



Igor Nardin Architect AIBC

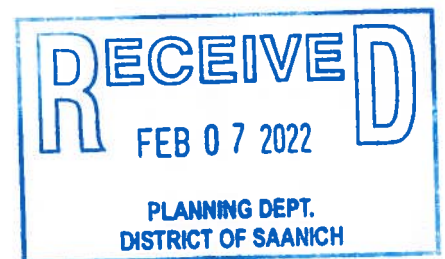
## Sustainability Statement

**Parcel Address:** 4079 Quadra Street, Saanich, BC

**Proposed Development:** Mixed-Use (Commercial and Residential Building)

**Applicant:** RW(Bob) Wall Ltd.  
Unit 3 – 1588 Boundary Crescent  
Nanaimo, BC V9S 5K8

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## DESIGN RATIONAL

### Introduction

The proposed development consists of a Mixed-Use Commercial and Residential building. A three-storey building is proposed consisting of a parking garage on the ground floor at grade, a medical clinic on the second floor and 4 residential units on the third floor.

### Context

The triangular shaped site is located at 4079 Quadra Street between Nicholson Street and Ian Street in the North Quadra area. The property sits on the east side of Quadra Street and is flanked to the north by a 1 storey multi tenanted commercial building, to the east and south by the backyards of 1 or 2 storey single family residential homes located on Tuxedo Drive and to the west by 2 storey single family residential homes.

### Site Design

The overall site plan is based on The Corporation of the District of Saanich Design Guidelines. The medical building addresses the primary road – Quadra Street and is centered on the site, with its main front façade addressing Quadra Street. Vehicular access is located at the north end of the site and screened from the commercial and residential neighbours. The mixed-use building set back from street allows for a communal sitting area which is visually and physically accessible along the Quadra Street frontage and from the exterior parking area located north of the building. Pedestrian access point is proposed along Quadra Street for the main entry. Sitting areas will provide for accessible pedestrian movement and amenities, including rest areas, landscape features, benches and various walkways that serve to safely navigate the site. Attention has been taken to manipulate the building location and design to accommodate the desire to have minimum changes in grades at all points, thereby allowing for accessibility for seniors and the physically challenged. Recessed residential unit balconies are situated away from neighbouring residential lots and face north and west.

Full time electronic security and surveillance will be provided on site, however various other CPTED initiatives have also been put in place. The entire property will be well lit with street lighting, building lighting and bollards. Visual access to all outside areas from within the building, security cameras, as well as, avoiding deep indentations and wells, in the design of the building further adds to providing a secure environment.

Vehicular access is consistent with governing engineering practices and is aligned with roads and streets at right angles and in a visually accessible and safe manner. Slopes for parking areas will not exceed 5%. The site is on a transit route with a bus stop located just south of the property and north of Ian Street.

Bicycle rack/parking is provided near the main entry of the building and is integrated into the architecture and landscaping, allowing for security, visibility, and ease of access. A secure interior bicycle parking room has also been incorporated.





## Architectural Character

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The mixed-use building is designed to relate primarily to the principal road – Quadra Street allowing for a high degree of building and site transparency. The building form, proportion and fascia treatment complements the existing residential context and is sympathetic in scale and in character to the existing build environment. The building has a contemporary and commercial aesthetic. The building consists of 3 standard distinctive architectural parts: a mono sloped roof with wide overhangs, a corner balcony/entry canopy feature, providing shading and cover and subtle elevational compartmentation elements using changes of material and canopies to better integrate with the scale of the neighbouring context.

The roof feature will consist of Hardie Fascia and will be trimmed with prefinished metal flashing and wood “look” metal soffits. The building consists of a ground floor plinth of cultured stone, and a combination of Hardie Panel with exposed fasteners with aluminum reveals and corrugated metal siding on the 2<sup>nd</sup> and 3<sup>rd</sup> floors. Glazing will comprise of commercial storefront entries, residential metal door entries and vinyl windows. Large expanses of glazing will provide light and transparency into the interior. The residential units have been oriented towards quadra street and the parking area to the north.

## Sustainability Initiatives

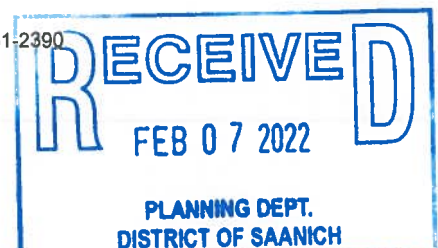
Our involvement in a variety of small and large projects, non-profit and for profit and a conscientious approach to design has served to cement our belief in the importance of sustainable and green initiatives. We are incorporating the following features in this project:

### Mechanical:

1. Water use reduction:
  - a. All toilets will be 4.8 L/flush .
  - b. Lavatories will use 5.7 L/min (1.5 gpm) flow restrictors.
  - c. Showers heads will use 7.6 L/min (2 gpm) flow restrictors.
  - d. Use of motion sensed faucets, flush valves to conserve water.
2. Energy efficiency:
  - a. High efficiency condensing boilers will be utilized for heating and domestic hot water.
  - b. Exhaust from all washrooms will be centralized and air to air heat recovery employed to transfer recovered heat to the incoming makeup air to the building.
  - c. All heating pumps will utilize variable frequency drives.
  - d. Building envelope and mechanical equipment efficiency will meet the latest ASHRAE. This, inherently, will provide a much higher performance building than previously engineered.
3. All refrigeration systems will utilize CFC & HCFC free refrigerants.
4. Outdoor air ventilation to all spaces will meet or exceed the latest ASHRAE requirements.
5. Commercial areas will contain inoperable windows to maintain HVAC balance and minimize energy use.

### Electrical:

1. Energy efficiency:
  - a. Commercial area lighting will utilize high efficiency T5 fluorescent lighting. LED lighting will be utilized where cost effective.





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- b. Occupancy sensors will be utilized for common area spaces, where appropriate, to turn lighting on and off.
  2. Exterior lighting:
    - a. Lighting fixtures will utilize "dark sky" design to avoid light pollution.
    - b. Exterior lighting control will utilize daylight sensors to turn lights on and off.

#### Architectural:

1. Higher density vs. lower coverage provided, thereby promoting open space.
2. Building Siting - Use existing grades and minimize transfer of soil off site.
3. Reducing the amount of asphalt and surface water run-off.
4. Storm water quantity control will utilize infiltration back into the ground where possible.
5. Drought-tolerant, and indigenous natural plant material to minimize irrigation.
6. Permeable paving, rain harvesting/gardens and bioswales for enhanced stormwater management and to promote the native habitat. Extent to follow at BP submission
7. Build in durable renewable materials.
8. Sealed thermal low e glazing.
9. Well-insulated building design practices.
10. Shading devices.
11. Incorporate DDC systems to monitor and schedule mechanical and electrical systems.
12. Naturally, ventilated ventilation systems.
13. Use of lighter more reflective surface materials on walls and roof to minimize heat gain.
14. Environmentally friendly materials, adhesives and paints.
15. Max. 40% glazing.
16. Solar heat gain reduction thru use of large overhangs and shading devices.
17. Access to outdoor spaces (common sitting areas) for fresh air, sunshine and study-proven improved health benefits
18. Washrooms with showers to promote alternative transportation (cycling, running, walking).
19. Car-charging station to promote alternative energy vehicles. Location to follow at BP Submission.
20. Bicycle parking to promote alternative transportation.

#### Landscape Design Rational

Prepared by Victoria Drakeford Landscape Architect

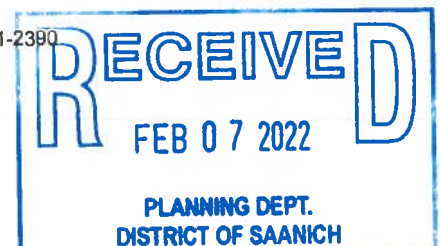
#### Introduction

The site is bounded by Quadra Street along the south west, a residential area to the East and commercial and residential site to the north. The project outdoor space consists of three areas:

- south west facing streetscape, buffer on the east property line,
- buffers surrounding the building on the north and east property line
- amenity area with pergola and seating in the south corner

#### Quadra Streetscape/Tree Planting

The planting scheme along Quadra is responding to the many large Garry Oaks that are common throughout the adjacent neighbourhood. On private property the Oaks will be under planted with low growing native plants typically found associated with the Garry Oak Meadow ecosystem. These plants





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have been selected to be evocative of a meadow. It is not the intent to reproduce a Garry Oak Meadow. The plants are a mix of native grasses and perennials which are tolerant of the dry, sunny exposure of the streetscape. On the City Boulevard turf grass will be planted. Maples, Flowering Dogwoods, Persian Ironwoods, Snowbell trees and Serviceberries, in addition to the Oaks, contribute to the biodiversity on the site. Plants have been placed to screen the parking lot along Quadra Street.

#### **Buffer: North and East of the site**

On the East and North side of the building a Portugal Laurel (evergreen) hedge with Flowering Dogwoods and Persian Ironwoods will screen the parking lot and the building from the neighbouring properties. The proposed trees will be placed to avoid the canopies of the neighbouring trees.

All plants have been selected for their wildlife value, hardiness and a tolerance to drought.

#### **Pedestrian Circulation/Spaces:**

Pedestrians enter the site in several places:

- a wide path leads into the site from Quadra Street directly into the main entrance of the building
- secondary paths allow people to easily access the main entrance from different directions. There are bike racks and a bench tucked into the planting at the main entry. The plants soften and screen the parking lot on the north end of the site by the main entry.
- At the south end of the site an entrance way threads through the planting to access the residential suites and a west facing vine covered pergola.
- The pergola, and the benches, are screened from the street by wood slat fence panel placed to the south and partially to the west. There will be filtered views in and out of the site in this area.
- The hard surfaces will be a combination of large and small precast concrete pavers and These spaces will be lit by bollard lighting.

