

CORPORATION OF THE TOWNSHIP OF ESQUIMALT

Municipal Hall, 1229 Esquimalt Road, Esquimalt, B.C. V9A 3P1 Telephone (250) 414-7100 Fax (250) 414-7111

DRC Meeting: February 12, 2020

STAFF REPORT

DATE: February 6, 2020

TO: Chair and Members of the Design Review Committee

FROM: Trevor Parkes, Senior Planner

Bill Brown, Director of Development Services

SUBJECT: Rezoning Application – 876 Dunsmuir Road

PID 001-586-971, Lot 77, Section 11, Esquimalt District, Plan 265

RECOMMENDATION:

That the Esquimalt Design Review Committee [DRC] provide staff and Council with comments on the proposed redevelopment of 876 Dunsmuir Road, to allow six (6), two-bedroom strata dwelling units in a stacked townhouse style of building; and

The Esquimalt Design Review Committee [DRC] recommends to Council that the application for a rezoning, authorizing six (6) townhouse dwelling units as sited on the survey plan prepared by J.E. Anderson and Associates, stamped "Received December 9, 2019" and incorporating the height and massing consistent with the architectural plans provided by Victoria Design Group, stamped "Received December 9, 2019", detailing the development proposed to be located at 876 Dunsmuir Road [PID 001-586-971, Lot 77, Section 11, Esquimalt District, Plan 265], be forwarded to Council with a recommendation to either approve, approve with conditions, or deny the application; and provide reasons for the recommendation.

BACKGROUND:

Purpose of the Application

The applicant is requesting a change in zoning from the current Two Family Residential [RD-1] zone to a Comprehensive Development District zone to accommodate the proposed six (6), two bedroom, strata dwelling units, to be built in a single, stacked townhouse building on the subject property.

The existing house has been demolished and a new building containing the six dwelling units is proposed to be constructed. The Official Community Plan 'Proposed Land Use Designation' for this area is "Townhouse Residential". Should the rezoning be approved, the form and character of the buildings and landscaping would be controlled by a Development Permit that would be considered by Council at a future date.

Evaluation of this application should focus on issues relevant to zoning such as the appropriateness of the proposed height, density and massing, proposed unit sizes, siting, setbacks, lot coverage, useable open space, how the building relates to adjacent and surrounding sites and whether the proposed uses are appropriate and consistent with the overall direction contained within the Official Community Plan.

Context

Applicant/Owner: Jim Penner, 0795531 B.C. Ltd., Inc. No. BC0795531

Property Size: Metric: 668 m² Imperial: 7190 ft²

Existing Land Use: Vacant Land [Formerly a Two Family Dwelling]

Surrounding Land Uses:

North: Two Family Residential [RD-1] **South:** Two Family Residential [RM-4]

West: Single Family Residential with Suite [RD-1] **East:** Single Family Residential with Suite [RD-3]

Existing Zoning: Two Family Residential [RD-1]

Proposed Zoning: CD [Comprehensive Development District]

Present OCP Designation: Low Density Residential

Proposed OCP Designation: Townhouse Residential [no change required]

Comments From Other Departments

The plans for this proposal were circulated to other departments and the following comments were received by the DRC submission deadline:

Building Inspection: No concerns. Construct to current BC Building Code and Municipal Building Code Bylaw, 2002, No. 2538. Subject to code and bylaw review at time of building permit application.

Project requires the services of a BC Architect.

Engineering Services: Engineering has completed a preliminary review of the proposed development at 876 Dunsmuir Road. The developer should be aware that they may be required to provide Works and Services up to the road centre line. At a minimum new curb, gutter and along the frontage of the proposed development maybe required. The development is to have sewer, drain, catch basin and water service connections, as well as underground hydro, telephone, and cable. Additional review and comments will be provided upon receipt of detailed engineering drawings. All proposed Works and Services shall be as per Bylaw, 1997, No. 2175. The applicant is responsible for retaining the services of qualified professional for the design and construction supervision of all Works and Services, including construction costs, engineering fees, administrative fees and as indicated in Bylaw No. 2175.

Fire Services: Sprinklers will be required for this building as per Building Regulation Bylaw 2017, No. 2899.

Parks Services: Tree protection must be erected as needed in an effort to protect the trees located on the neighbouring properties.

Zoning

In keeping with other townhouse projects, the proposed Comprehensive Development District zone would contain the following uses: townhouse residential and home occupation.

Density, Lot Coverage, Siting and Setbacks: The following chart compares the setbacks, lot coverage and floor area ratio of this proposal with the requirements of the RM-3 [High Density Townhouse Residential Zone]:

| | RM-3 [High Density Townhouse Residential] | Proposed CD Zone 876 Dunsmuir Road |
|--|---|--|
| Floor Area Ratio [F.A.R.] | 0.60 | 0.65 |
| Lot Coverage | 25% | 37% |
| Setbacks Front (Dunsmuir Rd) Rear (NorthWest) Side (SouthWest) Side (NorthEast) Building Height | 7.5 m 7.5 m 4.5 m 4.5 m 9.0 m | 3.0 m [First Storey Deck/ Stairs] 13.3 m 3.0 m 1.85 m 8.9 m |
| Off Street Parking | 2 spaces/ dwelling unit | 1.15 spaces/ dwelling unit, 7 parking spaces [1 dedicated as visitor parking] |
| Usable Open Space | 50.1 m ² / 668 m ² [7.5% of the area of the parcel] | 0 m ² [0%] conforming to terms of Zoning Bylaw, 1992, No. 2050. A 35.0 m ² rain garden is proposed in northeast corner of lot |

The F.A.R. of the proposal at 0.65 is greater than the 0.60 F.A.R. permitted in the Multiple Family Residential [RM-3 - high density townhouse / low density apartment] zone. The Official Community Plan allows for consideration of up to 0.70 F.A.R. for Townhouses. This parcel is in an area designated for Townhouse Residential on the 'Proposed Land Use Designations Map'.

The proposed Lot Coverage at 37% is notably greater than the maximum 25% permitted in the RM-3 zone.

This proposal requires the significant reduction to the front setback to 3.0 metres (for the decks and stairs), from the 7.5 metre setback requirements of the RM-3 zone. Staff note that the proposed reduction to the Front Setback would position the building in a manner notably inconsistent with other buildings on this section of Dunsmuir Road. Adjacent buildings are setback at least 7.5 metres from the Dunsmuir Road Front Lot Line which would result in this building intruding into the established development pattern of this block. Proposed side setbacks are also reduced from the RM-3 zone standard in this proposal. Rear setback for the proposed building exceeds the established minimums primarily to accommodate all the required parking for the building resulting in a significant amount of the site being impermeable or having limited permeability.

The height of the proposed building at 8.9 metres is just below the maximum 9.0 metres provided in the RM-3 zone. Both lower floor units are partially located below grade thereby exempting these spaces from the FAR calculation and mitigating the overall height of the building.

Staff note that a byproduct of this design approach is that grade level windows on both the southwest and northeast side elevations offer limited light penetration, particularly when considering the proposed landscaping abutting these openings and that there are no openings

along the rear wall of the lower floor units. The front [southeast] walls have both a glazed door and large window offering natural light into the lower floor units but direct light penetration is interrupted by the overhanging decks of the first strorey units above.

The 'Useable Open Space'; as defined in the zoning bylaw, excludes areas used for front yards and parking, and areas with any dimension less than 6.0 metres. This proposal's provision of small private patios and decks does not meet the 7.5 % Useable Open Space requirement contained in the RM-3 zone. There is however a small outdoor siting area (including a rain garden) proposed for the northeast corner of the site. As it measures approximately 3.0 metres by 11.7 metres, (about 35 square metres) it would not meet the definition of Useable Open Space but it could function as such. It is noteworthy that three different public parks are located within 300 metres of this site.

Parking and Maneuvering

There is one building with six, two-bedroom dwelling units being proposed. There are no garages however two spaces are located under the rear of the building. Seven parking spaces are being proposed at the rear of the site; all being full size spaces. Six of the spaces are being dedicated to units with the remaining space dedicated for visitors to the site. The applicant has committed to install Level 2, electric vehicle charging stations at each of the seven parking spaces.

Parking Bylaw 1992, No. 2011 requires the minimum width of a maneuvering aisle accessing a double bank of parking to be at least 7.6 metres where spaces are 2.6 metres wide. This standard is met in the proposed design but at a cost to permeable planting areas. Staff are of the opinion that consideration should be given to redesigning the parking area to accommodate sufficient planting area along to Rear Lot Line to support the inclusion of trees or hedging offering privacy and more substantial beautification of this space. The driveway is 3.0 metres wide and is located over a private easement serving the parcel to the northwest thereby predisposing the driveway to this side of the lot. Due to the depth of this lot, the fire department would not place a fire truck on the private property.

There is regular bus service in the vicinity with BC Transit route #15 on Esquimalt Road, and with route #25 passing on Dunsmuir Road. Car share vehicles are in the vicinity of the site should residents chose to secure memberships and the applicant has committed to provide transit passes, through the BC Transit EcoPass Program, for one year for each of the six units for use by residents.

This location is close to the Esquimalt Road which has bike lanes marked on the roadway. Common indoor bicycle racks for residents are proposed to be located on Level 1 of the building at the rear, which will offer easy access and modest security for bicycles. The applicant has committed to ensure that sufficient electrical outlets are installed in the bike room to allow for electric charging of not less than 10 bicycles simultaneously. No storage lockers are proposed in the building.

A report by Watt Consulting Group has been supplied to support this application [attached].

Official Community Plan (OCP)

This proposal complies with the 'Townhouse Residential' "Proposed Land Use Designation" [OCP Schedule B – attached].

The OCP supports the expansion of housing types in residential areas. The immediate neighbourhood contains a mix of single family, two-family, townhouse and multi-family housing types.

<u>Section 5 - Housing & Residential Land Use</u> contains policies that are intended to ensure that concerns such as tree protection, parking, traffic, noise, effects on neighbouring properties, and neighbourhood character are addressed.

- Policy Consider new townhouse residential proposals with a Floor Area Ratio of up to 0.70, and up to three storeys in height, in areas designated 'Townhouse Residential' on the "Proposed Land Use Designation Map", provided the design responds effectively to both its site and surrounding land uses.
- Policy Support the development of a variety of housing types and designs to meet the
 anticipated housing needs of residents. This may include non-market and market
 housing options that are designed to accommodate young and multi-generational
 families, the local workforce, as well as middle and high income households.

5.2 Low Density Residential Redevelopment

OBJECTIVE: Strive for redevelopment and infill development that improves and enhances the appearance and livability of neighbourhoods and the community as a whole.

 Policy - Proposed redevelopment or infill within present low density residential land use designated areas should be built to high quality design and landscaping standards and respond sensitively to existing neighbourhood amenities.

5.4 Affordable Housing

OBJECTIVE: To encourage a range of housing by type, tenure and price so that people of all ages, household types, abilities and incomes have a diversity of housing choice in Esquimalt.

 Policy - Encourage the provision of missing middle housing types such as two-unit dwellings (duplexes), townhouses and small lot infill as one avenue to address housing affordability.

11.4 Public Transit

OBJECTIVE: To encourage transit oriented development that takes advantage of the transit system and increases the use of the transit system.

 Policy – Support densification along frequent and regional transit routes. It should be noted the subject property is located on a local transit route but is in close proximity to frequent and regional routes.

13.3.6 Passenger Vehicle Alternatives

OBJECTIVE: To reduce impact of motor vehicles that derive energy from fossil fuels by increasing capacity for alternative fueling and sharing.

• Policy – Pursue the installation of electric vehicle charging capacity in new developments during the rezoning process.

Development Permit Guidelines

Should this application for rezoning be approved by Council approval of a Development Permit (DP) will be required prior to a building permit being issued. Accordingly, applicants are urged to consider the DP guidelines early in the process. Many DPA guidelines require that the zoning issues (useable open space, lot coverage, height, density, massing, siting, setbacks, parking, how the building relates to adjacent homes) and natural area / tree protection be considered in order to be able to fulfill the guidelines for a development site.

<u>OCP Section 23, DPA No.6: Multi-Family Residential Development Permit Area</u> establishes objectives for the form and character of multi-family residential development. As the Development Permit is not being considered at this time, it would be inappropriate to address many of the guidelines, with the following exceptions that are relevant to the discussion of zoning and parking issues:

23.5 Guidelines

- 1. The size and siting of buildings that abut existing single- and two-unit and townhouse dwellings should reflect the size and scale of adjacent development and complement the surrounding uses. To achieve this, height and setback restrictions may be imposed as a condition of the development permit.
- New buildings should be designed and sited to minimize visual intrusion on to the privacy of surrounding homes and minimize the casting of shadows on to the private outdoor space of adjacent residential units.
- 5. Surface parking areas in developments less than five storeys in height, will be situated away from the street and screened by berms, landscaping or solid fencing or a combination of these three.
- 9. Retention and protection of trees and the natural habitat is encouraged wherever possible.
- 10. Townhouses will be designed such that the habitable space of one dwelling unit abuts the habitable space of another unit and the common wall overlap between adjoining dwellings shall be at least 50 percent.
- 14. Provide for building occupants to overlook public streets, parks, walkways and spaces, considering security and privacy of residents.

The property is also included in the following OCP Development Permit Areas: Development Permit Area No. 1 – Natural Environment, Development Permit Area No. 7 – Energy Conservation and Greenhouse Gas Reduction, and Development Permit Area No. 8 – Water Conservation. Many of the DP area guidelines would be addressed at the Development Permit stage but the following are relevant to the discussion of zoning and parking areas, including in particular, the siting of proposed building.

<u>OCP Section 18 Development Permit Area No. 1 – Natural Environment</u> is designated for the purpose of establishing objectives for the protection of the natural environment, its ecosystems and biological diversity.

- <u>18.5.2 Natural Features</u> Natural features and areas to be preserved, protected, restored, and enhanced where feasible:
 - 4. Narrower manoeuvering aisles, fewer and smaller parking spaces can be considered where natural areas are being conserved.
- <u>18.5.3 Biodiversity</u> Landscaping features that will protect restore and enhance biodiversity. Where feasible:
 - 2. In residential locations plan for 'nature out front'; for new landscaping in front and exterior side yards use a variety of site-appropriate, native species; thereby contributing positively to pedestrian friendly urban streets, future greenways and habitat enhanced corridors.

- 9. Locate civil servicing pipes/lines under driveways or other paved areas to minimize tree root damage. (Note that the majority of trees have their roots in the top 0.6 m of the soil).
- 10. Design retaining wall spacing and landscape planting areas of sufficient width and depth to support plantings (eg. provide larger spaces for trees).
- 11. Support the daylighting of portions of the stormwater system for enhanced habitat.

<u>18.5.5 Drainage and Erosion</u> - Measures to control drainage and shoreline erosion. Where it is reasonable:

- 1. Preserve, restore and enhance treed areas. Trees are the most effective form of absorbent landscaping due to their extensive root zones and their ability to both absorb water from the soil and intercept precipitation on leaves, needles and branches. Consider that native conifers are well adapted to local wet winters.
- Reduce the impact of surges in stormwater on shorelines by designing on-site stormwater retention systems to contain the first 3 centimetres [1.25 inches] of precipitation on site, per precipitation event; and incorporating rainwater collection systems into roof design and landscaping.
- 4. Maximize the ratio of planted and pervious surfaces to unplanted surfaces, and design paved areas to direct water towards vegetated areas, to help reduce surface run off. Where paved surfaces are needed, intersperse with drought resistant vegetation and trees, to help absorb stormwater, provide shade and reduce the local heat island effect.

<u>OCP Section 24 - Development Permit Area No. 7 - Energy Conservation and Greenhouse Gas Reduction</u> - is designated for the purposes of energy conservation and greenhouse gas reduction.

24.5.1 Siting of buildings and structures

Where it is feasible:

- Orient buildings to take advantage of site specific climate conditions, in terms of solar access and wind flow; design massing and solar orientation for optimum passive performance.
- Build new developments compactly, considering the solar penetration and passive performance provided for neighbouring sites, and avoid shading adjacent to usable outdoor open spaces.
- 5. Strategically site buildings to sustain and increase the community's urban forest tree canopy cover.
- 6. Provide space for significant landscaping including varying heights of trees, shrubs and ground covers.

24.5.3 Landscaping

Where it is feasible:

2. Choose open space and landscaping over dedicating space to the parking and maneuvering of private motor vehicles.

3. Conserve native trees, shrubs and soils, thereby saving the cost of importing materials and preserving already sequestered carbon dioxide.

<u>OCP Section 25 - Development Permit Area No. 8 – Water Conservation</u> - is designated for the purpose of water conservation.

25.5.1 Building and Landscape Design

Where it is feasible:

4. Incorporate rain gardens into landscaping and direct rainwater toward vegetated areas.

<u>25.5.3 Landscaping – Retaining Stormwater on Site (absorbent landscaping)</u> Where it is feasible:

- Preserve and restore treed areas. Trees are the most effective form of absorbent landscaping due to their extensive root zones and their ability to both absorb water from the soil and intercept precipitation on leaves, needles and branches. Consider that native conifers are well adapted to local wet winters.
- 3. Avoid disturbing, compacting and removing areas of natural soil, as these are naturally absorbent areas.

Green Building Features

The applicant has completed the Esquimalt Green Building Checklist [attached].

Public Notification

As this is a rezoning application should it proceed to a Public Hearing, a notice would be mailed to tenants and owners of properties within 100m (328ft) of the subject property. One sign, indicating that the property is under consideration for a change in zoning, has been installed on the Dunsmuir Road frontage. This sign would be updated to include the date, time, and location of the Public Hearing. Additionally, notice of the Public Hearing would be placed in two editions of the Victoria News.

Applicant's neighbourhood meeting

The applicant has scheduled a public meeting on February 13, 2020 in order to comply with the public consultation procedures of Development Application Procedures and Fees Bylaw, No. 2791, 2012.

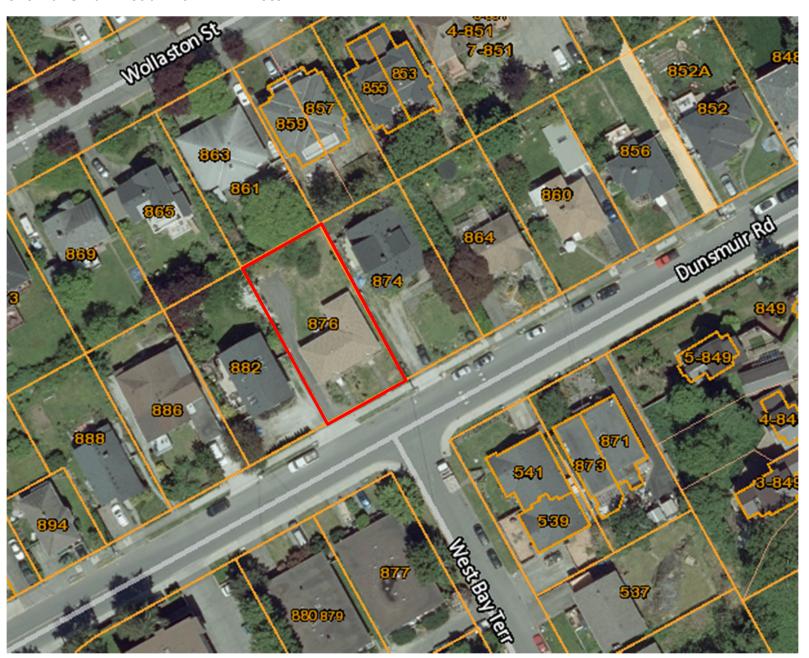
ALTERNATIVES:

- 1. Forward the application for Rezoning to Council with a **recommendation of approval including reasons for the recommendation**.
- 2. Forward the application for Rezoning to Council with a recommendation of approval including specific conditions and including reasons for the recommendation.
- 3. Forward the application for Rezoning to Council with a **recommendation of denial including reasons for the recommendation**.

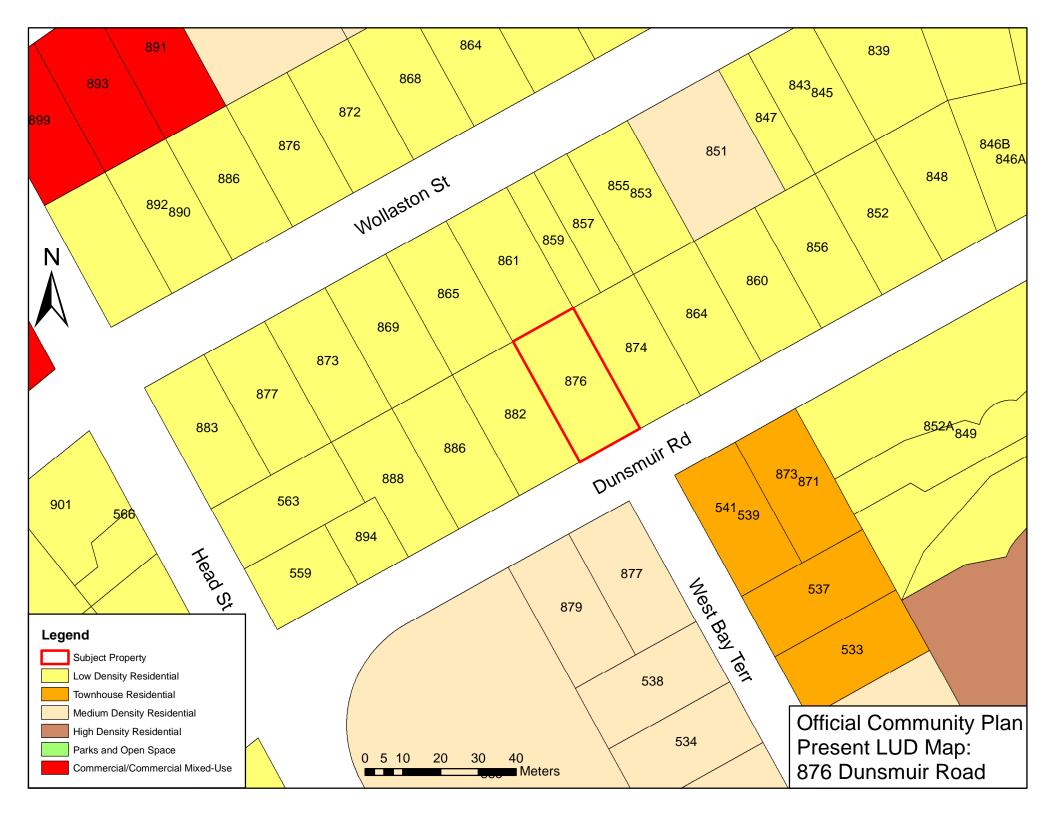


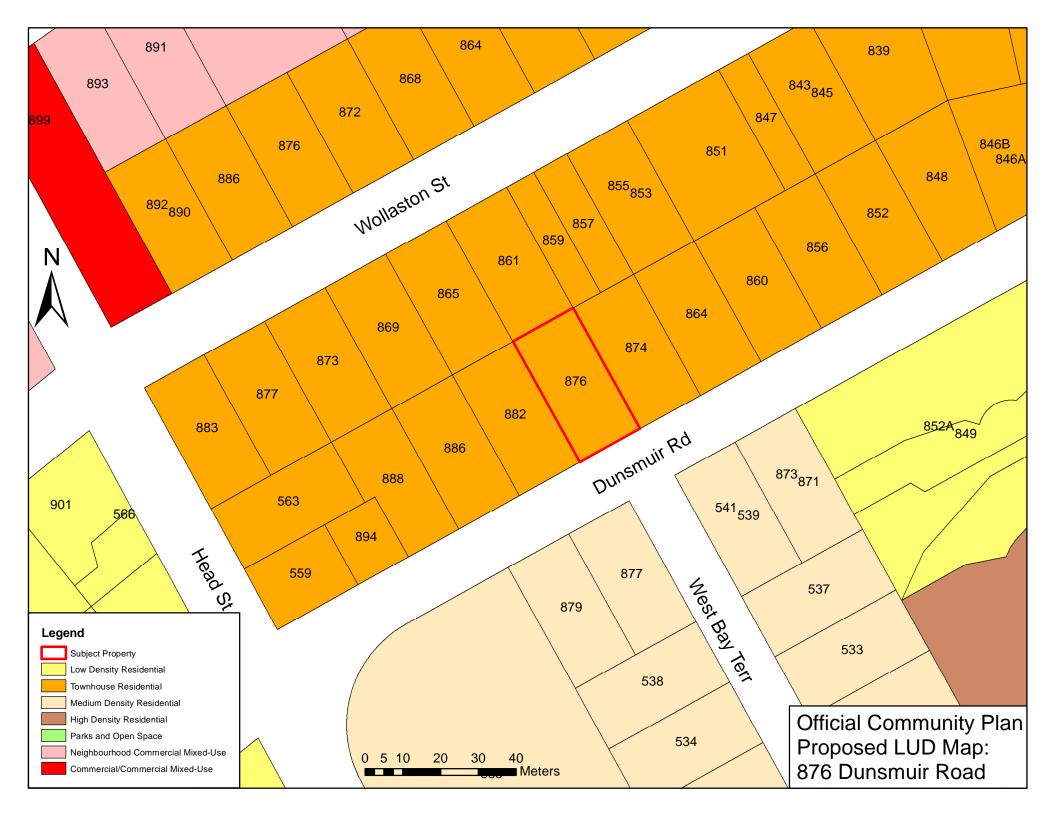


876 Dunsmuir Road - 2017 Air Photo











January 7, 2020

Dear Mayor and Council,

Project summary: 876/880 Dunsmuir

Together with the assistance of Architect Jack James and the Victoria Design Group I am submitting this re-zoning proposal for 876/880 Dunsmuir. The proposed project is 6 unit townhome strata, each with 2 bedrooms and 2 bathrooms. The units are diverse with 2 - 760 square feet units, 2 - 1,046 square foot units and 2 - 1,202 square foot units.

The building has been set closer to the front of the lot, so all parking can be at the rear of the property. The vehicle driveway is separated from bike and foot access by being routed on opposite sides of the building. Unit access is from stairs at the front. The units feature entry and great room exposure to the south and separate car and bike/foot paths. This places priorities of people ahead of cars.

The contemporary energy efficient design is replacing an older multi-renovated duplex that did not compliment the lot or the neighborhood. The lower, smaller units, will be an easy entry point to 1st time buyers and be attractive to investors for rental potential.

Input and Consultations

Meetings have taken place with Esquimalt staff and the West Bay Residents Association. Numerous improvements have been made to the original concept to reflect input from those consultations. The fire department has also reviewed the drawing and confirmed no re-routing of hydro would be required. An open house will be held on February 13 to receive more feedback from neighbors and residents groups.

Energy and Environment

Electrical Provisions – EV ready stations, Level 2 ("J plug"), will be provided at all seven parking spaces, with the 6 strata owned spots metered to the respective units. As well, the bike room will have capacity to charge at least 10 bicycles.

Landscaping and Drainage - One older, ailing tree was removed from the property. The development will include a substantial rain garden at the rear of the property which will accept drainage from the parking area. A second, smaller rain garden is planned for the front and roof water will be split among the gardens. 3 Dogwood trees will highlight the front and a Maple will anchor the rear rain garden. The plantings emphasize colors and selections that favor bees and hummingbirds, with over 50% native species. Permeable pavers are used to absorb much of the run off. The slopes have been engineered to feed run off to the rain gardens without mechanical lifting of water being required.

Energy consumption – an energy consultant has been engaged that will work with the builder to achieve a 10% savings over basic energuide benchmarks. This will be achieved upgrading windows, using small heat pumps with HRV's, additional attic insulation and substantial overhangs on south facing windows.

Parking

There are six car spaces, one for each unit, plus a visitor stall. There are 10 bike parking spots inside a secured room, with chargers.

Each unit will be supplied with a one year BC Transit Eco-pass program to encourage the use of public transportation. The front door is a 5 minute walk from a Route 15 stop and an 8 minute walk from the nearest route 24 stop.

Watt Consulting is conducting a parking transportation study, that will form part of this application to support the ratio of 7 parking spots with 6 strata units.

I am looking forward to advancing this project, I hope you are too.

Respectfully submitted,

Jim Penner 109-11 Cooperage Place Victoria, BC, R3L 0E4 jpenner@cpasonriver.com



Jack P James 3465 Fulton Road Victoria, BC V9C 3N2 P 250-216-6400







Green Building Checklist

Completed checklists form part of the application package reviewed by staff and ultimately, Council. New buildings and developments have impacts that last well beyond the construction period. Reducing the consumption of natural resources and increasing resilience to a changing climate are part of the challenge of building more sustainably. This checklist will help you identify and present how your project will help the Township meet its goals of becoming carbon neutral by 2050.

Applicant's Name 0795531 B.C. Ltd. (Jim Penner)

DEC 09 2019

Site Address 876/880 Dansmair Rend.

CORP. OF TOWNSHIP OF ESQUIMALT 29

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|-------|--|-------------------|
| 1.0 0 | Certification | /ERlease check |
| 1.1 | Step Code (Please indicate level) ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 | - 0 |
| 1.2 | EnerGuide rating | Appendix |
| 1.3 | LEED | |
| 1.4 | Passive House | |
| 1.6 | Living building | |
| 1.7 | Other (Built Green BC, R-2000, Green Shores etc.) | |
| 2.0 5 | Siting State of the state of th | |
| 2.1 | New buildings > 10 m ² are located > 20 m from the high water mark (HWM) of the Gorge Waterway. | Required |
| 2.2 | New buildings >10 m ² are located at least 10 m from the HWM from the outer coastline. | Required |
| 2.3 | Flood Construction Level has been established using sea level rise projections for the life of the building. | |
| 2.4 | Habitats of threatened and endangered species have been protected from impacts of development. | |
| 2.5 | Buildings are located within disturbed or developed areas. | 140 |
| 3.0 8 | Shoreline Protection Measures | |
| 3.1 | Landscaping within 10 m of the high water mark consists primarily of native plant and tree species. | Required |
| 3.2 | A conservation covenant has been signed to protect sensitive ecosystems within 10 m of the shoreline. | |
| 3.3 | At least one native tree capable of (now or in the future) supporting the nest of a Bald Eagle, Osprey etc. has been retained or is planted within 30 m of the high water mark (HWM). | |
| 3.4 | Removal of at least 30% of hardened shoreline and replacement with erosion control measures designed to improve the habitat of the shoreline. | |
| 3.5 | Light from building and landscaping does not cast over water. | |
| 3.6 | Wildlife habitat has been incorporated into seawall design. | |
| | | |

| 4.0 | Stormwater Absorption and Treatment | Please Check |
|-------|--|-----------------|
| 4.1 | An on-site stormwater retention system has been designed to retain at least the first 3 cm of rainfall from each rain event. | Append : |
| 4.2 | Stormwater will be treated for pollutants prior to release to the stormdrain system or to a surface water source. | |
| 4.3 | The project features a green roof. | |
| 4.4 | The total amount of impervious surface is not greater than 20%. | Append: |
| 5.0 \ | Vater Conservation | |
| 5.1 | The irrigation system has been designed to reduce potable water use by 50% compared to conventional systems. | |
| 5.2 | Waterless urinals will be used. | |
| 5.3 | Water features use re-circulating water systems. | |
| 5.4 | Rainwater will be collected for irrigation purposes. | |
| 5.5 | Toilet and kitchen sink drains are separate from other drains to the point of exit. | |
| 5.6 | An approved greywater reuse system will be installed. | |
| 6.0 T | rees/Landscaping | |
| 6.1 | The project is designed to protect as many native and significant trees as possible. | N. |
| 5.2 | There will be no net loss of trees. | Yes |
| 3.3 | Trees will be planted in soil volumes calculated to support the full grown size of the tree. | Yes |
| 3.4 | At least 25% of replacement trees are large canopy trees. | N. |
| 3.5 | Topsoil will be protected from compaction, or stockpiled and reused. | |
| 6.6 | Erosion control measures have been designed and installed to prevent erosion of topsoil. | NIA |
| 7.0 E | liodiversity (1997) | |
| 7.1 | New landscaping is predominantly native plant and tree species. | Yes |
| 7.2 | Invasive species will be removed from landscaped areas. | Yas |
| 7.3 | At least two biodiversity features have been incorporated into the new or existing landscaping (see section 18.5.3 of the OCP for ideas). | Yes |
| 3.0 E | nergy Conservation | |
| 3.1 | The building is pre-plumbed for solar hot water. | Required |
| 3.2 | Install a greywater heat recovery unit. | Yes |
| 3.3 | Passive cooling is supported through flow-through ventilation design, low E windows, solar shades, shade trees etc. | Yes |
| 3.4 | Passive heating is supported via building orientation, window design and thermal mass. | Yes |
| .5 | The building will have necessary structural support and conduit for Solar PV. | Yer |
| .6 | Obtain minimum of 20% of building energy consumption through community based or on-site renewables, such as district energy, waste heat recovery, geothermal, solar PV, solar hot water. | |
| .7 | Heating uses a low carbon heating source, such as air source heat pump. | Yes |

| 9.0 T | ransportation | Please Check |
|-------|---|-----------------|
| 9.1 | Building will have a car share or bus pass program for residents. | |
| 9.2 | Enhanced facilities for bicyclists such as showers, lockers, storage etc. | Yes |
| 9.3 | Charging infrastructure for E-bikes will be provided. | Yes |
| 9.4 | EV charging conduit supplied to 100% of residential parking units. | Yes |
| 9.5 | 30% of residential parking spaces include an electrical outlet or EV charging equipment. | Yes |
| 9.6 | Adequate space in the electrical system to provide EV charging for 100% of parking stalls. | Yes |
| 9.7 | For commercial buildings, Level 2 or Level 3 EV charging provided for employees and/or visitors. | |
| 10.0 | Materials/Waste | |
| 10.1 | Employs at least 3 advanced framing techniques described in the CHBA builder's manual to reduce unnecessary lumber and sheathing. | |
| 10.2 | Uses at least two materials which are certified for recycled content. | |
| 10.3 | Uses engineered structural material for two major applications (>10% of floor area). | |
| 10.4 | 5 major building elements made from >50% recycled content. | |
| 10.5 | Use foundation, floor and >50% of walls from existing building. | |
| 10.6 | Deconstruct at least 50% of existing building for material salvage. | |
| 10.7 | Use at least five major materials or systems produced in BC. | |
| 10.8 | Use certified sustainably harvested wood for one major structural or finishing application (eg framing, plywood, floors) | |
| 10.9 | Eliminate use of wood from threatened trees. | |
| 10.10 | Recycling area provided within residential suites. | |
| 10.11 | Recycling collection area for multi-family buildings. | |
| 10.12 | Pickup of compostables provided in multi-family units. | |
| 10.13 | Construction waste management practices used to reduce and separate waste and divert at least 50% from the landfill. | |

Please include a brief description of how this project contributes to a reduction in greenhouse gas emissions and moves the municipality closer to its ultimate target of becoming carbon neutral by 2050 (use next page if needed).

Township of Esquimalt Green Building Checklist Appendix

0795531 BC Ltd (Jim Penner) 876/880 Dunsmuir Road

I have commenced working with an experienced professional energy advisor, Brooke Gallupe. He has a history and references in Victoria, which support his credentials. Once a builder is selected, Brooke will be engaged again to confirm target achievability, objectives, standards, methods, and materials.

1.0 Certification

1.2 Energuide rating - Goal is -10% of standard, achieved by window upgrades, small heat pumps with HRV's, additional attic insulation, overhangs on south facing windows

4.0 Stormwater Absorption and Treatment

- 4.1 Gardens and medium shrubs are planned on both sides of the building that will absorb rain water
- 4.4 Permeable pavers will be installed in the driveway and parking areas

5.0 Water Conservation

Dual flush toilets, volume limiting shower heads

6.0 Trees/Landscaping

- 6.2 One large tree to be removed from back, replaced by a medium tree in the front
- 6.3 Yes, BCNLA stanards

7.0 Biodiverstiy

7.1 Yes, 50% native

8.0 Energy conservation - energy advisor to be engaged

- 8.2 Yes, heat exchanger coils in tub/shower drains
- 8.3 Yes, front tree will provide shades to large window/doors of lower unit, front balconies overhang lower units to provide shade to South facing window/patio doors. Upgraded windows.
- 8.4 Concrete steps and lower patio will retain heat
- 8.5 Yes, structural support and conduit roughed in
- 8.7 Individual heat pumps and HRV's provide heat control and circulation in each unit. Electric heat (in bathrooms) is supplementary only.

9.0 Transportation

- 9.2 Bike locker room
- 9.3 Bike locker room with electrical outlets
- 9.4, 9.5, 9.6 Electrical panel capacity and conduit roughed in to both parking areas, capacity for all

10.0 Materials/Waste

10.1 Trusses, ?, ?

10.2 Flooring, ?, ?

10.3 ??

10.4 ??

10.6 No, existing building includes hazardous materials (asbestos)

10.7??

10.9 emphasis on local materials, no mahogany or other threatened trees

10.10, 10.11 in suites and collection point

10.12 facility provided, collection by strata

10.13





876/880 DUNSMUIR ROAD

Parking Study

were fully

Author: Matthew Lilly

Timshor

Reviewer: Tim Shah, RPP, MCIP

Prepared for: Jim Penner (0795531 BC Ltd)

Our File:

2773.B01

Date:

January 23, 2020

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Victoria, BC V8T 1Z4

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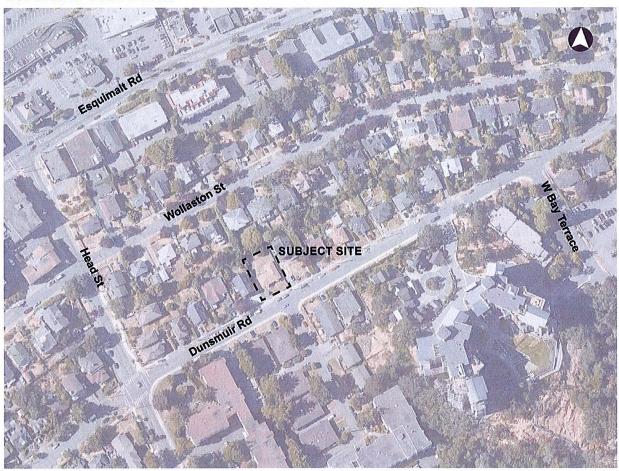
1.0 INTRODUCTION

Watt Consulting Group was retained by Jim Penner (0795531 BC Ltd) to conduct a parking study for the proposed townhouse development at 876/880 Dunsmuir Road in the Township of Esquimalt. The purpose of this study is to assess the adequacy of the proposed parking supply by considering parking demand at representative sites.

1.1 SUBJECT SITE

The proposed redevelopment is located at 876/880 Dunsmuir Road in the Township of Esquimalt and is currently zoned as RD-1, Two Family Residential (see **Figure 1**).

FIGURE 1. STUDY SITE





1.2 SITE CHARACTERISTICS & POLICY CONSIDERATIONS

The following provides information on the services and transportation options in close proximity to the site (see **Figure 2**).

COMMUNITY POLICIES

The Esquimalt Official Community Plan (OCP) contains a series of policies that provide direction on future planning and land use management within the Township.¹ Per Schedule B of the OCP (Proposed Land Use Designations), the subject site is designated as 'Townhouse Residential'.

Section 5.1 of the OCP states that the Township will "Consider new townhouse residential proposals with a Floor Area Ratio of up to 0.70, and up to three storeys in height, in areas designated Townhouse Residential on the Proposed Land Use Designation Map." Additionally, Section 5.4 of the OCP contains a policy that directs the Township to "Encourage the provision of middle housing types such as two-unit dwellings (duplexes), Townhouses and small lot infill as one avenue to address housing affordability."

Section 11 of the OCP (Transportation) and Section 13.3 (Reduction of Greenhouse Gas Emissions) contain a series of policies focused on promoting multi-modal and low-carbon transportation. The most relevant policies for the subject site are as follows:

- Support densification along frequent and regional transit routes.
- Consider prioritizing transit along frequent and regional transit corridors.
- Where feasible, improve the continuity of the bike network by linking existing and future bikeways and trails.
- Pursue the installation of electric vehicle charging capacity in new developments during the rezoning process.

SERVICES



The site is located less than 300m from the intersection of Esquimalt and Head Street where several retail stores including a Shoppers Drug Mart, a liquor store, and several small scale restaurants are located. Additionally, the development is within 1.5 kilometres of Esquimalt Village and 3 kilometres of downtown Victoria, allowing access to a number of services that residents may require.

¹ Township of Esquimalt (2018). Corporation of the Township of Esquimalt Official Community Plan. Available online at: https://www.esquimalt.ca/sites/default/files/docs/business-development/OCP/Esqimalt_OCP_2020-01-09.pdf





TRANSIT

The nearest bus stop to the development is under 100m (2-minute walk) away servicing Route 25 | Maplewood / Admirals Walk. This local route has service every 20 to 120 minutes, and travels between Admirals Walk Shopping Centre and Saanich Centre Via Downtown Victoria. Within 350m Northwest of the site on Esquimalt Road is an eastbound and westbound bus stop for the Route 15 | Esquimalt/UVic, servicing CFB Esquimalt to Downtown Victoria and up to the University of Victoria (UVic). This route is classified as a regional route and has a service frequency of 15 to 60 minutes.

BC Transit's Transit Future Plan identifies Esquimalt Road as a "Frequent Transit Corridor" with the goal of providing frequent service (15 minutes or better between 7am and 10pm, 7 days/week).² The improved transit travel times are achieved by having fewer stops, transit priority measures, and enhanced bus stop infrastructure. The subject site will benefit from frequent, reliable, and convenient transit service.

In addition to the above, the Township's OCP contains policy direction to enhance transit specifically along Esquimalt Road. Under Section 11.4 of the OCP, the following policies are identified:

- Consider the designation of Esquimalt Road as a future rapid bus route.
- Consider including transit priority measures including transit signal
 priority and queue jump lanes along Esquimalt Road as a way to ensure
 the transition from frequent transit to rapid transit can occur and transit is
 prioritized through the corridor.



WALKING

The trailhead for the Songhees/West Bay Walkway is within 200m of the site, providing excellent access to a 3 kilometre pedestrian trail terminating at the Johnson Street Bridge in Downtown Victoria. Additionally, Esquimalt Road provides a safe pedestrian environment with sidewalks on both sides and crosswalks at major intersections and mid-block locations. The walk score of the subject site is 59 allowing some errands to be accomplished on foot.



CYCLING

There are bike lanes present along Esquimalt Road providing a direct connection to downtown and the Galloping Goose Regional Trail. There is also access to the Esquimalt and Nanaimo [E&N] Rail Trail within 1 kilometre of the site providing direct multi-use trail access to View Royal and the West Shore Communities.

² BC Transit. (2011). Transit Future Plan Victoria Region | May 2011. Available online at: https://www.bctransit.com/documents/1507213421016

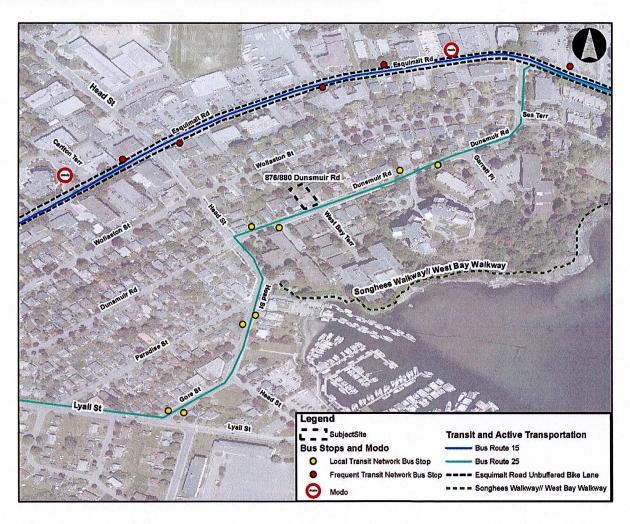




CARSHARING

Carsharing programs are an effective way for people to save on the cost of owning a vehicle while having access to a convenient means of transportation. The Modo Car Cooperative (Modo) is a popular carsharing service in Greater Victoria. In 2015, there were 23 cars and 800 members; as of June 2019, there were 82 Modo vehicles and 2,849 members across the Greater Victoria region, suggesting that Modo is growing in popularity. There are two Modo vehicles within 500m or a 10-minute walk of the subject site location, one at 826 Esquimalt Road and the other at Esquimalt Road and Carlton Terrace.

FIGURE 2. SITE TRANSPORTATION OPPORTUNITIES





1.3 **CURRENT LAND USE**

The development site is currently zoned as RD-1: Two Family Residential and has one singlefamily dwelling.

2.0 PROPOSED DEVELOPMENT

2.1 LAND USE

According to Schedule B (Proposed Land Use Designations) in the Township's Official Community Plan, the subject site is to be designated as "Townhouse Residential".3 The proposed development is a 2.5 storey townhouse development with six two-bedroom units. The units range in size from 71m²-118m² (760 sq.ft-1,271 sq.ft.).

2.2 PARKING SUPPLY

2.2.1 VEHICLE PARKING

The proposed resident parking supply is six spaces, which is one space per unit. One visitor parking space is also being provided. The six resident parking spaces will each have access to a Level 2 (240V) electric vehicle charging station.

2.2.2 BICYCLE PARKING

The proposed bicycle parking is 10 long term bicycle spaces provided in a secure indoor bicycle parking room. Each parking space will have access to an 110V wall outlet, which is intended to facilitate charging opportunities for electric bike owners.

3.0 PARKING REQUIREMENT

The Township of Esquimalt Parking Bylaw No. 2011 identifies that RM-2 (Townhouses) zoned lots must supply a minimum of 2.0 parking spaces per dwelling unit. Applied to the subject site, this results in a requirement of 12 off street parking spaces. Additionally, the Bylaw also requires that for every four spaces, one be reserved for visitors.

4.0 **EXPECTED PARKING DEMAND**

Expected parking demand for the site is estimated in the following sections to determine if the proposed supply will adequately accommodate demand. Expected parking demand is based on [a] observations of other townhouse sites in Esquimalt, Saanich, and Victoria and [b] research from past parking studies.

Parking Bylaw Consolidated 2019 April 23 rd.pdf

³ Township of Esquimalt (2018). Corporation of the Township of Esquimalt Official Community Plan. Available online at: https://www.esquimalt.ca/sites/default/files/docs/business-development/OCP/Esqimalt_OCP_2020-01-09.pdf Township of Esquimalt (1992). Corporation of the Township of Esquimalt Parking Bylaw, 1992, NO.2011. Available online at: https://www.esquimalt.ca/sites/default/files/docs/municipal-hall/bylaws/Bylaw 2011 -



4.1 RESIDENT PARKING DEMAND

Observations were conducted at 13 townhouse sites in the Township of Esquimalt, City of Victoria, and District of Saanich, representing a total of 113 units. A breakdown of each site and how it corresponds to the site location can be found in **Table 1**. Townhouse sites were selected based on four criteria, in the following priority order:

- 1. Proximity to Frequent Transit Network (FTN). The BC Transit Future Plan has designated Esquimalt Road as a FTN Corridor. This means that the area will receive reliable and frequent service (15 minutes or better between the hours of 7:00am and 10:00pm) seven days a week.⁵ Representative sites needed to be in proximity to the frequent transit network and were selected if they were either [a] on the FTN, [b] within 400m of the FTN or [c] within 800m of the FTN.
- 2. <u>Countable Parking Spaces</u>. The sites needed to have parking spaces that were visible and therefore countable. Many townhouse sites within the region have enclosed garages or gated underground parking, making counting difficult.
- 3. <u>Walk Score</u>. This is a tool that ranks the walkability of a location according to seven factors: Dining & Drinking, Groceries, Shopping, Errands, Parks, Schools, and Culture & Entertainment. It can be used to determine if a trip will require the use of a vehicle. While a number of the representative sites have higher walk score than the subject site, their transit service is comparable, which is a more important predictor of parking demand.
- 4. Floor Area. The representative sites needed to have units with comparable floor area in the range of about 65m² (700 sq.ft.) to 130 m² (1,400 sq.ft.).

Observations of parking utilization were conducted at representative sites during the peak period for residential land uses (typically weekday evenings). Observations were conducted during the following periods:

- Tuesday, December 17, 2019, from 9:00pm to 11:00pm
- Wednesday, December 18, 2019, from 9:00pm to 11:00pm

The peak observation for each site over the two observation periods was selected to calculate the parking demand (see **Table 2**). Parking demand ranged from 0.67 vehicles per unit to 1.43 vehicles per unit with an average parking demand of 1.03 vehicles per unit.

⁵ BC Transit. (2011). Transit Future Plan Victoria Region | May 2011. Available online at: https://www.bctransit.com/documents/1507213421016



TABLE 1. SUMMARY OF REPRESENTATIVE SITES

| Site | Units | Walk Score | Proximity to FTN |
|------------------------|-------|------------|------------------|
| 1550 North Dairy Rd | 11 | 51 | <400m |
| 2633 Shelbourne Street | 8 | 79 | ON FTN |
| 1827 Fairfield Road | 6 | 52 | ON FTN |
| 290 Superior Street | 7 | 87 | <800m |
| 229 Ontario Street | 13 | 82 | <800m |
| 245 Ontario Street | 9 | 82 | <800m |
| 242 Ontario Street | 9 | 82 | <800m |
| 730 Sea Terrace | 5 | 72 | <400m |
| 724 Sea Terrace | 24 | 67 | <400m |
| 771 Central Spur Rd | 7 | 73 | <400m |
| 773 Central Spur Rd | 5 | 73 | <400m |
| 775 Central Spur Rd | 7 | 73 | <400m |
| 785 Central Spur Rd | 28 | 73 | <400m |



TABLE 2. OBSERVATIONS OF REPRESENTATIVE SITES

| Site | Units | Observed Vehicles | Parking Demand (vehicles / unit) |
|------------------------------|-------|-------------------|-------------------------------------|
| 1550 North Dairy Rd | 11 | 15 | 1.36 |
| 2633 Shelbourne Street | 8 | 8 | 1.00 |
| 1827 Fairfield Road | 6 | 4 | 0.67 |
| 290 Superior Street | 7 | 7 | 1.00 |
| 229 Ontario Street | 13 | 13 | 1.00 |
| 245 Ontario Street | 9 | 9 | 1.00 |
| 242 Ontario Street | 9 | 10 | 1.11 |
| 730 Sea Terrace | 5 | 4 | 0.80 |
| 724 Sea Terrace ⁶ | 24 | 17 | 0.71 |
| 771 Central Spur Rd | 7 | 10 | 1.43 |
| 773 Central Spur Rd | 5 | 6 | 1.20 |
| 775 Central Spur Rd | 7 | 8 | 1.14 |
| 785 Central Spur Rd | 28 | 28 | 1.00 |
| | | Average | 1.03 |

4.1.1 ADJUSTMENT FACTORS

Observations are a useful method of assessing parking demand rates; however, there are limitations to this method. One of these limitations is that a resident(s) may not be present at the time of observation. This could be due to an evening/night shift at work, having a late night out and returning very late or the next morning, being out of town for business or holiday, or several other factors. As such, it can be expected that their vehicle would not be present at the time of observation.

To mitigate this factor, observations were conducted as late as possible and a 10% adjustment factor was applied to the data. This is in accordance with findings from a study commissioned by Metro Vancouver that recommended an adjustment factor of 10% when parking observations are conducted between 9:00pm and 10:30pm.⁷

⁶ This site was only observed once. It was added to the study after first round of data collection.

⁷ Metro Vancouver. (2012). The Metro Vancouver Apartment Parking Study, Technical Report. Available online at: http://www.metrovancouver.org/services/regional-planning/PlanningPublications/Apartment Parking Study TechnicalReport.pdf



Table 3 shows the difference between the observed parking demand and the adjusted parking demand rate, reflecting the 10% increase for "missed vehicles". The average observed demand rate increased from 1.03 to 1.14 vehicles per unit.

TABLE 3. ADJUSTED PARKING DEMAND AT REPRESENTATIVE SITES

| Site | Units | Parking Demand Rate (vehicles / unit) | Adjusted Parking Demand Rate (vehicles / unit) |
|------------------------|---------|--|--|
| 1550 North Dairy Rd | 11 | 1.36 | 1.50 |
| 2633 Shelbourne Street | 8 | 1.00 | 1.10 |
| 1827 Fairfield Road | 6 | 0.67 | 0.73 |
| 290 Superior Street | 7 | 1.00 | 1.10 |
| 229 Ontario Street | 13 | 1.00 | 1.10 |
| 245 Ontario Street | 9 | 1.00 | 1.10 |
| 242 Ontario Street | 9 | 1.11 | 1.22 |
| 730 Sea Terrace | 5 | 0.80 | 0.88 |
| 724 Sea Terrace | 24 | 0.71 | 0.78 |
| 771 Central Spur Rd | 7 | 1.43 | 1.57 |
| 773 Central Spur Rd | 5 | 1.20 | 1.32 |
| 775 Central Spur Rd | 7 | 1.14 | 1.26 |
| 785 Central Spur Rd | 28 | 1.00 | 1.10 |
| | Average | 1.03 | 1.14 |

4.2 VISITOR PARKING

Observations of visitor parking were conducted at each of the representative sites and the average rate was 0.07 vehicles per unit. A study by Metro Vancouver concluded that visitor parking typically has a demand of less than 0.1 vehicles per unit. Findings from similar studies conducted by WATT in the City of Langford and the City of Victoria support these findings, and suggest that visitor parking is not strongly linked to location. A recently completed development near to this location, 826 Esquimalt Road, is a 30 unit condo building where the developer provided three visitor parking spaces, a rate of 0.1 spaces per unit.

⁸ Metro Vancouver. (2012). The Metro Vancouver Apartment Parking Study, Technical Report. Available online at: http://www.metrovancouver.org/services/regional-planning/PlanningPublications/Apartment Parking Study TechnicalReport.pdf
9 More information about the 826 Esquimalt Road Parking Study is available online at: https://esquimalt.ca.legistar.com/LegislationDetail.aspx?ID=3663&GUID=B883D3FE-6D24-4C02-9550-0339E2D847A4



Based on the available research and observational data, a rate of 0.1 is recommended. With six units and applying a visitor demand rate of 0.1, the recommended visitor parking is 1 space (0.6, rounded). The applicant meets this requirement.

4.3 SUMMARY OF EXPECTED PARKING DEMAND

Results from the observations of representative sites – using appropriate adjustment factors – indicate that resident parking demand will be approximately 1.14 spaces per unit (7 spaces, rounded). Residential visitor parking demand is expected to be no more than 0.1 spaces per unit (1 vehicle). Therefore, a total of 8 parking spaces are expected for the subject site, which is greater than the proposed parking supply by one space.

5.0 ON-STREET PARKING

On-street parking conditions were observed to determine parking availability around the subject site. Observations were completed on Dunsmuir Road, West Bay Terrace, Garret Place, and Head Street. Counts were conducted on the following dates:

- Wednesday, December 18, 2019 between 10:00pm and 10:30pm and
- Wednesday January 22, 2020 between 8:00pm and 8:30pm.

These two count times were intended to capture the on-street conditions when local residents would have the highest likelihood of being home and/or when visitors might be visiting the neighbourhood.

Peak utilization was observed on Wednesday January 22, 2020 with 36 parked vehicles observed out of 45 total spaces, an occupancy rate of 80%. This indicates that a large number of residents and/or visitors in the area are utilizing the available unrestricted on-street parking. A total of 9 spaces were unoccupied, which means that some parking is available during the peak time when residents are expected to be home and/or when visitors may be in the neighbourhood.

6.0 TRANSPORTATION DEMAND MANAGEMENT

Transportation demand management (TDM) refers to policies, programs and services that influence whether, why, when, where and how people travel.¹⁰ TDM initiatives typically aim to reduce SOV trips, parking demand, and encourage alternative travel options such as walking, cycling, public transit, and shared rides.

The Township of Esquimalt supports the development of TDM strategies as outlined in section 3.8 of the OCP.¹¹ The goal of these policies is to promote alternatives to SOV usage and reduce carbon emissions as well as increasing the density along transit corridors.

¹⁰ Definition based on Transport Canada, TDM for Canadian Communities, March 2011

¹¹ Township of Esquimalt. (2018). Official Community Plan, Section 3: Regional Context Statement. Available online at: https://www.esquimalt.ca/business-development/official-community-plan



6.1 SUBSIDIZED TRANSIT PASSES

As discussed in Section 1.2, the site has good access to transit and as the Transit Future Plan and OCP policies are implemented, transit service is anticipated to improve, which will make transit more appealing to future residents.

BC Transit currently offers the EcoPASS Program for New Developments, which is a program that provides Capital Regional District developers with a potential transit-oriented solution for parking variance requests. Under the EcoPASS Program, the occupants of a new residential, commercial or mixed-use development receive annual bus passes for a pre-determined number of years that are valid for use throughout the Victoria Regional Transit System. Each annual pass has a cost to the developer of \$1,000. The size and value of the TDM program is established by the municipal government, with a minimum required program value of \$5,000.

The applicant has confirmed that they are committing to this program and will provide each unit with an EcoPASS for one year. The provision of transit passes is anticipated to lower parking demand and a 10% reduction in resident parking demand would be supported. This would effectively reduce resident parking demand from 7 spaces to 6 spaces.

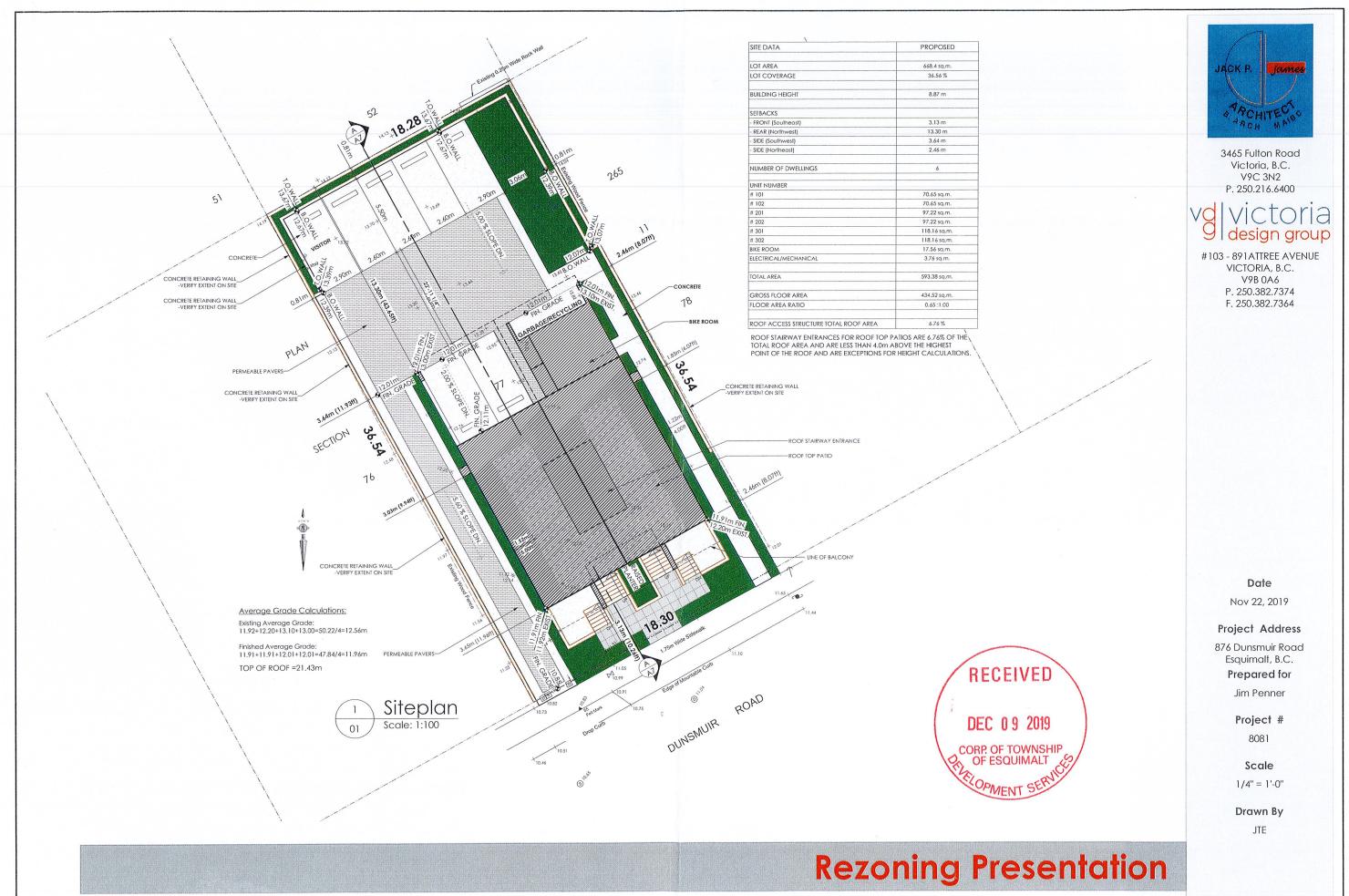
7.0 CONCLUSIONS

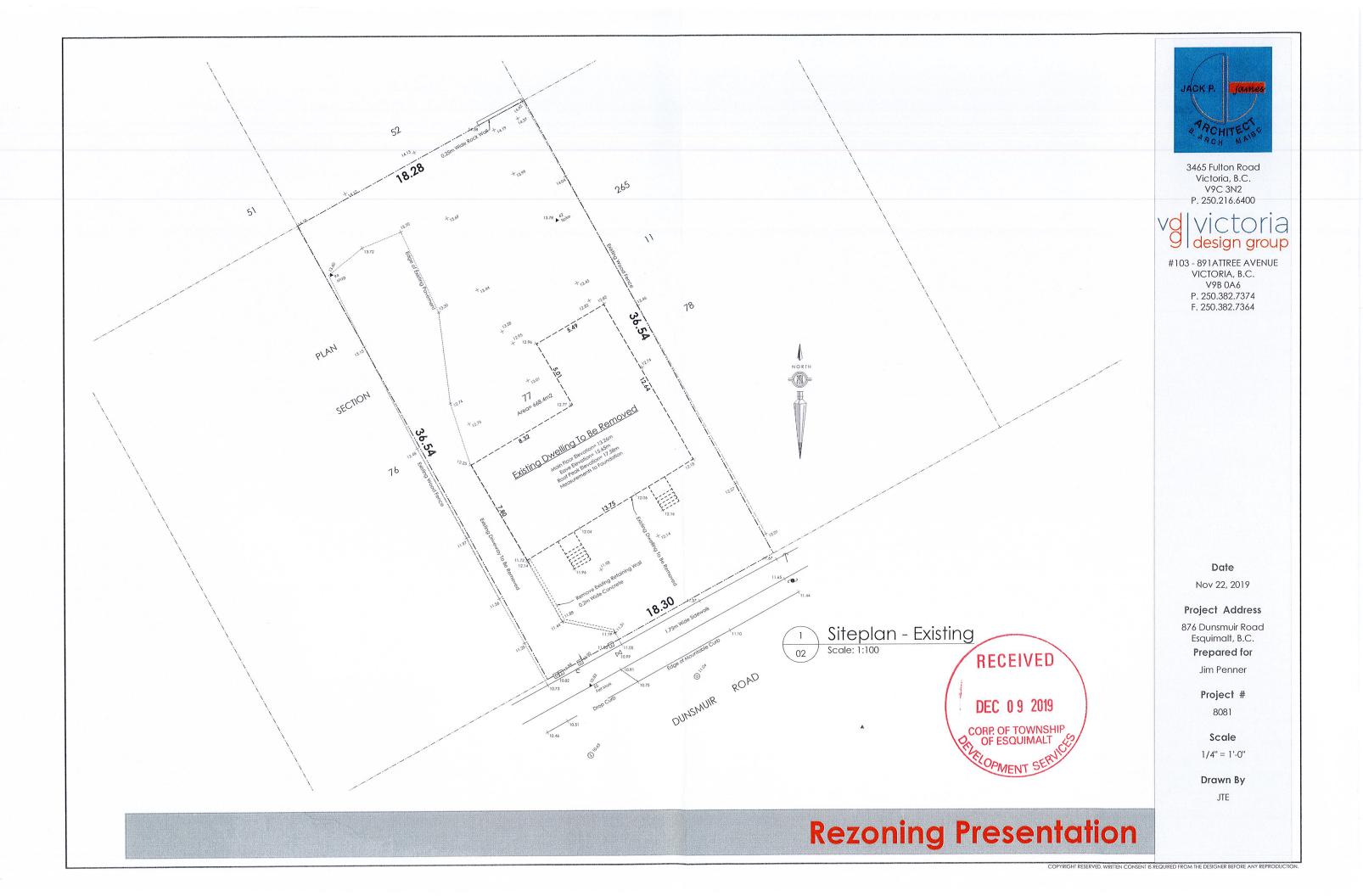
The proposed development at 876/880 Dunsmuir Road is for a six two bedroom townhouse units. The applicant is proposing six residential parking spaces and one visitor space (7 total). The Township of Esquimalt's Zoning Bylaw parking requirement for this type of development requires a rate of 2.0 spaces per unit (12 spaces).

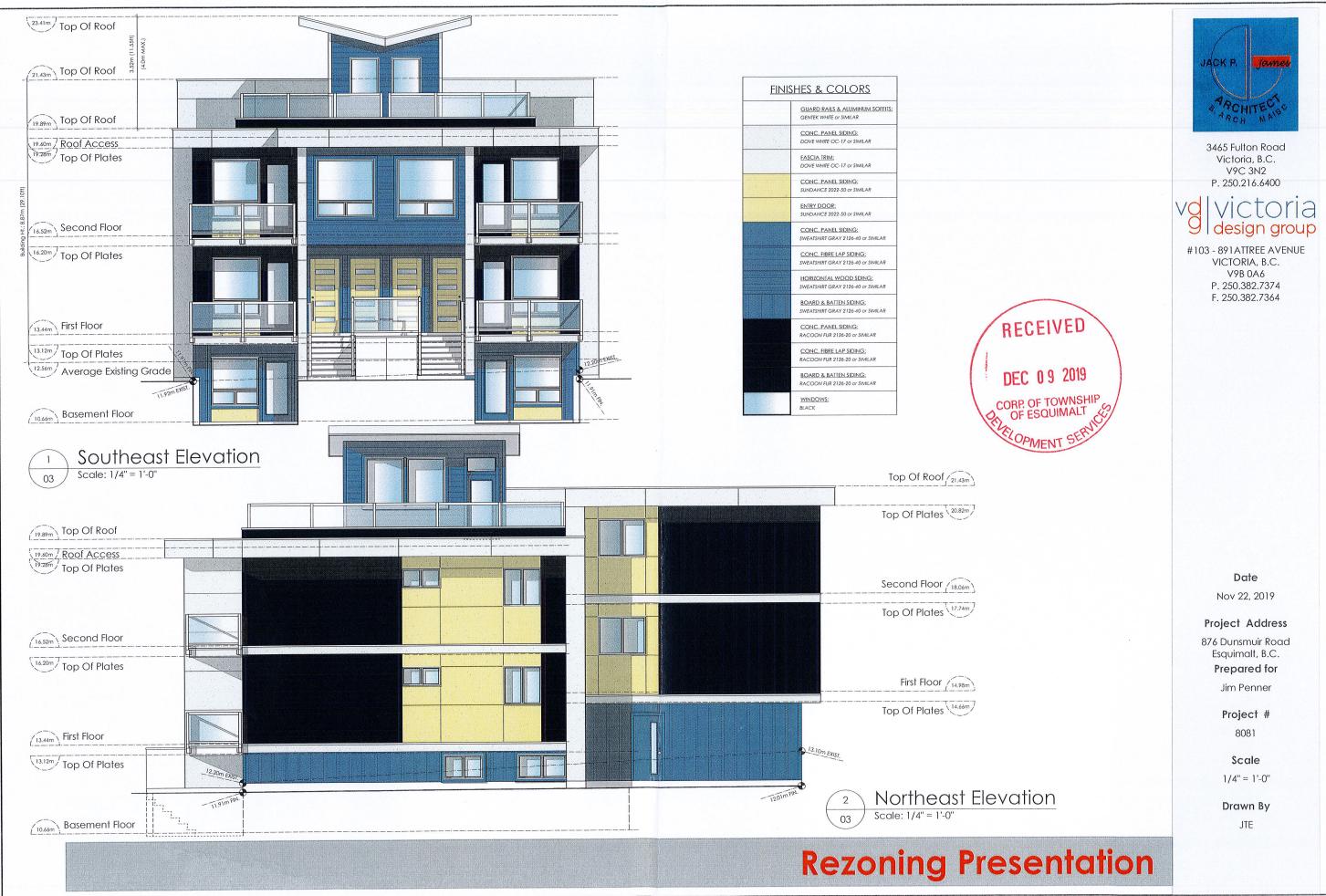
The expected peak demand for the site is 7 resident spaces and 1 visitor space and therefore one greater than the proposed supply. However, if the applicant commits to the EcoPASS program, then the resident demand would be reduced by one space from 7 to 6 spaces. This would meet the proposed supply of 6 resident spaces and 1 visitor space.

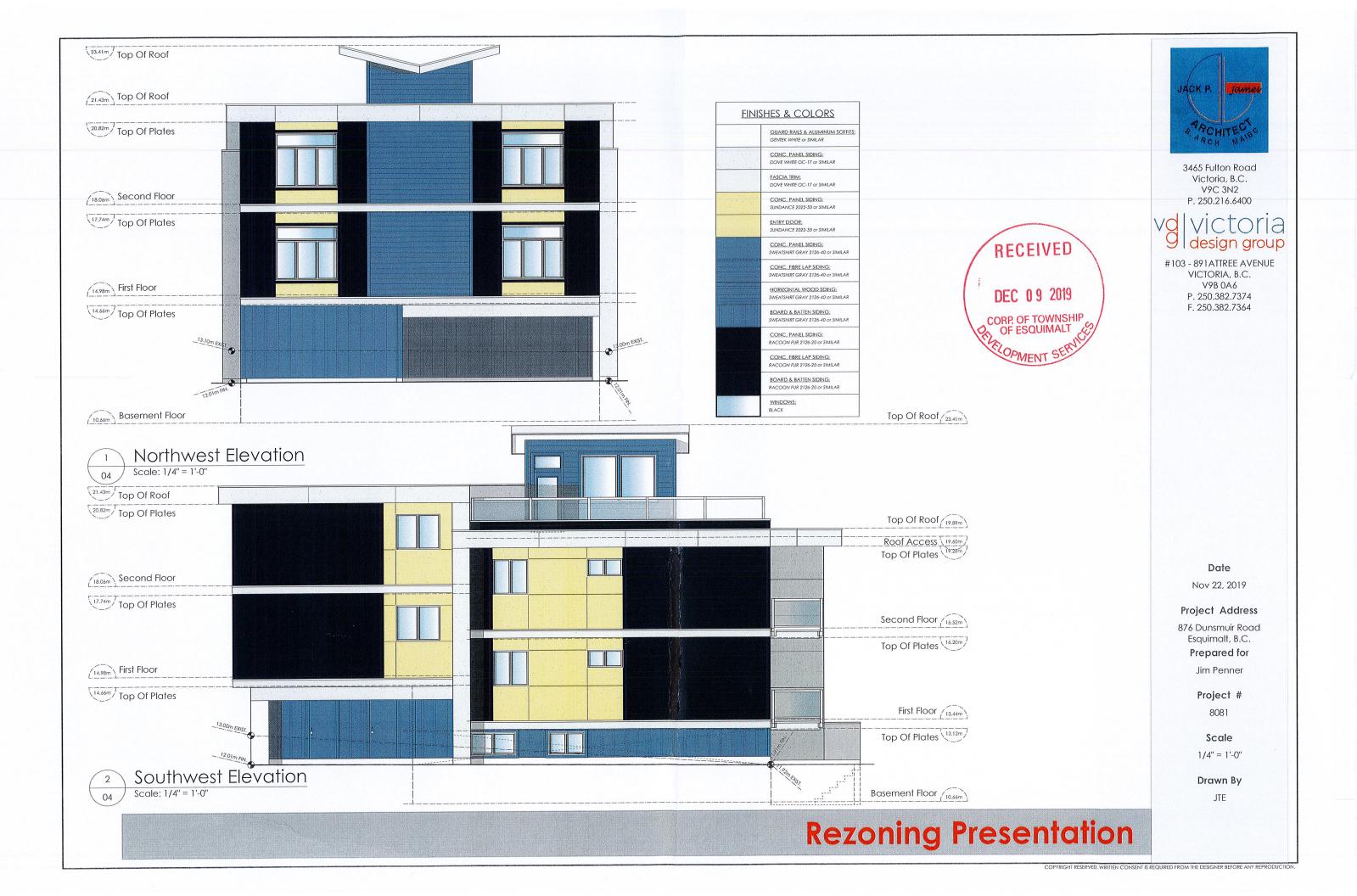
7.1 RECOMMENDATION

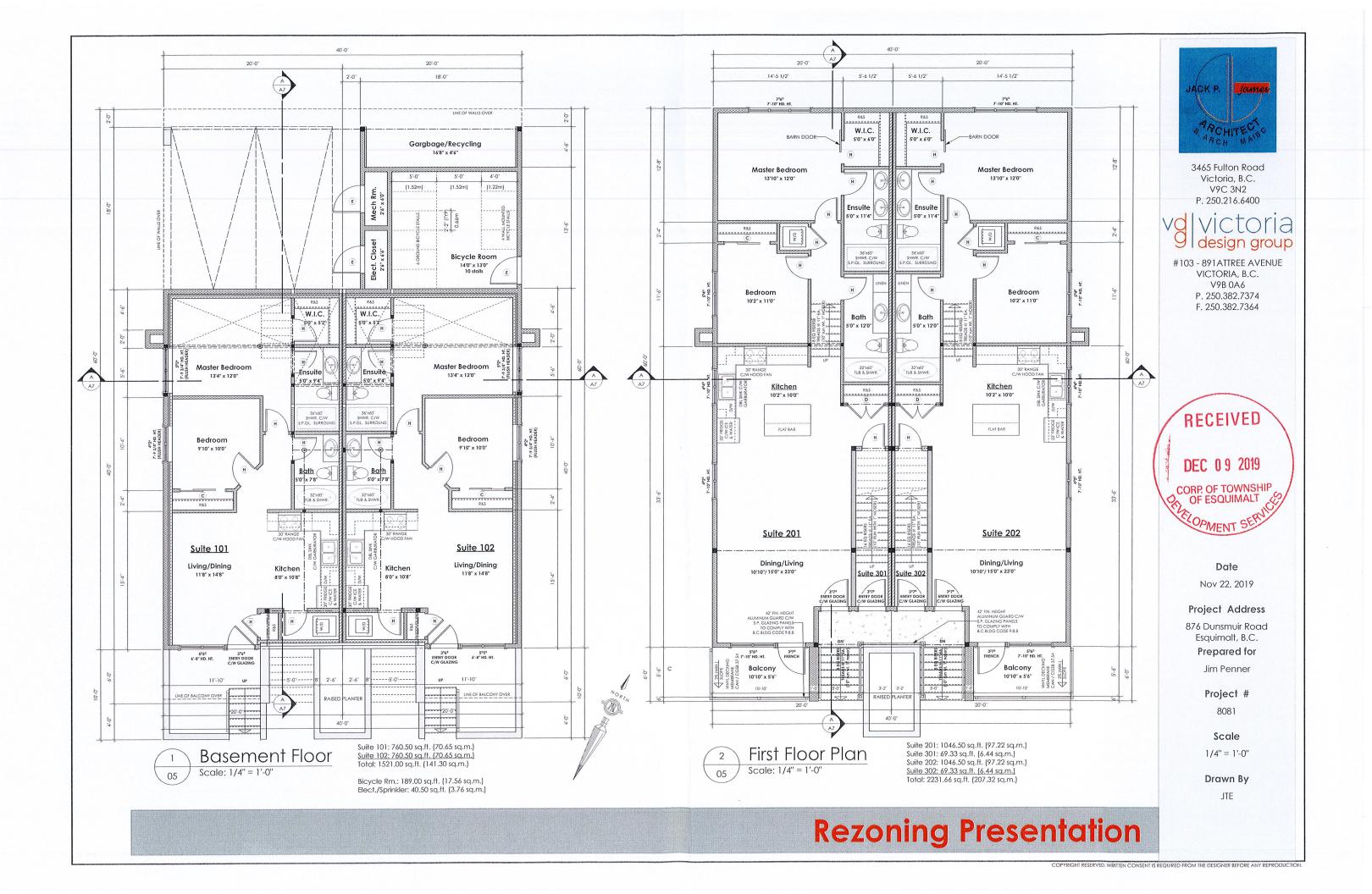
Based on the results of this study, the provision to provide 7 spaces (six resident and one visitor) is supported if the applicant commits to implementing the EcoPASS program for residents.

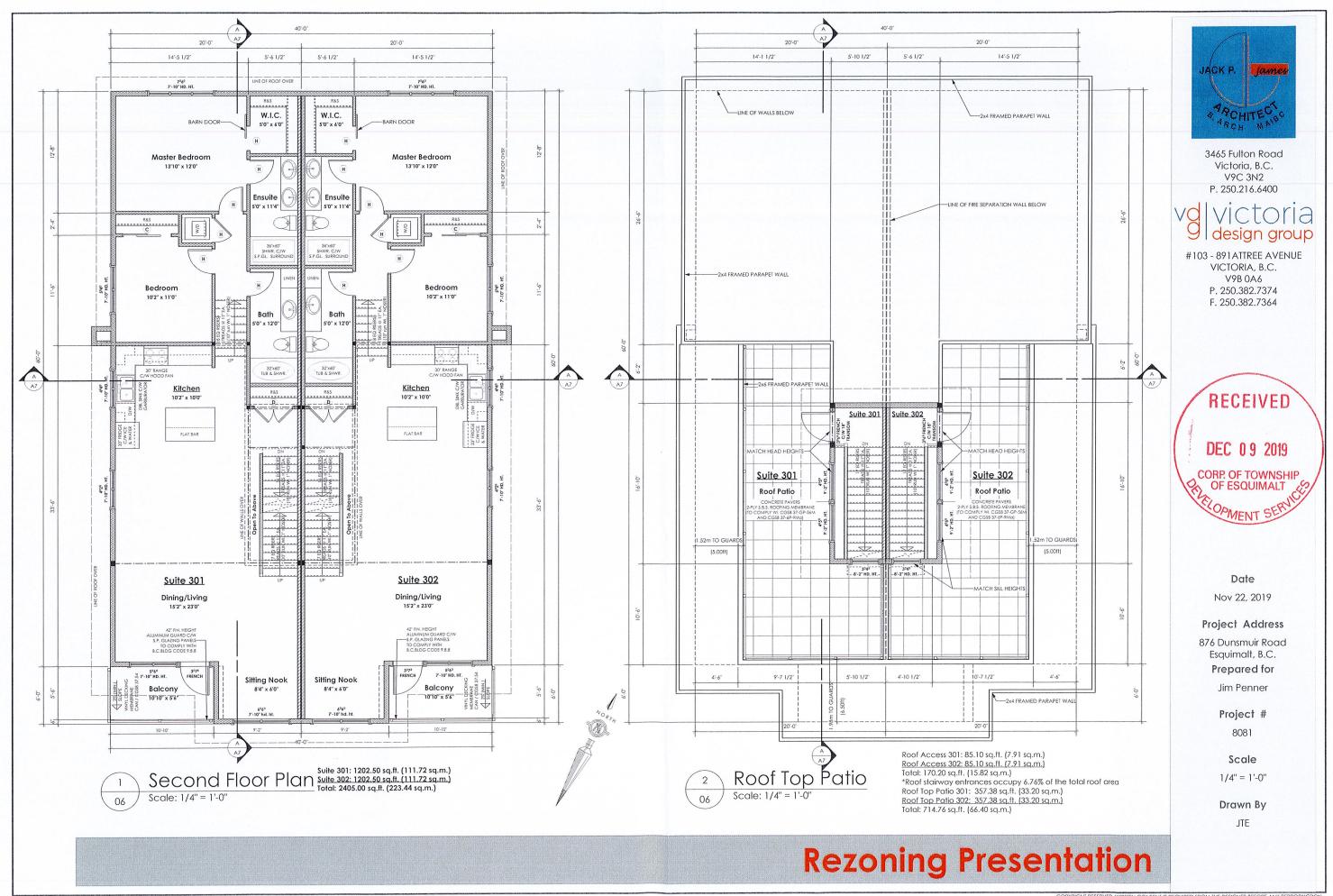


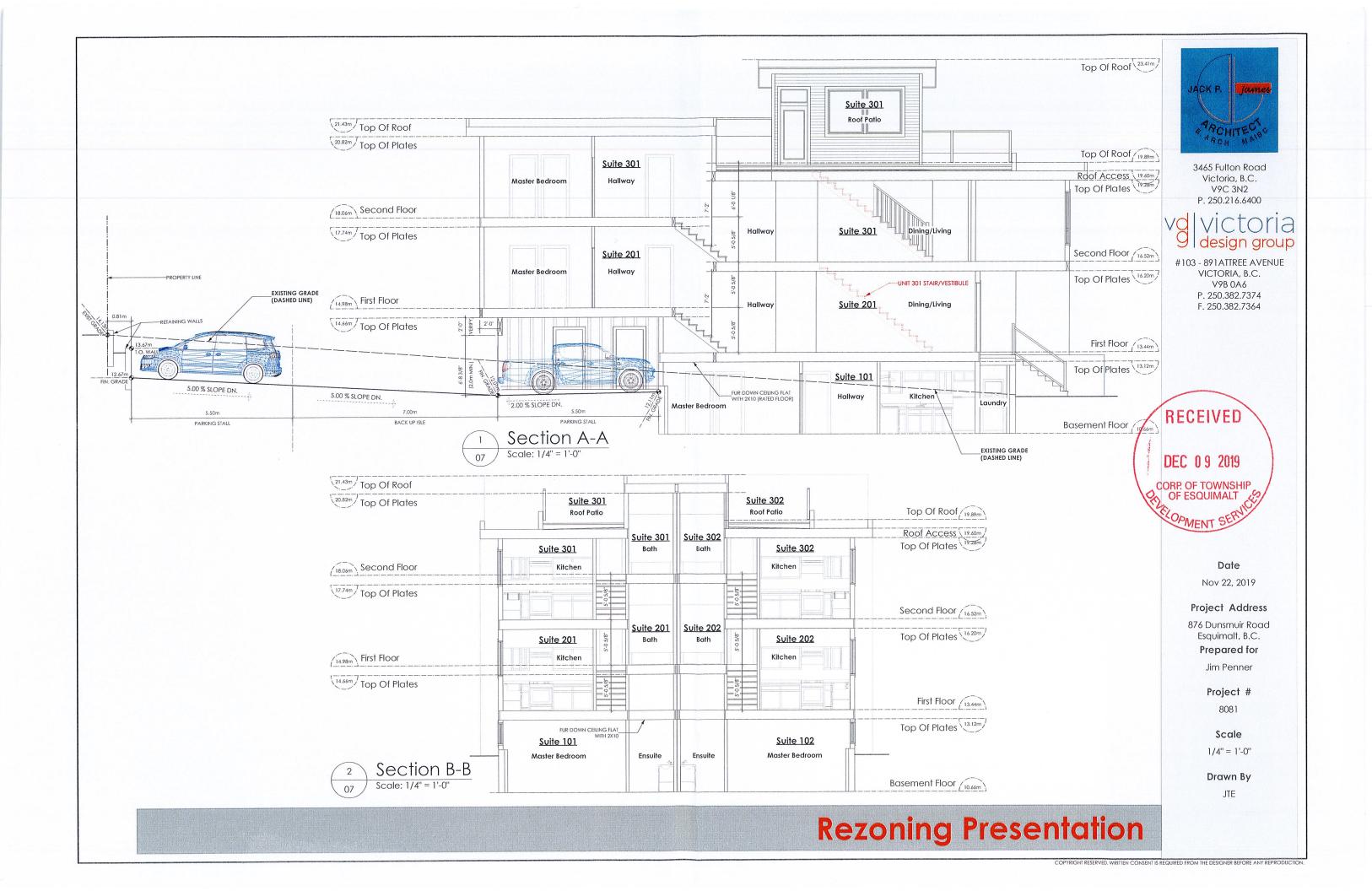


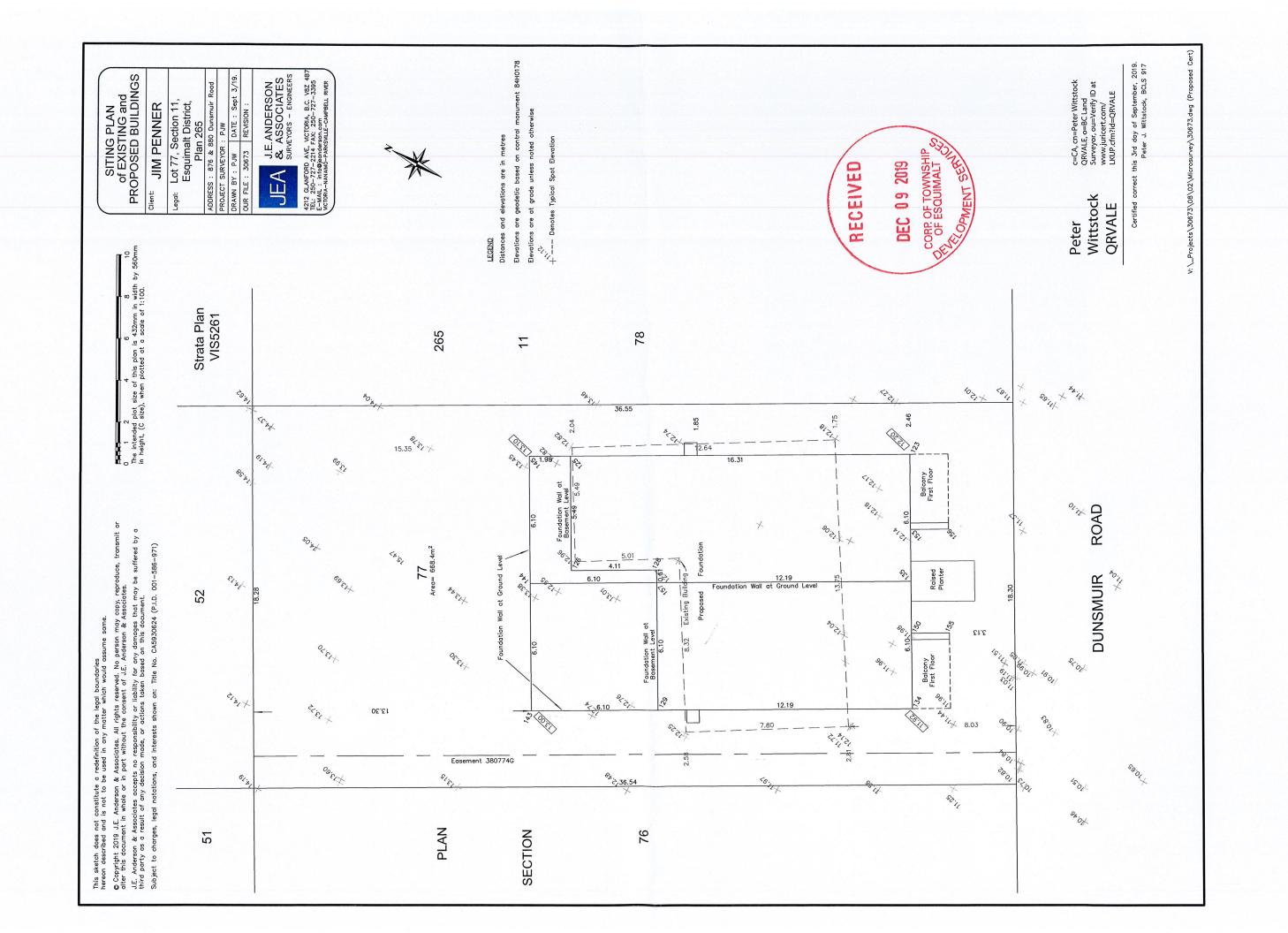


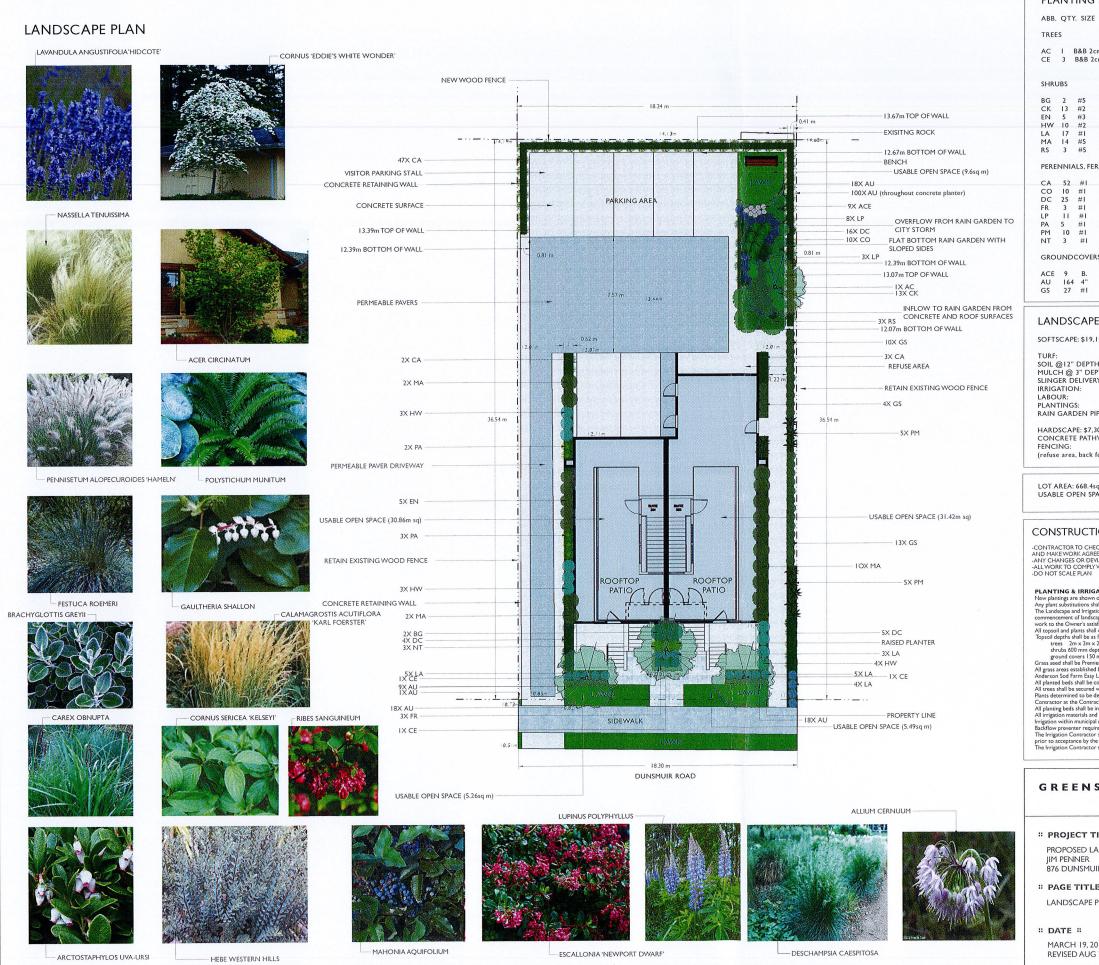












PLANTING SCHEDULE

COMMON NAME BOTANICAL NAME

VINE MAPLE AC | B&B 2cm cal. ACER CIRCINATUM EDDIE'S WHITE WONDER DOGWOOD CE 3 B&B 2cm cal. CORNUS 'EDDIE'S WHITE WONDER'

SHRUBS

| 3G | 2 | #5 | BRACHYGLOTTIS GREYI | DAISY BUSH |
|----|----|----|----------------------------------|--------------------------|
| CK | 13 | #2 | CORNUS SERICEA 'KELSEYI' | KELSEYI DOGWOOD |
| N | 5 | #3 | ESCALLONIA 'NEWPORT DWARF' | NEWPORT DWARF ESCALLONIA |
| W | 10 | #2 | HEBE 'WESTERN HILLS' | WESTERN HILLS HEBE |
| Α. | 17 | #1 | LAVANDULA ANGUSTIFOLIA 'HIDCOTE' | HIDCOTE LAVENDER |
| 1A | 14 | #5 | MAHONIA AQUIFOLIUM | OREGON GRAPE |
| RS | 3 | #5 | RIBES SANGUINEUM | WINTER FLOWERING CURRANT |
| | | | | |
| | | | | |

PERENNIALS, FERNS AND GRASSES

| CA | 52 | #1 | CALAMAGROSTIS X A. 'KARL FOERSTER' | KARL FOERSTER FEATHER REED GRASS |
|----|----|----|------------------------------------|----------------------------------|
| CO | 10 | #1 | CAREX OBNUPTA | SLOUGH SEDGE |
| DC | 25 | #1 | DESCHAMPSIA CAESPITOSA | TUFTED HAIR GRASS |
| FR | 3 | #1 | FESTUCA ROMERI | ROMERS FESCUE |
| P | 11 | #1 | LUPINUS POLYPHYLLUS | LUPINE |
| PA | 5 | #1 | PENNISETUM ALOPECUROIDES 'HAMELN' | HAMELN FOUNTAIN GRASS |
| PM | 10 | #1 | POLYSTICHUM MUNITUM | SWORD FERN |
| TV | 3 | #1 | NASSELLA TENUISSIMA | MEXICAN FEATHER GRASS |
| | | | | |

GROUNDCOVERS AND BULBS

| ACE | 9 | В. | ALLIUM CERNUUM | NODDING ONION | |
|-----|-----|----|-------------------------|---------------|--|
| AU | 164 | 4" | ARCTOSTAPHYLOS UVA-URSI | KINNIKINNCK | |
| GS | 27 | #1 | GAULTHERIA SHALLON | SALAL | |

LANDSCAPE INSTALLATION PRELIMINARY BUDGET

SOFTSCAPE: \$19,196

| TURF: | \$1.50/sq' X 344sq' | \$516 | |
|---------------------------------------|----------------------|--------|--|
| SOIL @12" DEPTH: | \$40/yd X 45yds | \$1800 | |
| MULCH @ 3" DEPTH: | \$55/yd X 8yds | \$440 | |
| SLINGER DELIVERY: | \$120/hr X 2hrs | \$240 | |
| IRRIGATION: | \$600/zone X 5 zones | \$3000 | |
| LABOUR: | \$45/hr X 120hrs | \$5400 | |
| PLANTINGS: | assorted costs | \$6800 | |
| RAIN GARDEN PIPING | assorted costs | \$1000 | |
| HARDSCAPE: \$7,304 | | | |
| CONCRETE PATHWAY: | \$11/sq' x 320sq' | \$3520 | |
| FENCING: (refuse area, back fence) | \$44/lineal' x 86' | \$3784 | |
| | | | |

LOT AREA: 668.4sqm USABLE OPEN SPACE : 82.63sq m (12.36% of lot)

CONSTRUCTION NOTES

-CONTRACTOR TO CHECK ALL DIMENSIONS AND ASPECTS OF THIS DRAWING AND MAKEWORK AGREE PRIOR TO CONSTRUCTION -ANY CHANGES OR DEVAINONS ARE THE RESPONSIBILITY OF THE OWNER -ALL WORK TO COMPLY WITH MUNICIPAL BY LAWS -OO NOT SCALE PLAN

PLANTING & IRRIGATION NOTES

New plantings are shown on Greenspace Designs Planting Plan dated March 19, 2019.

Any plant substitutions shall be made in consultation with the landscape designer.

The Landscape and Irrigation Contractor shall determine the location of all underground services prior to the commencement of landscape work, and shall be responsible for the repair of all damage caused by landscape work to the Owner's satisfaction.

All topsoil and plants shall conform to BCNTA / BCSLA specifications.

Topsoil depths shall be as follows:

trees 2 m x 2m x 2m soil per tree shrubs 600 mm depth ground covers 150 mm depth grass areas established between October 15 and April 15 shall be too 45 and 48 and

RECEIVED DEC 0 9 2019 CORP. OF TOWNSHIP OF ESQUIMALT

GREENSPACE DESIGNS

sustainable landscape design



PROJECT TITLE

PROPOSED LANDSCAPE PLAN for IIM PENNER 876 DUNSMUIR ROAD, ESQUIMALT, BC

" PAGE TITLE "

LANDSCAPE PLAN, PAGE ONE of ONE

" DATE "

" SCALE "

MARCH 19, 2019 REVISED AUG 26, 2019 1:100

