the site and creates functional parking and access to the park and fire access whilst also creating a sophisticated, curved retaining wall which steps back up the hill.

The two roads are spaced away from each other and from existing entrances to neighbouring properties. This therefore creates comfortable access to and from the site with good visibility whilst not impeding on the functionality of the existing turning area.

#### House location and Orientation

The proposed houses are split into 3 groups. The first are the 'premium' lots (Lots 1-6) which are located along the west boundary with large lot sizes and a generous 5m spacing between houses. These houses feature fantastic views across Kelowna, whilst also optimizing passive solar gains.



The second group of houses (Lots 7-10) run adjacent to the 'premium' lots. These houses would be slightly taller than the first group enabling views over and between the opposite houses toward Kelowna. These houses have 4m spacing, comfortable private outdoor space and very good access to the adjacent shared park.

The third group is the 'pocket housing' which has no direct road access but very good access to the shared park space. These houses each have their own garage which is located alongside the shared parking where they also have their own parking space. The houses are orientated to provide views across the shared park with offset positions to create good aesthetical proportions along the south side of the park. The houses each have their own private outdoor space.

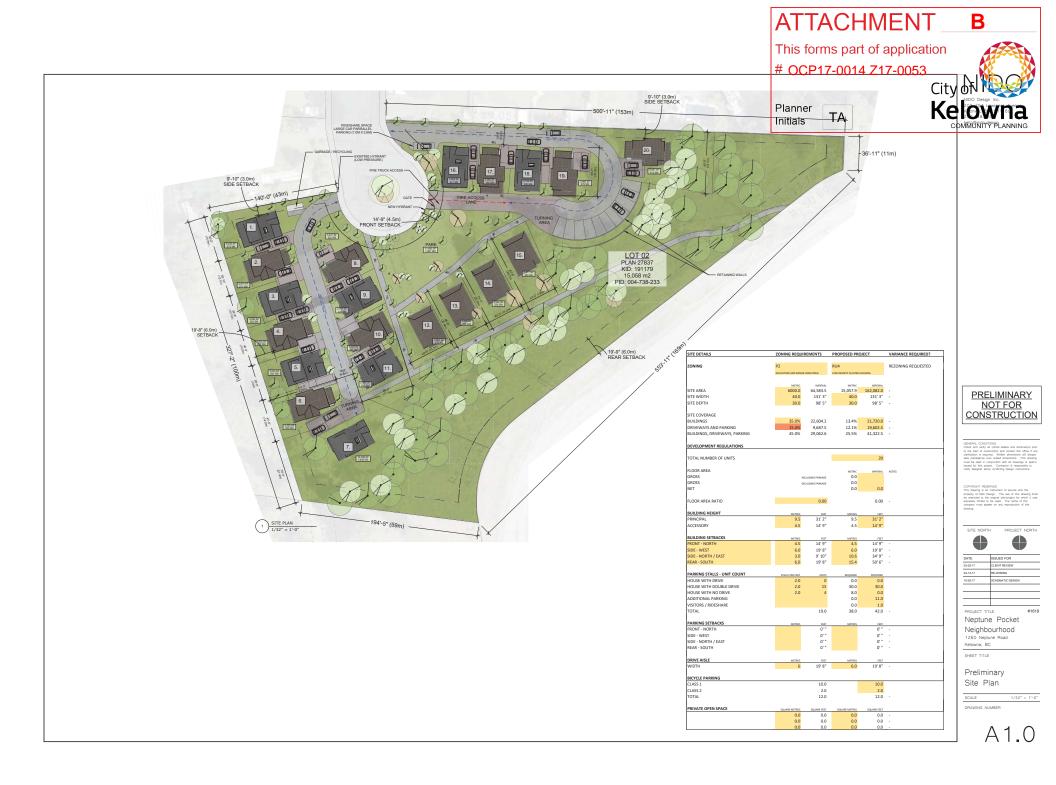
The fourth group of houses is along the north side of the site. As mentioned previously, these houses were spaced away from the existing neighbours to create a comfortable site line which does not overlook the neighbours. The houses are angled for good aesthetics and solar access whilst also providing views of the shared park. The houses each have their own onsite parking and private outdoor space with very good access to the shared park.

### **House Style**

The three house designs are to be relatable to each other in terms of style, materiality and colour. They will each have a cottage / rancher style with pitched vaulted roofs, country style windows and large porches to overlook the park or views of Kelowna. The style of the houses will be more traditional to the Kelowna region with traditional cladding and trim and proportional eaves to the roof, which is reminiscent in the neighbouring houses. However, the houses will feature high performance building methods and materials. This, therefore would provide modern high performance homes with traditional style.

Regards,

Brett Sichello Registered Building Designer B. Arch. Sci., LEED® AP, AScT Certified Passive House Designer













CITY OF KELOWNA

# MEMORANDUM

**Date:** July 26, 2017

**File No.:** Z17-0053

**To:** Urban Planning Management (TB)

From: Development Engineering Manager (JK)

**Subject:** 1260 & 1235 Neptune Rd

P2 to RU4

The Development Engineering Department has the following comments and requirements associated with this application to rezone the subject property from P2 (Educational & Minor Institutional) to RU4 (Low Density Cluster Housing) to facilitate the development of a "pocket neighbourhood".

The road and utility upgrading requirements outlined in this report will be a requirement of this development.

The Development Engineering Technologist for this project is Jason Ough

## 1. Domestic Water and Fire Protection

- a) This development is within the service area of the Black Mountain Irrigation District (BMID). The developer is required to make satisfactory arrangements with the BMID for these items. All charges for service connection and upgrading costs, as well as any costs to decommission existing services are to be paid directly to BMID.
- b) The developer must obtain the necessary permits and have all existing utility services disconnected prior to removing or demolishing the existing structures.

## 2. <u>Sanitary Sewer</u>

- a) 1260 & 1235 Neptune Rd are currently serviced with 100mm sanitary services. 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 his cost, will arrange for the removal and disconnection of the existing services and the installation of one new larger service if necessary. Any service improvement and decommissioning works may be included in an offsite servicing design package submission including an estimate for bonding purposes.
- b) 1260 & 1235 Neptune Rd are currently within Sanitary Sewer Connection Area # 23. The developer will be responsible to pay in full, the Connection Area charges for this development. The charge is currently set at \$2045.50 per Equivalent Dwelling Unit (EDU). The calculation of this fee is as follows: 19units X \$5,501.67= \$104,531.73



### 3. Storm Drainage

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.

### 4. Road Improvements

- a) The applicant must have a civil engineering consultant submit a design for roadway improvements along the entire frontage of the subject properties. This will include sidewalk, LED street lighting, landscaped boulevard, storm drainage system, relocation or adjustment of utility appurtenances if required to accommodate the upgrading construction. An estimate for public side works will be required, for bonding purposes, to be submitted by the applicants civil engineering consultant.
- b) Design and construct sidewalk extension to new pedestrian crosswalk at Mercury road.
- c) Maximum width of proposed accesses will be 6m.

#### 5. Road Dedication and Subdivision Requirements

- a) The subject properties are required to be consolidated as part of this development project.
- b) Provide ROW access agreement for a public walkway through this development. This public access walkway must remain unobstructed.
- c) Grant statutory rights-of-way if required for utility services.

#### 6. Electric Power and Telecommunication Services

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.

#### 7. Design and Construction

- a) Design, construction supervision and inspection of all off-site civil works and site servicing must be performed by a Consulting Civil Engineer and all such work is subject to the approval of the City Engineer. Drawings must conform to City standards and requirements.
- b) Engineering drawing submissions are to be in accordance with the City's "Engineering Drawing Submission Requirements" Policy. Please note the number of sets and drawings required for submissions.
- c) Quality Control and Assurance Plans must be provided in accordance with the Subdivision, Development & Servicing Bylaw No. 7900 (Part 5 and Schedule 3).



- d) A "Consulting Engineering Confirmation Letter" (City document 'C') must be completed prior to submission of any designs.
- e) Before any construction related to the requirements of this subdivision application commences, design drawings prepared by a professional engineer must be submitted to the City's Development Engineering Department. The design drawings must first be "Issued for Construction" by the City Engineer. On examination of design drawings, it may be determined that rights-of-way are required for current or future needs.

### 8. Servicing Agreements for Works and Services

- a) A Servicing Agreement is required for all offsite works and services on City lands in accordance with the Subdivision, Development & Servicing Bylaw No. 7900. The applicant's Engineer, prior to preparation of Servicing Agreements, must provide adequate drawings and estimates for the required works. The Servicing Agreement must be in the form as described in Schedule 2 of the bylaw.
- b) Part 3, "Security for Works and Services", of the Bylaw, describes the Bonding and Insurance requirements of the Owner. The liability limit is not to be less than \$5,000,000 and the City is to be named on the insurance policy as an additional insured.

### 9. <u>Other Engineering Comments</u>

- a) Provide all necessary Statutory Rights-of-Way for any utility corridors as required.
- b) If any road dedication affects lands encumbered by a Utility right-of-way (such as Fortis, etc.) please obtain the approval of the utility prior to application for final subdivision approval. Any works required by the utility as a consequence of the road dedication must be incorporated in the construction drawings submitted to the City's Development Manager.

#### 10. <u>Geotechnical Report</u>

- a) Provide a comprehensive 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 development.
  - Overall site suitability for development.
  - Presence of ground water and/or springs.
  - Presence of fill areas.
  - Presence of swelling clays.
  - Presence of sulphates.
  - Potential site erosion.
  - Provide specific requirements for footings and foundation construction.

- Provide specific construction design sections for roads and utilities over and above the City's current construction standards



#### 11. **Development Permit and Site Related Issues**

Access and Manoeuvrability

- Ensure acceptable turning movements onsite for MSU design vehicle. (i) (ii)
  - Any bicycle racks included with this development shall be onsite.

#### 12. **Charges and Fees**

- Development Cost Charges (DCC's) are payable. a)
- Fees per the "Development Application Fees Bylaw" include: b)
  - Street/Traffic Sign Fees: at cost if required (to be determined after i) design).
  - Survey Monument Fee: \$50.00 per newly created lot (GST exempt). ii)
  - iií) Engineering and Inspection Fee: 3.5% of construction value (plus GST).

Jason/Ough **Development Engineering Technologist** 

Development Engineering Manager (initials)