A REGULAR MEETING OF THE TOWN OF LADYSMITH COUNCIL AGENDA 6:30 P.M.

Tuesday, October 6, 2020 This meeting will be held electronically as per Ministerial Order No. M192

Pages

1. CALL TO ORDER

Call to Order 6:30 p.m. in Open Session, in order to retire immediately into Closed Session.

Members of the public are welcome to attend all Open Meetings of Council, but may not attend Closed Meetings.

2. CLOSED SESSION

Recommendation

That, in accordance with section 90(1) of the *Community Charter*, Council retire into closed session in order to consider items related to the following:

 personal information about an identifiable individual being considered for a position as an officer, employee or agent of the municipality section 90(1)(a)

3. OPEN MEETING (7:00 p.m.)

Please follow this link to view the meeting: <u>https://www.youtube.com/channel/UCH3qHAExLiW8YrSuJk5R3uA/fea</u> <u>tured</u>

4. AGENDA APPROVAL

Recommendation

That Council approve the agenda for this Regular Meeting of Council for October 6, 2020.

5. RISE AND REPORT- Items from Closed Session

Items from the Closed Meeting of Council held September 1, 2020

• CE 2020-131

That Council:

- Direct the Mayor and Corporate Officer to execute the Lease and Access Agreement renewal with Sealegs Kayak Rentals and Marine Adventures for use of the Transfer Beach Park Eco-Tourism Facility for a five-year period from October 1, 2020 until September 30, 2025, with a 2% increase each year beginning in Year 2 as outlined in the agreement;
- 2. Direct staff to give notice of the Town's intent to lease the facility to Sealegs in accordance with the *Community Charter*, and
- 3. Rise and report on this item once the lease agreement has been signed by both parties.

6. MINUTES

6.1	Minutes of the Regular Meeting of Council held September 15, 2020		
	Recommendation		

That Council approve the minutes of the Regular Meeting of Council held September 15, 2020.

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7. PROCLAMATIONS

7.1 Foster Family Month

Mayor Stone has proclaimed the month of October, 2020 as Foster Family Month in the Town of Ladysmith.

7.2 Waste Reduction Week

Mayor Stone has proclaimed October 19 to 25, 2020 as Waste Reduction Week in the Town of Ladysmith.

8. DEVELOPMENT APPLICATIONS

8.1 Zoning and OCP Amendment for 201 and 203 Dogwood Drive

Recommendation

That Council:

- Direct that application 3360-20-04 (Amended Lot 10 (DD 21674N) District Lot 56 Oyster District Plan 1684 and Amended Lot 11 (DD 27179N) District Lot 56 Oyster District Plan 1684) proceed for further consideration on the condition that the applicant be required to investigate a four storey building design option with consideration of the following:
 - i. view corridors;
 - ii. design controls related to height, scale, form and massing; and
 - iii. neighbourhood character and public concerns.
- 2. Having considered section 475 (consultation during development of an OCP) and section 476 (consultation on planning for school facilities) of the *Local Government Act,* direct staff to refer the application to:
 - i. Stz'uminus First Nation pursuant to the Memorandum of Understanding
 - ii. School District 68 (Nanaimo Ladysmith)
 - iii. The Community Planning Advisory Committee;
 - iv. The BC Ministry of Transportation and Instructure;
 - v. BC Hydro; and
 - vi. Fortis BC.
- 3. Direct that staff:
 - a. Work with the applicant regarding land use matters and report back to Council, specifically with regard to the following items:
 - b. submission of a Development Permit application;
 - c. consolidation of the subject properties; and
 - d. density bonus options.

8.2 Industrial Development Permit and Development Variance Permit at 10750 South Watts Road

Recommendation

That Council:

- Approve Development Variance Permit (DVP) 3090-20-01, to vary the Zoning Bylaw and Subdivision and Development Servicing Bylaw regulations requiring a connection to a community sanitary sewer system, to allow the property at 10750 Westdowne Road (Lot 20, District Lot 72, Oyster District, Plan 8793 Except Parcel A (DD 94199N)) to be developed without connecting to the sanitary sewer system, on the condition that the applicant enter into a covenant that requires extension and connection to the Town's sanitary sewer main within two years of the main being available to the subject property.
- 2. Approve Development Permit (DP) 3060-19-21 to allow the property at 10750 South Watts Road to be developed as a cannabis production facility within the Industrial and Riparian Development Permit Areas .
- 3. Authorize the Mayor and Corporate Officer to sign DVP 3090-20-01 and DP 3060-19-21.

9. COMMITTEE MINUTES

9.1 Minutes of the Parks, Recreation and Culture Advisory Committee Meeting held September 16, 2020

Recommendation

That Council receive for information the minutes of the September 16, 2020 meeting of the Parks, Recreation and Culture Advisory Committee.

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10. REPORTS

10.1 2021 Council Meeting Schedule

Recommendation

That Council confirm the following schedule of regular Council and Committee of the Whole meetings for 2021 and direct staff to advertise the schedule in accordance with Section 127 of the *Community Charter*.

Council Meetings

January 5	April 6	July 6	October 5
January 19	April 20	July 20	October 19
February 2	May 4	August 3	November 2
February 16	May 18	August 17	November 16
March 2	June 1	September 7	December 7
March 16	June 15	September 21	December 21

Committee of the Whole Meetings

January 12	May 11	September 28
March 9	July 13	November 9

10.2 Machine Shop Seismic Upgrade Project Update

To access the Investing in Canada Infrastructure Program grant information, please click on the link below:

https://www2.gov.bc.ca/assets/gov/driving-and-transportation/fundingengagement-permits/grants-funding/investing-in-canada/icipcommunity-culture-and-recreation-program-guide.pdf

To access the schematic design report for the Machine Shop, please click on the link below:

http://ow.ly/TPUj50BH75Z

Recommendation

That Council:

1. Direct staff to submit an application for grant funding for the Machine Shop Rehabilitation Phase 2 for \$3,114,611 through the *Investing in Canada Infrastructure Program – Community, Culture and Recreation*;

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- 2. Support the project and commit to its share (\$1,132,779) of the project with the funds to come from the Real Property Reserve and General Government Reserves; and
- 3. Direct staff to amend the 2020-2024 Financial Plan accordingly.

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10.3 Economic Recovery - Sidewalk Patios

Recommendation

That Council give first three readings to "Streets and Traffic Bylaw 1998, No. 1309, Amendment Bylaw #8, 2020, No. 2054" allowing the Director of Development Services to issue permits authorizing sidewalk patios between October 31st and March 1st.

10.4 Permanent Downtown Washroom

Recommendation

That Council:

- 1. Direct staff to amend the budget to \$100k for the permanent downtown washroom, with the funds to come from the Real Property Reserve for \$32k and the remaining funding to come from community donations; and
- 2. Waive the purchasing policy.

10.5 Re-opening Plan for Swimming Pool

Recommendation

That Council direct staff to:

- Reopen the 25m pool and the therapy teach pool at the Frank Jameson Community Centre on November 2nd with limited programming as presented by the Director of Parks, Recreation and Culture; and
- 2. Phase in the opening of the other pool amenities when permitted by the Provincial Health Officer and other regulatory agencies.

10.6 Battie to Thetis Watermain Loop Budget Amendment

Recommendation

That Council direct staff to amend the 2020-2024 Financial Plan to include the Battie to Thetis Watermain loop for \$80,000, with \$40,000 to come from the Water Development Cost Charges reserve and \$40,000 to come from the Water reserve.

11. BYLAWS

11.1 Bylaw Status Sheet

12. NEW BUSINESS

13. QUESTION PERIOD

Residents can submit questions to Council via email at info@ladysmith.ca during the meeting.

- Persons wishing to address Council must be Town of Ladysmith residents, non-resident property owners, or operators of a business.
- Individuals must include their name and address for identification purposes.
- Questions put forth must be on topics which are not normally dealt with by Town staff as a matter of routine.
- Questions must be brief and to the point.
- No commitments shall be made by the Chair in replying to a question. Matters which may require action of the Council shall be referred to a future meeting of the Council

14. ADJOURNMENT



MINUTES OF A REGULAR MEETING OF COUNCIL

Tuesday, September 15, 2020 7:00 P.M. This meeting was held electronically as per Ministerial Order No. M192

Council Members Present:

Mayor Aaron Stone Councillor Amanda Jacobson Councillor Rob Johnson Councillor Tricia McKay Councillor Marsh Stevens Councillor Jeff Virtanen

Council Members Absent: Councillor Duck Paterson

Staff Present:

Erin Anderson Chris Barfoot Jake Belobaba Geoff Goodall Donna Smith Mike Gregory Sue Bouma

Guests:

Fire Chief Chris Geiger and the Fire/Rescue Team Barry O'Riordan, Manager, Economic Development Cowichan

1. CALL TO ORDER

Mayor Stone called this Regular Meeting of Council to order at 7:00 p.m., recognizing that it was taking place on the traditional territory of the Stz'uminus People.

The Ladysmith Fire/Rescue team joined the meeting, and Mayor Stone thanked them for their tireless commitment as they worked to suppress a serious industrial fire north of town last week. Mayor Stone also recognized the efforts of community members and businesses, as well as other fire departments and agencies for their critical support during the unfortunate event.

Fire Chief Chris Geiger expressed gratitude to the community for its overwhelming support and kindness. He thanked his team and the teams of other fire departments, the Mayor and Council, the Infrastructure Services staff, the RCMP and BC Ambulance. The Ladysmith Fire/Rescue team vacated the meeting.

2. AGENDA APPROVAL

CS 2020-268

That Council approve the agenda for this Regular Meeting of Council for September 15, 2020. *Motion Carried*

3. MINUTES

3.1 Minutes of the Special Meeting of Council held August 25, 2020

CS 2020-269

That Council approve the minutes of the Special Meeting of Council held August 25, 2020. *Motion Carried*

3.2 Minutes of the Regular Meeting of Council held September 1, 2020

CS 2020-270

That Council approve the minutes of the Regular Meeting of Council held September 1, 2020. *Motion Carried*

4. DELEGATIONS

4.1 Barry O'Riordan, Economic Development Cowichan

Barry O'Riordan, Manager of Economic Development Cowichan, presented Council with the state of the regional economy since the onslaught of the Covid-19 pandemic, noting that there had been a modest improvement since May, but that the recovery is uneven. He reviewed the Economic Development Cowichan Covid-19 response actions and highlighted future plans.

Council thanked Mr. O'Riordan for his presentation and his work in the region. Mr. O'Riordan vacated the meeting.

5. PROCLAMATIONS

5.1 National Forest Week

Mayor Stone proclaimed September 20 to 26, 2020 as National Forest Week in the Town of Ladysmith.

6. COMMITTEE MINUTES

6.1 September 8, 2020 Committee of the Whole Recommendations

CS 2020-271

That Council:

- 1. Confirm the kickoff date of February 2021 to commence community engagement for the new Official Community Plan;
- 2. Approve that the scope for the Official Community Plan review will be comprehensive/new; and
- Direct staff to schedule a Special Committee of the Whole Meeting for October 2020, dedicated to discussing the Official Community Plan review process.

Motion Carried

CS 2020-272

That Council approve the amended Purchasing Policy 05-1790-D as presented by the Director of Financial Services. *Motion Carried*

7. REPORTS

7.1 Resident Alien - Street and Parking Closure Requests for Second Round of Filming

CS 2020-273

That Council approve the following requests from the production company for the second round of filming of the television series Resident Alien, subject to negotiation of final schedules between staff and the production company:

1. Intermittent closures of parking spaces between October 1 to 7:

• On both sides of 1st Avenue from 330 to 610 1st Avenue;

• On both sides of 1st Avenue from Baden Powell Street to Gatacre Street;

• On both sides of Roberts Street from the TransCanada Highway to 120 Roberts Street;

• The south side of Gatacre Street, between the TransCanada Highway and 1st Avenue;

• On both sides of the "Malone Road Alley" between 1st Avenue and 121 Gatacre Street; and

• On both sides of High Street, between the alleys to the east and west of 1st Avenue and 11 High Street.

- Intermittent closures of Roberts Street except for local traffic only between the TransCanada Highway and 1st Avenue on October 4 and 6, on the condition that the company has a traffic management plan and highway use permit in place, with appropriate signage;
- 3. Intermittent traffic control between October 4 to 6:
 - On the 300 and 400 blocks of 1st Avenue; and
 - On High Street between 1st Avenue and the TransCanada Highway.
- 4. Use of the Town controlled portion of the Fisherman's Wharf parking lot at 837 Ludlow Road from October 1 to 8 for a production staging area.
- 5. Closure of the Town-owned parking lots at:
 - 117 Gatacre Street from October 2 to 7 for truck parking; and

• 17 and 25 Roberts Street from October 1 to 8 for storage of equipment and tents.

6. Closure of the following areas from October 4 to 6 for crew parking:

• parking areas along Oyster Bay Drive, between Ludlow Road and Transfer Beach Boulevard, excluding areas currently in use for construction;

• the south side of Transfer Beach Boulevard from Oyster Bay Drive to Transfer Beach Park;

• the portion of 610-840 Oyster Bay Drive on the south side of Transfer Beach Boulevard; and

- the gravel parking area north of the Transfer Beach Amphitheatre.
- 7. Use of:

• the gravel infield and, weather permitting, the outfield at High Street Park from October 3 to 7 for a waiting area for extras and miscellaneous staging;

• the Town-owned lots at 12, 20 and 26 Buller Street on an as-needed basis for vehicle parking, equipment staging or other filming-related uses from October 1 to 8; and

• the alley between 422 and 416 1st Avenue for an equipment cache from October 4 to 6.

Motion Carried

Councillor Stevens declared a conflict of interest with the following agenda item due to his position with the Ladysmith Resources Centre Association and the proposed tax exemptions for 314 Buller Street, 630 2nd Avenue and 220 High Street and vacated the meeting at 7:46 p.m.

7.2 2021 Permissive Tax Exemptions

CS 2020-274

That Council:

- 1. Give first three readings to "Town of Ladysmith 2021 Permissive Tax Exemptions Bylaw 2020, No. 2052";
- 2. Give first three readings to "Town of Ladysmith Community Services Centre Tax Exemption Bylaw 2020, No. 2053"; and
- 3. Direct staff to not include the fully exempt properties on the water parcel tax or the sewer parcel tax.

Motion Carried

Councillor Stevens returned to the meeting at 7:47 p.m.

7.3 Temporary Downtown Washroom

CS 2020-275

That Council direct staff to extend the rental of the portable washroom on 1st Avenue until a permanent washroom is constructed on 1st Avenue.

CS 2020-276

That resolution CS 2020-275 be amended to read as follows: That Council direct staff to extend the rental of the portable washroom on 1st Avenue until the permanent washroom construction commences. *Amendment Carried*

Resolution CS 2020-275, as amended reads:

That Council direct staff to extend the rental of the portable washroom on 1st Avenue until the permanent washroom construction commences. *Main Motion, As Amended, Carried*

8. BYLAWS

8.1 Town of Ladysmith Waterworks Regulation Bylaw 1999, No. 1298, Amendment Bylaw 2020, No. 2051

CS 2020-277

That Council adopt "Town of Ladysmith Waterworks Regulations Bylaw 1999, No. 1298, Amendment Bylaw 2020, No. 2051". *Motion Carried*

9. CORRESPONDENCE

9.1 Email dated September 3, 2020 from Royal Bank of Canada, Ladysmith Branch re: proposed tables in front of the branch

CS 2020-278

That Council direct staff to amend the location map for downtown picnic tables by removing the table proposed for the lower level of the sidewalk area in front of the Royal Bank of Canada building. *Motion Carried*

9.2 Cowichan Housing Association 2019/20 Annual Report

CS 2020-279

That Council receive for information the Cowichan Housing Association 2019/20 Annual Report.

Motion Carried

9.3 Letter dated August 2020 from the 257 RCACS Ladysmith Cadets re: use of Aggie Hall

CS 2020-280

That Council refer to staff for follow up the letter dated August 2020 from the 257 RCACS Ladysmith Cadets regarding use of Aggie Hall. *Motion Carried*

10. QUESTION PERIOD

There were no questions submitted by the public.

11. ADJOURNMENT

This Regular Meeting of Council was adjourned by unanimous consent at 7:58 p.m.

Mayor (A. Stone)	Corporate Officer (D. Smith)
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TOWN OF LADYSMITH

PROCLAMATION

FOSTER FAMILY MONTH

- **WHEREAS:** The family is the very foundation of our community; and
- **WHEREAS** Every child deserves to experience a safe, loving, supportive and stable home; and
- **WHEREAS:** Foster families, who open their hearts and homes to children whose families are in crisis, play a vital role in helping children and families heal and reconnect; and
- **WHEREAS:** Fostering is a community responsibility and provides opportunities for all community members to contribute to the support of children and youth; and
- **WHEREAS:** We recognize the promise of children and youth in foster care, as well as former foster youth, and we celebrate the professionals and foster parents who demonstrate the depth and kindness of the human heart.
- **THEREFORE,** I, Aaron Stone, Mayor of the Town of Ladysmith, do hereby proclaim the month of October, 2020, as Foster Family Month in the Town of Ladysmith, British Columbia.

Mayor A. Stone

October 1, 2020



TOWN OF LADYSMITH

PROCLAMATION

WASTE REDUCTION WEEK

- *WHEREAS:* As a municipality, we are committed to conserving resources, protecting the environment and educating the community; and
- **WHEREAS:** We recognize the generation of solid waste and the needless waste of water and energy resources as global environmental problems; and
- *WHEREAS:* We endeavour to take the lead in our community toward environmental sustainability;
- **THEREFORE,** I, Aaron Stone, Mayor of the Town of Ladysmith, do hereby proclaim October 19th to 25th, 2020 as Waste Reduction Week in the Town of Ladysmith, British Columbia.

Mayor A. Stone

October 1, 2020

STAFF REPORT TO COUNCIL

Report Prepared By:	Julie Thompson, Acting Senior Planner
Meeting Date:	October 6, 2020
File No:	ZBL 3360-20-04
RE:	ZONING AND OCP AMENDMENT – 201/203 DOGWOOD DRIVE

RECOMMENDATION:

That Council:

- Direct that application 3360-20-04 (Amended Lot 10 (DD 21674N) District Lot 56 Oyster District Plan 1684 and Amended Lot 11 (DD 27179N) District Lot 56 Oyster District Plan 1684) proceed for further consideration on the condition that the applicant be required to investigate a four storey building design option with consideration of the following:
 - i. view corridors;
 - ii. design controls related to height, scale, form and massing; and
 - iii. neighbourhood character and public concerns.
- 2. Having considered section 475 (consultation during development of an OCP) and section 476 (consultation on planning for school facilities) of the *Local Government Act,* direct staff to refer the application to:
 - i. Stz'uminus First Nation pursuant to the Memorandum of Understanding
 - ii. School District 68 (Nanaimo Ladysmith)
 - iii. The Community Planning Advisory Committee;
 - iv. The BC Ministry of Transportation and Instructure;
 - v. BC Hydro; and
 - vi. Fortis BC.
- 3. Direct that staff:
 - a. Work with the applicant regarding land use matters and report back to Council, specifically with regard to the following items:
 - i. submission of a Development Permit application;
 - ii. consolidation of the subject properties; and
 - iii. density bonus options.
 - b. Commence the preparation of the relevant Official Community Plan amendment bylaw and a Zoning amendment bylaw.



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EXECUTIVE SUMMARY:

The applicant is proposing to amend the Official Community Plan (OCP) and Zoning Bylaw on the 1,409m² (0.1409ha) subject property (currently consisting of two lots), located at 201 and 203 Dogwood Drive, to allow a five storey, 25 unit multi-family residential development with the potential for local commercial uses on the first storey. It is recommended that the application proceed for further consideration on the condition that the applicant be required to investigate a four storey building design option, in light of public concerns pertaining to building height and the neighbourhood character.

PREVIOUS COUNCIL DIRECTION:

None.

INTRODUCTION/BACKGROUND:

The 0.1409ha site area consists of two properties located at 201 and 203 Dogwood Drive (the "subject property") on the corner of Dogwood Drive and Forward Road. A vacant service station (Dalby's Automotive) is located on the site. The applicant has advised that the property is a contaminated site and is undergoing remediation.

The subject property is located in a predominantly residential area, with a mix of single family and multi-family residential uses within its vicinity, and is located approximately 350m from

the Town's downtown core. The following table describes the surrounding land uses:



Figure 1: Subject property consisting of two parcels to be consolidated.

Direction	Use
North	Single family and multi-family residential
East	Single family and multi-family residential
South	Institutional zoned land (most recently containing a martial arts studio), multi-family residential, and single family residential
West	Local commercial (site of proposed micro-brew pub and existing barbershop) and single family residential

Table 1: Surrounding land uses.

The applicant is proposing to amend the Official Community Plan and the Zoning Bylaw to allow the proposed development consisting of a five storey (approximately 17.5m) multi-family

residential building containing 25 units. The building is proposed to be rental for residents 55+. The proposed design features underground parking, a 900-1,000 sq. foot "adaptable" unit with the potential for local commercial uses, and a "stepped"—i.e. smaller and set back—fifth storey containing two units. The applicant has provided preliminary plans, a shadow study, a traffic impact assessment and a conceptual site servicing report. All items are attached to this report. Figure 3, below, shows a cross section of the proposed building. The applicant has not provided a detailed building design at this time.



Figure 2: Surrounding zoning.



Figure 3: Cross section of proposed five storey building.

ANALYSIS/DISCUSSION:

Official Community Plan Policies:

The subject property is currently designated Local Commercial under the OCP and the proposed development would not be permitted under this designation. An amendment to the OCP is required.

The proposed 25 unit building constitutes a density of approximately 177 units per hectare. There is no existing OCP land use designation, that permits the proposed density. The two land use designations with the closest allowable densities are the Multi-Family Residential OCP designation, which allows 60 units per hectare, and the Downtown Mixed Use designation, which allows 75 units per hectare and up to 100 units per hectare through density bonusing. Other OCP policies may support a higher density at this location including:

- S. 3.1.4(1) encourages growth within the Urban Containment Boundary (the property is within the UCB)
- S. 3.1.4(3) encourages residential infill
- S. 3.1.4(9) encourages increased residential densities
- S. 3.2.3(7) encourages infill near the downtown core
- S. 3.3.3(20) encourages residents to reduce reliance of private vehicles (the property is less than a five minute walk from the downtown core)

The proposed commercial area is supported by OCP policies including:

• S. 3.5.3(8) – encourages commercial development to be directed to the downtown core, with complementary commercial areas provided to serve local neighbourhoods.

Brownfield renewal, i.e. site remediation, is not addressed in the OCP. However, brownfield sites are considered infill sites and by extension, remediation and redevelopment can be considered in the context of encouraging infill.

Development Permit Area:

The subject property is currently located within the Local Commercial Development Permit Area (DPA 3). To facilitate the proposal, an amendment to the OCP to change the Development Permit Areas designation from DPA 3 to DPA 4 – Multi-Unit Residential is recommended. Staff have recommended to the applicant that a Development Permit (DP) application be submitted so that form and character matters can be considered in more detail in tandem with the rezoning application. The applicant has advised they intend to apply for a DP if the rezoning application is advanced for further consideration by Council.

Zoning Bylaw:

The subject property is currently within the Local Commercial (C-1) zone. This zone does not permit the proposed multi-family residential use, therefore a zoning bylaw amendment is required. There are currently no zones that would allow the proposed residential density.

The existing C-1 zone allows a maximum height of 7.5m for buildings with a shallow roof pitch and 9m (approximately 2-3 storeys) for buildings with a roof pitch of 4:12 or steeper. Likewise, neighbouring residential parcels in the Old Town Residential (R-2) zone allow the same height as the C-1 zone, while neighbouring parcels within the Medium Density Residential (R-3) zone and Institutional (P-1) zone can be up to 12m, which can accommodate 3-4 storeys depending on roof pitch. It is noted that the proposed building is immediately adjacent to 1-2 storey single dwelling parcels and an institutional parcel with a two storey building.

Should Council endorse the application for further consideration, staff will explore zoning options for the proposed building, which will be brought back to Council. Staff anticipate that the proposed zoning will include provisions for neighbourhood commercial uses, density bonus provisions and special floor space ratio, setback, height and roofline provisions to secure permitted form and massing aspects of the design, address community feedback, and ensure the site is redeveloped in a way that is compatible with the surrounding neighbourhood.

Site Remediation and Brownfield Development:

The applicant has advised that the site is a contaminated site and will require remediation. A Site Profile was submitted to the Ministry of Environment & Climate Change Strategy, as required under the *Environmental Management Act*. The Ministry has authorized the approval of the rezoning application but has frozen further permit approvals until site investigation and remediation are complete. Subsequently, in order for Council to consider a DP application in tandem with this rezoning, the applicant will be required to provide the Town with a similar release from the Ministry. If the Ministry does not authorize further consideration of the DP, the rezoning can still be given further consideration.

Remediation and site investigation costs are often substantial development expenses that contribute to the redevelopment and improvement of existing neighborhoods. This aspect of site remediation is explored further under 'Community Amenity Contribution'.

Community Amenity Contribution:

Through the Town's Community Amenity Contribution (CAC) Policy, Council encourages rezoning applicants to consider proposing CACs towards needed infrastructure and amenities as a way of ensuring that the proposed development makes a positive contribution to the neighbourhood and the community at large.

Neither the OCP nor the CAC policy speak directly to brownfield renewal. However, staff and the applicant agree that the clean-up and redevelopment of this site is a positive contribution to the neighbourhood and community at large. The Province of BC notes that "cleaning up and redevelopment of these sites can generate significant economic, social and environmental benefits" noting that brownfield redevelopment does not contribute to urban sprawl, by

utilizing land already available within the community, and that if brownfield sites are left as they are, they are of little economic value.¹

Remediation costs can be substantial and the developer has indicated that the density, height and scale of the development are necessary to offset anticipated remediation costs for the development. The applicant has not provided estimates of remediation costs to staff or a development pro forma and therefore staff have not evaluated remediation costs in the context of the requested density and the CAC policy. However, staff see remediation as a means to meet the CAC policy, provided height of the proposed building is reduced to four storeys. As noted above, reducing the height to four storeys does not require a reduction in the proposed density.

Neighbourhood Information Meeting:

Subject to the Town's Development Procedures Bylaw 1667, the applicant has held two Neighbourhood Information Meetings (NIMs). The NIMs were held outdoors on the property, on July 15th and July 29th. The July 15th NIM was attended by approximately 42 people, while the July 29th NIM was attended by approximately 33 people. A 30 unit, six storey building with commercial uses on the ground floor and underground parking was originally presented at the NIMs. The five storey, 25 unit design included described in this report was developed based on feedback from the NIMs. The applicant's summary report of the NIMs and submissions from the public are attached. A summary of the public concerns with staff comments is summarized in Table 2:

Public Comments/Concerns	Staff Comments	
Proposed height is too tall and	The applicant has reduced the proposed number of storeys to 5 (with the 5 th	
number of storeys is too many.	storey proposed to be smaller than the rest). Staff are recommending that the	
Will block views. Suggestions for	applicant be directed to investigate a four storey design. At four storeys, the	
2-4 storeys being more suitable.	height increase is only 1-2 storeys taller than what is currently permitted on	
	the property.	
Precedent setting for future	Each application is considered based on its own merits and there is no formal	
taller buildings	precedent set when a rezoning application is approved However, if the zoning	
	is approved the developer will be entitled to develop to the height and density	
	in the zone.	
Not enough parking	Parking on the site is constrained due to its size and configuration. Surface	
	parking options are limited and the applicant is proposing a combination of	
	underground and surface parking. The applicant is proposing one parking	
	space per unit with four visitor parking spots. The site will be eligible for a	
	reduction in parking under the DPA 4 guidelines. ² The development is less	
	than a five minute walk from the downtown core, is across the street from a	
	bus stop and is intended to be tailored to seniors all of which support	
	reductions in parking.	

Table 2: Summary of public concerns and staff comments.

¹ <u>https://www2.gov.bc.ca/gov/content/environment/air-land-water/site-remediation/brownfields</u>

² The DPA 4 guidelines state that the Zoning Bylaw parking regulations may be reduced or altered where it is determined that strictly meeting the Zoning Bylaw parking regulations would undermine the character of the area

Public Comments/Concerns	Staff Comments
Building design out of character	The area is characterized by a mix of multi-family and single family residential
for neighbourhood & the	development. The applicant has submitted renderings of the proposal
heritage character Ladysmith	(attached) with limited design details. Should the application proceed, staff
	will work with the applicant to ensure that the proposed development is
	consistent with the DPA 4 guidelines, which require that buildings be
	compatible with the neighbourhood character. Zoning regulations can also
	control the form of the building, such as roofline, "stepping" and height. Staff's
	recommendation to lower the proposed height, also supports a more
	compatible design
Increase in traffic and resulting	The applicant has submitted a Traffic Impact Assessment (TIA). The TIA
safety concerns	concludes that the additional traffic generated by the proposed development
	can be accommodated by the existing adjacent road network and no
	additional transportation improvements are required to support the proposed
	development (TIA attached).
Too high density	The proposed density is higher than that allowed by any existing zone in
	Ladysmith. However, the applicant has reduced the proposed number of units
	to 25 from 30. This also reduces the number of required parking spaces. A
	higher density may be necessary to offset the required remediation costs.
	Given the site's proximity to the Downtown and location within a significant
	view corridor, staff support the increased density, provided it is
	accommodated within four storeys.
Consideration of the application	This option is available to Council and is provided under 'Alternatives'.
should wait until the OCP can be	
updated	
Not enough retail space provided	The proposed commercial space is an option which will be explored in more
to make project viable	detail if the application proceeds.
Will current infrastructure be	As noted in the IIA, no transportation improvements are necessary to support
able to handle the development?	the proposed development. However, the application has been forwarded to
	Engineering for comment and service upgrades may be required.

Analysis:

Although the OCP does not have a policy explicitly supporting the proposed density of 177 units per hectare, it can be argued the increased density is necessary to offset remediation costs and is therefore consistent with OCP policies which support infill development. Further, higher densities may also be supported by the OCP through density bonuses.

The applicant has advised that a reason for maintaining a taller building is to have a narrower profile within the view corridor (Applicant Letter attached). Figure 4 on the following page illustrates the proposed building's approximate footprint relative to the view corridor.



Figure 4: Approximate location of view corridor relative to the proposed building footprint.

Any development on the site greater than two storeys can be expected to obstruct views of the ocean to some degree and as height increases, so too does the number of upslope properties where the building will enter the view corridor. Lowering the building's height is the most effective way to reduce the impact on views. Additionally, incremental increases in height relative to neighbouring properties (e.g. 1-2 storeys above adjacent existing buildings) is a proven urban design technique to preserve existing neighbourhood character.³

Recognizing that high density is likely necessary to offset remediation and redevelopment costs, staff note that there appears to be ample room on the site to move the two fifth storey units to the second or third storey and within an area of the view corridor that would otherwise already be obstructed by the proposed building. This would reduce the building height while maintaining the desired density. Figure 5 illustrates a large area above the surface parking where the two units could be located above the surface parking on a second or third storey. This would result in no reduction in parking and would reduce the impact on views from the west. Additionally, there may be similar architectural adjustments to the proposed building that achieve the same effect. In summary, though staff are supportive of the proposed density, staff do not agree that a fifth storey is necessary for the following reasons:

- a view corridor study has not been provided and the existing massing drawings do not demonstrate a rationale for a tall, narrow building. On the contrary, the existing proposal suggests the height and massing within the view corridor can actually be reduced.
- submissions from the public indicate building height and the number of storeys is a primary concern with specific comments suggesting 2-4 storeys would be appropriate.

³ See for example, page 93 of the Urban Design Compendium Volume II, available at <u>https://www.academia.edu/28094730/Urban Design Compendium 02 pdf?auto=download</u>

• the applicant has indicated that a fifth storey is needed to offset remediation costs of the site; however, the desired density appears to be achievable without a fifth storey.

As such, staff recommend that the application proceed, but that the applicant be directed to investigate a four storey building design option that is more respective of the neighbourhood character and the public's concerns pertaining to the building height (see 'Neighbourhood Information Meeting'). It is also recommended that the applicant submit a view corridor study, to properly demonstrate the visual impact of the building.



Figure 5: Applicant's proposal for levels 2-3 showing an opportunity for living space to be expanded over the surface parking area.

Staff also recommend that further consideration given to the following items:

• <u>Building form and massing</u>: Zoning Bylaw regulations pertaining to building form and massing should be explored to ensure compatibility within the neighbourhood. A combination of regulations such as maximum height, number of storeys, stepping and roof pitch may be appropriate – e.g., a maximum height of 14m with a roof pitch of 4:12 or steeper and a maximum of four storeys. Setbacks and floor space ratio will also require evaluation.

- <u>Density bonus</u>: Based on guidance from the OCP, it is recommended that the applicant provide amenities to achieve the proposed density. The applicant is already proposing what may constitute amenities, such as seniors housing, rental housing and underground parking. However, staff will work with the applicant to ensure that appropriate amenities can be secured as a condition of the rezoning application (such as a section 219 restrictive covenant), should Council wish to proceed. Staff also consider remediation to constitute a suitable amenity. Examples of amenities considered suitable may include:
 - A combination of rental, seniors, and for-market housing;
 - Underground parking;
 - Brownfield redevelopment;
 - Accessible or adaptable units;
 - Energy efficient building;
 - Car sharing within the building to off-set the reduced parking.
- <u>Commercial uses</u>: the applicant is proposing an adaptable commercial unit of 900-1,000 square feet in size (approx. 100m²). This warrants further exploration to determine if it is viable in a four storey building, but may be supported by OCP policies.
- <u>Lot consolidation</u>: Should the application proceed, the two properties that make up the site should be consolidated prior to adoption of the amending bylaws to avoid two separate parcels with the same permitted height and density.

To summarize, staff support the proposed density but are requesting that the applicant be directed to explore a four storey format that addresses the public's concerns, is respective of the neighbourhood character, and can be supported by the OCP. Given there is ample space to locate the two fifth floor units on the second or third floors, ruling out the potential to achieve the desired number of units within a four storey building would be premature and unresponsive to community concerns.

ALTERNATIVES:

Council can choose to:

- 1. Endorse the five storey design as proposed and proceed with further consideration of OCP and rezoning application 3360-20-04.
- 2. Deny OCP and rezoning application 3360-20-04.
- 3. Direct that changes be made to the application prior to further consideration by Council.
- 4. Defer further consideration of the application until the Town has updated its OCP.
- 5. Defer consideration of the application to another point in time.

FINANCIAL IMPLICATIONS:

N/A

LEGAL IMPLICATIONS:

<u>Section 40 of the Environment Management Act</u> requires that a person must submit a site profile to the applicable municipality when the person is seeking approval for zoning of land that the person knows or reasonably should know is or was used for industrial or commercial

activity. <u>Section 41 of the Environmental Management Act</u> requires that a property owner be ordered to undertake a site investigation if the director (of waste management) suspects on the basis of a site profile that the site may be contaminated. The Ministry of Environment & Climate Change Strategy has issued a release allowing the Town to approve the rezoning application. In accordance with <u>section 7(1) of the Contaminated Site Regulation</u>, the director requires a detailed site investigation following completion of rezoning activities, prior to approval of future applications. This condition may affect future applications such as a development permit application.

<u>Section 475 of the Local Government Act</u> requires that when considering an amendment to an OCP, the local government must provide consultation opportunities to stakeholders it considers will be affected and consider whether the opportunities for consultation should be early and ongoing. If Council wishes to proceed with the application, staff recommend that the application be referred to the Stz'uminus First Nation, School District 68 (Nanaimo Ladysmith), the Community Planning Advisory Committee, and the Ministry of Transportation and Instructure.

<u>Section 476 of the Local Government Act</u> requires that the local government consult with the local school district board of education where an OCP amendment is proposed for the purpose of planning for school facilities. If Council wishes to proceed with the report recommendations, the application will be referred to the School District 68 (Ladysmith Nanaimo) Board of Education.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

The applicant held two Neighbourhood Information Meetings (NIMs). on July 15th and July 29th. The applicant's summary report of the NIMs is attached to this report, which includes submissions from the public. The Town has also received supplemental submissions from the public following the NIMs which are also attached to this report.

If the application proceeds for further consideration, a public hearing will be required.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

The application has been forwarded to Engineering and Building Inspection for review and comment. If the application proceeds, staff recommendations will factor in any Building and Engineering requirements.

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

☑ Complete Community Land Use
 ☑ Green Buildings
 ☑ Multi-Use Landscapes
 ☑ Innovative Infrastructure
 ☑ Healthy Community
 ☑ Not Applicable
 ☑ Local Food Systems

ALIGNMENT WITH STRATEGIC PRIORITIES:

□Infrastructure □Community □Waterfront EconomyNot Applicable

I approve the report and recommendation(s).

Erin Anderson, A/Chief Administrative Officer

ATTACHMENT(S):

Applicant Letter (September 30th, 2020) Applicant's Preliminary Design Plans & Shadow Study Transportation Impact Assessment (Watt Consulting Group) Conceptual Site Servicing Report (Cascara Consulting Engineers Limited) Applicant's NIM summary report Public submissions

Attachment A

OCP Amendment and Rezoning

201-203 Dogwood Drive, Ladysmith

Official Community Plan

The OCP designation for the properties is Local Commercial. This designation identifies the long standing commercial use of the site as Dalby's Garage. Directly across Dogwood Drive from the site are three properties (202 & 204 Dogwood Drive) designated Local Commercial, plus approximate 500m east of the site (336 Belaire Road) is also Local Commercial. The adjacent property southeast to the site (205 Dogwood Drive) is designated as Institutional.

The proposal is to amend the OCP to designate the property as Multi-Family Residential, which is the primary proposed use, together with a small commercial space of approximately 4% of the total floor area.

The OCP Growth Management Policies (Section 3.1.4.2) identifies that the Town will direct future residential growth to five areas, including infill surrounding downtown (where this property is located), with a potential additional population of 500. The proposed rezoning of this property would add approximately 25 rental units a short distance from the downtown, focusing on housing for seniors. Also, the OCP Land Use Planning and Community Design Policies (Section 3.2.3.4) identifies that the town defines intensive residential development to include all forms of residential development that consists of densities that average 17.3 units per ha (7 units per acre) or greater as determined on a parcel by parcel basis.

There are other multi-family developments in the area, therefore the proposed OCP amendment to multi-residential will be consistent with current neighbourhood uses.

Zoning Bylaw

The properties are currently zoned Local Commercial (C1). The properties across the road (202 & 204 Dogwood Drive) are also zoned C1, while the adjacent property to the southeast (205 Dogwood Drive) is zoned Institutional (P1). The majority of the surrounding neighbourhood is zoned single family dwelling and to a lesser extent medium density residential (R3).

The Town of Ladysmith Zoning Bylaw does not include zoning that permits the density or height that is proposed for the site. The medium density residential (R3) zone allows for the most density (60 units per ha) and height (12.0m) in the zoning bylaw for residential uses.

The proposal is to amend the zoning bylaw to request a Site Specific zone to allow for a building with the following specifications:

- 4 $\frac{1}{2}$ stories, with an approximate height of 17.5m
- a building footprint of approximately 550 sq.m (39 % lot coverage)
- one storey of underground parking
- one storey at grade, including entrance lobby, stairs, parking and three residential units plus one unit that could be residential or commercial use
- four additional stories of residential units, including seven units per floor on levels 2 & 3, five units on level 4 and two units on level 5, with unit sizes varying between 65 90 sq. m.
- 29 parking spaces, including 1.0 space per unit and 4 visitor parking spaces

In conjunction with the rezoning, Brian Kapuscinski, BJK Architecture has been retained to prepare design services for the project. Mr Kapuscinski will pursue a design taking into account DPA 4, Multi-Unit Residential guidelines for building form and character.

Rationale for Revised Building Design and Reduced Building Height

Following submission to the Town of Ladysmith for an OCP amendment and rezoning application for a 6 storey building on 2020-May-28, two Neighbourhood Information Meetings (NIM) were held July 15 and July 29. Feedback that was received from the NIM's included concerns about the building height and massing, that would block the view corridors for upland residents.

Once this feedback was received, the proposed design was re-evaluated and a new design was prepared. The new design reduced the building height from 6 stories to 4 1/2 stories, plus reduced the building massing on the 5th level, by decreasing to two units, instead of the previously proposed six units. As a result, the building massing on the 5th level was substantially decreased and outdoor amenity space was added.

One of the important goals of the redesign, is in addition to decreasing the building height, is to maintain a narrow building, to lessen impact on the view corridors. Alternate design options were reviewed, including widening the building on levels 2 and 3, to add additional floor space. This option would result in increased massing on these floors and decreased view corridors. After further review of the view corridors, the revised design retained the existing narrow building design and reduced the building massing on the 5th level,

Also, the new design resulted in a reduction of the total units on site from 30 to 25, allowing for allocation of 1.0 parking spaces for each of the 25 units, plus 4 visitor parking spaces.

The reduction from 6 stories to 4 1/2 stories, also resulted in a building design that more closely aligned with the Town of Ladysmith zoning bylaw for Medium Density Residential (R-3) zone and the OCP.





PROPOSED REZONING: 201 & 203 DOGWOOD DRIVE LADYSMITH, B.C.

bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

DELINEA

DRAWING: AERIAL

PROJECT #:

d1556.23.19

REZONING:	MAY 25 2020
ISSUED:	SEPT. 21 2020
REVIEW:	SEPT. 24 2020
REVISED SUBMITTAL:	SEPT. 25 2020







bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

PELINEA

DRAWING: UNDER BUILDING PARKING

PROJECT #:	d1556.23.19
REZONING:	MAY 25 2020
ISSUED:	SEPT. 21 2020
REVIEW:	SEPT. 24 2020
REVISED SUBMITTAL:	SEPT. 25 2020



-PEDESTRIAN CONNECTION



LEVEL 1 RESIDENTIAL/ **SURFACE PARKING**



LOCATION PLAN NOT TO SCALE

201 DOGWOOD DRIVE, LADYSMITH B.C. - LOT 10 203 DOGWOOD DRIVE, LADYSMITH B.C. - LOT 11

LOT 10, PLAN VIP1684, D.L. 56, LAND DIST. 43 AMD LOT10 (DD 21674N)

LOT 11, PLAN VIP1684, D.L. 56, LAND DIST. 43 AMD LOT11 (DD 27179N)

+/- 852 SQ.M. +/- 557 SQ.M.

LOT 10/11- C-1 LOCAL COMMERCIAL

25

U.B. PARKI LEVEL 1:

LEVEL 2:

LEVEL 3: LEVEL 4: LEVEL 5: G.F.A.:

VISITOR

PROVIDED:

NG:	+/- 1,336 SQ.FT.
	+/- 4,310 SQ.FT.
	+/- 6,050 SQ.FT.
	+/- 6,050 SQ.FT.
	+/- 4,900 SQ.FT.
	+/- 2,080 SQ.FT.
	+/- 24,726 SQ.FT.

RESIDENTIAL: 25 @ 1/UNIT = 25 = 4 =29 STALLS

203 DOGWOOD DRIVI PROPOSED REZONING: -ADYSMITH, B.C. లర 201

bjk architecture inc. 2122 Brandon Rd

Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

DELINEA

DRAWING: LEVEL 1 RESIDENTIAL

PROJECT #:

d1556.23.19

REZONING:	MAY 25 2020
ISSUED:	SEPT. 21 2020
REVIEW:	SEPT. 24 2020
REVISED SUBMITTAL:	SEPT. 25 2020

PR3



LEVEL 2-3 RESIDENTIAL $\overline{\mathbf{N}}$



bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

DELINEA

DRAWING: LEVEL 2-3 RESIDENTIAL

PROJECT #:

d1556.23.19

REZONING: ISSUED: **REVIEW:** REVISED SUBMITTAL: SEPT. 25 2020

MAY 25 2020 SEPT. 21 2020 SEPT. 24 2020





LEVEL 4 RESIDENTIAL \square

201 & 203 DOGWOOD DRIVE **PROPOSED REZONING:** LADYSMITH, B.C.

bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

DELINEA

DRAWING: LEVEL 4 RESIDENTIAL

PROJECT #:

d1556.23.19

REZONING: ISSUED: **REVIEW:** REVISED SUBMITTAL: SEPT. 25 2020

PR5

MAY 25 2020 SEPT. 21 2020 SEPT. 24 2020





PROPOSED REZONING: 201 & 203 DOGWOOD DRIVE LADYSMITH, B.C.

bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

DELINEA

DRAWING: LEVEL 5 RESIDENTIAL

PROJECT #:

d1556.23.19

 REZONING:
 MAY 25 2020

 ISSUED:
 SEPT. 21 2020

 REVIEW:
 SEPT. 24 2020

 REVISED SUBMITTAL:
 SEPT. 25 2020

PR6




PROPOSED REZONING: 201 & 203 DOGWOOD DRIVE LADYSMITH, B.C.

bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

DELINEA

DRAWING: SECTION

PROJECT #:

d1556.23.19

REVISED SUBMITTAL SUPPLEMENTAL INFO: SEPT. 25 2020

PR7







201 & 203 DOGWOOD DRIVE **PROPOSED REZONING:** LADYSMITH, B.C.

bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

DELINEA.

DRAWING: SUMMER SOLSTICE

PROJECT #:

d1556.23.19

REZONING: ISSUED: MAY 25 2020 SEPT. 21 2020 SEPT. 24 2020 **REVIEW:** REVISED SUBMITTAL: SEPT. 25 2020











bjk architecture inc. 2122 Brandon Rd. Shawnigan Lake B.C. VOR 2W3 Ph: 250-891-1602

ELINEA H

DRAWING: WINTER SOLSTICE

PROJECT #:

d1556.23.19

REZONING: ISSUED: REVIEW: REVISED SUBMITTAL: SEPT. 25 2020

MAY 25 2020 SEPT. 21 2020 SEPT. 24 2020



201/203 Dogwood Road Development

Transportation Impact Assessment

May 07, 2020







#501, 740 Hillside Avenue Victoria, BC V8T 1Z4 Phone: 205.388.9877 F 250.388.9879 wattconsultinggroup.com

201/203 DOGWOOD ROAD DEVELOPMENT

Traffic Impact Assessment



Author: Mustafa. Al-Mirmar,C.E.T

Author: Mustafa. AI-Mirmar,c.e.t Transportation Technologist

Prepared for:FMC Holdings Ltd.Our File:2815.B01Date:May 07, 2020

Reviewer: Nathan Carswell,P.Eng Regional Lead

> #501-740 Hillside Avenue Victoria, BC V8T 1Z4 T 250.388.9877 F 250.388.9879

> wattconsultinggroup.com

WATTCONSULTINGGROUP.COM

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1.0 INTRODUCTION

1.1 STUDY BACKGROUND

Watt Consulting Group was retained by FMC Holdings Ltd c/o Seward Developments Inc. to undertake a traffic impact assessment (TIA) for the proposed 201/203 Dogwood Road mix-use development in the Town of Ladysmith, British Columbia. The proposed land use redesignation is to change the zoning to allow for a medium density, mixed-use project. It is anticipated the development, upon completion, will contain 30 multi-residential units and 101 m² commercial/ office units. This report examines the existing and long-term conditions within the study area, highlights any potential operational issues, and (if necessary) recommends mitigation measures to ensure accommodation of development traffic. The study also includes a review of the alternative transportation networks (pedestrian, cycling, and transit) within the vicinity of the development site.

1.2 STUDY AREA

The development site is bounded by Forward Road and Dogwood Drive in Ladysmith, BC. The proposed site access will be on Dogwood Drive and on Forward Rd. The study area includes the following key intersections:

- Dogwood Drive / Methuen Street
- Dogwood Drive / Forward Road
- Dogwood Drive / Bayview Avenue



Figure 1: Development Site and Key Intersections

2.0 EXISTING CONDITIONS

2.1 LAND USE

The development site is currently zoned as Local Commercial (C1). The surrounding land use is comprised of Single Dwelling Residential (R1), Medium Density Residential (R3), and Institutional (P1).

2.2 EXISTING ROAD NETWORK

There are four roadways within the study area as described below:

- **Dogwood Drive** is an undivided two-lane Urban Collector road bordering the west side of the development site. On-street parking is not permitted along Dogwood Drive. The roadway runs in a north-south direction. The segment of Dogwood Drive near the site has residential frontage and a speed limit of 50 km/h.
- Forward Road is a two-lane local road. The roadway runs in the east-west direction and it is approximately 100 m long. The posted speed limit is 50 km/h.
- Methuen Street is a two-lane undivided road that is classified as a local road. The posted speed limit is 50 km/h
- **Bayview Avenue** is a two-lane undivided road that is classified as a local road. On-street parking is permitted. The posted speed limit is 50 km/h

Figure 2 illustrates the existing lane configuration and traffic controls in the study area.





2.3 EXISTING TRAFFIC VOLUMES

Intersection turning movement counts at the intersections of Bayview Avenue & Dogwood Drive, Forward Road & Dogwood Drive, and Methuen Street & Dogwood Drive, were undertaken on Wednesday March 4th, 2020. Passenger car, trucks, bicycles, and pedestrian movements were recorded at the intersection.

The raw traffic data for the survey is included in **Appendix A** of this report. **Figure 3** shows the peak hour traffic volumes.



Figure 3: Existing Peak Hour Traffic Volumes

2.4 TRAFFIC MODELLING – BACKGROUND INFORMATION

Analysis of the traffic conditions at the study intersections was undertaken using Synchro Studio (Version 9). Synchro / SimTraffic is a two-part traffic modelling software that provides analysis of the traffic conditions based on the Highway Capacity Manual (2010) evaluation methodology.

For unsignalized (stop-controlled) intersections, the level of service (LOS) is based on the computed delay on each of the critical movements. LOS A represents minimal delays for minor street traffic movements, and LOS F represents a scenario with an insufficient number of gaps on the major street for minor street motorists to complete their movements without significant delays.

For signalized intersections, the methodology considers the intersection geometry, traffic volumes, the traffic signal phasing/timing plan, and pedestrian volumes. The

average delay for each lane group is calculated, as well as the delay for the overall intersection.

Level of	Average Delay for UNSIGNALIZED	Average Delay for SIGNALIZED
Service (LOS)	Intersection Movements	Intersection Movements
A	0 – 10 seconds per vehicle	0 – 10 seconds per vehicle
В	> 10 – 15 seconds per vehicle	> 10 – 20 seconds per vehicle
С	> 15 – 25 seconds per vehicle	> 20 – 35 seconds per vehicle
D	> 25 – 35 seconds per vehicle	> 35 – 55 seconds per vehicle
E	> 35 – 50 seconds per vehicle	> 55 – 80 seconds per vehicle
F	> 50 seconds per vehicle	> 80 seconds per vehicle

TABLE 1: LEVEL OF SERVICE CRITERIA

2.5 **EXISTING TRAFFIC CONDITIONS**

Capacity analysis was conducted for the existing AM and PM peak hours using the existing configurations and traffic controls as shown in **Figure 2** for the road network and the volumes shown in **Figure 3**. The results of the existing intersection operation analysis are provided in **Table 2**. All software outputs for this analysis, and any subsequent analysis, are included in **Appendix B** of this report.

INTERSECTI				AM P	EAK HOUR			PM P	EAK HOUR	
INTERSECT			v/c Ratio	LOS	Delay (s)	Queue (m)	v/c Ratio	LOS	Delay (s)	Queue (m)
Deverieur Aus (WB	Left/Right	0.07	Α	10.0	2.0	0.04	Α	10.0	2.0
Dayview Ave /	NB	Through/Right	0.08	Α	0.0	0.0	0.09	А	0.0	0.0
(Stop Controlled)	SB	Left/Through	0.01	А	2.0	1.0	0.03	Α	2.0	1.0
(Stop Controlled)	Inter	section Summary	-	Α	3.0	-	-	Α	2.0	-
Forward Dd /	WB	Left/Right	0.11	Α	0.0	0.0	0.09	Α	0.0	0.0
	NB	Through/Right	0.01	Α	2.0	1.0	0.01	Α	1.0	0.2
(Stop Controlled)	SB	Left/Through	0.01	А	10.0	1.0	0.00	Α	9.0	0.1
(Stop Controlled)	Inter	section Summary	-	Α	1.0	-	-	Α	1.0	-
	EB	Left/Through/Right	0.00	Α	1.0	1.0	0.10	Α	1.0	1.0
Methuen St /	WB	Left/Through/Right	0.01	А	1.0	1.0	0.10	Α	1.0	1.0
Dogwood Dr	SB	Left/Through/Right	0.02	Α	10.0	1.0	0.05	В	11.0	2.0
(Stop Controlled)	SB	Left/Through/Right	0.02	В	11.0	1.0	0.02	В	11.0	1.0
	Inter	section Summary	-	Α	2.0	-	-	Α	2.0	-

TABLE 2: EXISTING CONDITIONS

The existing intersection capacity analysis results indicate that the study area intersections are currently operating within acceptable parameters during the AM and PM peak hours, and no improvements or expansions are needed. All intersections are operating at a LOS B or better and a maximum vol/ capacity ratio of 0.11 during the AM and PM peak hours.

3.0 PROPOSED DEVELOPMENT

3.1 PROPOSED LAND USE & SITE ACCESS

The 201/203 Dogwood Road development is proposed to have 30 unit multi-family residential units and 101 m² commercial/ office units. The site is proposed to have full movement accesses onto Dogwood Drive and another on Forward Rd. The site plan is shown below in **Figure 4**.



Figure 4: Site Plan

3.2 TRIP GENERATION

Site trips were estimated from the Institute of Transportation Engineers' (ITE) Trip Generation Manual (10th Edition). The Trip Generation Manual provides trip rates for a wide variety of land uses gathered from actual sites across North America over the past 40 years.

The proposed developments will generate 13 trips (5 inbound / 8 outbound) during the AM peak hour and 16 trips (9 inbound / 7 outbound) during the PM peak hour. The trip generation results for the proposed development in the AM and PM peak hour are summarized in **Table 3**.

Given the existing zoning for the property is C-1 local commercial which could allow for a coffee shop or convenience store and would conceivably generate 137 trips as compared to the proposed development, this development is seen as a downzoning.

		Units	TRIPS AM F	GENER PEAK H	RATED OUR	TRIPS PM P			
Land use	Total Area sqft		TOTAL	IB	ОВ	TOTAL	IB	ОВ	Code
Residential (Multi-Family)		30	11	3	8	13	8	5	221
Commercial/Office	1088		2	2	0	3	1	2	712
Total	-		13	5	8	16	9	7	

TABLE 3: PROPOSED DEVELOPMENT TRIP GENERATION

*IB-OB refers to inbound and outbound movements

3.3 TRIP ASSIGNMENT

The trip distribution pattern for the proposed development was based on the existing traffic patterns and the existing and future land uses in the vicinity of the site. Based on these assumptions, the following traffic distribution pattern was estimated for the proposed development as summarized in **Figure 5**.



Figure 5: Trip Distribution

The development related traffic, based on the trip generation shown in **Table 3** and the distribution pattern indicated in **Figure 5**, is shown in **Figure 6**.



Figure 6: Site Generated Traffic Volumes

4.0 POST DEVELOPMENT OPERATING CONDITIONS

4.1 **OPENING DAY TRAFFIC VOLUMES**

The opening day vehicular traffic volumes were determined by superimposing the site generated volumes as shown in **Figure 6** on existing traffic volumes as shown in **Figure 3**. The resulting post development AM and PM peak hour volumes are illustrated in **Figure 7**.





4.2 **OPENING DAY ANALYSIS**

The post development operating conditions were assessed based on the traffic volumes shown in **Figure 7**, and the road network as indicated in **Figure 2**. The results of the post development intersection capacity analysis using the existing lane configuration and traffic controls are summarized in **Table 4**.

INTERCECTI				AM P	EAK HOUR	2		PM P	EAK HOUR	2
INTERSECT			v/c Ratio	LOS	Delay (s)	Queue (m)	v/c Ratio	LOS	Delay (s)	Queue (m)
Boundieur Ave /	WB	Left/Right	0.07	Α	10.0	2.0	0.05	А	10.0	2.0
Dogwood Dr	NB	Through/Right	0.08	Α	0.0	0.0	0.09	Α	0.0	0.0
(Step Centrolled)	SB	Left/Through	0.01	А	2.0	1.0	0.03	А	2.0	1.0
(Stop Controlled)	Inter	section Summary	-	Α	3.0	-	-	Α	2.0	-
A	WB	Left/Right	0.01	Α	10.0	1.0	0.01	А	10.0	1.0
Access/	NB	Through/Right	0.10	Α	0.0	0.0	0.10	А	0.0	0.0
Dogwood Dr	SB	Left/Through	0.01	Α	1.0	1.0	0.01	Α	1.0	1.0
(Stop Controlled)	Inter	section Summary	-	Α	1.0	-	-	Α	1.0	-
Access/	EB	Left/Through	0.00	Α	9.0	1.0	0.00	Α	9.0	0.0
Access/	NB	Through/Right	0.00	Α	0.0	0.0	0.00	Α	0.0	0.0
Forward RD	SB	Left/Right	0.00	Α	0.0	0.0	0.01	Α	0.0	0.0
(Stop Controlled)	Inter	section Summary	-	Α	2.0	-	-	Α	2.0	-
Forward Bd /	WB	Left/Right	0.11	Α	0.0	0.0	0.09	А	0.0	0.0
	NB	Through/Right	0.01	Α	2.0	1.0	0.02	А	1.0	1.0
Dogwood Dr (Step Centrelled)	SB	Left/Through	0.02	Α	10.0	1.0	0.02	В	11.0	1.0
(Stop Controlled)	Inter	section Summary	-	Α	2.0	-	-	Α	1.0	-
	EB	Left/Through/Right	0.00	Α	1.0	1.0	0.01	А	1.0	1.0
Methuen St /	WB	Left/Through/Right	0.01	Α	1.0	1.0	0.01	А	1.0	1.0
Dogwood Dr	SB	Left/Through/Right	0.02	Α	10.0	1.0	0.05	В	11.0	2.0
(Stop Controlled)	SB	Left/Through/Right	0.02	В	11.0	1.0	0.02	В	11.0	1.0
	Inter	section Summary	-	Α	2.0	-	-	Α	2.0	-

TABLE 4: OPENING DAY OPERATING CONDITIONS

The opening day intersection capacity analysis results indicate that the study area intersections are currently operating within acceptable parameters during the AM and PM peak hours, and no improvements or mitigation is needed. All intersections are operating at a LOS B or better and a maximum capacity ratio of 0.11 during the AM peak hours.

5.0 LONG TERM CONDITIONS – 20 YEAR HORIZON

The long term conditions were analyzed assuming the existing roadway network. An annual growth rate was estimated at 2.0%. Therefore, the 2020 existing traffic volumes were projected with a 2.0% annual growth rate to obtain the 20 year background traffic volumes.

5.1 20 YEAR BACKGROUND VOLUMES

The expected future background 20-year volumes, using 2.0% growth factor, are shown in **Figure 8** below.



Figure 8: 20 Year Background Development Traffic Volumes

5.2 **20 YEAR BACKGROUND OPERATING CONDITIONS**

The 20 year background operating conditions of the existing road network was evaluated without the proposed development and the analysis was carried out using Synchro software and the existing lane configurations as shown in **Figure 2** and the future background traffic volumes as shown in **Figure 8**. The results are summarized in **Table 5**.

INTERSECTI				AM P	EAK HOUF	2		PM P	EAK HOUR	2
INTERSECTI			v/c Ratio	LOS	Delay (s)	Queue (m)	v/c Ratio	LOS	Delay (s)	Queue (m)
Boundary Ave /	WB	Left/Right	0.12	Α	10.0	4.0	0.07	В	11.0	2.0
Dayview Ave /	NB	Through/Right	0.12	Α	0.0	0.0	0.13	Α	0.0	0.0
Dogwood Dr (Sten Centrelled)	SB	Left/Through	0.01	Α	2.0	1.0	0.05	Α	3.0	2.0
(Stop Controlled)	Inter	section Summary	-	Α	3.0	-	-	Α	3.0	-
Formulard Rd /	WB	Left/Right	0.16	Α	0.0	0.0	0.14	Α	0.0	0.0
	NB	Through/Right	0.01	Α	2.0	1.0	0.01	Α	1.0	1.0
Dogwood Dr (Step Centrolled)	SB	Left/Through	0.02	В	11.0	1.0	0.00	Α	10.0	1.0
(Stop Controlled)	Inter	section Summary	-	Α	1.0	-	-	Α	1.0	-
	EB	Left/Through/Right	0.00	Α	1.0	1.0	0.01	А	1.0	1.0
Methuen St /	WB	Left/Through/Right	0.01	Α	1.0	1.0	0.01	А	1.0	1.0
Dogwood Dr	SB	Left/Through/Right	0.04	В	11.0	1.0	0.09	В	12.0	3.0
(Stop Controlled)	SB	Left/Through/Right	0.03	В	11.0	1.0	0.03	В	12.0	1.0
	Inter	section Summary	-	Α	2.0	-	-	Α	2.0	-

TABLE 5: 20 YEAR BACKGROUND CONDITIONS

The 20 year background intersection capacity analysis results indicate that the study area intersections are currently operating within acceptable parameters during the AM and PM peak hours. All intersections are operating at a LOS B or better and a maximum capacity ratio of 0.16 during the AM peak hours.

201/203 Dogwood Road Development Traffic Impact Assessment

5.3 **20 YEAR POST DEVELOPMENT**

The 20-year horizon post development vehicular traffic volumes were determined by superimposing the site generated volumes as shown in **Figure 6** on the 20-year background traffic volumes as shown in **Figure 8**. The resulting post development AM and PM peak hour volumes are illustrated in **Figure 9**.



Figure 9: 20 Year Horizon Traffic Volumes

The 20-year horizon operating conditions were reviewed using the traffic volumes shown in **Figure 9**. The results of the post development intersection capacity analysis using the existing lane configuration and traffic controls are summarized in **Table 6**.

INTERSECTI		OVEMENT		AM P	EAK HOUR	2		PM P	EAK HOUR	ł
INTERSECTI			v/c Ratio	LOS	Delay (s)	Queue (m)	v/c Ratio	LOS	Delay (s)	Queue (m)
Boundieur Ave /	WB	Left/Right	0.12	Α	10.0	4.0	0.08	В	11.0	2.0
	NB	Through/Right	0.12	Α	0.0	0.0	0.14	Α	0.0	0.0
(Step Centrelled)	SB	Left/Through	0.01	Α	2.0	1.0	0.05	А	3.0	2.0
(Stop Controlled)	Inter	section Summary	-	Α	3.0	-	-	Α	3.0	-
A	WB	Left/Right	0.01	Α	10.0	1.0	0.01	В	11.0	1.0
Access/	NB	Through/Right	0.14	Α	0.0	0.0	0.15	А	0.0	0.0
(Step Centrelled)	SB Left/Through		0.00	Α	1.0	1.0	0.01	Α	1.0	1.0
(Stop Controlled)	Inter	section Summary	-	Α	1.0	-	-	Α	1.0	-
A	EB	Left/Through	0.00	Α	9.0	1.0	0.00	Α	9.0	0.0
Access/	NB	Through/Right	0.00	Α	0.0	0.0	0.00	А	0.0	0.0
Forward RD	SB	Left/Right	0.01	А	0.0	0.0	0.01	А	0.0	0.0
(Stop Controlled)	Intersection Summary		-	Α	2.0	-	-	Α	2.0	-
Forward Rd /	WB	Left/Right	0.16	Α	0.0	0.0	0.14	Α	0.0	0.0
	NB	Through/Right	0.02	Α	2.0	1.0	0.02	А	1.0	1.0
(Stop Controlled)	SB	Left/Through	0.03	В	11.0	1.0	0.02	В	12.0	1.0
(Stop Controlled)	Inter	section Summary	-	Α	1.0	-	-	Α	1.0	-
	EB	Left/Through/Right	0.00	Α	1.0	1.0	0.01	А	1.0	1.0
Methuen St /	WB	Left/Through/Right	0.01	Α	1.0	1.0	0.01	А	1.0	1.0
Dogwood Dr	SB	Left/Through/Right	0.04	В	11.0	1.0	0.09	В	12.0	3.0
(Stop Controlled)	SB	Left/Through/Right	0.03	В	12.0	1.0	0.03	В	12.0	1.0
	Inter	section Summary	-	Α	2.0	-	-	Α	2.0	-

TABLE 6: 20 YEAR POST DEVELOPMENT CONDITIONS

The 20 year post development intersection capacity analysis results indicate that the study area intersections are currently operating within acceptable parameters during the AM and PM peak hours. All intersections are operating at a LOS B or better and a maximum capacity ratio of 0.16 during the AM peak hours.

6.0 ALTERNATIVE TRANSPORTATION MODES

6.1 **PEDESTRIAN NETWORK**

Dogwood Drive has a sidewalk along the west side of the road for the length of the road; zebra crosswalks are present at Bayview Avenue and Methuen Street. A sidewalk on the north side of the site frontage and zebra crosswalk at Forward Road and Dogwood Drive would provide a direct pedestrian connection to the bus stop across the street from the development. Therefore a sidewalk should be installed along the development property frontage.

Bayview Avenue has a sidewalk along the south side of the road for the length of the road; no painted crosswalks are present along the length of the road. No additional pedestrian network upgrades are recommended as a result of the proposed development.

6.2 CYCLING NETWORK

Currently, the section of Dogwood Drive adjacent to the proposed development site has no dedicated space for cycling, nor pavement markings or signage indicating it is a bicycle route. Bayview Avenue does not have dedicated space for cycling, nor pavement markings or signage indicating it is a bicycle route.

Dogwood Drive and Bayview Avenue have been identified as a Priority Bicycle Facility in the 2009 Ladysmith Bicycle Plan. Dogwood Drive does not have a specified crosssection, however, a section of Dogwood Drive to the south of the proposed development, near Holland Creek Park has on-street bicycle lanes. The proposed development is not proposing a change to the existing roadway cross-section and could still allow for the creation of on-street bike lanes adjacent to the site. No additional cycling network upgrades are recommended as a result of the proposed development.

6.3 TRANSIT NETWORK

BC Transit operates bus service of the three routes on Dogwood Drive that include: Route # 31 – Ladysmith/Alderwood, #34 Ladysmith/Chemainus and Route # 36 -Ladysmith/Duncan Express. The nearest bus stop for the proposed development is located. on the west sides of Dogwood Drive and Forward Road. The bus stops are located approximately 15m west of the site and services transit passengers in the south bound direction. Transit Passengers heading northbound on Route # 34 and Route # 36 would need to walk 250m to the south of the proposed development to the existing stop on the east side of Dogwood Drive. No additional transit infrastructure is required.

7.0 CONCLUSIONS

Based on the results of the analysis presented in this report, the following conclusions were reached with respect to 201/203 Dogwood Drive:

- The results of the capacity analysis indicate that all of the individual movements at all the studied intersections should operate at LOS B or better with v/c ratios less than 0.16 for post development conditions.
- The additional traffic generated by the proposed development can be accommodated by the existing adjacent road network.
- No additional transportation improvements are required to support the proposed development.

The site is generally well provided for in terms of pedestrian facilities; however, a sidewalk is to be installed along the north (Dogwood Drive) frontage. The provision of bicycle lanes is not required. The site has access to transit within 15m of the site.

8.0 **RECOMMENDATIONS**

Based on these conclusions, no transportation network improvements are recommended to accommodate the construction of the proposed 201/203 Dogwood Drive development.

It is recommended, however, that pedestrian access to the existing sidewalk system on the west side of Dogwood Drive be provided through the completion of construction of the required sidewalks connections.

APPENDIX A: RAW TRAFFIC DATA

N/S Street:	Bayview Ave		Observer: Matthew Lilly	
E/W Street:	Dogwood Road		Notes:	
LOCATION:	Ladysmith			
DATE:	March 4, 2020			
WEATHER:	Sun	TOTAL HOURS = 1	Speed Limit Major Street:	50 km/h
JOB # :	2815.B01		Speed Limit Minor Street:	50 km/h

Vehicles

TIME			Northbound		Southbound			Eastbound				Westbound		Total	Hourly	Pedestrians			
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	Volume	Volume	N	S	E	W
8:00	8:15	3		6					32	1	3	12		57					
8:15	8:30	2		13					32	2	0	9		58					
8:30	8:45	3		5					20	0	2	13		43					
8:45	9:00	3		7					31	2	2	10		55	213				
Peak	Hour	11	0	31	0	0	0	0	115	5	7	44	0			0	0	0	0
PF	IF	0.92	0.00	0.60	0.00	0.00	0.00	0.00	0.90	0.63	0.58	0.85	0.00]					

Heavy Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
8:00	8:15	0		0					0	0	0	0	
8:15	8:30	0		0					2	0	0	2	
8:30	8:45	0		0					0	0	0	0	
8:45	9:00	0		0					0	0	0	0	
Peak	Hour	0	0	0	0	0	0	0	2	0	0	2	0
% Heavy Vehicles		0%	0%	0%	0%	0%	0%	0%	2%	0%	0%	5%	0%

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
8:00	8:15	0		0					0	0	0	0	
8:15	8:30	0		0					0	0	0	0	
8:30	8:45	0		0					0	0	0	0	
8:45	9:00	0		0					0	0	0	0	
Peak	Hour	0	0	0	0	0	0	0	0	0	0	0	0





Observer: Matthew Lilly

Notes: 8 Vehicles turned into the gas station inbetween sties (Bayview//Forward). EB - 4 WB - 4. Several of these turned left and did not go to both intersections

Speed Limit Major Street:	50 km/h
Speed Limit Minor Street:	50 km/h

Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound		Total	Hourly		Pedes	strians	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	Volume	Volume	N	S	E	W
16:00	16:15	1		7					33	5	12	37		95					
16:15	16:30	1		7					20	2	7	33		70					
16:30	16:45	1		5					15	0	11	39		71					
16:45	17:00	2		4					17	1	9	29		62	298				
Peak	Hour	5	0	23	0	0	0	0	85	8	39	138	0			0	0	0	0
PH	IF	0.63	0.00	0.82	0.00	0.00	0.00	0.00	0.64	0.40	0.81	0.88	0.00						

Heavy Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0		0					2	0	0	0	
16:15	16:30	0		0					1	0	0	1	
16:30	16:45	0		0					0	0	0	0	
16:45	17:00	0		0					0	0	0	0	
Peak	Hour	0	0	0	0	0	0	0	3	0	0	1	0
% Heavy	Vehicles	0%	0%	0%	0%	0%	0%	0%	4%	0%	0%	1%	0%

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0		0					0	0	0	0	
16:15	16:30	0		0					0	0	0	0	
16:30	16:45	0		0					0	0	0	0	
16:45	17:00	0		0					0	0	0	0	
Peak	Hour	0	0	0	0	0	0	0	0	0	0	0	0



N/S Street:	Forward Road		Observer: Matthew Lilly	
E/W Street:	Dogwood Road		Notes:	
LOCATION:	Ladysmith			
DATE:	March 4, 2020			
WEATHER:	Sun	TOTAL HOURS = 1	Speed Limit Major Street:	50 km/h
JOB # :	2815.B01		Speed Limit Minor Street:	50 km/h

Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound		Total	Hourly		Pede	strians	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	Volume	Volume	N	S	E	W
8:00	8:15	0		0					38	0	1	15		54					
8:15	8:30	1		1					45	0	0	8		55					
8:30	8:45	1		0					25	0	3	14		43					
8:45	9:00	0		2					37	1	0	12		52	204				
Peak	Hour	2	0	3	0	0	0	0	145	1	4	49	0			0	0	0	0
PF	łF	0.50	0.00	0.38	0.00	0.00	0.00	0.00	0.81	0.25	0.33	0.82	0.00						

Heavy Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
8:00	8:15	0		0					0	0	0	0	
8:15	8:30	0		0					2	0	0	2	
8:30	8:45	0		0					0	0	0	0	
8:45	9:00	0		0					0	0	0	0	
Peak	Hour	0	0	0	0	0	0	0	2	0	0	2	0
% Heavy	Vehicles	0%	0%	0%	0%	0%	0%	0%	1%	0%	0%	4%	0%

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
8:00	8:15	0		0					0	0	0	0	
8:15	8:30	0		0					0	0	0	0	
8:30	8:45	0		0					0	0	0	0	
8:45	9:00	0		0					0	0	0	0	
Peak	Hour	0	0	0	0	0	0	0	0	0	0	0	0





Observer: Matthew Lilly

Notes: 8 Vehicles turned into the gas station inbetween sties (Bayview//Forward). EB - 4 WB - 4. Several of these turned left and did not go to both intersections

Speed Limit Major Street:	50 km/h
Speed Limit Minor Street:	50 km/h

Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound		Total	Hourly		Pede	strians	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	Volume	Volume	N	S	E	W
16:00	16:15	0		1					38	1	0	45		85					
16:15	16:30	0		0					27	1	0	41		69					
16:30	16:45	0		0					22	0	3	43		68					
16:45	17:00	0		0					20	1	0	33		54	276				
Peak	Hour	0	0	1	0	0	0	0	107	3	3	162	0			0	0	0	0
PF	IF	0.00	0.00	0.25	0.00	0.00	0.00	0.00	0.70	0.75	0.25	0.90	0.00						

Heavy Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0		0					2	0	0	0	
16:15	16:30	0		0					1	0	0	1	
16:30	16:45	0		0					0	0	0	0	
16:45	17:00	0		0					0	0	0	1	
Peak	Hour	0	0	0	0	0	0	0	3	0	0	2	0
% Heavy	Vehicles	0%	0%	0%	0%	0%	0%	0%	3%	0%	0%	1%	0%

39 28

- 22
- 21

110

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0		0					0	0	0	0	
16:15	16:30	0		0					0	0	0	0	
16:30	16:45	0		0					0	0	0	0	
16:45	17:00	0		0					0	0	0	0	
Peak	Hour	0	0	0	0	0	0	0	0	0	0	0	0



N/S Street:	Dogwood Road		Observer: Matthew Lilly	
E/W Street:	Methuen Street		Notes:	
LOCATION:	Ladysmith			
DATE:	March 4, 2020			
WEATHER:	Sun	TOTAL HOURS = 1	Speed Limit Major Street:	50 km/h
JOB # :	2815.B01		Speed Limit Minor Street:	50 km/h

Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound		Total	Hourly		Pede	strians	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	Volume	Volume	N	S	E	W
16:00	16:15	3	33	0	0	14	0	2	0	1	0	0	0	53		0	0	0	1
16:15	16:30	3	39	0	0	9	0	1	0	2	0	2	1	57		2	0	1	0
16:30	16:45	0	28	0	1	16	0	1	0	0	0	1	1	48		1	0	0	3
16:45	17:00	1	37	0	0	11	0	2	0	3	0	1	0	55	213	0	0	0	2
Peak	Hour	7	137	0	1	50	0	6	0	6	0	4	2			3	0	1	6
PF	IF	0.58	0.88	0.00	0.25	0.78	0.00	0.75	0.00	0.50	0.00	0.50	0.50						

Heavy Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	2	0	0	2	0	0	0	1	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0
Peak	Hour	0	2	0	0	2	0	0	0	1	0	0	0
% Heavy	Vehicles	0%	1%	0%	0%	4%	0%	0%	0%	17%	0%	0%	0%

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0
Peak	Hour	0	0	0	0	0	0	0	0	0	0	0	0



N/S Street:	Dogwood Road		Observer: Matthew Lilly	
E/W Street:	Methuen Street		Notes:	
LOCATION:	Ladysmith			
DATE:	March 4, 2020			
WEATHER:	Sun	TOTAL HOURS = 1	Speed Limit Major Street:	50 km/h
JOB # :	2815.B01		Speed Limit Minor Street:	50 km/h

Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound		Total	Hourly		Pede	strians	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	Volume	Volume	N	S	E	W
16:00	16:15	1	37	0	1	47	2	3	1	5	0	0	2	99					
16:15	16:30	2	25	0	2	50	2	2	0	2	0	1	1	87					
16:30	16:45	0	20	1	1	33	1	2	0	1	1	0	1	61					
16:45	17:00	0	19	0	1	37	3	1	0	2	0	0	0	63	310				
Peak	Hour	3	101	1	5	167	8	8	1	10	1	1	4			0	0	0	0
PF	IF	0.38	0.68	0.25	0.63	0.84	0.67	0.67	0.25	0.50	0.25	0.25	0.50]					

Heavy Vehicles

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0	2	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	1	0	0	1	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	1	0	0	0	0	0	0	0
Peak	Hour	0	3	0	0	2	0	0	0	0	0	0	0
% Heavy	Vehicles	0%	3%	0%	0%	1%	0%	0%	0%	0%	0%	0%	0%

TIME			Northbound			Southbound			Eastbound			Westbound	
From	То	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT	LEFT	THRU	RIGHT
16:00	16:15	0	0	0	0	0	0	0	0	0	0	0	0
16:15	16:30	0	0	0	0	0	0	0	0	0	0	0	0
16:30	16:45	0	0	0	0	0	0	0	0	0	0	0	0
16:45	17:00	0	0	0	0	0	0	0	0	0	0	0	0
Peak	Hour	0	0	0	0	0	0	0	0	0	0	0	0



APPENDIX B: CAPAPCITY ANALYSIS OUTPUT

	Ť	۴	L.	Ŧ	₽	•	
Movement	NBT	NBR	SBL	SBT	NWL	NWR	
Lane Configurations	4			ર્શ	- M		
Traffic Volume (veh/h)	145	1	4	49	3	2	
Future Volume (Veh/h)	145	1	4	49	3	2	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.81	0.25	0.33	0.82	0.50	0.38	
Hourly flow rate (vph)	179	4	12	60	6	5	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume			183		265	181	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			183		265	181	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		99	99	
cM capacity (veh/h)			1404		718	862	
Direction, Lane #	NB 1	SB 1	NW 1				
Volume Total	183	72	11				
Volume Left	0	12	6				
Volume Right	4	0	5				
cSH	1700	1404	777				
Volume to Capacity	0.11	0.01	0.01				
Queue Length 95th (m)	0.0	0.2	0.3				
Control Delay (s)	0.0	1.3	9.7				
Lane LOS		A	A				
Approach Delay (s)	0.0	1.3	9.7				
Approach LOS			Α				
Intersection Summary							
Average Delay			0.8				
Intersection Canacity Litilize	ation		17 7%	IC		of Service	2
Analysis Period (min)			15	IC.			,
			15				

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Movement	WBL	WBR	NBT	NBR	SBL	SBT						
Lane Configurations	- M		el 🗍			र्स						
Traffic Volume (veh/h)	11	31	115	5	7	44						
Future Volume (Veh/h)	11	31	115	5	7	44						
Sign Control	Stop		Free			Free						
Grade	0%		0%			0%						
Peak Hour Factor	0.92	0.60	0.90	0.63	0.58	0.85						
Hourly flow rate (vph)	12	52	128	8	12	52						
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type			None			None						
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	208	132			136							
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	208	132			136							
tC, single (s)	6.4	6.2			4.1							
tC, 2 stage (s)												
tF (s)	3.5	3.3			2.2							
p0 queue free %	98	94			99							
cM capacity (veh/h)	774	917			1430							
Direction Lane #	WR 1	NB 1	SB 1									
Volume Total	64	136	64									
	12	0	12									
Volume Right	52	8	0									
CH	887	1700	1/130									
Volume to Canacity	0.07	0.08	0.01									
Oueue Length 95th (m)	1 9	0.00	0.01									
Control Delay (s)	9.4	0.0	1.5									
	Δ	0.0	Δ									
Approach Delay (s)	94	0.0	15									
Approach LOS	Δ	0.0	1.5									
	Л											
Intersection Summary												
Average Delay			2.6									
Intersection Capacity Utiliza	ation		18.2%	IC	U Level o	of Service						
Analysis Period (min)			15									
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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	1	50	0	7	137	0	6	0	6	0	4	2
Future Volume (Veh/h)	1	50	0	7	137	0	6	0	6	0	4	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.78	0.25	0.58	0.88	0.25	0.75	0.25	0.50	0.25	0.50	0.50
Hourly flow rate (vph)	4	64	0	12	156	0	8	0	12	0	8	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	156			64			260	252	64	264	252	156
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	156			64			260	252	64	264	252	156
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	99	100
cM capacity (veh/h)	1436			1551			682	648	960	679	648	895
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	68	168	20	12								
Volume Left	4	12	8	0								
Volume Right	0	0	12	4								
cSH	1436	1551	825	713								
Volume to Capacity	0.00	0.01	0.02	0.02								
Queue Length 95th (m)	0.1	0.2	0.6	0.4								
Control Delay (s)	0.5	0.6	9.5	10.1								
Lane LOS	А	А	А	В								
Approach Delay (s)	0.5	0.6	9.5	10.1								
Approach LOS			А	В								
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utiliz	ation		23.7%	IC	CU Level	of Service			А			
Analysis Period (min)			15									

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Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	4			र्स	Y	
Traffic Volume (veh/h)	107	3	3	162	0	1
Future Volume (Veh/h)	107	3	3	162	0	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.70	0.75	0.25	0.90	0.25	0.25
Hourly flow rate (vph)	153	4	12	180	0	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			157		359	155
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			157		359	155
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			99		100	100
cM capacity (veh/h)			1435		638	896
Direction Lane #	NB 1	SB 1	NW 1			
Volume Total	157	192	4			
Volume Left	0	12	0			
Volume Right	4	0	4			
cSH	1700	1435	896			
Volume to Capacity	0.09	0.01	0.00			
Queue Length 95th (m)	0.0	0.2	0.1			
Control Delay (s)	0.0	0.5	9.0			
Lane LOS	0.0	Δ	Δ			
Approach Delay (s)	0.0	0.5	9.0			
Approach LOS	0.0	0.0	0.0 A			
Intersection Summary			<u> </u>			
Average Delay			0.4			(A
Intersection Capacity Util	ization		20.9%	IC	U Level o	ot Service
Analysis Period (min)			15			

	4	•	Ť	۲	1	ŧ	
Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		t,			स्	
Traffic Volume (veh/h)	5	23	85	8	39	138	
Future Volume (Veh/h)	5	23	85	8	39	138	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.63	0.82	0.64	0.40	0.81	0.88	
Hourly flow rate (vph)	8	28	133	20	48	157	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC. conflicting volume	396	143			153		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	396	143			153		
tC. single (s)	6.4	6.2			4.1		
tC. 2 stage (s)	•••	•					
tF (s)	3.5	3.3			2.2		
p0 queue free %	99	97			97		
cM capacity (veh/h)	593	910			1440		
Disastian Lang #					-		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume I otal	36	153	205				
Volume Left	8	0	48				
Volume Right	28	20	0				
cSH	813	1700	1440				
Volume to Capacity	0.04	0.09	0.03				
Queue Length 95th (m)	1.1	0.0	0.8				
Control Delay (s)	9.6	0.0	2.0				
Lane LOS	Α		A				
Approach Delay (s)	9.6	0.0	2.0				
Approach LOS	A						
Intersection Summary							
Average Delay			1.9				
Intersection Capacity Utilizat	tion		26.1%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		4			4			\$			4	
Traffic Volume (veh/h)	5	167	8	3	101	1	8	1	10	1	1	4
Future Volume (Veh/h)	5	167	8	3	101	1	8	1	10	1	1	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.63	0.84	0.67	0.38	0.68	0.25	0.67	1.00	0.50	0.25	0.25	0.50
Hourly flow rate (vph)	8	199	12	8	149	4	12	1	20	4	4	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	153			211			398	390	205	408	394	151
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	153			211			398	390	205	408	394	151
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	100	98	99	99	99
cM capacity (veh/h)	1440			1372			553	542	841	538	539	901
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	219	161	33	16								
Volume Left	8	8	12	4								
Volume Right	12	4	20	8								
cSH	1440	1372	697	674								
Volume to Capacity	0.01	0.01	0.05	0.02								
Queue Length 95th (m)	0.1	0.1	1.2	0.6								
Control Delay (s)	0.3	0.4	10.4	10.5								
Lane LOS	А	А	В	В								
Approach Delay (s)	0.3	0.4	10.4	10.5								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utiliz	ation		21.5%	IC	CU Level of	of Service			А			
Analysis Period (min)			15									

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Movement	NBT	NBR	SBL	SBT	NWL	NWR	
Lane Configurations	¢Î,			र्स	Y		
Traffic Volume (veh/h)	148	1	6	51	2	6	
Future Volume (Veh/h)	148	1	6	51	2	6	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.81	0.25	0.33	0.82	0.50	0.38	
Hourly flow rate (vph)	183	4	18	62	4	16	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume			187		283	185	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			187		283	185	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		99	98	
cM capacity (veh/h)			1399		698	857	
Direction. Lane #	NB 1	SB 1	NW 1				
Volume Total	187	80	20				
Volume Left	0	18	4				
Volume Right	4	0	16				
cSH	1700	1399	820				
Volume to Capacity	0.11	0.01	0.02				
Queue Length 95th (m)	0.0	0.3	0.6				
Control Delay (s)	0.0	1.8	9.5				
Lane LOS	0.0	A	A				
Approach Delay (s)	0.0	1.8	9.5				
Approach LOS	0.0		A				
Intersection Summers							
			1 0				
Interception Consoity Litili-	zation		17 00/			of Sonvice	
Analysis Poriod (min)	Lation		17.9%	IC.	O Level (
Analysis Period (min)			15				

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	- M		el 🔒			ર્સ	
Traffic Volume (veh/h)	11	31	116	5	7	46	
Future Volume (Veh/h)	11	31	116	5	7	46	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.60	0.90	0.63	0.58	0.85	
Hourly flow rate (vph)	12	52	129	8	12	54	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	211	133			137		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	211	133			137		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	98	94			99		
cM capacity (veh/h)	771	916			1429		
Direction Lane #	\//D 1	ND 1	CD 1				
Direction, Lane #		107					
	04	137	00				
Volume Lett	12	0	12				
	2C	0 1700	1420				
	000	1700	1429				
Volume to Capacity	0.07	0.08	0.01				
Queue Length 95th (m)	1.9	0.0	0.2				
Control Delay (s)	9.4	0.0	1.4				
Lane LOS	A	0.0	A				
Approach Delay (s)	9.4	0.0	1.4				
Approach LUS	A						
Intersection Summary							
Average Delay			2.6				
Intersection Capacity Utilizatio	n		18.3%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		\$			÷			4			\$	
Traffic Volume (veh/h)	1	54	0	7	143	0	6	0	6	0	4	2
Future Volume (Veh/h)	1	54	0	7	143	0	6	0	6	0	4	2
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.78	0.25	0.58	0.88	0.25	0.75	0.25	0.50	0.25	0.50	0.50
Hourly flow rate (vph)	4	69	0	12	163	0	8	0	12	0	8	4
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	163			69			272	264	69	276	264	163
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	163			69			272	264	69	276	264	163
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	100			99			99	100	99	100	99	100
cM capacity (veh/h)	1428			1545			670	638	954	666	638	887
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	73	175	20	12								
Volume Left	4	12	8	0								
Volume Right	0	0	12	4								
cSH	1428	1545	815	704								
Volume to Capacity	0.00	0.01	0.02	0.02								
Queue Length 95th (m)	0.1	0.2	0.6	0.4								
Control Delay (s)	0.4	0.6	9.5	10.2								
Lane LOS	А	А	А	В								
Approach Delay (s)	0.4	0.6	9.5	10.2								
Approach LOS			А	В								
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utilizat	tion		24.1%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

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Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	ţ,			្ឋ	W.	
Traffic Volume (veh/h)	146	1	2	51	2	3
Future Volume (Veh/h)	146	1	2	51	2	3
Sign Control	Free		-	Free	Stop	Ŭ
Grade	0%			0%	0%	
Peak Hour Factor	0 90	0.63	0 33	0.82	0.92	0.92
Hourly flow rate (yph)	162	0.00	6.00	62	0.52	0.52 2
Pedestrians	102	2	0	02	2	J
Lano Width (m)						
Molking Speed (m/s)						
Dereent Blockage						
Percent DIUCKdye						
Right turn hare (ven)	None			None		
Median type	None			None		
Median storage ven)						
Upstream signal (m)						
pX, platoon unblocked			40.4		007	100
vC, conflicting volume			164		237	163
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			164		237	163
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			100		100	100
cM capacity (veh/h)			1402		748	882
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	164	68	5			
Volume Left	0	6	2			
Volume Right	2	0	3			
cSH	1700	1402	823			
Volume to Capacity	0.10	0.00	0.01			
Queue Length 95th (m)	0.0	0.1	0.1			
Control Delay (s)	0.0	0.7	9.4			
Lane LOS		Α	A			
Approach Delav (s)	0.0	0.7	9.4			
Approach LOS		•••	A			
Intersection Summarv						
Average Delay			0.4			
Intersection Canacity Litilization	n		17.7%	IC		of Service
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 12: Access & Forward Rd

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		÷			\$			\$			•	
Traffic Volume (veh/h)	0	5	2	0	5	0	3	0	0	0	Ō	0
Future Volume (Veh/h)	0	5	2	0	5	0	3	0	0	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Hourly flow rate (vph)	0	5	2	0	5	0	3	0	0	0	0	0
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	5			7			11	11	6	11	12	5
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	5			7			11	11	6	11	12	5
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			100	100	100	100	100	100
cM capacity (veh/h)	1616			1614			1007	884	1077	1007	883	1078
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	7	5	3	0								
Volume Left	0	0	3	0								
Volume Right	2	0	0	0								
cSH	1616	1614	1007	1700								
Volume to Capacity	0.00	0.00	0.00	0.00								
Queue Length 95th (m)	0.0	0.0	0.1	0.0								
Control Delay (s)	0.0	0.0	8.6	0.0								
Lane LOS			А	А								
Approach Delay (s)	0.0	0.0	8.6	0.0								
Approach LOS			А	А								
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utiliz	ation		13.3%	IC	CU Level of	of Service			А			
Analysis Period (min)			15									

	t	۴	L.	Ļ	r	*
Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	¢Î,			र्स	- Y	
Traffic Volume (veh/h)	110	3	6	165	2	1
Future Volume (Veh/h)	110	3	6	165	2	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.70	0.75	0.25	0.90	0.25	0.25
Hourly flow rate (vph)	157	4	24	183	8	4
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC, conflicting volume			161		390	159
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			161		390	159
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						
tF (s)			2.2		3.5	3.3
p0 queue free %			98		99	100
cM capacity (veh/h)			1430		607	892
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	161	207	12			
Volume Left	0	24	8			
Volume Right	4	0	4			
cSH	1700	1430	680			
Volume to Capacity	0.09	0.02	0.02			
Queue Length 95th (m)	0.0	0.4	0.4			
Control Delay (s)	0.0	1.0	10.4			
Lane LOS		A	В			
Approach Delay (s)	0.0	1.0	10.4			
Approach LOS			В			
Intersection Summary						
Average Delay			ΛQ			
Intersection Canacity Litilizati			0.0			
	ion		23 5%	IC		of Service

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	Y		đ,			र्स
Traffic Volume (veh/h)	5	25	87	8	40	141
Future Volume (Veh/h)	5	25	87	8	40	141
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.63	0.82	0.64	0.40	0.81	0.88
Hourly flow rate (vph)	8	30	136	20	49	160
Pedestrians						
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC. conflicting volume	404	146			156	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	404	146			156	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)	•	•.=				
tE (s)	3.5	3.3			2.2	
p0 queue free %	99	97			97	
cM capacity (veh/h)	586	906			1436	
			<u> </u>			
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	38	156	209			
Volume Left	8	0	49			
Volume Right	30	20	0			
cSH	813	1700	1436			
Volume to Capacity	0.05	0.09	0.03			
Queue Length 95th (m)	1.2	0.0	0.8			
Control Delay (s)	9.6	0.0	2.0			
Lane LOS	А		А			
Approach Delay (s)	9.6	0.0	2.0			
Approach LOS	А					
Intersection Summary						
Average Delav			1.9			
Intersection Capacity Utilizat	tion		26.3%	IC	ULevel	of Service
Analysis Period (min)			15	.0		

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	5	172	8	3	104	1	8	1	11	1	1	4
Future Volume (Veh/h)	5	172	8	3	104	1	8	1	11	1	1	4
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.63	0.84	0.67	0.38	0.68	0.25	0.67	1.00	0.50	0.25	0.25	0.50
Hourly flow rate (vph)	8	205	12	8	153	4	12	1	22	4	4	8
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	157			217			408	400	211	420	404	155
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	157			217			408	400	211	420	404	155
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			98	100	97	99	99	99
cM capacity (veh/h)	1435			1365			544	535	834	527	532	896
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	225	165	35	16								
Volume Left	8	8	12	4								
Volume Right	12	4	22	8								
cSH	1435	1365	696	666								
Volume to Capacity	0.01	0.01	0.05	0.02								
Queue Length 95th (m)	0.1	0.1	1.3	0.6								
Control Delay (s)	0.3	0.4	10.4	10.5								
Lane LOS	А	А	В	В								
Approach Delay (s)	0.3	0.4	10.4	10.5								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.5									
Intersection Capacity Utiliza	ation		21.8%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Ý		f,			र्स	
Traffic Volume (veh/h)	2	3	108	3	3	179	
Future Volume (Veh/h)	2	3	108	3	3	179	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.64	0.40	0.25	0.90	
Hourly flow rate (vph)	2	3	169	8	12	199	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	396	173			177		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	396	173			177		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	100	100			99		
cM capacity (veh/h)	604	871			1405		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	5	177	211				
Volume Left	2	0	12				
Volume Right	3	8	0				
cSH	740	1700	1405				
Volume to Capacity	0.01	0.10	0.01				
Queue Length 95th (m)	0.2	0.0	0.2				
Control Delay (s)	9.9	0.0	0.5				
Lane LOS	A	2.0	A				
Approach Delay (s)	9.9	0.0	0.5				
Approach LOS	A						
Intersection Summary							
Average Delay			0.4				
Intersection Canacity Litilization	n		21.8%	IC		of Service	
Analysis Period (min)	~ 1		15				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	Y			ا	eî.			
Traffic Volume (veh/h)	2	0	0	1	6	3		
Future Volume (Veh/h)	2	0	0	1	6	3		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	2	0	0	1	7	3		
Pedestrians								
Lane Width (m)								
Walking Speed (m/s)								
Percent Blockage								
Right turn flare (veh)								
Median type				None	None			
Median storage veh)				,				
Upstream signal (m)								
pX. platoon unblocked								
vC. conflicting volume	10	8	10					
vC1, stage 1 conf vol		, ,						
vC2, stage 2 conf vol								
vCu, unblocked vol	10	8	10					
tC, single (s)	6.4	6.2	4.1					
tC, 2 stage (s)	0.1	0.2						
tF (s)	35	33	22					
n0 queue free %	100	100	100					
cM capacity (veh/h)	1011	1073	1610					
			00.4					
Direction, Lane #	EB 1	NB 1	SB 1					
Volume I otal	2	1	10					
Volume Left	2	0	0					
Volume Right	0	0	3					
CSH	1011	1610	1700					
Volume to Capacity	0.00	0.00	0.01					
Queue Length 95th (m)	0.0	0.0	0.0					
Control Delay (s)	8.6	0.0	0.0					
Lane LOS	A							
Approach Delay (s)	8.6	0.0	0.0					
Approach LOS	A							
Intersection Summary								
Average Delay			1.3					
Intersection Capacity Utiliz	ation		13.3%	IC	CU Level o	of Service	А	
Analysis Period (min)			15					

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Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	1.			4	¥	
Traffic Volume (veh/h)	215	1	6	73	3	4
Future Volume (Veh/h)	215	1	6	73	3	4
Sign Control	Free		Ū	Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.81	0 25	0.33	0.82	0.50	0.38
Hourly flow rate (yph)	265	4	18	89	6	11
Pedestrians	200		10	00	Ű	
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Linetroam signal (m)						
nX platoon unblocked						
vC conflicting volume			260		303	267
vC1 stage 1 confive			209		<u> </u>	201
vC1, stage 1 contivol						
			260		300	267
			209		592	207
tC, Single (S) $tC = 2$ stage (c)			4.1		0.4	0.2
10, 2 stage (s)			2.2		25	2.2
(F(S))			2.2		0.0	0.0
pu queue free %			1206		99	99 770
civi capacity (ven/n)			1300		004	112
Direction, Lane #	NB 1	SB 1	NW 1			
Volume Total	269	107	17			
Volume Left	0	18	6			
Volume Right	4	0	11			
cSH	1700	1306	703			
Volume to Capacity	0.16	0.01	0.02			
Queue Length 95th (m)	0.0	0.3	0.6			
Control Delay (s)	0.0	1.4	10.2			
Lane LOS		А	В			
Approach Delay (s)	0.0	1.4	10.2			
Approach LOS			В			
Intersection Summary						
Average Delay			0.8			
Intersection Capacity Utiliz	zation		21.4%	IC	CU Level	of Service
Analysis Period (min)			15			

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		f,			र्स	
Traffic Volume (veh/h)	16	46	171	7	10	65	
Future Volume (Veh/h)	16	46	171	7	10	65	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.60	0.90	0.63	0.58	0.85	
Hourly flow rate (vph)	17	77	190	11	17	76	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	306	196			201		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	306	196			201		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	97	91			99		
cM capacity (veh/h)	678	846			1353		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	94	201	93				
Volume Left	17	0	17				
Volume Right	77	11	0				
cSH	810	1700	1353				
Volume to Capacity	0.12	0.12	0.01				
Queue Length 95th (m)	3.1	0.0	0.3				
Control Delay (s)	10.0	0.0	1.5				
Lane LOS	В		А				
Approach Delay (s)	10.0	0.0	1.5				
Approach LOS	В						
Intersection Summary							
Average Delay			2.8				
Intersection Capacity Utilization	on		22.3%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	1	74	0	10	204	0	9	0	9	0	6	3
Future Volume (Veh/h)	1	74	0	10	204	0	9	0	9	0	6	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.78	0.25	0.58	0.88	0.25	0.75	0.25	0.50	0.25	0.50	0.50
Hourly flow rate (vph)	4	95	0	17	232	0	12	0	18	0	12	6
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	232			95			381	369	95	387	369	232
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	232			95			381	369	95	387	369	232
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	100			99			98	100	98	100	98	99
cM capacity (veh/h)	1348			1512			561	555	922	558	555	812
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	99	249	30	18								
Volume Left	4	17	12	0								
Volume Right	0	0	18	6								
cSH	1348	1512	733	621								
Volume to Capacity	0.00	0.01	0.04	0.03								
Queue Length 95th (m)	0.1	0.3	1.0	0.7								
Control Delay (s)	0.3	0.6	10.1	11.0								
Lane LOS	А	А	В	В								
Approach Delay (s)	0.3	0.6	10.1	11.0								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utiliz	ation		31.0%	IC	CU Level	of Service			А			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		4Î			ર્સ	
Traffic Volume (veh/h)	0	0	217	0	0	76	
Future Volume (Veh/h)	0	0	217	0	0	76	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.90	0.63	0.33	0.82	
Hourly flow rate (vph)	0	0	241	0	0	93	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	334	241			241		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	334	241			241		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	100	100			100		
cM capacity (veh/h)	661	798			1314		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	0	241	93				
Volume Left	0	0	0				
Volume Right	0	0	0				
cSH	1700	1700	1314				
Volume to Capacity	0.00	0.14	0.00				
Queue Length 95th (m)	0.0	0.0	0.0				
Control Delay (s)	0.0	0.0	0.0				
Lane LOS	А						
Approach Delay (s)	0.0	0.0	0.0				
Approach LOS	А						
Intersection Summary							_
Average Delav			0.0				
Intersection Capacity Utilization	tion		14.8%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	NBT	NBR	SBL	SBT	NWL	NWR	
Lane Configurations	eî.			र्स	Y		
Traffic Volume (veh/h)	159	4	4	241	0	1	
Future Volume (Veh/h)	159	4	4	241	0	1	
Sign Control	Free			Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.70	0.75	0.25	0.90	0.25	0.25	
Hourly flow rate (vph)	227	5	16	268	0	4	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume			232		530	230	
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol			232		530	230	
tC, single (s)			4.1		6.4	6.2	
tC, 2 stage (s)							
tF (s)			2.2		3.5	3.3	
p0 queue free %			99		100	100	
cM capacity (veh/h)			1348		507	815	
Direction Lane #	NR 1	CR 1	NI\\/ 1				
Volume Total	232	28/	/				
	252	16	4				
Volume Dight	5	0	0				
	1700	13/9	915				
Volume to Capacity	0.14	0.01	015				
Ouque Longth 95th (m)	0.14	0.01	0.00				
Control Dolov (a)	0.0	0.5	0.1				
	0.0	0.5	9.4				
Lane LOS	0.0	A 0.5	A				
Approach Delay (S)	0.0	0.5	9.4				
			А				
Intersection Summary							
Average Delay			0.4				
Intersection Capacity Utilization	on		25.9%	IC	CU Level o	of Service	
Analysis Period (min)			15				

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	۲		ţ,			સ		
Traffic Volume (veh/h)	7	34	126	12	58	205		
Future Volume (Veh/h)	7	34	126	12	58	205		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.63	0.82	0.64	0.40	0.81	0.88		
Hourly flow rate (vph)	11	41	197	30	72	233		
Pedestrians								
Lane Width (m)								
Walking Speed (m/s)								
Percent Blockage								
Right turn flare (veh)								
Median type			None			None		
Median storage veh)								
Upstream signal (m)								
pX, platoon unblocked								
vC, conflicting volume	589	212			227			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	589	212			227			
tC, single (s)	6.4	6.2			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	98	95			95			
cM capacity (veh/h)	449	833			1353			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Total	52	227	305					
Volume Left	11	0	72					
Volume Right	41	30						
cSH	705	1700	1353					
Volume to Capacity	0.07	0.13	0.05					
Queue Length 95th (m)	1.9	0.0	1.3					
Control Delay (s)	10.5	0.0	2.2					
Lane LOS	В	0.0	A					
Approach Delav (s)	10.5	0.0	2.2					
Approach LOS	В							
Intersection Summary								
			21					
Intersection Canacity Litilia	zation		34.7%			of Service		
Analysis Period (min)	Lation		15	10				
Analysis Period (min)			15					

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	7	248	12	4	150	1	12	1	15	1	1	6
Future Volume (Veh/h)	7	248	12	4	150	1	12	1	15	1	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.63	0.84	0.67	0.38	0.68	0.25	0.67	1.00	0.50	0.25	0.25	0.50
Hourly flow rate (vph)	11	295	18	11	221	4	18	1	30	4	4	12
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	225			313			585	573	304	602	580	223
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	225			313			585	573	304	602	580	223
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			96	100	96	99	99	99
cM capacity (veh/h)	1356			1259			411	425	740	392	421	822
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	324	236	49	20								
Volume Left	11	11	18	4								
Volume Right	18	4	30	12								
cSH	1356	1259	565	583								
Volume to Capacity	0.01	0.01	0.09	0.03								
Queue Length 95th (m)	0.2	0.2	2.3	0.9								
Control Delay (s)	0.3	0.4	12.0	11.4								
Lane LOS	А	А	В	В								
Approach Delay (s)	0.3	0.4	12.0	11.4								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utiliz	ation		27.8%	IC	CU Level of	of Service			А			
Analysis Period (min)			15									

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Movement	NBT	NBR	SBL	SBT	NWL	NWR	
Lane Configurations	î.		-	đ	¥		
Traffic Volume (veh/h)	218	1	8	75	3	7	
Future Volume (Veh/h)	218	1	8	75	3	7	
Sign Control	Free		-	Free	Stop		
Grade	0%			0%	0%		
Peak Hour Factor	0.81	0.25	0.33	0.82	0.50	0.38	
Hourly flow rate (vph)	269	4	24	91	6	18	
Pedestrians		·		•.	Ŭ		
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type	None			None			
Median storage veh)				110110			
Upstream signal (m)							
pX_platoon unblocked							
vC. conflicting volume			273		410	271	
vC1_stage 1 conf vol			210		110	211	
vC2_stage 2 conf vol							
vCu, unblocked vol			273		410	271	
tC single (s)			4 1		64	62	
tC, 2 stage (s)			7.1		U . T	5.2	
tF (s)			22		35	33	
n0 queue free %			98		99	98	
cM canacity (veh/h)			1302		587	768	
	. /	05 (1002		001	, 00	
Direction, Lane #	NB 1	SB 1	NW 1				
Volume Total	273	115	24				
Volume Left	0	24	6				
Volume Right	4	0	18				
cSH	1700	1302	713				
Volume to Capacity	0.16	0.02	0.03				
Queue Length 95th (m)	0.0	0.5	0.8				
Control Delay (s)	0.0	1.8	10.2				
Lane LOS		А	В				
Approach Delay (s)	0.0	1.8	10.2				
Approach LOS			В				
Intersection Summary							
Average Delay			1.1				
Intersection Capacity Utiliza	ation		21.5%	IC	U Level	of Service	Э
Analysis Period (min)			15		5 _0.01		

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Movement	WBL	WBR	NBT	NBR	SBL	SBT		
Lane Configurations	¥		ţ,			र्भ		
Traffic Volume (veh/h)	16	46	172	7	10	67		
Future Volume (Veh/h)	16	46	172	7	10	67		
Sign Control	Stop		Free			Free		
Grade	0%		0%			0%		
Peak Hour Factor	0.92	0.60	0.90	0.63	0.58	0.85		
Hourly flow rate (vph)	17	77	191	11	17	79		
Pedestrians								
Lane Width (m)								
Walking Speed (m/s)								
Percent Blockage								
Right turn flare (veh)								
Median type			None			None		
Median storage veh)								
Upstream signal (m)								
pX, platoon unblocked								
vC, conflicting volume	310	196			202			
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	310	196			202			
tC, single (s)	6.4	6.2			4.1			
tC, 2 stage (s)								
tF (s)	3.5	3.3			2.2			
p0 queue free %	97	91			99			
cM capacity (veh/h)	674	845			1352			
Direction, Lane #	WB 1	NB 1	SB 1					
Volume Total	94	202	96					
Volume Left	17	0	17					
Volume Right	77	11	0					
cSH	808	1700	1352					
Volume to Capacity	0.12	0.12	0.01					
Queue Length 95th (m)	3.1	0.0	0.3					
Control Delay (s)	10.0	0.0	1.4					
Lane LOS	В		А					
Approach Delay (s)	10.0	0.0	1.4					
Approach LOS	В							
Intersection Summarv								
Average Delay			2.8					
Intersection Capacity Utilization	on		22.4%	IC	ULevel	of Service		
Analysis Period (min)			15	.0	5 201010			

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	1	78	0	10	210	0	9	0	9	0	6	3
Future Volume (Veh/h)	1	78	0	10	210	0	9	0	9	0	6	3
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.25	0.78	0.25	0.58	0.88	0.25	0.75	0.25	0.50	0.25	0.50	0.50
Hourly flow rate (vph)	4	100	0	17	239	0	12	0	18	0	12	6
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	239			100			393	381	100	399	381	239
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	239			100			393	381	100	399	381	239
tC, single (s)	4.1			4.1			7.1	6.5	6.4	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.5	3.5	4.0	3.3
p0 queue free %	100			99			98	100	98	100	98	99
cM capacity (veh/h)	1340			1505			550	547	916	548	547	805
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	104	256	30	18								
Volume Left	4	17	12	0								
Volume Right	0	0	18	6								
cSH	1340	1505	724	612								
Volume to Capacity	0.00	0.01	0.04	0.03								
Queue Length 95th (m)	0.1	0.3	1.0	0.7								
Control Delay (s)	0.3	0.6	10.2	11.1								
Lane LOS	А	А	В	В								
Approach Delay (s)	0.3	0.6	10.2	11.1								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.7									
Intersection Capacity Utiliza	ation		31.4%	IC	CU Level	of Service			А			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		f,			ર્સ	
Traffic Volume (veh/h)	2	3	217	1	2	76	
Future Volume (Veh/h)	2	3	217	1	2	76	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.90	0.63	0.33	0.82	
Hourly flow rate (vph)	2	3	241	2	6	93	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	347	242			243		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	347	242			243		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	100	100			100		
cM capacity (veh/h)	647	797			1312		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	5	243	99				
Volume Left	2	0	6				
Volume Right	3	2	0				
cSH	729	1700	1312				
Volume to Capacity	0.01	0.14	0.00				
Queue Length 95th (m)	0.2	0.0	0.1				
Control Delay (s)	10.0	0.0	0.5				
Lane LOS	А		А				
Approach Delay (s)	10.0	0.0	0.5				
Approach LOS	А						
Intersection Summarv							
Average Delav			0.3				
Intersection Capacity Utilization	tion		21.5%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR		
Lane Configurations	¥			स्	4Î			
Traffic Volume (veh/h)	3	0	0	7	7	2		
Future Volume (Veh/h)	3	0	0	7	7	2		
Sign Control	Stop			Free	Free			
Grade	0%			0%	0%			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92		
Hourly flow rate (vph)	3	0	0	8	8	2		
Pedestrians								
Lane Width (m)								
Walking Speed (m/s)								
Percent Blockage								
Right turn flare (veh)								
Median type				None	None			
Median storage veh)								
Upstream signal (m)								
pX, platoon unblocked								
vC, conflicting volume	17	9	10					
vC1, stage 1 conf vol								
vC2, stage 2 conf vol								
vCu, unblocked vol	17	9	10					
tC, single (s)	6.4	6.2	4.1					
tC, 2 stage (s)								
tF (s)	3.5	3.3	2.2					
p0 queue free %	100	100	100					
cM capacity (veh/h)	1001	1073	1610					
Direction, Lane #	EB 1	NB 1	SB 1					
Volume Total	3	8	10					
Volume Left	3	0	0					
Volume Right	0	0	2					
cSH	1001	1610	1700					
Volume to Capacity	0.00	0.00	0.01					
Queue Length 95th (m)	0.1	0.0	0.0					
Control Delay (s)	8.6	0.0	0.0					
Lane LOS	А							
Approach Delay (s)	8.6	0.0	0.0					
Approach LOS	А							
Intersection Summary								
Average Delay			1.2					
Intersection Capacity Utiliz	ation		13.3%	IC	CU Level o	of Service	А	
Analysis Period (min)			15					

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Movement	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	ţ,			ب ا	¥	
Traffic Volume (veh/h)	162	4	7	244	2	1
Future Volume (Veh/h)	162	4	7	244	2	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.70	0.75	0.25	0.90	0.25	0.25
Hourly flow rate (vph)	231	5	28	271	8	4
Pedestrians					-	
Lane Width (m)						
Walking Speed (m/s)						
Percent Blockage						
Right turn flare (veh)						
Median type	None			None		
Median storage veh)						
Upstream signal (m)						
pX, platoon unblocked						
vC. conflicting volume			236		560	234
vC1, stage 1 conf vol			200		200	
vC2, stage 2 conf vol						
vCu, unblocked vol			236		560	234
tC, single (s)			4.1		6.4	6.2
tC, 2 stage (s)						,
tF (s)			2.2		3.5	3.3
p0 queue free %			98		98	100
cM capacity (veh/h)			1343		482	811
Direction Lane #	NR 1	SR 1	N\W 1		-	
Volume Total	236	200	12			
	230	200	۲ <u>۲</u>			
Volume Pight	5	20	0			
	1700	13/3	558			
Volume to Canacity	0.14	0.02	0.02			
Ouque Longth 05th (m)	0.14	0.02	0.02			
Control Dolov (a)	0.0	0.0	0.0			
Long LOS	0.0	0.9	11.0 D			
Lane LOS Approach Doloy (a)	0.0	A 0.0	D 11.6			
Approach LOS	0.0	0.9	II.0 D			
			D			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utiliz	ation		28.5%	IC	U Level	of Service
Analysis Period (min)			15			

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	¥		î,			र्भ	
Traffic Volume (veh/h)	7	35	128	12	59	208	
Future Volume (Veh/h)	7	35	128	12	59	208	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.63	0.82	0.64	0.40	0.81	0.88	
Hourly flow rate (vph)	11	43	200	30	73	236	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	597	215			230		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	597	215			230		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	98	95			95		
cM capacity (veh/h)	444	830			1350		
Direction Lane #	WB 1	NB 1	SB 1				
Volume Total	54	230	309				
Volume Left	11	0	73				
Volume Right	43	30	, 0				
cSH	705	1700	1350				
Volume to Canacity	0.08	0 14	0.05				
Queue Length 95th (m)	2.0	0.14	1 4				
Control Delay (s)	10.5	0.0	22				
Lane LOS	R 10.0	0.0	Δ.2				
Annroach Delay (s)	10 5	0.0	22				
Approach LOS	10.5 B	0.0	2.2				
	5						
Intersection Summary							
Average Delay			2.1			(A	
Intersection Capacity Utili	zation		35.0%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		\$			\$			\$			\$	
Traffic Volume (veh/h)	7	253	12	4	153	1	12	1	16	1	1	6
Future Volume (Veh/h)	7	253	12	4	153	1	12	1	16	1	1	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.63	0.84	0.67	0.38	0.68	0.25	0.67	1.00	0.50	0.25	0.25	0.50
Hourly flow rate (vph)	11	301	18	11	225	4	18	1	32	4	4	12
Pedestrians												
Lane Width (m)												
Walking Speed (m/s)												
Percent Blockage												
Right turn flare (veh)												
Median type		None			None							
Median storage veh)												
Upstream signal (m)												
pX, platoon unblocked												
vC, conflicting volume	229			319			595	583	310	614	590	227
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	229			319			595	583	310	614	590	227
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			99			96	100	96	99	99	99
cM capacity (veh/h)	1351			1252			405	420	735	384	416	817
Direction, Lane #	SE 1	NW 1	NE 1	SW 1								
Volume Total	330	240	51	20								
Volume Left	11	11	18	4								
Volume Right	18	4	32	12								
cSH	1351	1252	564	576								
Volume to Capacity	0.01	0.01	0.09	0.03								
Queue Length 95th (m)	0.2	0.2	2.4	0.9								
Control Delay (s)	0.3	0.4	12.0	11.5								
Lane LOS	А	А	В	В								
Approach Delay (s)	0.3	0.4	12.0	11.5								
Approach LOS			В	В								
Intersection Summary												
Average Delay			1.6									
Intersection Capacity Utiliza	ation		28.2%	IC	CU Level o	of Service			А			
Analysis Period (min)			15									

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Movement	WBL	WBR	NBT	NBR	SBL	SBT	
Lane Configurations	Y		el 🔒			ર્સ	
Traffic Volume (veh/h)	2	3	160	3	3	265	
Future Volume (Veh/h)	2	3	160	3	3	265	
Sign Control	Stop		Free			Free	
Grade	0%		0%			0%	
Peak Hour Factor	0.92	0.92	0.64	0.40	0.25	0.90	
Hourly flow rate (vph)	2	3	250	8	12	294	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type			None			None	
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	572	254			258		
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	572	254			258		
tC, single (s)	6.4	6.2			4.1		
tC, 2 stage (s)							
tF (s)	3.5	3.3			2.2		
p0 queue free %	100	100			99		
cM capacity (veh/h)	477	785			1313		
Direction, Lane #	WB 1	NB 1	SB 1				
Volume Total	5	258	306				
Volume Left	2	0	12				
Volume Right	3	8	0				
cSH	624	1700	1313				
Volume to Capacity	0.01	0.15	0.01				
Queue Length 95th (m)	0.2	0.0	0.2				
Control Delay (s)	10.8	0.0	0.4				
Lane LOS	В		А				
Approach Delay (s)	10.8	0.0	0.4				
Approach LOS	В						
Intersection Summary							 _
Average Delav			0.3				
Intersection Capacity Utilizat	tion		26.3%	IC	U Level o	of Service	
Analysis Period (min)			15				

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Movement	EBL	EBR	NBL	NBT	SBT	SBR	
Lane Configurations	¥			र्स	f,		
Traffic Volume (veh/h)	2	0	0	1	9	3	
Future Volume (Veh/h)	2	0	0	1	9	3	
Sign Control	Stop			Free	Free		
Grade	0%			0%	0%		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	
Hourly flow rate (vph)	2	0	0	1	10	3	
Pedestrians							
Lane Width (m)							
Walking Speed (m/s)							
Percent Blockage							
Right turn flare (veh)							
Median type				None	None		
Median storage veh)							
Upstream signal (m)							
pX, platoon unblocked							
vC, conflicting volume	12	12	13				
vC1, stage 1 conf vol							
vC2, stage 2 conf vol							
vCu, unblocked vol	12	12	13				
tC, single (s)	6.4	6.2	4.1				
tC, 2 stage (s)							
tF (s)	3.5	3.3	2.2				
p0 queue free %	100	100	100				
cM capacity (veh/h)	1007	1069	1606				
Direction, Lane #	EB 1	NB 1	SB 1				
Volume Total	2	1	13				
Volume Left	2	0	0				
Volume Right	0	0	3				
cSH	1007	1606	1700				
Volume to Capacity	0.00	0.00	0.01				
Queue Length 95th (m)	0.0	0.0	0.0				
Control Delay (s)	8.6	0.0	0.0				
Lane LOS	А						
Approach Delay (s)	8.6	0.0	0.0				
Approach LOS	А						
Intersection Summary							
Average Delay			1.1				
Intersection Capacity Utiliza	tion		13.3%	IC	U Level o	of Service	
Analysis Period (min)			15				

Conceptual Site Servicing Report for:

201/203 Dogwood Drive, Ladysmith, BC



Prepared for: FMC Holdings Ltd.

CCEL Project Number: 1055-005 Date: May 26, 2020

Prepared by:



Charles Ramos, P.Eng., P.E.

bar

Geoff Dean, EIT

#206 - 335 Wesley Street, Nanaimo BC V9R 2T5 Telephone: 250-591-7364 Email: info@cascara.ca

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Appendices

Appendix A – Conceptual Servicing Plan, (Drawing No. SK1 Rev. A)

1.0 INTRODUCTION AND SCOPE

Cascara Consulting Engineers Limited (CCEL) was retained by FMC Holdings Ltd. to prepare a site servicing report for a proposed development at 201 and 203 Dogwood Drive, Ladysmith, BC. The scope of the report is as follows:

- Liaise with the Town of Ladysmith to confirm their requirements and obtain any current as-built information
- Evaluate expected site density to determine sanitary, water and storm drainage needs
- Conduct site visit to confirm existing features and potential conflicts
- Calculate required water and fire protection servicing flowrates
- Calculate sanitary sewer flowrates associated with the development
- Calculate stormwater flowrates associated with the development
- Prepare preliminary Stormwater Management Plan
- Prepare a preliminary site grading plan
- Evaluate connection points for municipal infrastructure
- Import survey information and prepare a preliminary overview plan of the site
- Prepare an overall site servicing report identifying municipal capacity for site servicing, upgrades needed, and general site feasibility for the planned development

The existing lots are approximately 1,410m² and we understand the expected use of the property is a 6story building complete with underground parking. The development will consist of approximately 100m² of commercial space and 30 residential units.

This report contains information for the stated scope and includes overall site drawings for clarification.

At this stage, record drawings for adjacent utilities located in Forward Road are not available. It is assumed that record drawings of the Forward Road infrastructure will not be available during the detailed design phase.

Evaluating the condition of the existing infrastructure is not including in the scope of this report.

Documents referenced in this conceptual site servicing report include a topographical survey by Turner & Associates Land Surveying Inc. and preliminary architectural drawings provided by the owner.

2.0 BACKGROUND AND EXISTING CONDITIONS

The property's previous use was an automotive and marine repair shop, Dalby's Service Ltd. The existing building has been vacant for many years and will be removed as part of this development. The site is also assumed to be contaminated by hydrocarbons. The method of site remediation is not known at this time.

The property is situated at the corner of Dogwood Drive and Forward Road. Forward Road slopes down from west to east. Dogwood Drive slopes down from south to north. The site itself is sloped from west to east at approximately 7%. There is approximately 3.5m of elevation drop from the highest portion of the Dogwood Drive Frontage to the eastern corner of the property on Forward Road. The majority of the site is currently paved, and it is assumed that none of the existing asphalt will be retained as part of the new development.

3.0 PROPOSED DEVELOPMENT AND DISCUSSION

We understand that the development will contain 32 parking stalls, 1 commercial unit, and 30 residential units. Figure 1 shows the preliminary level 1 design. The design density of the residential units is 1.7 ppu, while the commercial unit has a design density of 90 pph. Therefore, the theoretical design population of the development is 55 people. This will be refined as the design progresses.



LEVEL 1 - COMMERCIAL



The municipal standard for servicing a multi-unit strata-type development is to provide a single service from the municipality, with further internal distribution to the individual units provided onsite. Full metering, in the case of a strata, is provided by a meter and chamber on a single service to the site. The responsibility and costs for the meter chamber are the developer's; final ownership of the chamber is transferred to the municipality, complete with statutory right of way, if needed, upon completion of commissioning and certification.

The final design requirements for the development will be outlined in the Development Permit (DP), once obtained from the Town of Ladysmith.

An aerial photo of the site is shown in Figure 2.



FIGURE 2 - AERIAL PHOTO

4.0 ROADS AND SITE ACCESS

Site access is currently provided via Dogwood Drive. The approximate grade of the site access is 10-15%. The proposed development would include above and below ground parking totalling 32 parking stalls.

A traffic study is in progress by Watt Consulting Group. The results of the study are not including within this conceptual site servicing report.
5.0 WATER SERVICING



FIGURE 3 - ADJACENT WATERMAIN AND SERVICES

In 2004, a 200mm diameter PVC watermain was installed within Dogwood Drive. The 200mm PVC watermain connects to an approximately 58-year-old 150mm AC watermain north of the intersection of Dogwood Drive and Forward Road. A 100mm AC watermain services homes on Forward Road.

As described in section 3.0, the design population of the proposed development is 55. Domestic water use of the development is estimated to be 480 L/person/day for a total of 26,208 L/day. The majority of the use occurs during a ten-hour period. The peak water use during this period is estimated to be 1.3L/s. As the design progresses, there will be further coordination with the Town of Ladysmith to confirm water capacity from the Town's water distribution.

Currently, there is a fire hydrant located near the corner of Dogwood Drive and Bayview Avenue. This hydrant is more than 45m from the proposed building. It is expected the new development will require one new fire hydrant for adequate fire protection. A new fire hydrant will be connected to the 200mm PVC water main and installed within the Dogwood Drive boulevard and will be within 45m of the fire department connection for the is development, as per section 3.2.5.15 of the BC Building Code. Initial fire flow calculations indicate a required flow 200 L/s.

Water pressure at the fire hydrant adjacent to 110 1st Ave. is 560kPa. Water pressure at the fire hydrant adjacent to 213 Dogwood Drive is 520kPa.

201 Dogwood Drive has an existing service from the 100mm AC watermain. 203 Dogwood Drive has an existing service from the 200mm PVC watermain. A new service will be required from the 200m PVC watermain. Preliminary review indicates that a combined 100mm water service will be sufficient to meet the domestic and fire flow requirements of the development.

If not already completed, the existing services will be decommissioned.

6.0 SANITARY SEWER



FIGURE 4 - ADJACENT SANITARY SEWER MAINS AND SERVICES

Sanitary service to 201 Dogwood Drive is provided from a 100mm sanitary main. This main only services 201 Dogwood drive and transitions to 150mm AC at the manhole adjacent to the property corner.

203 Dogwood Drive is services from a 100m AC sanitary main located within 124 Forward Drive. The 100mm main transitions to a 150mm main at a reducer located near shared rear property corner of 201 and 203 Dogwood Drive.

To service the proposed site, the 100mm main and service located within Forward road will be used. This main will only service 201/203 Dogwood Drive and is of adequate size.

The expected sanitary Peak Wet Weather Flow (PWWF) for the development (55 people) is 1.2 L/s. The average sanitary flow estimated is 230 L/capita/day, yielding an average total wastewater flow of 12.9m³/day, including infiltration. This flow will be coordinated with the Town of Ladysmith as the design proceeds. A 100mm service is adequate to meet the sanitary flow requirements of the site.









The location of the existing storm service is currently unknown, but it is assumed that any existing storm service would be decommissioned. There is an existing 600mm concrete storm main in Dogwood Drive that was constructed between 1998 and 2004. There is also a 200mm concrete storm main of unknown age in Forward Road. Preliminary review suggests that only a portion of rainwater falling on the site could be directed to the Dogwood Drive storm main. Therefore, due to the relative elevation of the site, the site's stormwater will be directed to the 200mm main on Forward Road.

The calculated 24-hour, six-month runoff flowrate using the Rational Method, the ToL Intensity-Duration-Frequency table, and coefficient of runoff of 0.69 is approximately 0.3 l/s, although the pipes will be sized for larger events to ensure water damage does not occur from channelized flows. Preliminary review suggests that a 200mm diameter service connected to the 200mm Forward Drive storm main would be adequate for the requirements of the site.

The final size and location of the storm service will be refined as the design progresses and flows are further categorized.

8.0 EROSION AND SEDIMENT CONTROL

An Erosion and Sediment Control plan will be prepared and submitted as part of the Detailed Design Package. This will include measures to channel and contain surface runoff during runoff events. Surface absorption is important to intercept precipitation. Mulching or covering freshly stripped areas greatly reduces runoff, and particularly silt-laden runoff.

An Erosion and Sediment Control plan will be prepared and submitted as part of the Detailed Design Package.

9.0 CONCLUSION

This report outlines the conceptual servicing of 201/203 Dogwood Drive. Development of this area is feasible for a mixed residential and commercial development consisting of approximately 100m² of commercial space and 30 units or residential housing. Ongoing communication and coordination with the municipality and entire design team will be needed to ensure the final plan reflects the needs and expectations of the various stakeholders and can be fully vetted by the Town of Ladysmith for servicing capacity and modeling. The design of the civil works associated with this project will be prepared consistent with Town of Ladysmith's Engineering Standards and Specifications, or in accordance with best engineering practice for items not covered by the municipal manual.

APPENDIX A

CCEL Project No. 1055-005



	EXISTING	PROPOSED		EXISTING	PROPOSED		EXISTING	PR
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2020-August-18

201 Dogwood Drive, Ladysmith Neighbourhood Information Meeting (NIM) Summary Re: Application to amend the OCP and Rezone the property.

Meeting Dates: July 15 & 29, 2020 Time: 4.00-6.00 PM Location: Onsite at 201 Dogwood Drive

Hosts: July 15 - Toby Seward, Seward Developments Inc, owner's representative - Property owners Frank and Mike Crucil of FMC Holdings

July 29 - Toby Seward

Public Attendees

July 15 - 36 people signed in (sign in sheet attached), approximately 42 people attended the meeting

July 29 - 29 people signed in (sign in sheet attached), approximately 33 people attended the meeting

A number of people attended both meetings. Mayor Stone and Councillors McKay, Johnson, Paterson, Stevens and Virtanen attended.

At the NIM, six display boards were used to show the plans that were submitted to the Town of Ladysmith, as part of the OCP and Rezoning Application. Copies of the following information was available for viewing: traffic study, servicing plan and site survey.

Meeting attendees were encouraged to fill out feedback forms at the meeting or email comments to the owner's representative by August 10. Many participants did not fill out feedback forms, resulting in nine written feedback forms and nine feedback emails.

Comments from the participants of the two NIM meetings generally focused on the following points:

-interest in seeing the existing building removed and the property redeveloped

-inquires regarding the status of the soil contamination remediation and the process/schedule for the remediation -concerns about the proposed height of the building, impact on views and precedent for taller buildings elsewhere in the town

-questions if there was sufficient parking planned for the site and the resulting traffic -interest in seeing additional rental options units in the area and the proposed unit size -questions if the building was for seniors only and if the building will remain rental only

Attached are copies of:

-newspaper advertisement
-site signage
-invitation letter (by mail out and available on site)
-sign in sheets

-feedback forms and emails

Summary prepared by: Toby Seward Seward Developments Inc From: Timothy Richards Subject: Feedback re 201 Dogwood Drive Date: Jul 16, 2020 at 9:35:55 AM To:

Hello Toby, thanks for putting the boards up yesterday.

I live in this neighbourhood and have for nearly 20 years. Think the site is suitable for a multi family block, and I support this type of use.

First Point: I found the renderings to be showing a featureless block building although perhaps architectural details will be added later, I would emphasize that a literal apartment 'block' would be pretty ugly.

The apartment 'blocks' that we have now in town are no example to go by and I would hope that architecture would take a hold and produce something that would be a pleasure to look at. So let's hope for something attractive.

Second Point: The proposal is for apparently, 30 units based on the crude representations at the open house.

I feel that is too many for this site and would be more than is appropriate.

Considering the site is on a traffic curve and the size of the property, something more modest is appropriate.

Please keep me informed as appropriate.

Sincerely,

Tim Richards

From: Nicola Palmer Subject: 201 Dogwood Dr Ladysmith Date: Aug 10, 2020 at 9:00:33 AM To:

Hi Toby

I'm writing regarding the proposed development at 201 Dogwood Drive Ladysmith, I met you at the second community information meeting. I have some concerns regarding the development: How high in meters with the proposed building be? I live in old town Ladysmith on White Street and am concerned about my ocean view being blocked. How many parking spaces will there be for the tenants? Will you propose the town change the layout of Forward Rd-Dogwood intersection with the increased traffic that the building would have. How will the proposed building address the housing problem for residents of Ladysmith? Thank you Nicola Palmer 333 White St

Ladysmith

Participant Feedback Form - 201 Dogwood.

From : STANLEY SPARHAM

Fri, Jul 31, 2020 04:11 PM

Subject : Participant Feedback Form - 201 Dogwood.

To : toby seward

I want to thank your for having the community meeting regarding the redevelopment of 201 Dogwood.

I truly believe it is important for Ladysmith's growth in include rental properties and to make then economically viable it is necessary to increase the height restrictions.

First there are more and more elderly people in the community and many of us are thinking we are getting of the age that we do not want to be doing home repairs and yard work and that we want a home that will give us the freedom to come and go and still be close to the downtown core and without the responsibility of a house and yard to care for.

I love Ladysmith and am very happy that the downtown core has grown and the rental spaces have been rented and that we can shop locally and dine locally without having to leave our community.

I do not want to leave Ladysmith and look forward to more rental developments and possibly patio homes, as well.

I fully support this development and hope that the town will consider more such projects.

Carol Sparham 111 B Gifford Road From: KEITH DANKS Subject: 201, Dogwood Drive-Proposed Development Date: Jul 9, 2020 at 6:56:40 PM To:

Hello,

Toby,

Just a couple of comments, as I will not be able to make the meetings.

I have a little concern about the 6 Storey height, as I would not want the town to use this as a precedent on all future proposed buildings, but I do think the area on the old Dalby Garage site could well accept this design.

It's nice to see an EYE-SAW area being developed, this site is a blight on lovely Ladysmith.....so good luck with the planning application.

With the up and coming 2 Brew-Pubs close by plus this development, the whole area is cleaned up and will add to the attractiveness for any future residents.

Well done, and good luck.

Keith Danks 10-100, Gifford Road, Ladysmith.

Within Circulation Area

From: Bert or Evelyn Subject: 201 Dogwood Drive Date: Jul 31, 2020 at 2:09:16 PM To: Toby Seward

Hello Mr Seward.

These are comments regarding the possible development at 201 Dogwood Drive.

My wife and I reside at 127 Forward Road.

I had a brief conversation with you some weeks ago regarding our desire to finalize the Natural Gas connection that was abandoned about 15 years ago. Fortis will no doubt want some assurance that the contamination has been dealt with before resuming the project. I imagine that they will want some documentation from tests verifying that the level of contamination is low enough to allow them to go ahead with the work.

Are the new owners of the property willing to share test results with Fortis?
Will the new owners provide remediation sufficient for Fortis to continue with the gas line installation?

We are somewhat concerned with the proposed 6 story height of building. It seems a bit intrusive and out of character for the area. On the other hand, we are looking forward to the day that the existing structure is replaced.

When Dalbys was operating we often had difficulty safely exiting Forward Road. The sight-line looking west was usually obscured by boats or vehicles in front of the existing building (on Dalby property). This would also be a concern for the new residents leaving from Forward Road. Some consideration should be given to keeping the area clear of trees or other sight obstructions.

Thanks for holding the Neighbourhood Information Meeting. It was helpful.

Neighbourhood Information Meetings July 2020

201 Dogwood Drive, Ladysmith

I attended the Open House on July 15 and drove by on July 29th. I have a few concerns:

- 1. The two Open Houses were spaced too closely together with barely enough time between them to get a community conversation going. The two meetings were also scheduled at the same time of day (4-6 pm) pretty much guaranteeing that working people would not be able to attend. We are just coming out of The Covid 19 Lockdown and people are only beginning to venture out after being isolated for some time; I suspect that this type of meeting was not a high priority given the recent circumstances. Attendance appeared to be low and there can be no doubt many were put off by the extreme heat on the days of the Open Houses
- 2. The information notice given to surrounding houses and the advertisement for the Open House in the paper both referred to a residential building. At the Open House I was told the units would be Rentals. Subsequently an article in the *Ladysmith Chemanius Chronicle* further clarified that the units would be Rentals for persons over 55 only.

Nothing makes a Town Council swoon faster than the '**R**' word ie.Rentals. I spoke to a Representative for the project about how I couldn't imagine that someone would be willing to make the amount of investment required to not only construct the building, but to also remediate the site for the level of returns Rentals would provide. During our conversation he conceded that they (the units) could be stratified. It is pretty obvious the big money is in the higher floor units due to the view, and my money says they are aiming for condos.

I don't feel the owners/developers are being forthright about their intentions for the site.

3. I am very disturbed about how the building has been presented in Architectural renderings at the Open House meetings, but not because the building is being represented essentially by a block. I understand that the owners are not wishing to pay an Architect to develop design drawings until they have the go ahead. And I get that the sketches/photos are NTS (not to scale).

But I am very troubled by how the actual height of the building has purposely been down played in 'Proposed Street view – Facing South' as shown on presentation board on display at the meeting.

In the comparative 'Existing Street View – Facing South' photo the existing ONE storey building is shown to be about a 1/4 of the height of an existing telephone pole (just to the north of the building).

In the '**Proposed Street view** – Facing South' photo the **SIX** storey building miraculously reaches a height of only about 3/4 of the height of the same existing telephone pole! Obviously the depiction is extremely misleading as to the devastating impact the 6 storey building will have on the neighbourhood. The photo makes it look as if the building will be considerably shorter than a telephone pole which may bring comfort to some people who are concerned about the height of the new building. In reality the proposed building will be at least 1/2 to 2/3 higher than the existing telephone pole.

The building shown does not include any height allowance for Elevator shaft, HVAC Units and other mechanical requirements.

The same misrepresentation of the impact of the height of proposed building exists with the 'North View'.

I think the visual impact of this proposed building has been purposely misrepresented so that people will feel more comfortable with the building going ahead.

Not only will this building destroy the views and livability of the surrounding neighbourhood it poses a threat to every neighbourhood in Ladysmith. The new owners of the building next door, which is currently up for sale, will be following this process closely, as will the owners of the site of former RCMP station. You can be sure that if this building is allowed to proceed at 6 storeys the next ask will be for 8 or 10. Current Permit applicants may well be encouraged to resubmit with increased height requests.

I think the issue of the height of future buildings in Ladysmith is way too important to decide on before the pending OCP review/update and therefore all requests for amendments to the OCP should be turned down at this time.

The citizens of Ladysmith that already live here deserve a say in the direction of the future built environment. Councils and Developers tend to give too much weight to the considerations of people who do not even live in a neighbourhood yet. It is incumbent upon the Council to determine what the community as a whole wants the future of Ladysmith to look like before entertaining an application such as this one.

If for some reason the Council deems it appropriate to carry on with the required re-zoning and OCP amendment process the town Development Department should direct the owners to submit pictorial representations that illustrate the actual height of proposed building. The Owners should be required to hold additional Open Houses which include accurate visual representations of the impact the proposed building will have on the neighbourhood.

Something this big should not be achieved by an amendment (read: exception) to the current OCP. Nor should it be snuck in behind the shadow of Covid.

Submitted by: Catherine Cartwright, Roberts Street,

201 Dogwood Drive, Ladysmith - Participant Feedback Form

From : Pat O

Sat, Aug 08, 2020 04:22 PM

Subject : 201 Dogwood Drive, Ladysmith - Participant Feedback Form ₽ attachments

To : toby seward

I am for placing rental space on the above mentioned property with a few amendments.

I feel that there should only be 2 to 3 levels allowed for the following reasons.

1. There will not be enough room for parking under the building for 5 floors with retail shoppers, residents, plus visitors. And additional overflow parking on Forward Rd and Bayview Rd. to accommodate them is unacceptable.

2. The corner on Dogwood Drive, Forward Rd. plus Bayview Rd. can not handle additional traffic turning in and out of that area.

3. Homes for blocks behind a 5 to 6 story building will no longer have ocean view, which will lower the value of their properties.

4. The height of this complex will set a precedent for future complexes which | am totally against.

Contact Info Pat O'Shea, 36-100 Gifford Rd.

Please find two additional forms attached.



201 Dogwood Drive

From : Margot Lunney Paul Vautour

Mon, Aug 03, 2020 01:30 PM

Subject: 201 Dogwood Drive

To : toby seward

Hi Toby,

Unfortunately we were unable to attend either of your information sessions regarding the OCP and Rezoning Application for 210 Dogwood Drive. Would it be possible to send us the information that was provided at the information sessions.

Thank you, Margot Lunney

Sent from my iPad

Shaw Webmail

Rezoning Application Questions

 From : Steve Gold
 Wed, Jul 15, 2020 03:42 PM

 Subject : Rezoning Application Questions

 To : toby seward

Hi Toby,

I was wondering if I could get more information about the FMC Holdings Ltd. plan to build a six storey 30 unit residential building at 201 Dogwood Drive in Ladysmith.

Will the units be rentals or for sale?

What will be the approximate square footage range of the 30 units?

How many bedrooms will the units have?

If they will be rental units, what sort of price range do you expect them to rent for?

If they will be condo units, what sort of price range do you expect they might sell for?

What type of business do you envision in the commercial unit?

Why did you apply for a variance to exceed the current four story height limit?

Thanks, Steve Gold Ladysmith

Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

Please provide your comments regarding the proposed rezoning and OCP amendment at the above noted address. If additional space is required, please use the backside of this sheet. If you prefer, please mail or email your comments.

Maii: Toby Seward, 1620 Argyle Ave., Nanaimo, B.C., or email: toby:seward@straw.ca

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Contact Information (optional)

Name: Address:

Phone Number:____ Contact Email:___

Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

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Mail: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C., or email: toby:seward@shaw.ca

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Page 129 of 243

Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

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Contact Information (optional)

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Outside Circulation Area Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

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Mail: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C., or email: toby.seward@shaw.ca

NICE CONCEPT - WRONG LOCATION WRONG AREA OF TOWN.

Contact Information (optional)

Name:	B. u	loods		
Address:	1114	Cloke	Rd	
Phone Nu	mber:			
Contact E	mail:		Page 131 of 243	

Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

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Mail: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C., or email: toby.seward@shaw.ca

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Contact Information (optional)

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Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

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Mail: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C., or email: toby.seward@shaw.ca

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Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

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Mail: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C., or email: toby.seward@shaw.ca

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Neighbourhood Information Meeting: July 15 & 29, 2020 201 Dogwood Drive, Ladysmith - Participant Feedback Form

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Mail: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C., or email: toby.seward@shaw.ca

the effort to improve ate appreci housi Bayview as a homeowner on believe 6 storeys 16 a building of character out 605 are neighbor hood Results precedent bad convestion too minimal vetai space

Contact Information (optional)

Name:	Laurie	Drees		
Address:	230A	Bayview	Ave	
Phone Nur	nber:			
Contact Er	nail:	Pa	ge 136 of 243	

Received August 20, 2002

Outside Circulation Area

From: Margot Lunney Paul Vautour Sent: August 20, 2020 11:28 AM To: Julie Thompson <<u>ithompson@ladysmith.ca</u>> Cc: <u>toby.seward@shaw.ca</u> Subject: 201 Dogwood Dr. Submission of my concerns regarding the proposed development

Dear Julie,

Thank you for replying to my request for information regarding the OCP Amendment for the property located at 201 Dogwood Dr. I trust that my submission in this format is sufficient for consideration, if not can you please advise what I must do to have my concerns formally considered.

While I am glad that someone is interested in developing the property located at 201 Dogwoood Dr, I have concerns with the proposed development plan that I would like to outline below:

Historical Context

I live in this area and consider it a historic part of Ladysmith. There are numerous houses on First Avenue, Forward Road and Bayview Avenue that look to be about as old as the Town of Ladysmith itself. The proposed building would be located a very short distance from the very attractive and historic downtown. The building's proposed height and facade do not look to be in keeping with the historic downtown design nor reflect the historic nature of the surrounding area.

Seismology

Will the proposed 6 storey building be seismologically safe in this area?

Architectural Controls

Currently there are two 4 storey apartment buildings located on Bayview Avenue and Dogwood Drive. Neither building is attractive or historic even though they are located in the older, more historic part of Ladysmith. By allowing the proposed 6 storey apartment building to proceed as proposed it would continue to perpetuate housing and multiple unit density without a thought to architectural controls that reflect the historic nature of the area.

In looking at the drawings of the building, I was very concerned to see what I feel is a very misleading feature. Several of the drawings show an electrical utility pole in front of the building. I feel this is deceptive and suggests that the proposed 6 storey building will be either similar in height to the utility pole or not much higher.

Density and Infrastructure

A proposed 3 storey mixed use development is in the works for 336 Belaire Street, a brewpub at 202/204 Dogwood Drive and now a 6 storey development at 201 Dogwood Drive.

Can current infrastructure such as roads and off road parking support density in the area? Can First Avenue and Dogwood Drive manage the additional vehicle traffic from this development in addition to the proposed developments at 336 Belaire Street and 202/204 Dogwood Drive without the Town of Ladysmith incurring additional costs to support the additional traffic?

I appreciate that the Developer needs to have a certain number of units to make the development financially viable. I would like to suggest that the Developer consider purchasing the adjacent property that currently houses a day care center and is for sale. Perhaps the Developer could build town house units with garages that might be 3 stories high including garages with historically sympathetic facades that are reflective of the surrounding neighborhood.

Could the Town of Ladysmith provide property tax incentives to the Developer to make this financially feasible?

Thank you for your consideration of my concerns. If you wish to discuss my concerns I can be reached at

Your truly, Margot Lunney 111A Gifford Road Ladysmith, B.C.

Received August 26, 2020

Outside Circulation Area

From: Andrew Thomson 239 Bayview Avenue, Ladysmith BC V9G 1A8

To: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C.

I am writing to express my concern over the proposed rezoning and OCP amendment at 201 Dogwood Drive, Ladysmith, B.C. I have lived in Ladysmith for over 13 years, the last 3 on Bayview Avenue, near the intersection of Dogwood Drive and near the new proposed development. I am very much in favour of some form of re-development at the former Dalby's location, however I have several concerns over the proposed design and its potential to negatively affect our neighbourhood:

- 1. The physical design of the building is out of character with the neighbourhood and of Ladysmith in general. The height far exceeds that of any of the nearby buildings or indeed of any building that I'm aware of in Ladysmith. The extreme height will impact neighbours via shading and sightlines into homes and backyards and will set a poor precedent for future potential developments. Further I find the deign to be rather bland and not in keeping with the historic character of downtown Ladysmith.
- 2. The proposed amount of parking for the number of units is far too few. While it may seem aspirational that we move to a car free society, that is not a reality in present day Ladysmith. The lack of supplied parking with the building will simply mean that every neighboring street and lane will become the parking for the residents of this new development, crowding those streets and impacting the current residents. Parking for so many units will overwhelm the area. Forward Road, Bayview Ave and others will become the defacto parking lot for the new development. I simply do not understand why the town should have to provide that parking area for a private developmer.
- 3. The number of units in the building, coupled with the lack of proposed parking will create traffic and safety issues along Dogwood. The increase in traffic from the residents, and the requirement to turn around from the dead end of Forward road will mean that there are a larger number of car movements that will access one of the narrowest corners in Ladysmith (Dogwood Ave at Forward Rd). That corner is already dangerous due to the blind corner. I also fear that any increase in traffic will be a safety hazard for the likely increase pedestrian traffic in the area.

Please address these concerns in adjustments to the development plans for the former Dalby's site.

Thank you

Andrew Thomson

Received August 26, 2020

From: Catherine Thomson, PhD 239 Bayview Avenue, Ladysmith BC V9G 1A8

To: Toby Seward, 1820 Argyle Ave., Nanaimo, B.C.

I am writing to express my concern over the proposed rezoning and OCP amendment at 201 Dogwood Drive, Ladysmith, B.C. I have lived in Ladysmith for over 29 years, 7 years of that time on Bayview Avenue, which connects with Dogwood Drive one lot away from the proposed development site. I currently reside at 239 Bayview Avenue. I am not opposed to development at the former Dalby's location, but I am concerned that the proposed building and parking structure will negatively affect our neighbourhood in several ways:

- The height of the development, at 8 levels (including parking), is completely out of character for both the Dogwood Drive neighbourhood and, more importantly, for all of Ladysmith. Six levels of the structure will be above ground on the Dogwood side, with an additional half level exposed on Forward road. This is much higher than any building in Ladysmith, since there are currently only 4 storey structures located at several sites. The highest building in the Dogwood Drive area is the Dogwood apartments, with 4 storeys, but only 3 ½ stories are above ground. Having such a tall building in a residential neighbourhood will change the character of the area, and set a precedent for other development projects in residential neighbourhoods.
- 2. Parking for so many units will overwhelm the area. The proposed development has fewer than a single parking space per unit, with only one visitor space for every five units. The location of the development means that extra vehicles will be extremely problematic. There is no street parking along Dogwood Drive for several block in either direction, so any extra vehicles will be parking along a single, dead-end block of Forward Road. This is unacceptable for the homeowners living there, since it will cause congestion and unsafe turn-around conditions. In addition, the main access to the designated parkade is from Forward Road, which accesses Dogwood Drive at a blind corner as First Avenue transitions into Dogwood Drive.
- 3. Along with parking, the increased traffic in the area will be a problem. As mentioned, Forward Road enters First Avenue at a blind corner, and increasing the traffic flow by 30 + vehicles will create a potential traffic hazard.

Please address these concerns in adjustments to the plans for the former Dalby's site.

Thank you

Catherine Thomson

STAFF REPORT TO COUNCIL

Report Prepared By:	Julie Thompson, Acting Senior Planner				
Meeting Date:	October 6, 2020				
File No:	3060-19-21 & 3090-20-01				
RE:	INDUSTRIAL	DEVELOPMENT	PERMIT	&	DEVELOPMENT
VARIANCE PERMIT at 10750 South Watts Road					

RECOMMENDATION:

That Council:

- Approve Development Variance Permit (DVP) 3090-20-01, to vary the Zoning Bylaw and Subdivision and Development Servicing Bylaw regulations requiring a connection to a community sanitary sewer system, to allow the property at 10750 Westdowne Road (Lot 20, District Lot 72, Oyster District, Plan 8793 Except Parcel A (DD 94199N)) to be developed without connecting to the sanitary sewer system, on the condition that the applicant enter into a covenant that requires extension and connection to the Town's sanitary sewer main within two years of the main being available to the subject property.
- 2. Approve Development Permit (DP) 3060-19-21 to allow the property at 10750 South Watts Road to be developed as a cannabis production facility within the Industrial and Riparian Development Permit Areas .
- 3. Authorize the Mayor and Corporate Officer to sign DVP 3090-20-01 and DP 3060-19-21.

EXECUTIVE SUMMARY:

A Development Permit (DP) and Development Variance Permit (DVP) application have been received to permit the construction of a micro-cannabis industrial park consisting of six buildings on the subject property, located at 10750 South Watts Road. The Town's Zoning Bylaw and Subdivision and Development Servicing Bylaw both require a connection to a community sanitary sewer system, which is not available to the property at this time and therefore requires a variance to both bylaws. It is recommended that DVP 3090-20-01 be approved as the applicant will be required to provide an on-site sewage disposal system, and that DP 3060-20-01 be approved as the proposal is generally consistent with the relevant Development Permit Area guidelines.

PREVIOUS COUNCIL DIRECTION:

None.

INTRODUCTION/BACKGROUND:



cowichan

The applicant is proposing a "Micro-Cannabis Park", consisting of six, 463m² buildings. Each building will also contain a second floor office. The target occupants of the buildings will be micro-cannabis producers.

The subject property, 10750 South Watts Road (PID: 005-462-959), is approximately 0.93 hectares in size and has frontage on South Watts Road as well as the Trans-Canada Highway. The property is located in south Ladysmith, approximately 250 metres southeast of the Peerless Recycling Facility. There are industrial properties to the north and west of the subject property. There is a large agricultural property to the south. The applicant is proposing an 8-metre wide driveway onto South Watts Road. No access directly onto the Trans-Canada Highway is proposed.



Figure 1: Subject Property

Servicing:

The subject property does not currently have access to Town of Ladysmith municipal water or sewer services. However, the property is served by a Cowichan Valley Regional District (CVRD) water system. There is no sanitary sewer service in the area. The applicant is proposing the following to service the property:

- For potable water and firefighting water systems, the development will connect to the CVRD water system.
- Wastewater from the washrooms will be directed to a septic field located in the southeast corner of the property.

• For irrigation, the development will connect to the CVRD system. Irrigation wastewater will be directed to an underground detention system (with some surface detention), to be treated and released. The applicant is also proposing to recycle irrigation water and rainwater from the site, where appropriate.

ANALYSIS:

Official Community Plan & South Ladysmith Area Plan:

The subject property is located within the "South Ladysmith Area Plan" of the Official Community Plan (Bylaw No. 1488, Schedule D). The proposal is consistent with the plan's designation of the subject property, which is industrial use. The property is within Development Permit Area 5 – Industrial, and is adjacent to a ditch that is classified as a stream under the Riparian Areas Protection Regulation, therefore it also falls within Development Permit Area 6 - Riparian. A development permit which addresses both DPAs is therefore required.

OCP Servicing Policies:

The South Ladysmith Area Plan includes the following policies in relation to municipal water and sewer services:

4.1.1 New development in the South Ladysmith Plan Area to ultimately be serviced by municipal sanitary sewer, water, and storm drainage systems.

4.1.2 Interim servicing standards are permitted for industrial, commercial and agricultural uses with parcel areas above 2.0 hectares and requiring minimal water supply and sewage flows. Sanitary service can be provided through private septic systems subject to Health Act regulations. Water service can be provided by connection to municipal water or private well.

Based on discussions with the Engineering Department, the cost of extending sanitary sewer to the general area would be approximately \$1.8-3.7 million (in accordance with WSP's Westdowne Sanitary Servicing Review). The sewer extension has been identified as a Development Cost Charges project, so the Town has begun to collect money towards the work; however, the proposed time horizon for the project is within the next 20 years or later. This project (Sanitary Sewer – Ladysmith South Industrial Park Extension) will provide an available Town sanitary sewer system to the subject property once complete. Within two years of project completion, the owner will then be required to extend the sanitary sewer main to reach the property, and connect to the main.

Development Permit Area 5 - Industrial:

The subject property is located within Development Permit Area 5 – Industrial (DPA 5), therefore a development permit is required for the proposed development. The objective of DPA 5 is to enhance the Town's industrial areas and ensure that industrial development is complementary to the existing character of Ladysmith, and aligned with the Town's vision for future growth.

Guidelines **Observations Building Design** • The six units of the multi-building complex are proposed to have a consistent character and design. • The emphasis in the guidelines on industrial heritage is less relevant in this location (compared with the industrial uses near the waterfront) **Building Siting &** • Large, uninterrupted building façades will not be visible from non-Massing industrial areas. Peaked roofs add visual interest to the proposed buildings. • The reception areas and main entrances are not clearly oriented towards the street (South Watts Road); however, the orientation of the buildings and entrances inwards is suitable for a cannabis industrial park complex, which is also screened from the street. • The waste collection areas are shared between the buildings. **Building Frontage** Main building entrances are not located and designed to be clearly identified from the street, despite the guidelines; however, main entrances can be easily identified within the industrial complex. Entrances are defined by overhangs and heavy timber accents. Blank walls are articulated with horizontal and vertical siding in • contrasting colours. Heavy timber accents articulate the shorter building façades. Windows & Doors Entrances are defined by overhangs and heavy timber accents. Windows are only proposed for office and staff areas of the buildings. The buildings cannot have windows due to the need to regulate light and temperature. • There is no existing or proposed sidewalk on South Watts Road and the parking area is proposed to be gravel, so the entrances to the buildings do not have a separate, hard-surface, at-grade access from the abutting sidewalk. Signs, Canopies & • A professional quality, freestanding sign is proposed. Note that a Lighting: separate sign permit will be required. • All building entrances are covered to provide weather protection. • Lighting is provided throughout the site and at building entrances. Light will be directed and/or shielded downwards. **Materials & Colours:** Buildings will be sided with durable vertical and horizontal cement • board and metal in contrasting colours. Mechanical. • The mechanical and electrical equipment will be screened with grey **Electrical & Security** vinyl trellising. Equipment: Outdoor utility areas will be screened with lattice. Accessibility & The buildings are proposed to be designed to be universally • **Connectivity:** accessible.

Table 1	: Summarv	of Consistency	with DPA 5	Guidelines
10.010 1				Caracinico
Guidelines	Observations			
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	• Concrete ramps will be provided between the parking areas and			
	main building entrances.			
	• The entrances to the buildings do not have a separate, hard-surface			
	access from the abutting street. This may be varied through the DP			
	process.			
Vehicle & Bicycle	• The parking areas are divided into smaller areas to avoid an auto-			
Parking:	dominated appearance.			
	• A landscape buffer will be provided in accordance with the Zoning			
	Bylaw regulations.			
	• Bicycle parking spaces are provided throughout the site near the			
	building's primary entrances, with secure bicycle parking spaces (
	Class A ^m) to be provided within the buildings.			
	• The parking areas are proposed to be gravel, as recommended to			
	manage stormwater. This requires a variance through the DP, but			
	gravel parking is seen to be reasonable in the South Watts area. A			
	paved apron at the entrance to South Watts Road Will be required.			
	 Snade trees are not required for gravel parking areas, but trees will be provided at the parishers of the parking area, throughout the 			
	be provided at the periphery of the parking area, throughout the			
Loading Eacilities:	Sile.			
Loaung Facilities.	The proposed loading areas are mainly benind and to the side of buildings			
	• Two loading spaces are in the front of a building, but should be			
	I wo loading spaces are in the noncord landscaping. This may be varied			
	through the DP			
Landscape:	 The site has previously been cleared except for a strip of trees along 			
	the Island Highway. These trees are proposed to be retained as will			
	be any trees that are still along the perimeter of the property.			
	• Native and drought resistant plants are proposed. An irrigation			
	system is proposed.			
	• A security deposit for \$9,800 will be provided to ensure the			
	landscaping is completed.			
Energy Conservation,	• These buildings are designed to be energy efficient/well insulated,			
Rain Water	to minimize heat loss for cannabis cultivation.			
Management &	Rainwater management facilities have been engineered to a high			
Water Conservation:	standard in order to maintain pre-development flows into the			
	adjacent highway ditch (which is also considered a stream under			
	the Riparian Areas Protection Regulation), as required by the			
	Ministry of Transportation and Infrastructure. Gravel parking areas			
	are recommended to increase the permeability of the site.			
Recycling, Organics &	Solid waste storage is accommodated within two enclosed buildings			
Solid Waste	on-site, shared between all six buildings.			
Management:				

Guidelines	Observations
Crime Prevention:	• Crime prevention has been considered in site design, as well as in
	landscaping, and lighting choices. The proposed cannabis
	cultivation use will need to adhere to strict security measures
	imposed by senior levels of government.

Parking & Loading:

The proposal meets the required number of parking spaces in accordance with the Zoning Bylaw parking regulations. However, the following will require a variance through the DP process:

- *Gravel surface parking*: parking regulations require hard surface parking, such as asphalt. As noted above in Table 1, gravel is a suitable surface for the site and its permeability will help with stormwater management. A paved apron at the entrance to South Watts Road will be required.
- Pedestrian pathway: the Zoning Bylaw requires all parking areas to be designed with a minimum of one pedestrian path from each abutting street to the primary entrances of buildings served by the parking area. The paths must be distinguished (visibly and physically) from vehicle driving surfaces with hardscape material. As the applicant is proposing a gravel parking area, it may not be practical to require a hard surface pedestrian pathway to the street (i.e. the pathway may become covered with gravel). However, should the applicant propose to pave the parking area in the future, a DP amendment will be required in which case the parking area will be re-evaluated and a pedestrian pathway required.
- Loading spaces: the Zoning Bylaw prohibits loading spaces in a front yard (between the front of the buildings and the fronting street). Two loading spaces are located within the front yard of the site; however, they will be screened from view from South Watts Road with fencing and landscaping.

Pursuant to the DPA 5 guidelines, variances to the Zoning Bylaw parking regulations may be considered through the Development Permit approval process where strict compliance with the regulations would otherwise undermine the character of the industrial area. Subsequently, the attached development permit varies the loading, pedestrian pathway and surfacing requirements noted above.

Development Permit Area 6 – Riparian:

The rainwater on the site currently drains from the property into the ditch adjacent to the Trans-Canada Highway, and from there into an unnamed tributary of Stocking Creek. Since Stocking Creek is fish habitat (including for chum and coho salmon, and rainbow and cutthroat trout), the proposed development triggers the Riparian Areas Protection Regulation (RAPR) and Development Permit Area 6 – Riparian. The purpose of Development Permit Area 6 is to protect the natural environment, ecosystems and biological diversity of fish bearing and non-fish bearing riparian areas.

Table 2: Summary of Consistency with DPA 6 Guidelines

Guidelines	Observations
Report prepared by QEP	 A revised report, prepared by a qualified environmental professional was submitted to the Province on July 3, 2020. On August 6, 2020 the Town received notification that the report has been accepted by the Province. The report indicates that, subject to following the QEP's recommendations, the development will meet the riparian protection standard.
HADD	• The report indicates that there will be no Harmful Alteration, Disruption, or Destruction (HADD) of fish habitat.
SPEA	• The report identifies a 2 metre streamside protection and enhancement area (SPEA).
Mitigation measures	 The report recommends the following measures to protect the SPEA: A permanent fence to delineate the SPEA Construction measures including sediment and erosion control, and tree protection fencing.
Zoning bylaw setback.	 Section 5.2.e.i) requires a minimum setback of 18.0 metres from the centerline of a watercourse. The DPA guideline allows for this setback to be reduced in accordance with the SPEA identified in a QEP report. The 2.0 metre SPEA in this case is entirely within the highway right-of-way. The development is setback from the rear parcel line, leaving an ample setback from the SPEA.

Zoning Bylaw No. 1860 & Development Variance Permit Application:

The property is zoned Industrial (I-2) under Zoning Bylaw No. 1860. The applicant is proposing to target Cannabis related businesses for the development. The I-2 zone permits Cannabis Micro-Cultivation, Cannabis Micro-Processing, and Cannabis Research and Development on the subject property. The buildings could potentially accommodate other permitted uses.

The proposed development complies with the zoning requirements for density, siting, sizing and dimensions. The applicant is requesting one variance to the requirements of the zoning bylaw through a Development Variance Permit application.

Proposed Sewerage Disposal:

The applicant is requesting a variance to section 5.23(a) of the Zoning Bylaw and s. 2.04(b) of the Subdivision and Development Servicing Bylaw to vary the requirement to connect to a community sanitary sewer system. Although municipal (CVRD) water service is available to this

property, there is currently no municipal sewer in the area or plans to extend sewer services in the immediate future. Staff are recommending that the variance be approved on the condition that a covenant requiring a connection to municipal sewer service once it is available, be registered on title.

Proposed Water Supply:

As noted above, a connection to a CVRD water system is available to the subject property for potable water, washrooms and irrigation. The applicant is required to connect to this water main, which runs underneath South Watts Road parallel to the western (front) subject property line.

ALTERNATIVES:

Council can choose to refuse Development Variance Permit 3090-20-01 or impose different conditions.

Council can choose to refuse Development Permit 3060-19-21 based on failure to meet the DPA guidelines. If Council refuses DVP 3090-20-01, DP 3060-19-21 cannot be approved since it would authorize development that does not comply with the zoning bylaw requirements.

FINANCIAL IMPLICATIONS:

None.

LEGAL IMPLICATIONS:

The *Local Government Act* allows Council to vary zoning and servicing regulations excluding regulations of use, density, and rental tenure through issuance of a Development Variance Permit (DVP).

The DP cannot be approved unless the DVP approved first, since the DP cannot authorize a development that is inconsistent with the Zoning Bylaw.

If the DVP is approved but the DP is refused, reasons must be given based on the DPA 5 or DPA 6 guidelines, since the issuance of a DP is not a completely discretionary decision of Council.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

Notification of the application for a Development Variance Permit was circulated to property owners and tenants within 60 metres of the subject property. Notification was sent on June 26, 2020 and was posted on the Town's Website. At the time of writing, no responses have been received from neighbours or members of the public.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

The application was referred to the Building Inspector and the Engineering Department of the Infrastructure Services Department as well as to the Fire Chief.

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

- □ Complete Community Land Use□ Green Buildings□ Innovative Infrastructure
- Healthy Community
- □ Not Applicable

- \Box Low Impact Transportation
- □ Multi-Use Landscapes
- □ Local Food Systems
- \boxtimes Local, Diverse Economy

ALIGNMENT WITH STRATEGIC PRIORITIES:

InfrastructureCommunityWaterfront

☑ Economy☑ Not Applicable

I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S):

DRAFT DP 3060-19-21 DRAFT DVP 3090-20-01



TOWN OF LADYSMITH DEVELOPMENT PERMIT

(Section 488 Local Government Act)

FILE NO: 3060-19-21

DATE: October 6, 2020

Name of Owner(s) of Land (Permittee): Green Civilian Industries Limited, Inc. No. BC1206334

Applicant: Jack Anderson (GreenPlan)

Subject Property (Civic Address): 10750 South Watts Road

- 1. This Development Permit is subject to compliance with all of the bylaws of the Town of Ladysmith applicable thereto, except as specifically varied by this Permit and Development Variance Permit 3090-20-01
- 2. This Permit applies to and only to those lands within the Town of Ladysmith described below, and any and all buildings structures and other development thereon:

Lot 20, District Lot 72, Oyster District, Plan 8793 Except Parcel A (DD 94199N) PID: 005-462-959 (10750 South Watts Road)

(referred to as the Land)

- 3. This Permit has the effect of authorizing:
 - (a) the issuance of a building permit for the construction of six industrial buildings and accessory structures on the Land in accordance with the plans and specifications attached to this Permit, and subject to all applicable laws except as varied by this Permit;
 - (b) the alteration of land located within Development Permit Area 5 Industrial, and Development Permit Area 6 – Riparian pursuant to the Official Community Plan; and
 - (c) the alteration of land designated in the Official Community Plan under section 488(1)(a) and 488(1)(f) of the *Local Government Act*;

Subject to the conditions, requirements and standards imposed and agreed to in this Permit.

- 4. With respect to the Land:
 - (a) Town of Ladysmith Zoning Bylaw 2014, No. 1860, Part 8: Parking and Loading Regulations, is hereby varied as follows:
 - i. The parking lot, including loading spaces and drive aisles may be gravel excluding a paved apron at the entrance to South Watts Road
 - ii. Two loading spaces may be located within a Front Yard; and
 - iii. A separate pedestrian path from the abutting street to the primary entrance of all buildings as not required for the gravel parking area.

In accordance with **Schedule A: Site Plan**, attached to and forming part of this Permit.

- 5. This Permit does not have the effect of varying the use or density of the Land specified in Zoning Bylaw 2014, No. 1860.
- 6. The Permittee, as a condition of the issuance of this Permit, agrees:
 - (a) That the Land will be developed strictly in accordance with the following Schedules:
 - i. Schedule A: Site Plan
 - ii. Schedule B: Landscape Plan
 - iii. Schedule C: Elevations
 - iv. Schedule D: Materials
 - v. Schedule E: Riparian Areas Protection Report
 - (b) To protect the 2m Streamside Protection and Enhancement Area (SPEA), as shown in the SPEA Determination Drawing in Schedule E: Riparian Areas Protection Report, by adhering to the measures and recommendations identified in Schedule E, including the following:
 - i. No encroachment into the SPEA shall be allowed.
 - ii. No construction of dumping of waste is allowed in the SPEA.
 - iii. If construction activities are to occur near trees within the SPEA, their root system must be protected by installing snow fencing around the drip line to prevent compaction of roots from heavy equipment.
 - iv. Sediment and erosion control measures should be in place prior to excavation and construction activities and left in place until the site is stable, then removed. The following measures are required:
 - Complete excavation and construction activities during periods of dry weather or minimal rain forecast if possible. If construction is to occur in wet periods then install a silt fence at the toe of the construction area (along the top of

the slope above the highway ditch to prevent sediment from migrating into the ditch) prior to work activities.

- Improvements to the existing South Watts ditch and short section of new ditch are to be completed during dry weather and no flow conditions. If not, additional measures will be required such as installing a series of gravel check dams in the downstream ditch and water quality monitoring will be required.
- 3. Do not stockpile waste materials on site remove as soon as possible.
- 4. All heavy equipment should be clean and free of leaks and to have a fully stocked spill kit on board.
- 5. Control on site drainage and runoff so that no deleterious substances enter the ditches or the SPEA area.
- 6. Install a row of silt fence along the top of the slope above the highway ditch prior to any soil disturbance.
- 7. No concrete laden water is allowed in the SPEA. Wash tools in the upland away from the ditches and SPEAs.
- 8. Remove track-out on South Watts Road as often as necessary by sweeping.
- v. Any agricultural wastewater from the greenhouses will be directed to the wastewater treatment system as shown in Schedule E.
- vi. No on-site monitoring is warranted if the civil works are completed during the dry summer months with no rain forecast. If not, then environmental monitoring is to be conducted on a part-time basis during civil works to provide additional recommendations as required by site conditions.
- vii. Activities are to be conducted to prevent downstream sedimentation of Stocking Creek tributary during South Watts Road widening and ditch improvements. Similarly, sedimentation of the highway ditch is to be prevented.
- viii. A post construction monitoring report is to be completed.
- 7. This Permit is issued on the condition that the Permittee has provided to the Town of Ladysmith security in the form of an irrevocable Letter of Credit to guarantee the performance of the conditions in section 6 of this Permit respecting landscaping. The Letter of Credit shall be for a period of two years, shall be automatically extended, and shall be in the amount of \$23,484.
- 8. Should the Permittee fail to satisfy the conditions referred to in section 6 and 7 of this Permit, the Town of Ladysmith may undertake and complete the works required to satisfy the landscaping condition(s) at the cost of the Permittee, and may apply the security in payment of the cost of the work, with any excess to be returned to the Permittee.

- 9. Should there be no default as herein provided, or where a Permit lapses, the Town of Ladysmith shall return any security provided to the Permittee.
- 10. If the Permittee does not substantially start any construction permitted by this Permit within **two years** of the date of this Permit as established by the authorizing resolution date, this Permit shall lapse.
- 11. The plans and specifications attached to this Permit are an integral part of this Permit.
- 12. Notice of this Permit shall be filed in the Land Title Office at Victoria under s.503 of the *Local Government Act,* and upon such filing, the terms of this Permit (**3060-19-21**) or any amendment hereto shall be binding upon all persons who acquire an interest in the land affected by this Permit.
- 13. This Permit prevails over the provisions of the Bylaw in the event of conflict.
- 14. Despite issuance of this Permit, construction may not start without a Building Permit or other necessary permits.

AUTHORIZING RESOLUTION PASSED BY THE COUNCIL OF THE TOWN OF LADYSMITH ON THE _____ DAY OF ______2020.

Mayor (A. Stone)

Corporate Officer (J. Winter)

I HEREBY CERTIFY that I have read the terms and conditions of the Development Permit contained herein. I understand and agree that the Town of Ladysmith has made no representations, covenants, warranties, guarantees, promises or agreements (verbal or otherwise) with Green Civilian Industries Limited, Inc. No. BC1206334 other than those contained in this permit.

Signed	Witness	
Title	 Occupation	
Date	 Date	



Green Civilian Industries Limited, Inc. No. BC1206334



Schedule B: Landscape Plan DP 3060-19-21 10750 South Watts Road Green Civilian Industries Limited, Inc. No. BC1206334









Elevation Design Details:

Elevations apply to buildings 'A', 'B', 'C', 'D', 'E' and 'F' with location of doors as shown on Schedule A: Site Plan
Windows are required in office and lunchroom areas
Location of windows may be moved depending on location of offices and lunchrooms
See Schedule D: Materials for exterior cladding details

Schedule C: Elevations DP 3060-19-21 10750 South Watts Road Green Civilian Industries Limited, Inc. No. BC1206334



Siding- Vic West 6724 7/8" Corrugated Silver Or regent Grey



Intermediate Wall Break Hardie Plank



Trusses, Beams, Posts Sikkens Cedar finish on Cedar Wood



Grey corrugated steel Fencing. Posts Sikkens Cedar finish on Cedar Wood

Fencing to be located around perimeter of the property



Exterior cladding of recycling/utility accessory buildings, shown on Schedule A: Site Plan, to consist of corrugated metal siding or hardie plank siding.

Note:



Chain Link Privacy Slats **Commercial Green**

Alternate fencing option for the rear and side parcel lines

Defiant DFI 5983 Motion Sensor Security Lighting

Garbage/ recycling enclosure and **HVAC Screening** Vinyl Grey



Roofing and Flashing

56072 Charcoal

Schedule D: Materials DP 3060-19-21 10750 South Watts Road Page 157 of 243

Located as shown on **Schedule A: Site Plan**

FORM 1

Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Riparian Areas Protection Regulation: Assessment Report

Please refer to submission instructions and assessment report guidelines when completing this report.

Date May 21, 2020

Rev 2 July 3, 2020

I. Primary QEP Information

First Name	Sarah Middle		Name E		
Last Name	Bonar				
Designation	R.P.Bio		Company: Aquaparian Environmental Consulting Ltd		
Registration #	1947		Email: sbonar@aquaparian.com		
Address	203-321 Wallace Street				
City	Nanaimo	Postal/Zip	V9G 1A5	Phone #	250-591-2258
Prov/state	BC	Country	Canada		

II. Secondary QEP Information (use Form 2 for other QEPs)

First Name	Middle Na	me	
Last Name			
Designation		Company	
Registration #		Email	
Address			
City	Postal/Zip		Phone #
Prov/state	Country		

III. Developer Information

First Name	Warren	Middle N	ame	
Last Name	Selby			
Company	Green Civilian Industries			
Phone #	250-713-7616		Email: warren2112@	hotmail.com
Address	2419 Yellow Point Road			
City	Nanaimo	Postal/Zip	V9X 1W5	
Prov/state	BC	Country	Canada	

IV. Development Information

Development Type	Commercial	
Area of Development (ha)	0.93	Riparian Length (m) 79.25
Lot Area (ha)	0.93	Nature of Development New
Proposed Start Date Augu	ıst 1, 2020	Proposed End Date Sept 30, 2022

V. Location of Proposed Development

Street Address (or nearest town)		10750 South Watts F	Road	
Local Government	Town of Ladys	mith	City Lad	lysmith
Stream Name	Highway ditch a	and S. Watts Rd Ditch	to Stocking C	Creek
Legal Description (PID)	005-462-959		Region	Vancouver Island
Stream/River Type	Roadside Ditch	1	DFO Area	South Coast
Watershed Code	920-318200 (S	tocking Creek)		
Latitude	48° 57'	45.07" Longitude	123° 46'	03.17"

Completion of Database Information includes the Form 2 for the Additional QEPs, if needed. Insert that form immediately after this page.

Schedule E: Riparian Assessment Report DP 3060-19-21 10750 South Watts Road Green Civilian Industries Limited, Inc. No. BC1206334

Table of Contents for Assessment Report

		Page Number
1.	Description of Fisheries Resources Values	
2.	Results of Riparian Assessment (SPEA width)	
3.	Site Plan	
4.	Measures to Protect and Maintain the SPEA (detailed methodology only). 1. Danger Trees	
5.	Environmental Monitoring	
6.	Photos	
7.	Assessment Report Professional Opinion	

Section 1. Description of Fisheries Resources Values and a Description of the Development proposal

(Provide as a minimum: Species present, type of fish habitat present, description of current riparian vegetation condition, connectivity to downstream habitats, nature of development, specific activities proposed, timelines)

This report has been revised following review. Supplementary information is provided in "blue" text.

The property at 10750 South Watts Road in Ladysmith, BC is legally described as LOT 20, DISTRICT LOT 272, OYSTER DISTRICT, PLAN 8793, EXCEPT PARCEL A (DD 94199N) THEREOF. The property is approximately 2.3 acres (0.93ha) and is zoned I2 (industrial). The parcel is subject to the following Development Permit Area (DPA) as per the Town of Ladysmith's Official Community Plan (OCP): DPA 5 – Industrial. The subject parcel is accessible from South Watts Road to the west parcel boundary and is aligned with the Trans Canada Highway on the east parcel boundary. Figure 1 is a site location map. Figure 2 is the development plan.

The subject property is currently cleared and undeveloped. The parcel was cleared by the previous owner before putting it on the market. The majority of the parcel is vegetated with patchy grass upon uneven, gravelly soil. The development proposed by Green Civilian Industries is a greenhouse complex comprised of six buildings, two smaller utility buildings, a septic field and parking spaces with landscaping along the frontage and south boundary.

An area drainage map has been included as Figure 3. The receiving environment for drainage in the area of the property is Stocking Creek. Stocking Creek (Watershed Code 920-318200) supports chum salmon (*Oncorhynchus keta*), coho salmon (*O. kisutch*), rainbow trout (*O. mykiss*) and both anadromous and resident cutthroat trout (*O. clarkii*).

Figure 4 is the SPEA determination drawing. South Watts Road has a shallow roadside ditch on the west side - the ditch is across the paved road from the subject parcel. Most of the ditch is sloped north draining towards Westdown Road. A short section of the ditch opposite the subject parcel drains south due to topography. The ditch crosses Westdown Road through a CSP culvert which is mostly crushed or filled in on the downstream end. A roughly defined flow path continues through a treed area to join an unnamed tributary of Stocking Creek where it crossed the highway. Previous assessments of this tributary identified a vertical barrier to fish passage on the east side of the highway (hanging culvert). Vegetation along the ditch is limited to grass, scotch broom, Himalayan blackberry and common tansy. The ditch has a limited catchment of stormwater due to topography and appears to only flow during heavy rain events. This ditch has no natural headwater; its flow is seasonal, intermittent and low, it has no habitat attributes to support fish or any other aquatic species and no physical access for fish due to downstream barriers. The ditch is separated from the subject parcel by an asphalt road. The 2m SPEA is comprised of a thin strip of weeds and asphalt.

A review of the site servicing civil drawings (Figure 5) show that the road fronting the parcel will need to be constructed to an 8m paved surface with 2m wide gravel shoulders and ditches each side. The road is currently 5m to 6m wide with cracking edges. There is no ditch on the east side of South Watts Road and a ditch cannot reasonably be dug along the downhill neighbouring lot frontage – therefore a cross drainage culvert is proposed and improvements to the west side ditch along approximately 5m length to make it deeper and wider are required. Improvements to the road and drainage will not alter the composition of the SPEA which will still be road shoulder

and asphalt. Most of the stormwater in the site will enter an engineered storm water system with underground detention and surface detention to meet pre-design flows. Overflow will be disbursed over a wide area to the highway ditch. Wastewater design drawings have been included as Figure 6 which proposed a biofiltration system. Irrigation is proposed to include water re-cycling and rainwater use where appropriate.

The east side of the parcel slopes down steeply to the Trans Canada Highway ditch that flows south for approximately 300m. The ditch then flows in an unconfined flow path down a 45% vegetated slope for ~ 50m to a small tributary of Stocking Creek where it then joins with the main channel and flows east under the highway. This slope and lack of channel is a barrier to fish passage. The ditch is a manmade, non-fish bearing ditch that was constructed to drain stormwater from the highway. It discharges into Stocking Creek by overland flow, therefore supporting a fish-bearing watercourse. The ditch is considered non-fish bearing because the steep, vegetated slope that the ditch flows down to join the creek lacks a defined channel and has a slope of 45% which creates a barrier to fish passage. There is no fish habitat within the highway ditch and it is typically dry all summer season.

The highway ditch has a sparse canopy along the west bank that is dominated by Douglas-fir (*Pseudotsuga menziesii*), western redcedar (*Thuja plicata*) and red alder (*Alnus rubra*) with minor grand fir (*Abies grandis*). Red alder saplings adjacent to the ditch are regularly mowed. The understory along the ditch is comprised of salmonberry (*Rubus spectabilis*), Scotch broom (*Cytisus scoparius*), Pacific dogwood (*Cornus nuttallii*), indian plum (*Oemleria cerasiformis*), salal (*Gaultheria shallon*), Himalayan blackberry (*Rubus armeniacus*) and willows (*Salix* spp.). Within the ditch, the vegetation consists of cattail (*Typha latifolia*), palmate coltsfoot (*Petasites palmatus*), common rush (*Juncus effuses*), creeping buttercup (*Ranunculus repens*), watercress (*Nasturtium officinale*) and giant horsetail (*Equisetum telmatiea*). The west bank riparian area is a steep slope to the parcel and is dominated by Himalayan blackberry with some reed canary grass (*Phalaris arundinacea*), tansy (*Tanacetum vulgare*), black cottonwood saplings (*Populus trichocarpa*), ragwort (*Jacobaea vulgaris*), Scotch broom and giant horsetail. The riparian area on the east bank adjacent to the highway is nonexistent; the bank is lightly vegetated with patchy terrestrial grass, has exposed sandy soils with gravel and much debris/trash and is bound by the concrete meridians.

As per the Riparian Area Protection Regulations (RAPR) detailed assessment methodology – the Streamside Protection and Enhancement Area (SPEA) is determined by using the widest Zone of Sensitivity (ZOS). A 2m ZOS for leaf litter, shade and insect drop (large woody debris is not applicable for non-fish bearing ditches) was determined, resulting in a 2m SPEA for the two ditches assessed in this report.

No vegetation removal or disturbance is planned within the SPEAs. No encroachment to the SPEA will occur for this project. The highway ditch setback is within the slope from the parcel to the highway. No disturbance is planned beyond the top of slope overlooking the highway. The S. Watts Road SPEA is asphalt.

The SPEA is to be considered a no development area with no soil or vegetation disturbance or dumping. Fish and fish habitat within Stocking Creek are not expected to be negatively impacted by this proposal if all measures are followed by the contractor during the development.

FORM 1

Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 2. Results of Riparian Assessment (SPEA width)

Attach or insert the Form 3 or Form 4 assessment form(s). Use enough duplicates of the form to produce a complete riparian area assessment for the proposed development

2. Results of Detailed Riparian Assessment

Refer to Section 3 of Technical Manual

Description of Water bodies involved (number, type)

Stream		
Wetland		
Lake		
Ditch	Х	
Number of reaches		
Reach #		

Date: May 21, 2020 Highway ditch to Stocking Creek

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)

Channel	Width(m)		Gradient	(%)
starting point	2.3		1%	I, <u>Sarah Bonar R.P.Bio</u> , hereby certify that:
upstream	1.8			a) I am a qualified environmental protessional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian</i>
	1.6			Areas Protection Act,
	1.6			b) I am qualified to carry out this part of the assessment of the
	1.6			development proposal made by the developer <u>Warren Selby</u> ;
downstream	1.6		1%	and my assessment is set out in this Assessment Report; and
	1.8			d) In carrying out my assessment of the development proposal, I
	2.5			have followed the technical manual to the Riparian Areas
	2.6			
	2.2			
	1.6			
Total: minus high /low	17			
mean	1.9		1%	
	R/P	C/P	S/P	
Channel Type	Х			

Site Potential Vegetation Type (SPVT)

	Yes	No				
SPVT Polygons		Х	Tick yes or	nly if multiple polygons, if No then fill in one set of SPVT data boxes		
			 I, <u>Sarah Bonar R.P.Bio</u>, hereby certify that: a) I am a qualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the <i>Riparian Areas Protection Act</i>; b) I am qualified to carry out this part of the assessment of the development proposal made by the developer <u>Warren Selby</u>; c) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and d) In carrying out my assessment of the development proposal, I have followed the 			
		-	technica	I manual to the Riparian Areas Protection Regulation.		
Polygon No:	1			Method employed if other than TR		
SPVT Type	LC	SH	TR X			
			L			
Polygon No:]		Method employed if other than TR		
SPVT Type		SH				
			-			
Polygon No: SPVT Type			F	Method employed if other than TR		

Compant 4					h aida i			
Segment		ies of a s	stream inve	uvea, eacl	n side is	s a separate	segment.	VT polygons
INU.			itiple segn		where	lifere are fin		v i polygons
Stability ZO	S(m)	a						
Litter fall and insect	drop 2							
ZO	S (m)							
Shade ZOS (m) ma	ax 2	5	South bank	Yes		No	Х	
Ditch Justificati	on descrip	otion for	classifying	as a ditch		Manmade	without a	significant
(manmad	e, no sign	nificant h	eadwaters	or springs	s,	headwater	. The dito	ch is linear and
seasonal	flow)					shallow an	d was cre	ated to drain
						storm wate	er runoff fr	om the highway.
						The ditch is	s dry part	of the year, only
						flowing inte	ermittently	during rain
Ditab Fish Ves		NIa	V	If a sa fish		events.		- AFO(
Ditch Fish Yes		INO	X	If non-fish	oort	I ne ditch fi	ows down	a 45% vegetated
Dealing				no fish ho	aring	flow path to	n a small [.]	tributary of
				status ren	ort	Stocking C	reek Thi	is creates a
				otatao rop	on	barrier to fi	sh passa	ae into the ditch.
SPEA maximum	2	(For di	tch use tab	ole3-7)			<u> </u>	geee
L. L								
Segment	If two s	ides of a	a stream in	volved, ea	ch side	is a separat	te segmer	nt. For all water
No:	b	oodies m	ultiple seg	ments occ	ur whei	re there are i	multiple S	PVT polygons
LWD, Bank and Ch	annel							
Stability ZO	S (m)							
Litter fall and insect	drop							
20 0h a da 7 00 (m) ma	S (m)			Vee				
Snade ZOS (m) ma		(For dite	South bank	Yes		INO		
SPEA maximum			in use tabl	es-7)				
Segment	If two s	vides of r	a stroom in	wolved ea	ch sido	is a sonarat	to soamor	at For all water
No.	h 11003	ndies m	ultiple sea	ments occ	ur whei	re there are i	multinle S	PVT polygons
LWD. Bank and Ch	annel							i vi polygono
Stability ZO	S (m)							
Litter fall and insect	drop							
ZO	S (m)							
Shade ZOS (m) ma	ix	S	South bank	Yes		No		
SPEA maximum		(For dito	ch use tabl	e3-7)				
I, <u>Sarah Bonar R.P.Bio</u> , here	by certify the	at:	e dofined in t	ha Dinarian /	Vroag Bra	toction Poquiat	ion modo ···	dor the Pinerian
Areas Protection Act.	mentai piole	5551011al, a	s denned in t	ne Ripanali F	vieds Plu	Rection Regulat	ion made ur	
b) I am qualified to carry o	ut this part o	of the asse	ssment of the	e developmer	nt propos	al made by the	developer	Warren Selby;
 c) I have carried out an as d) In carrying out my asse 	sessment of th	t the devel	opment prop	osal and my a	assessme	ent is set out in	this Assessi	ment Report; and
Protection Regulation.								

Zone of Sensitivity (ZOS) and resultant SPEA

Comments

The ditch is a section of the Island Highway roadside ditch constructed to intercept road stormwater. It has no access to fish nor any characteristics that could support fish.

2. Results of Detailed Riparian Assessment

Refer to Section 3 of Technical Manual

Description of Water bodies involved (number, type)

Stream		
Wetland		
Lake		
Ditch	Х	
Number of reaches		
Reach #		

Date:	July 3, 2020			
S. Watts road ditch flow	ving to a non-fish			
bearing tributary of Stocking Creek				

Channel width and slope and Channel Type (use only if water body is a stream or a ditch, and only provide widths if a ditch)



Site Potential Vegetation Type (SPVT)

	Yes	No		
SPVT Polygons		Х	Tick yes o	only if multiple polygons, if No then fill in one set of SPVT data boxes
			I, <u>Sarah Bo</u> a) I am a a Regula b) I am qu made b c) I have a set out d) In carry	<u>onar R.P.Bio.</u> hereby certify that: qualified environmental professional, as defined in the Riparian Areas Protection tion made under the <i>Riparian Areas Protection Act</i> ; alified to carry out this part of the assessment of the development proposal y the developer <u>Warren Selby</u> ; carried out an assessment of the development proposal and my assessment is in this Assessment Report; and ing out my assessment of the development proposal, I have followed the
			technic	al manual to the Riparian Areas Protection Regulation.
Polygon No:	1] ਼ੁ	тр	Method employed if other than TR
SPVT Type			X	
Polygon No:] 	TR	Method employed if other than TR
SPVT Type				
		-		
Polygon No:				Method employed if other than TR

Form 3 Detailed Assessment Form Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

SPVT Type

Zone of S	ensitivity ((ZOS) a	nd resultant	SPEA
-----------	--------------	---------	--------------	------

Segment	1	If two s	ides of a s	stream inv	olved, each side is	s a separate segment. For all water
NO:	No: Dodies multiple segments occur where there are multiple SPVT polygons					
LWD, Ban	LWD, Bank and Channel n/a					
Sta	ability ZOS	S (m)	-			
Litter fall a	and insect	drop	2			
	ZOS	S (m)				1
Shade ZC	DS (m) max	x 1	2 5	South bank	K Yes X	No
Ditch	Justificatio	on desci	ription for	classifying	as a ditch	Manmade without a significant
	(manmade	e, no sig	gnificant h	eadwaters	or springs,	headwater. The ditch is linear and
	seasonal f	low)				shallow and was created to drain
						storm water runoff from S. Watts
						Road. The ditch is dry most of the
						year, only flowing intermittently during
						neavy rain events.
	h Voc		No	V	If non-fich	The ditch has downstream herriers to
DIICH FIS	in res		INO	^	II NON-IISN	field accesses the flew or hebitat
Deann	ig				bearing insert	IISN access, no now of nabilal
					no lish bearing	characteristics that could support lish.
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No:			bodies m	ultiple seg	ments occur whe	re there are multiple SPVT polygons
LWD, Ban	k and Cha	annel				
Sta	ability ZOS	S (m)				
Litter fall a	and insect	drop				
	ZOS	S (m)				
Shade ZC)S (m) max	x`́	5	South bank	Yes	No
SPEA max	kimum [(For dito	h use tabl	e3-7)	
_					/	
Segment		If two	sides of a	a stream ir	volved, each side	is a separate segment. For all water
No:			bodies m	ultiple seg	ments occur when	re there are multiple SPVT polygons
LWD, Ban	k and Cha	annel				
Sta	ability ZOS	S (m)				
Litter fall and insect drop						
	ZOS	S (m)				
Shade ZC	OS (m) max	x	5	South bank	Yes	No
SPEA max	kimum		(For dito	h use tabl	e3-7)	<u>i</u> i
			•		· · · · · · · · · · · · · · · · · · ·	
I, Sarah Bonar R	.P.Bio, hereb	by certify t	that:			
a) I am a quali	fied environn	nental pro	ofessional, a	s defined in t	he Riparian Areas Pro	tection Regulation made under the Riparian
Areas Prote	ection Act;					

I am qualified to carry out this part of the assessment of the development proposal made by the developer Warren Selby; b)

c) d) I have carried out an assessment of the development proposal and my assessment is set out in this Assessment Report; and In carrying out my assessment of the development proposal, I have followed the technical manual to the Riparian Areas Protection Regulation.

Comments

FORM 1 Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 3. Site Plan

Insert jpg file below

Site Plan

FIGURE 1. SITE LOCATION MAP 10750 SOUTH WATTS ROAD LADYSMITH





DRAINAGE MAP 10750 SOUTH WATTS ROAD LADYSMITH





Page 171 of 243



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						LEGEND				
					LAMP STANDARD \leftrightarrow LS \blacklozenge	CLEANOUT	DITCH			J.E. AN
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	YYYY MM DD	DE	DA	СК	DRAIND	EDGE ASPHALT	AIR VALVE	٢	PHONE: 250-758-4631	EMA I L: nanaimo@jeanderso





FORM 1

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Section 4. Measures to Protect and Maintain the SPEA

This section is required for detailed assessments. Attach text or document files, as need, for each element discussed in Part 4 of the RAPR. It is suggested that documents be converted to PDF *before* inserting into the assessment report. Use your "return" button on your keyboard after each line. You must address and sign off each measure. If a specific measure is not being recommended a justification must be provided.

1.	Danger Trees	The parcel has been cleared by the previous owner and no				
	5	potential danger trees were observed. The riparian				
		vegetation along the highway ditch is dominated by shrubs				
		and the small stand of trees that exists in the riparian area				
		does not exhibit any signs of danger trees. The riparian				
		area of the S. Watts Rd ditch is comprised of weeds and				
		achalt				
LS	arah Bonar, R P Bio, hereby certify that:	asphalt.				
a)	I am a qualified environmental professior Riparian Areas Protection Act;	nal, as defined in the Riparian Areas Protection Regulation made under the				
b)	I am qualified to carry out this part of the <u>Selby</u> ;	assessment of the development proposal made by the developer <u>Warren</u>				
c)	I have carried out an assessment of the	development proposal and my assessment is set out in this Assessment				
	Report; and in carrying out my assessme set out in the Minister's technical manual	ent of the development proposal, I have followed the assessment methods I to the Riparian Areas Protection Regulation.				
2.	Windthrow	Windthrow is not an issue as the lot has been previously				
		cleared.				
I, <u>S</u> a	arah Bonar, R.P.Bio, hereby certify that:					
a.	I am a qualified environmental profession <i>Riparian Areas Protection Act</i> ;	nal, as defined in the Riparian Areas Protection Regulation made under the				
b.	I am qualified to carry out this part of the	assessment of the development proposal made by the Warren Selby;				
C.	I have carried out an assessment of the o	development proposal and my assessment is set out in this Assessment				
	set out in the Minister's technical manual	to the Rinarian Areas Protection Regulation				
3	Slope Stability	The slopes within the property are gradual and stable with a				
5.	Slope Stability	steeper slope down to the highway ditch which is also				
		steeper slope down to the highway ditch which is also				
1 9	arah Bonar R P Bio, herebu certifu that:	Slable.				
a.	I am a gualified environmental profession	nal. as defined in the Riparian Areas Protection Regulation made under the				
	Riparian Areas Protection Act,					
b.	I am qualified to carry out this part of the Selby;	assessment of the development proposal made by the developer <u>Warren</u>				
c.	I have carried out an assessment of the	development proposal and my assessment is set out in this Assessment				
	Report; and in carrying out my assessment of the development proposal, I have followed the assessment methods					
	set out in the Minister's technical manual	to the Riparian Areas Protection Regulation.				
4.	Protection of Trees	The parcel has few trees within the highway SPEA that are				
		concentrated along the highway ditch. The development is				
		unlikely to impact these trees; however, if construction				
		activities are to occur near them, their root system must be				
		protected by installing snow fencing around the drip line to				
		prevent compaction of roots from heavy equipment.				
I <u>, S</u> a	arah Bonar, R.P.Bio, hereby certify that:					
a.	I am a qualified environmental profession <i>Riparian Areas Protection Act</i> ;	nal, as defined in the Riparian Areas Protection Regulation made under the				
b.	I am qualified to carry out this part of the assessment of the development proposal made by the developer Warren Selby :					
c.	I have carried out an assessment of the	development proposal and my assessment is set out in this Assessment				
	Report; and in carrying out my assessme	ent of the development proposal, I have followed the assessment methods				
L	set out in the Minister's technical manual	to the Riparian Areas Protection Regulation.				
5.	Encroachment	No encroachment into the SPEA is to be allowed. This is				
		best accomplished with a permanent physical barrier such				
		as a fence at the top of the slope above the highway ditch.				
		No construction or dumping of waste is allowed in the				

FORM 1 Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

	SPEA.
	riparian area is an asphalt road.
I, Sarah Bonar, R.P.Bio, hereby certify that:	
a. I am a qualified environmental professio	nal, as defined in the Riparian Areas Protection Regulation made under the
 b. I am qualified to carry out this part of the Selby . 	assessment of the development proposal made by the developer Warren
 c. I have carried out an assessment of the Report; and in carrying out my assessm set out in the Minister's technical manual 	development proposal and my assessment is set out in this Assessment ent of the development proposal, I have followed the assessment methods I to the Riparian Areas Protection Regulation
6 Sediment and Erosion Control	Sediment and erosion control measures should be in place
	prior to excavation and construction activities and left in place until the site is stable then removed. The following
	Complete excavation and construction activities
	during periods of dry weather or minimal rain
	forecast if possible. If construction is to occur in
	wet periods then install a silt fence at the toe of
	the construction area (along the top of the slope
	above the highway ditch to prevent sediment from
	migrating into the ditch) prior to work activities.
	Improvements to the existing South watts ditch and short section of new ditch are to be
	completed during dry weather and no flow
	conditions. If not – additional measures will be
	required such as installing a series of gravel
	check dams in the downstream ditch and water
	quality monitoring will be required.
	 Do not stockpile waste materials on site – remove as soon as possible.
	 All heavy equipment should be clean and free of leaks and to have a fully stocked spill kit on board
	 Control of site drainage and runoff so that no
	deleterious substances enter the ditches or the
	 Install a row of silt fence along the top of the slope
	above the highway ditch prior to any soil
	disturbance.
	No concrete laden water is allowed in the SPEA. Wash tools in the upland away from the ditches and ODEA.
	and SPEAS.
	 Remove track-out on 5. Watts Road as often as necessary by sweeping
II, Sarah Bonar, R.P.Bio, hereby certify that:	
a. I am a qualified environmental professio Riparian Areas Protection Act,	nal, as defined in the Riparian Areas Protection Regulation made under the
b. I am qualified to carry out this part of the <u>Selby</u> ;	assessment of the development proposal made by the developer Warren
c. I have carried out an assessment of the Report; and in carrying out my assessm set out in the Minister's technical manua	development proposal and my assessment is set out in this Assessment ent of the development proposal, I have followed the assessment methods I to the Riparian Areas Protection Regulation.
7. Stormwater Management	The area is zoned industrial and stormwater is managed in
	roadside ditches that eventually drain into Stocking Creek.
	As understood, any agricultural waste water from the green
	houses will be directed to the wastewater treatment system

FORM 1

Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

		designed to infiltrate the ground in a septic field. See							
I <u>, S</u> a	I, Sarah Bonar, R.P.Bio, hereby certify that:								
a.	I am a qualified environmental profession	nal, as defined in the Riparian Areas Protection Regulation made under the							
	Riparian Areas Protection Act,								
b.	I am qualified to carry out this part of the	assessment of the development proposal made by the developer Warren							
	<u>Selby</u> ;								
c.	I have carried out an assessment of the o	development proposal and my assessment is set out in this Assessment							
	Report; and In carrying out my assessme	ent of the development proposal, I have followed the assessment methods							
	set out in the Minister's technical manual	to the Riparian Areas Protection Regulation							
8.	Floodplain Concerns (highly	No floodplain concerns exist.							
	mobile channel)								
I, Sa	arah Bonar, R.P.Bio, hereby certify that:								
a.	I am a gualified environmental professional, as defined in the Riparian Areas Protection Regulation made under the								
	Riparian Areas Protection Act,								
b.	I am qualified to carry out this part of the assessment of the development proposal made by the Warren Selby :								
c.	I have carried out an assessment of the o	development proposal and my assessment is set out in this Assessment							
	Prove can be done an assessment of the development proposal and thy assessment the assessment methods								

Report; and In carrying out my assessment of the development proposal, I have followed the assessment meti set out in the Minister's technical manual to the Riparian Areas Protection Regulation.

Section 5. Environmental Monitoring

Attach text or document files explaining the monitoring regimen Use your "return" button on your keyboard after each line. It is suggested that all document be converted to PDF *before* inserting into the PDF version of the assessment report. Include actions required, monitoring schedule, communications plan, and requirement for a post development report.

The two ditches are non-fish bearing beside South Watts Road and the Trans Canada Highway. The S. Watts Road ditch SPEA is the asphalt road.

The highway ditch 2m SPEA is located at the toe of a slope below the property. No development is planned near or below the top of slope. No negative impacts are expected to occur from this project.

Due to the very low risk of this development impacting the ditches, no on-site construction monitoring is warranted if the civil works are completed during dry summer months with no rain forecast. If not, then environmental monitoring is to be conducted on a part – time basis during civil works to provide additional recommendations as required by site conditions. Activities are to be conducted to prevent downstream sedimentation of the Stocking Creek tributary during South Watts Road widening and ditch improvements. Similarly, sedimentation of the highway ditch is to be prevented.

If there is a spill or extreme weather during construction that results in sediment migration, Aquaparian will be available for additional on-site support as necessary.

As required by the methodology, a post construction monitoring report is to be completed for this project and submitted to the provincial Notification System.

FORM 1

Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Section 6. Photos

Provide a description of what the photo is depicting, and where it is in relation to the site plan.

APPENDIX A – SITE PHOTOGRAPHS



Photo 1: The subject parcel facing west towards South Watts Road. The parcel has been mostly cleared except for a strip of riparian vegetation along the top of slope above the highway ditch.



Photo 2: A strip of riparian vegetation along the highway ditch is dominated by Himalayan blackberry with some Scotch broom, tansy, reed canary grass, ragwort, gian Poorsetail and black cottonwood saplings.



Photo 3: Looking north along the ditch.



Photo 5: Looking west towards the sparse stand of trees that comprises the riparian canopy of the ditch. Page 180 of 243



Photo 4: Looking south along the ditch.



Photo 6: The channel of the ditch. This section of the channel is dominated by cattail.


Photo 7: The ditch flows down a steep (45%), vegetated ravine slope through an undefined flow path.



Photo 8: The flow enters a small tributary at the bottom of the slope.



Photo 9:The tributary joins the main channel Page 181 of 24 Stocking Creek and flows east under the highway.



Photo 10. Looking north along South Watts Road. The ditch is on the left, the property is on the right.



Photo 11. A close-up of the ditch.





Photo 12 & 13. The ditch crossed Thicke Road by a culvert that is crushed or mostly filled in at the downstream end then joins a tributary of Stocking Creek passing under the highway.

Section 7. Professional Opinion

Qualified Environmental Professional opinion on the development proposal's riparian assessment.

Date May 21, 2020 Rev July 3, 2020

1. I/We Sarah Bonar, R.P.Bio

hereby certify that:

- a) I am/We are qualified environmental professional(s), as defined in the Riparian Areas Protection Regulation made under the *Riparian Areas Protection Act*,
- b) I am/We are qualified to carry out the assessment of the proposal made by the developer <u>Warren Selby</u>, which proposal is described in section 3 of this Assessment Report (the "development proposal"),
- c) I have/We have carried out an assessment of the development proposal and my/our assessment is set out in this Assessment Report; and
- d) In carrying out my/our assessment of the development proposal, I have/We have followed the specifications of the Riparian Areas Protection Regulation and assessment methodology set out in the minister's manual; AND
- 2. As qualified environmental professional(s), I/we hereby provide my/our professional opinion that:
 - a) N/A the site of the proposed development is subject to undue hardship, (if applicable, indicate N/A otherwise) and
 - b) X the proposed development will meet the **riparian protection standard** if the development proceeds as proposed in the report and complies with the measures, if any, recommended in the report.

[NOTE: "Qualified Environmental Professional" means an individual as described in section 21 of the Riparian Areas Protection Regulation.]

FORM 1

Riparian Areas Protection Regulation - Qualified Environmental Professional - Assessment Report

Submission Instructions Riparian Areas Protection Regulation – Qualified Environmental Professional – Assessment Report RAR-QEP-AR

Forms you will need to complete are

- Form 1 which has the database information, the description of the fisheries resources, development site plan, measures to protect and maintain the SPEA, and environmental monitoring.
- > Form 2, if more QEPs are part of the project team.
- Either Form 3 the detailed assessment form(s) or Form 4 simple assessment form(s) which is for the results of the riparian assessment (SPEA width). Use enough copies of the form to complete the assessment of the site.
- Form 5 is the photo form(s). Duplicate for additional photos.

NB: Refer to Part 4 of the RAPR and the Technical Manual for detailed instructions on the information required for completing the Assessment Report.

A complete Riparian Assessment Report based on the template forms must be converted to a *single* Portable Document Format PDF file prior to uploading onto the Notification System.

The Assessment Report must be submitted complete with all information specified and posted to the notification system to be reviewed by the province. Upon approval notification will be provided to the local government.

Tips for working with MS Word Template Forms

Using the forms

- Before beginning, print a hard copy of the form and the guidance files for reference
- · Open the template
- · Enter data into the shaded fields on the form
- · Use TAB to move from one field to another; SHIFT-TAB to go in reverse
- Text and digital photos may be inserted from other applications
- The amount of text that can be entered in each box is limited and cannot be changed by the user; boxes with date information, for example, require input like: yyyy-mm-dd.

Saving the completed form

- Assign name to the completed form
- Save a word document (*.doc file)
- Do not overwrite the Template (*.dot file) with your completed form
- If you do overwrite the template, you can download a new copy from this web site



TOWN OF LADYSMITH DEVELOPMENT VARIANCE PERMIT

(Section 498 Local Government Act)

FILE NO: 3090-20-01

DATE: October 6, 2020

Name of Owner(s) of Land (Permittee): Green Civilian Industries Limited, Inc. No. BC1206334

Applicant: William Belland

Subject Property (Civic Address): 10750 South Watts Road

- 1. This Development Variance Permit is issued subject to compliance with all of the bylaws of the Town of Ladysmith applicable thereto, except as specifically varied or supplemented by this Permit.
- 2. This Development Variance Permit applies to and only to those lands within the Town of Ladysmith described below and any and all buildings, structures and other development thereon:

Lot 20, District Lot 72, Oyster District, Plan 8793 Except Parcel A (DD 94199N) PID: 005-462-959 (10750 South Watts Road)

(referred to as the Land)

- 3. Section 5.23.a) "Community Water and Community Sewer" of the "Town of Ladysmith Zoning Bylaw 2014, No. 1860", is varied to allow the use and construction of a multi-building cannabis production/processing development without connecting to a community sanitary sewer system, on the condition that:
 - a. the owner of the Land connects to a community sanitary sewer system within two years of the system being available to the Land;
 - a community sanitary sewer system is deemed available to the Land when the Sanitary Sewer – Ladysmith South Industrial Park Extension DCC project is complete; and
 - c. an on-site sewerage system permit, issued by Island Health, is required in the interim.
- 4. Section 2.04(b) "Works and Service Requirements" of the "Town of Ladysmith Subdivision and Development Servicing Bylaw 2013, No. 1834", requiring works and services be provided in accordance with the Bylaw, is varied for Land to allow

Page 1 of 3

the construction of a multi-building cannabis production/processing development, by exempting the owner from the requirement of extending and connecting to a Town sanitary sewer system main, on the condition that:

- a. the owner of the Land must extend the Town sanitary sewer main up to and across the frontage of the Land and connect to the Town sanitary sewer system within two years of the system being available to the Land;
- b. the Town sanitary sewer system is deemed available to the Land when the Sanitary Sewer – Ladysmith South Industrial Park Extension DCC project is complete; and
- c. an on-site sewerage system permit, issued by Island Health, is required in the interim.
- 5. The land described herein shall be developed strictly in accordance with terms and conditions and provisions of this Permit and any plans and specifications attached to this Permit which shall form a part thereof.
- 6. Notice of this Permit shall be filed in the Land Title Office at Victoria under s.503 of the *Local Government Act*, and upon such filing, the terms of this Permit (Inset permit 3090-20-01) or any amendment hereto shall be binding upon all persons who acquire an interest in the land affected by this Permit.
- 7. THIS PERMIT IS NOT A BUILDING PERMIT. No occupancy permit shall be issued until all items of this Development Variance Permit have been complied with to the satisfaction of the Corporate Officer.

AUTHORIZING RESOLUTION PASSED BY MUNICIPAL COUNCIL ON THE DAY OF 2020.

Mayor (A. Stone)

Corporate Officer (D. Smith)

I HEREBY CERTIFY that I have read the terms and conditions of the Development Variance Permit contained herein. I understand and agree that the Town of Ladysmith has made no representations, covenants, warranties, guarantees, promises or agreements (verbal or otherwise) with Green Civilian Industries Limited other than those contained in this permit.

Signed	Witness
Title	Occupation
Date	Date

Minutes of the Parks, Recreation & Culture Advisory Committee Wednesday, September 16, 2020 at 7:00pm

COMMITTEE MEMBER Lesley Lorenz Mike Brocklebank Ava Smith Councillor Tricia McKar	S PRESENT: Emily Weeks Brynn Dovey Lynda Baker y Geoff Dean	STAFF PRESENT: Chris Barfoot Robyn McAdam Julie Tierney
REGRETS: Tim Richards	Councillor Duck Paterson	
ELECT CHAIR	T. Richards had put forward hi chair. L. Lorenz volunteered fo <i>Moved and seconded:</i> 2020-01: That Parks, Recreat chair will be Tim Richards and <i>Motion carried</i>	s name and was nominated for role of or the role of co-chair. ion and Culture Advisory Committee co-chair will be Lesley Lorenz.
AGENDA	<i>Moved and seconded:</i> 2020-02: That Parks, Recreat approve the agenda for the m <i>Motion carried</i> .	ion and Culture Advisory Committee eeting as presented.
MINUTES	Moved and seconded: 2020-03: That Parks, Recreat approve the minutes of the De Motion carried.	ion and Culture Advisory Committee ecember, 2019 meeting as presented.
NEW BUSINESS	Public Art Task Group – The Pu of the PRCAC to join the group assist the Town with providing specific Public Art projects, in- grants, gifts, donations, bequest for 2 year terms. L. Baker and L. Art Task Group.	blic Art Task Group is seeking two members b. The Public Art Task Groups purpose is to advice and recommendations to Council on cluding selection processes, acceptance of and deaccession. Members are appointed Lorenz have volunteered to join the Public
	Regional Sport Tourism Co requested a representative fro Tourism committee. This volur submissions for grants and m Committee twice a year. E. V representative. Page 188 c	mmittee Representative – The CVRD om the PRCAC sit on the Regional Sport neer position includes reviewing electronic neeting with the Regional Sport Tourism Veeks has volunteered to be the PRCAC of 243

UPDATES

Parks, Recreation and Culture

- The pool at the FJCC remains closed. Staff are working on developing a phased approach to reopening the pool, working with Covid protocols and BCRPA guidelines.
- Staff is working with various sports groups on sport reactivation during Covid. This involves working through plans set out by VIA sport in their 'Return to Sport' guidelines. Softball, Football, Baseball and Soccer groups have worked through these guidelines and have or are currently using Town facilities.
- The Fitness Centre at the FJCC has reopened by appointment only. The Fall Activity Guide has been released, with classes ranging from art to fitness available for the public to enjoy. So far the classes have been well received, with patrons happy to be back in the facility.
- The Machine Shop remains closed to tenants and the public with seismic upgrades and foundation work continuing.
- Staff, in partnership with the Cowichan Trails Society, worked with the Ladysmith youth regarding bike trails located behind Brown Drive Park. Town staff and volunteers rebuilt the entire site, with appropriate signage, to create a safe outdoor space. So far these trails have been well received by bike riders of all ages. The CTSS is offering a trail building workshop for in October which will teach youth how to safely build trails and do maintenance on existing trails. This workshop is already full, with plans to possibly add a second date.
- Local service clubs are working together, with the Town, to build an accessible walkway around the Forrest Field turf at Lot 108. This involves adding width to the existing walkway as well as an asphalt lane from the main parking lot to the field. Phase 1 of this project, involving the backside and washroom side of the field, is expected to be completed this week.
- The Ladysmith Golf Club has remained open during Covid and has provided a great opportunity for locals to remain active outside. The Town has worked with the Golf Club to relocate the hole at #5 after receiving concerns from a neighboring home owner.

Meeting adjourned at 7:55PM Next meeting will be held at 7:00pm, October 21, 2020 at (TBA).

STAFF REPORT TO COUNCIL

Donna Smith, Manager of Corporate Services
October 6, 2020
0550-01
2021 COUNCIL MEETING SCHEDULE

RECOMMENDATION:

That Council confirm the following schedule of regular Council and Committee of the Whole meetings for 2021 and direct staff to advertise the schedule in accordance with Section 127 of the *Community Charter*:

Council Meetings

January 5	April 6	July 6	October 5
January 19	April 20	July 20	October 19
February 2	May 4	August 3	November 2
February 16	May 18	August 17	November 16
March 2	June 1	September 7	December 7
March 16	June 15	September 21	December 21

Committee of the Whole Meetings

January 12	May 11	September 28
March 9	July 13	November 9

EXECUTIVE SUMMARY:

Staff are requesting that Council confirm its 2021 meeting schedule and as per the *Community Charter,* direct staff to publish the calendar to ensure the public is notified of the meeting schedule. Council may amend the meeting schedule at any point during the year.

PREVIOUS COUNCIL DIRECTION

Resolution	MeetingDate	ResolutionDetails
CS 2019-	12/02/2019	That Council:
389	1	1. Adopt Town of Ladysmith Council Procedure Bylaw 2009, No. 1666,
	1	Amendment Bylaw (# 3) 2019, No. 2023;
	1	2. Confirm that its last meeting of 2019 will be held on Monday, December 16;
	1	and
	1 /	3. Following adoption of Bylaw 2023, direct staff to advertise the 2020 Council
	ļ/	meeting schedule in accordance with the Community Charter
CS 2019-	10/21/2019	That Council direct staff to draft amendments to Council Procedure Bylaw No.
335	1	1666 to reflect the proposed changes to the Council meeting schedule and
	l/	Committee of the Whole name, role and meeting schedule.



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INTRODUCTION/BACKGROUND:

The Town's Procedure Bylaw No. 1666 stipulates that regular Council meetings are held on the first and third Tuesday of each month, unless the meeting falls on a statutory holiday. Committee of the Whole Meetings are held the second Tuesday of every second month.

The *Community Charter* requires local governments to annually notify the public of the schedule of regular Council meetings before December 31st for the coming year. The notice will be published in two consecutive editions of The Chronicle newspaper, and posted on our Town notice board as well as on our website and social media. The notice will also include reference to Committee of the Whole meetings. Meetings may be cancelled or rescheduled throughout the year as required, provided that sufficient notice of the change in schedule is issued.

A colour coded calendar is attached for Council's convenience which includes regular Council meeting dates, Committee of the Whole dates, statutory holidays and annual conference dates. When planning the annual Committee of the Whole Meetings, staff found that the September 14 meeting is scheduled the same week that the majority of Council would be attending the UBCM Convention. Staff have therefore moved the meeting to Wednesday, September 28.

In 2021, dates of annual conferences are as follows:

Association of Vancouver Island & Coastal Communities	April 16-18 (Nanaimo)
Federation of Canadian Municipalities	June 3-6 (Montreal)
Union of BC Municipalities	September 13-17 (Vancouver)

ALTERNATIVES:

Council can choose to:

- 1. Approve the schedule as outlined; or
- 2. Consider amending the meeting schedule. Council should be aware that changing meetings to a different time or day of the week will require an amendment to the Council Procedure Bylaw, which includes a public notice period before the amendment is adopted. It is therefore recommended that, should Council wish to consider changing the meeting schedule, the proposed schedule be adopted and advertised first, and alternatives be considered in 2021.

FINANCIAL IMPLICATIONS;

N/A

LEGAL IMPLICATIONS;

Staff will ensure notice provisions as laid out in the *Community Charter* are followed.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

N/A

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

N/A

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

- Complete Community Land Use
- □Green Buildings
- □Innovative Infrastructure
- Healthy Community
- ⊠ Not Applicable

Low Impact Transportation
 Multi-Use Landscapes
 Local Food Systems
 Local, Diverse Economy

ALIGNMENT WITH STRATEGIC PRIORITIES:

InfrastructureCommunityWaterfront

□ Economy ⊠ Not Applicable

I approve the report and recommendation(s).

Erin Anderson, A/Chief Administrative Officer

ATTACHMENT(S):

• Proposed 2021 Council Meeting Schedule

2021

Town of Ladysmith Council Meeting Calendar

	Cοι	inci	l Me	etir	ng	AVICC Conference (Nanaimo)															
	Cor	Committee of the Whole FCM Convention (Montreal)																			
	Statutory Holiday UBCM Convention (Vancouver)																				
		Ja	nua	ary						Fe	bru	ary					N	larc	h		
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31																					

- Regular Council Meetings begin at 7:00pm on the first and third Tuesdays of each month.
- Committee of the Whole Meetings begin at 6:30pm on the second Tuesday of every second month (note that the meeting date in September has changed).
- Meetings are held electronically as per Ministerial Order M192 until a suitable in-person location is found.
- Meetings are subject to change so please confirm either online <u>www.ladysmith.ca</u> or by phone 250.245.6400.



250.245.6400 / info@ladysmith.ca / www.ladysmith.ca 410 Esplanade MAIL PO Box 220, Ladysmith, BC V9GPAge 193 of 243 0 0 0

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STAFF REPORT TO COUNCIL

Report Prepared By:	Chris Barfoot, Director of Parks, Recreation & Culture
Meeting Date:	October 6, 2020
File No:	0640-01
RE:	MACHINE SHOP SEISMIC UPGRADE PROJECT UPDATE

RECOMMENDATION:

That Council:

- 1) Direct staff to submit an application for grant funding for the Machine Shop Rehabilitation Phase 2 for \$3,114,611 through the *Investing in Canada Infrastructure Program Community, Culture and Recreation*;
- 2) Support the project and commit to its share (\$1,132,779) of the project with the funds to come from the Real Property Reserve and General Government Reserves; and
- 3) Direct staff to amend the 2020-2024 Financial Plan accordingly.

EXECUTIVE SUMMARY:

The seismic upgrade of the Machine Shop is nearing completion. Additional funding for works to be completed on the building envelope, structural, electrical, mechanical, exterior boardwalk and some infrastructure upgrades is necessary to safely allow users to occupy the Machine Shop. This next phase of construction will address all the safety and thermal deficiencies of the building that were not addressed with the previous funding due to the extensive upgrades to the foundation and structure and the many unknowns identified once construction began.

PREVIOUS COUNCIL DIRECTION

CS 2020- 137	05/05/2020	That Council receive as information the report from staff providing a status update and revised cost projections for structural upgrades to the Machine Shop.
CS 2020- 006	01/07/2020	That Council receive for information the report by the Director of Parks, Recreation & Culture, dated December 27, 2019, regarding the Machine Shop restoration project.
CS 2019- 282	08/19/2019	That Council waive the Purchasing Policy for up to \$1,400,000 of construction costs relating to the Machine Shop restoration project, by authorizing Windley Contracting Ltd. to secure the contracts and services on the Town's behalf. OPPOSED: Councillor Johnson
CS 2019- 264	08/12/2019	That Council receive for information the update on the Machine Shop Project as of July 31, 2019.



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CS 2019- 207	06/03/2019	That Council waive the purchasing policy and award the contract for Machine Shop Restoration Project Construction Management Services directly to Windley Contracting Ltd., in accordance with their proposal, for up to \$81,500.00 + taxes.
CS 2019- 095	03/18/2019	That Council direct staff to: 1. Finalize negotiations for space allocation with tenants of the Machine Shop, based on Machine Shop Layout Option 2 as presented and allow staff to make minor modifications to address structural and logistical matters; 2. Prepare draft lease agreements for all spaces within the Machine Shop and outer buildings and present to Council for consideration; and 3. Prepare, issue and assess a call for industrial use proposals for the west portion of the building and return to Council with recommendations based on best practice and market viability. OPPOSED: Councillor Johnson
CS 2018- 452	11/19/2018	 That Council: 1. Receive the Machine Shop Pre-Design Report drafted by Hotson Architecture; 2. Receive the Machine Shop Structural Report drafted by Herold Engineering; 3. Direct staff to commence the next phases of the Machine Shop Restoration Project relating to design and construction, focusing on identified structural and code improvements; 4. Direct staff to contract with Hotson Architecture to continue as project lead for the Machine Shop Restoration Project, specific to implementation phases (design, securing contractor and construction) at a cost up to \$250,000 and waive the Purchasing Policy accordingly; and 5. Continue to include the Machine Shop Users Advisory Group and tenants in project updates.
CS 2018- 186	06/04/2018	That Council: 1. Accept the Strategic Priorities Grant (Federal Gas Tax Fund) for the Machine Shop Arts, Heritage and Cultural Centre Restoration Project. 2. Authorize the Mayor and Corporate Officer to execute the funding agreement.
CS 2018- 087	03/19/2018	 That Council direct staff to: 1. Contract with Hotson Architecture to undertake the Machine Shop Restoration Project pre-design phase, including working with staff and the main tenants to define the building program and preparing an implementation strategy to outline the scope of work at a cost of \$25,000 plus expenses (net of taxes), and that the Purchasing Policy be waived accordingly; 2. Invite the Machine Shop Users Advisory Group, with the addition of John Marston, to participate in the development of the building program with staff and the consulting team;

		 3. Include the Machine Shop Restoration Project within the scope of the Project Manager, Waterfront Implementation to represent the Town and liaise with the project team and stakeholder representatives during the Machine Shop Restoration Project; and 4. Amend the Town of Ladysmith 2018-2022 Financial Plan to include the Machine Shop Restoration Project grant in the amount of \$1,752,553.00. 5. Invite the Industrial Heritage Preservation Society to join the Machine Shop Users Advisory Group. Motion carried. OPPOSED: Councillors Fradin, Friesenhan and Henderson
CS 2018- 045	02/13/2018	That Council authorize an application to the Island Coastal Economic Trust for up to \$400,000 to support the development of an Arts and Heritage Hub in the vicinity of the Machine Shop on the Ladysmith Waterfront.
CS 2017- 140	05/01/2017	That Council direct staff to make a funding application to the Federal Gas Tax Fund Strategic Priorities Fund – Capital Infrastructure Project Stream for the Machine Shop Restoration for up to \$2.25 million dollars in grant funding, and support the Town administration with overseeing the management of this grant if successful.
CS 2017- 029	02/09/2017	That Council direct staff to proceed with an application for a grant of \$100,000 toward the restoration and repairs of the Machine Shop.

INTRODUCTION/BACKGROUND:

Over the years there have been many discussions regarding the upgrade of the Machine Shop. Numerous grants have been applied for, but the latest \$1.7m grant from the Strategic Priorities UBCM program was the only successful one. This grant funding was allocated to seismic upgrades, though additional funds are required to complete the electrical and mechanical systems, and complete the envelope with energy efficient windows, siding and doors.

Staff have worked with a grant writer to complete another funding request to the Province for grant monies to complete this last portion of the upgrade, which is necessary to allow users, both new and previous tenants, access to the Machine Shop.

Background on work to date:

The Town used the \$1,752, 553 in grant funding to stabilize the Machine Shop structure to withstand wind and seismic forces and to address ongoing concerns with the roof and structural work to the foundation. In order to complete these upgrades some of the Machine Shop's historical defining characteristics were removed to complete the necessary structural work. The intent is to add these features in some form at a later date as funding becomes available.

Details on the work completed:

The project budget was initially developed with no knowledge of the existing foundation conditions of this building. The structural upgrades originally planned anticipated that there was a competent foundation existing. Once the contractor was hired and the construction was to proceed, the structural and geotechnical engineers advanced their explorations, which revealed that the timber piles that supported the building were rotten and the solid bedrock was between 5- and 8-feet down, much further than originally assessed in the 2014 Omicron report. It was determined by the engineer, architect and the contractor that the best way to proceed was to excavate beneath the building, creating an entirely new foundation of reinforced concrete. This was completed in sections along each of three, 200-foot-long supporting walls. This phase utilized a considerable amount of the available funding provided by the UBCM Infrastructure Grant. As work progressed, items identified in the grant were prioritized and planned within the remaining funds.

Work completed to date, including demolition, includes improvement in:

- structural and geotechnical;
- architectural;
- mechanical plumbing and sprinklers; and
- relocation of electrical service

To date there are:

- 14,150 board feet of Douglas Fir timbers used to secure the structure and support the long span of the roof in the western half of the building;
- 14,000 lbs of custom steel plates and bracket timber connectors used to secure the existing structure;
- 682 Cubic meters ready-mix concrete supply for foundations and slab replacement; and,
- 22,000 kg of reinforcing steel installed for foundations.

Necessary items required for occupancy of the Machine Shop:

In order to meet current building code compliance and occupancy standards there are outstanding items that will be required to allow previous tenants to reoccupy their spaces within the Machine Shop. This next phase consists of alterations to the existing industrial building that was formerly occupied by a mix of arts, culture and heritage type tenants.

Building Envelope

In general, the intent of the building envelope is to retain the character-defining elements of the exterior while addressing thermal performance and protection of the overall structure.

- Retrofit or replace all windows to improve thermal performance.
- Replace metal cladding and flashing on all exterior walls.
- Install panels on the north and south walls that replicate the large sliding doors.
- Replace all necessary street-side man doors, thereby improving safety, fire egress, security and thermal performance.

Structural

The existing wall on the west side of the building is without framing or sheeting. Currently the metal cladding is only attached to the large timber framing. To rectify code deficiencies and to improve the thermal efficiency, the wall will require framing, exterior sheeting and vapor barrier before the new cladding can be installed.

Framing to define the various occupied space within the building needs to be completed, as does the framing of the main central mechanical room that will house the proposed HVAC system.

Electrical

The existing electrical distribution exhibits some Canadian Electrical Code deficiencies, including missing disconnecting means and insufficient clearances. Some of the existing mechanical infrastructure is no longer in use and the renovations will result in more of this equipment becoming obsolete. Addressing emergency components of electrical will also allow for adequate fire safety and evacuation plans addressing egress and exits based on tenant layout and future uses.

- Removal of obsolete and deficient distribution equipment in the electrical room
- Upgrade panel boards and establish a single BC Hydro Meter I in the electrical room
- Additional fire and smoke detection at all stairwells and alarms
- Installation of emergency exit signs
- Installation of emergency lighting
- Upgrade the existing to meet the requirements of the revised layout
- Installation of house electrical panel and separate meters for tenants

Mechanical System

The goal of the mechanical system design will be to provide plumbing and mechanical systems which are durable, easy to maintain and provide a high level of energy efficiency, comfort, air quality and operational safety.

- Replacement of water distribution piping to meet CSA standards
- Replacement of domestic hot water tanks
- Addition of new washroom on ground level that will meet accessibility guidelines
- Installation of new HVAC system to suit tenant types
- Upgrade existing fire suppression sprinklers to meet the needs of the new layout

Boardwalk

The existing boardwalk was removed during the necessary foundation work on the east side (front) of the building. In order to achieve an accessible building that aligns with the future plans of the Arts and Heritage Hub, a new boardwalk will need to be constructed.

Items NOT included at this time but need to be considered for this and future area development

Infrastructure Upgrades

New services at Oyster Bay Drive to connect to the building and future development of the Arts and Heritage Hub will need to be considered, given that the ultimate use of this building will include businesses with a higher demand on those services. This work will include:

- Sewer lift station to serve the Machine Shop and future new construction
- Water line (currently being addressed)

Remediation of Contaminated Material

Clean-up and remediation at the site is required due to the contaminated soil that was removed from the site to allow for the necessary foundational work. This large pile of earthwork soil remains at the site; the Town will need to establish a plan for this material.

ALTERNATIVES:

Council can choose to:

- Utilize the Machine Shop space as a new City Hall this option comes with funding of \$475k which represents restricted funds placed into a reserve "solely for the acquisition of land and construction of a new Municipal Office Building"
- 2) Short-term borrow the funds to complete the described work and rent the space at commercial rates to pay for the debt.
- 3) Close the building.

FINANCIAL IMPLICATIONS;

Grant funding is necessary to complete this next phase of the project. The *Investing in Canada Infrastructure Program – Community, Culture and Recreation* program allows for funding of up to 73.33% for this project, leaving the Town to come up with ~27% or \$1.132 million.

There are funds in the Real Property Reserve that could be used to fund this project, though these monies are committed to fund the Waterfront Area Plan. There are some funds available in General Reserves that would make up the difference, and the annual allocation towards infrastructure can also be used for this purpose.

Unfortunately, due to stacking rules, Gas Tax funds cannot be used to fund the Town's portion.

LEGAL IMPLICATIONS;

It is noted that the deadline to apply for this grant was October 1st. A late resolution is permitted by the funder. If Council decides not to apply for this grant, the application will be pulled.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

Bringing the building to completion will provide the opportunity for previous tenants and the public to safely access the building.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

Much of the work to submit the grant application has been done. Parks, Recreation & Culture will continue to oversee the renovations at the Machine Shop.

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

□ Complete Community Land Use □ Green Buildings ⊠ Innovative Infrastructure

Healthy Community

□ Not Applicable

Low Impact Transportation
 Multi-Use Landscapes
 Local Food Systems
 Local, Diverse Economy

ALIGNMENT WITH STRATEGIC PRIORITIES:

☑ Infrastructure□ Community□ Waterfront

Economy Not Applicable

I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S):

190507_Class C Management Report_610 Oyster Bay Drive.pdf



COST MANAGEMENT REPORT

610 Oyster Bay Drive, Ladysmith, BC Class C Estimate

REPORT NUMBER 1.0 MAY 7, 2019

PREPARED FOR:

Hotson Architecture

2288 Manitoba St., Vancouver, BC, V5Y 4B5 T 604 734 3126

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Contents



Hotson Architecture | 610 Oyster Bay Drive, Ladysmith, BC - Class C Estimate Report Number 1.0 | May 7, 2019



1.0 Introduction

1.1 Instructions Received

This report has been prepared by BTY Group ("BTY") at the request of Hotson Architecture (the "Client").

Hotson Architecture has appointed BTY to provide a Schematic Design estimate developed for the project at 610 Oyster Bay Drive, Ladysmith, B.C. (the "Project"). The Project delivery is yet to be determined, therefore, BTY strongly recommends that estimates are prepared at each of the key design milestones.

Information related to the Project for the purposes of this report was received by BTY on April 15, 2019. Please refer to Section 13.0 for a list of information received in producing this report.

1.2 Report Reliance

This report has been prepared in accordance with the scope of our Fee Proposal, dated December 6, 2018, which was prepared in response to the terms of that appointment. This report is for the sole and confidential use and reliance of the Client. BTY Group, its Directors, staff or agents do not make any representation or warranty as to the factual accuracy of the information provided to us on behalf of the Client or other third-party consultants or agents. BTY Group will not be liable for the result of any information not received which, if produced, could have materially changed the opinions or conclusions stated in this report. This report shall not be reproduced or distributed to any party without the express permission of BTY Group.

Any advice, opinions, or recommendations within this document should be read and relied upon only in the context of the report as a whole. The contents do not provide legal, insurance or tax advice or opinion. Opinions in this report do not an advocate for any party and if called upon to give oral or written testimony it will be given on the same assumption.

1.3 Contacts

Should you have any queries regarding the content of this report, please do not hesitate to contact either of the following:

Phoenix Feng

Associate Director Tel: 604-734-3126 Email: phoenixfeng@bty.com

Eldon Lau Partner Tel: 604-734-3126 Email: eldonlau@bty.com



2.0 Executive Summary

2.1 Report Purpose

The purpose of this report is to provide a realistic estimate of the Project cost based on the information available at the time of writing.

The opinion expressed in this report has been prepared without the benefit of detailed architectural, mechanical, electrical or structure drawings and should, therefore, be considered a Schematic Design (Class C) estimate. Based on the documents reviewed, our estimate should be correct within a range of approximately +/- 15% to 20%.

In order to provide an accurate cost estimate for the Project, BTY Group strongly recommends that a professional Quantity Surveying organization, such as BTY Group, be retained to provide a detailed analysis of any design information produced on behalf of the Client during the remaining stages of design.

2.2 Project Background and Description

The proposed development consists of building upgrades and retrofit for new functional program.

The project is separated into two phases:

The scope of Phase One includes but not limited to the following:

- Structural upgrades including new foundations, new shear walls, new steel bracing, new roof sheathing, new stairwells, etc.
- Removal of the exterior braces to the west wall
- Demolition of the mezzanine in the back-shop area
- Replacement of roofing assembly
- New exit doors
- Mechanical and Electrical work as required by new tenant layout.

The scope of Phase Two includes the rest of the interior retrofit, exterior retrofit, mechanical and electrical associated work.



3.0 Development Cost Summary

The current estimated cost of the project may be summarized as follows:

	Item	Estimated Costs (\$)						
		Phase 1	Phase 2	Total				
А	Land Cost (Excluded)	0	0	0				
В	Construction	1,654,400	3,204,300	4,858,700				
С	Contingencies	347,400	672,900	1,020,300				
D	Professional Fees	0	0	0				
Е	Municipal & Connection Fees	0	0	0				
F	Management & Overhead	0	0	0				
G	Project Contingency	0	0	0				
Н	Furnishing, Fittings & Equipment	0	0	0				
L	Financing Costs	0	0	0				
J	Goods & Services Tax	0	0	0				
	Total Project Cost (May 2019 Dollars)	\$ <mark>2,0</mark> 01,800	\$3,877,200	\$5,879,000				
Κ	Escalation (Excluded)	0	0	0				
	Dollars)	\$ <mark>2,001</mark> ,800	\$3,877,200	\$5,879,000				

Please note that, where zero dollar values are stated, BTY has excluded these costs and the values should be carried in a separate budget (if applicable).

2288 Manitoba St., Vancouver, BC, V5Y 4B5 |604 734 3126



4.0 Basis & Assumptions

The construction estimate is based on our conversation with the Architect on April 25,2019. Our assumptions are listed below:

- New exterior strip footings under existing walls along gridline "1", gridline "A"/"1 & 2" and gridline "U"/"1 & 2";
- 2. New interior strip footings along gridline "H"/"1 & 2", gridline "K"/"1 & 2";
- 3. New strip footings underneath the new mezzanine structure;
- 4. No new strip footings anywhere else except as noted above;
- 5. Structural fills are required for the new strip footings;
- 6. New structural walls for the new mezzanine structure;
- 7. Allowances for the rough-in and connections of sanitary sewer and water lines;
- 8. Exterior wall replacement of metal cladding only, other elements of the walls remain unchanged;
- 9. Panic hardware are required for exterior exit doors;
- 10. Single glazed aluminum doors at the vestibule;
- 11. Replace existing window with new thermally broken insulated aluminum window using the existing openings;
- 12. Concrete sealer to be applied to slab on grade;
- 13. Insulation to outside walls of the mechanical room for acoustic purposes;
- 14. No acoustic insulated floor at mechanical room;
- 15. Renovation space will be vacant during the construction period;
- 16. Assumptions of general specifications have been made in regard to the interior partitions, doors and fittings. Please refer to Appendix I Cost Plan for details.

Please note that BTY is not qualified to act as design consultant. The assumptions in our estimate should be reviewed and corrected by the design team.



5.0 Exclusions

The construction estimate includes all direct and indirect construction costs derived from the drawings and other information provided by the Consultants, with the exception of the following:

- 1. Professional fees and disbursements;
- 2. Planning, administrative and financing costs;
- 3. Legal fees and agreement costs / conditions;
- 4. Building permits and development cost charges;
- 5. Temporary facilities for user groups during construction;
- 6. Removal of hazardous materials from existing site and building;
- 7. Fit out to tenant space;
- 8. Floor finishes;
- 9. Work outside normal working hours;
- 10. Loose furnishings and equipment;
- 11. Unforeseen ground conditions and associated extras;
- 12. Environmental remediation outside building footprint;
- 13. Upgrade of existing infrastructure including main sanitary, storm, water/fire main and electrical services;
- 14. Phasing of the works and accelerated schedule
- 15. Decanting & moving
- 16. Costs associated with "LEED" certification
- 17. Project commissioning
- 18. Erratic market conditions, such as lack of bidders, proprietary specifications
- 19. Cost e<mark>scal</mark>ation pa<mark>st M</mark>ay 2019.



6.0 Construction Cost Summary

The estimated construction cost of the project may be summarized as follows:

Desci	ription		Phase 1 \$	Phase 2 \$	Total \$
А.	Structural		974,600	0	974,600
в.	Architectural		134,500	943,500	1,078,000
C.	Mechanical		79,000	956,800	1,035,800
D.	Electrical		70,000	468,800	538,800
E.	Site Development		0	70,200	70,200
F.	Ancillary Works		31,800	41,000	72,800
H1.	General Requirements		300,000	600,000	900,000
HZ.	Fees	5%	64,500	124,000	188,500
SUI	3-TOTAL CONSTRUCTION COST		\$1,65 <mark>4,40</mark> 0	\$3,204, <mark>300</mark>	\$4,858,700
J.	Contingencies				
	J1. Design Contingency 1	0%	165,400	320,400	485,800
	J2. Construction Contingency	0%	182,000	352,500	534,500
К.	Goods & Services Tax	0%	0	0	0
TO			\$2,001,800	\$3,877,200	\$5,879,000
	Gross Floor Area (ft²)		20,004	20,004	20,004
	Unit Cost (\$/ft²)		\$100	\$194	\$294

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7.0 Areas

The gross floor area of the project, measured in accordance with the guidelines established by the Canadian Institute of Quantity Surveyors, is:

Location	Total
Ground Floor	13,612 ft²
Second Floor	6,392 ft²
Total Gross Floor Area	20,004 ft ²

8.0 Taxes

The estimate includes the Provincial Sales Tax (P.S.T.) where applicable.

The estimate excludes the Goods & Services Tax (G.S.T.).

9.0 Project Schedule & Escalation

No cost escalation allowance has been included in the estimate. BTY strongly recommends that the client establish a separate budget to cover the escalation cost from the date of this estimate to the mid-point of construction for the project.

Our current projected escalation rates are shown below.

Current BTY	2019	2020	2021
Group Forecast	6% - 8%	4% - 6%	3% - 4%

10.0 Pricing

The estimate has been priced at current rates taking into account the size, location and nature of the project. The unit rates utilized are considered competitive for a project of this type, bid under a stipulated lump-sum form of tender in an open market, with a minimum of five (5) bids, supported by the requisite number of sub-contractors.

The estimate allows for labour, material, equipment and other input costs at current rates and levels of productivity. It does not take into account extraordinary market conditions, where bidders may be few and may include in their tenders disproportionate contingencies and profit margins.

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11.0 *Risk Mitigation*

BTY Group recommends that the Owner, Project Manager and Design Team carefully review this document, including exclusions, inclusions and assumptions, contingencies, escalation and mark-ups. If the project is over budget, or if there are unresolved budgeting issues, alternative systems/schemes should be evaluated before proceeding into the next design phase.

Requests for modifications of any apparent errors or omissions to this document must be made to BTY Group within ten (10) days of receipt of this estimate. Otherwise, it will be understood that the contents have been concurred with and accepted.

It is recommended that BTY Group design and propose a cost management framework for implementation. This framework would require that a series of further estimates be undertaken at key design stage milestones and a final update estimate be produced which is representative of the completed tender documents, project delivery model and schedule. The final updated estimate will address changes and additions to the documents, as well as addenda issued during the bidding process. BTY Group is unable to reconcile bid results to any estimate not produced from bid documents including all addenda.

12.0 Contingencies

12.1 Design Contingency

A design contingency of Ten Percent (10%) has been included in the estimate to cover modifications to the program, drawings and specifications during the design.

12.2 Construction Contingency

An allowance of Ten Percent (10%) has been included in the estimate for changes occurring during the construction period of the project. This amount may be expended due to site conditions or if there are modifications to the drawings and specifications.

Hotson Architecture | 610 Oyster Bay Drive, Ladysmith, BC - Class C Estimate Report Number 1.0 | May 7, 2019



Documents Reviewed 13.0

The list below confirms the information that we have reviewed in order to prepare our opinion contained within this report:

Description	Revised Date
Drawings & Specifications	
Proposed Building Architectural Drawings (6 sheets)	April 18, 2019
Report	
Schematic Design Report	April 15, 2019



COST MANAGEMENT REPORT

610 Oyste<mark>r Bay Drive,</mark> Ladysmith, BC

APPENDICES

APPENDIX I

Cost Plan

9 pages

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Description	Quantity	Unit	Rate	Amount
A. Structural				
Phase 1				
Allowance for new foundations to exterior walls along				
gridline 1				
Temporary shoring to support mezzanine and roof	1	sum	14,700.00	14,700
structure				
Remove exterior landscaping	1	sum	6,000.00	6,000
Saw cut concrete slab on grade	1	sum	1,670.40	1,700
Remove concrete slab on grade	492	ft²	6.00	3,000
Structural fill and compaction	24	су	100.00	2,400
Drill 150mm deep hole in existing concrete footing	400	no.	35.00	14,000
and wall				,
Install dowels and epoxy grouting to existing footing	400	no.	40.00	16.000
and wall				-,
Allow 3' wide strip footings same depth with the	181	ft	500.00	90,400
existing had footings c/w formwork and rehar				
including hand excavation and backfill				
Foundation walls	181	ft	150.00	27 100
New concrete slab on grade	492	ft ²	15.00	7 400
Make good of existing wall bottom plate	1	sum	8 000 00	8 000
Remove temporary shoring	1	sum	6 900 00	6 900
New drain tile	255	ft	50.00	12 800
	233		50.00	12,000
Allowance for new foundations to interior walls at				
avidlings 11.9. K				
Temporary shoring to support mezzanine and roof	1	sum	2 600 00	2 600
structure	T	Sum	2,000.00	2,000
Structure Saw cut concrete slab on grade	1	sum	122 10	400
Pamovo concreto slab on grado	172	f+2	422.40	400
Structural fill and compaction	1/3		100.00	1,000
Drill 150mm deep hole in existing concrete footing	40	no	35.00	1 400
	40	110.	55.00	1,400
and wall	40	no	40.00	1 600
Install dowels and epoxy grouting to existing footing	40	10.	40.00	1,600
and wall	4.1	£1.	500.00	20,400
Allow 3 wide strip rootings same depth with the	41	π	500.00	20,400
existing pad footings c/w formwork and rebar				
including hand excavation and hackfill		Cı.	450.00	C 400
Foundation Walls	41	۲۲ ۲	150.00	6,100
New concrete slap on grade	1/3	π-	15.00	2,600
iviake good of existing wall bottom plate	1	sum	2,000.00	2,000
Remove temporary shoring	1	sum	1,200.00	1,200

Description	Quantity	Unit	Rate	Amount
A. Structural				
Allowance for new foundations to interior walls at				
gridlines I & I				
Saw cut concrete slab on grade	1	sum	777.60	800
Remove concrete slab on grade	1,635	ft²	6.00	9,800
Structural fill and compaction	19	су	100.00	1,900
Allow 3' wide strip footings same depth with the	146	ft	300.00	43,800
existing pad footings c/w formwork and rebar				
including excavation and hackfill				
Foundation walls	146	ft	150.00	21,900
New concrete slab on grade	1,635	ft²	12.00	19,600
Replace existing wood floor at grade with concrete slab on	1 1 2 9	ft²	15.00	16 900
grade	1,125		15.00	10,500
RIUUC				
New 2.5" concrete topping to existing concrete slabs on	12,483	ft²	3.50	43,700
ground floor				
Replace the wood stair in the existing LMS space	1	sum	15 <mark>,000</mark> .00	15,000
Replace the central stair	1	sum	20 <mark>,000</mark> .00	20,000
	4 9 9 9	c. 2		
New mezzanine floor	1,288	ft²	32.00	41,200
Now interior wood stud shear walks to support now	1 01 5	f+2	20.00	26.200
new intenor wood stud shear wans to support new	1,015	11	20.00	50,500
mezzanine				
New brace to exterior walls	32 305	lb	5.00	161 500
W310x67	32,303	10	5.00	101,000
HSS 152x152				
New HSS 6x6x0.375 diagonal brace to interior	24,407	lb	5.00	122,000
Allowance for upgrading rotting / undersized structural	20,004	ft²	8.50	170,000
members to floor / walls and roof assemblies				

Total Structural		

\$974,600

Description	Quantity	Unit	Rate	Amount
B. Architectural				
Phase 1				
Cut door openings on existing exterior walls and upgrade existing studs to accommodate new single door opening, install new metal frame glass doors - stairs exit	2	ea.	2,350.00	4,700
Remove existing and replace with new pressed steel frame and HM glazed doors	e 2	lvs	2,400.00	4,800
Remove the existing roof and replace with 3/8" plywood sheeting and IKO 180 mechanically fastened base system roofing (quote provided by Elite Island Roofing)	1	sum	125,000.00	125,000
Phase 2				
Remove existing and replace with new aluminum frame windows	2,679	ft²	95.00	254,500
Remove existing cladding and replace with new metal cladding	10,030	ft²	30.00	300,900
Remove existing and replace with new large swing doors in the backshop 18'x16'	4	prs	12,000.00	48,000
Remove existing single exterior doors, cut openings and upgrade existing studs to accommodate new double door openings, install new double metal frame glass doors	7	prs	3,600.00	25,200
New interior wood stud partitions with 1/2" drywall on both sides	5,899	ft²	17.00	100,300
Allowance for new interior single glazed aluminum double doors to vestibule	e 1	prs	3,500.00	3,500
Allowance for new interior single doors	15	lvs	2,250.00	33,800
Allowance for new interior double doors to mechanical room including cut and form door opening	1	prs	2,750.00	2,800
Allowance for concrete sealer to the ground floor	13,612	ft²	1.00	13,600

610 Oyster bay Drive, Ladysmith, BC Class C Estimtae

Description	Quantity	Unit	Rate	Amount
B. Architectural				
Other floor finishes by tenant improvement		NIC		
Painting to all interior columns, beams, walls and ceiling - white	20,004	ft²	3.50	70,000
Allowance for misc. metals	20,004	ft²	1.00	20,000
Allowance for new washrooms Washroom accessories Mirrors Washroom vanity Toilet partitions Allowance for misc. wood trims / rough carpentry / finish carpentrv Allowance for interior signage / window coverings / entrance mats / mech. Louvers	1 1 12 1	sum sum no sum	4,500.00 960.00 4,800.00 1,300.00 20,000.00 25,000.00	4,500 1,000 4,800 15,600 20,000 25,000

Total Architectural

\$1,078,000
Description	Quantity	Unit	Rate	Amount
C. Mechanical				
Phase 1				
Allowance for sprinkler head changes required by tenant layout to Phase 1 or work associated to suspended slab including draining and recommissioning	20,004	ft²	1.80	36,000
Allowance for underground sanitary piping for future washrooms	1	sum	18,000.00	18,000
Allowance to upgrade existing storm rainwater leaders from roof gutters	1	sum	25,000.00	25,000
Phase 2				
Provide new fire suppression sprinkler head layout to suit new tenant spaces including draining and	20,004	ft²	1.50	30,000
Fire extinguishers c/w cabinet	10	ea	250.00	2.500
Allowance for plumbing and drainage Tankless natural gas-fired condensing water heater for general purpose domestic water heating with recirculation piping system for improved hot water	1	sum	6,500.00	6,500
Supply Low flow plumbing fixtures will be used to conserve	1	sum	52,500.00	52,500
water supply Domestic water piping including insulation	20,004	ft²	1.50	30,000
New gas me <mark>ter including</mark> seismic gas shut off valves	1	sum	5,000.00	5,000
Allowance for New HVAC system as per mechanical				
engineer's report				
Gas fired make-up air units	1	sum	70,014.00	70,000
HVAC ductwork distribution	20,004	ft²	3.00	60,000
VRF system to studio, LMS and Art Council Spaces	1	sum	90,000.00	90,000
Condensing unit	1	INCI	30,000,00	30.000
New energy recovery ventilators	1	sum	180,000.00	180,000
Split system to two meeting rooms	-	incl	100,000.00	100,000
Unit heaters				
Hydronic heating to the overall building including piping	1	sum	120,774.00	120,800
Gas condensing boilers	2	no	65,000.00	130.000
Hydronic pumps	1	sum	20,000.00	20,000

610 Oyster bay Drive, Ladysmith, BC Class C Estimtae

Description	Quantity	Unit	Rate	Amount
C. Mechanical				
Extra over for bag-in dust collection system	1	sum	20,000.00	20,000
Cost associated to Brew Pub				
Separate gas meter to brewery	1	sum	5,000.00	5,000
Grease interceptor	1	sum	7,500.00	7,500
Backflow prevention for the kitchen and brew pub	1	sum	5,000.00	5,000
Rough-in to brewery	1	sum	10.000.00	10.000
High efficiency gas-fired water heater for kitchen and	1	sum	22,000.00	22,000
brew plumbing systems				
Commercial kitchen ventilation	1	sum	60,000.00	60,000

Total Mechanical

\$1,035,800

Description	Quantity	Unit	Rate	Amount
D. Electrical				
Phase 1				
Exit signs, emergency lighting, detectors and fire alarm	1	sum	20,000.00	20,000
upgrades as required by new layouts			,	
Allowance to upgrade panel boards as required	1	sum	50,000.00	50,000
Phase 2				
Allowance for power service and distribution				
Decommisioning services and distribution	20.004	ft²	1.50	30.000
New distribution and power	20,004	ft²	5.00	100,000
Allowance for lighting	20,004	ft²	6.50	130,000
New LED lighting to all spaces				
New receptacles, branch circuit wiring				
Occupancy sensors				
Replace exterior lighting fixtures	15	no	<mark>65</mark> 0.00	9,800
New LED emergency lighting units c/w batteries/new	30	no	500.00	15.000
green LED 'running man' exit signs				-,
Allowance for power receptacles and wiring	20,004	ft²	4.00	80,000
Allowance for fire alarm system upgrade	20,004	ft²	3.00	60,000
Allowance for new overhead CATV service and upgrade to	20,004	ft²	1.20	24,000
a fibre telephone service. Electrical Site work	·			·
New incoming overhead Primary and Secondary feeders -	e	excluded		
by BC Hydro				

Total Electrical

\$538,800

Description	Quantity	Unit	Rate	Amount
E. Site Development				
Phase 2				
Allowance for street scape / landscape including reconstruction of the fronting street, parking areas and hoardwalk	1	sum	50,000.00	50,000
New handrail to the exterior ramp	202	ft	100.00	20,200
Changes / upgrade to adjacent buildings		excluded		

Total Site Development

\$70,200

Description	Quantity	Unit	Rate	Amount
F. Ancillary Works				
Removal of Hazardous material - NIC				
Phase 1				
Remove the mezzanine in the North West half of the backshop	834	ft²	5.50	4,600
Remove the exterior bracing on the west walls, excavate along the west walls and backfill with gravel	1	sum	27,200.00	27,200
Phase 2				
Remove existing stair to the North	1	sum	3 <mark>,900</mark> .00	3,900
Remove existing interior walls	4,412	ft²	5.00	22,100
Patch up and make good of existing interior walls	35	loc	300.00	10,500
Remove existing interior doors on second floor	8	no	200.00	1,600
Remove existing interior doors and fill up the door	2	no	800.00	1,600
openings on ground floor Remove existing exterior single doors and fill up the exterior walls	2	no	650.00	1,300

Total Ancillary Works

\$72,800





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Ankara

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STAFF REPORT TO COUNCIL

Report Prepared By:	Jake Belobaba, Director of Development Services
Meeting Date:	October 6, 2020
File No:	COVID-19
RE:	ECONOMIC RECOVERY: SIDEWALK PATIOS

RECOMMENDATION:

That Council give first three readings to "Streets and Traffic Bylaw 1998, No. 1309, Amendment Bylaw #8, 2020, No. 2054" allowing the Director of Development Services to issue permits authorizing sidewalk patios between October 31st and March 1st.

EXECUTIVE SUMMARY:

This report presents Bylaw 2054 for Council consideration. The proposed bylaw is a follow up to changes to sidewalk patio regulations adopted by Council earlier this year. If approved, Bylaw 2054 will amend the Streets and Traffic Bylaw to allow the Director of Development Services to authorize sidewalk patio permits during the winter months.

Resolution	Resolution Date	Resolution Details
CS 2020-186	June 16, 2020	That Council adopt Streets and Traffic Bylaw 1998, No. 1309, Amendment Bylaw #7, 2020, No. 2041.
CS 2020-185	June 16, 2020	That Council give first, second and third reading to Streets and Traffic Bylaw 1998, No. 1309, Amendment Bylaw #7, 2020, No. 2041 to eliminate fees for sidewalk patios and to create an exemption to the requirement for a permit for small sidewalk patios and retail displays.
CS 2020-186	June 16, 2020	That Council adopt Streets and Traffic Bylaw 1998, No. 1309, Amendment Bylaw #7, 2020, No. 2041.
CS 2020-191	June 16, 2020	That Council allow for a three-year pilot project for parklets and patio spaces in the downtown area, with businesses utilizing parking spaces directly in front of their business.
CS 2020-154	May 21, 2020	 That Council direct staff to: 1. Liaise with the Ladysmith Chamber of Commerce and the Ladysmith Downtown Business Association to review options for the Town to support economic recovery following the COVID-19 pandemic, including the following: a. Parklets and sidewalk patios;

PREVIOUS COUNCIL DIRECTION



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Resolution	Resolution Date	Resolution Details
		 b. Street closure opportunities from Thursdays through Sundays, including the potential for street entertainment and music; c. One-way traffic northbound on First Avenue; d. A "local shopping loyalty passport" with incentives to participate; and 2. Report back to Council with the results of those discussions.
CS 2020-165	June 2, 2020	FINAL RESOLUTION AS AMENDED BY CS 2020-166 That Council direct staff to initiate the following change to bylaws that regulate sidewalk patios, retail displays and parklets: 1. Eliminate the application fee or "rent" for sidewalk patios, retail displays and parklets; and 2. Allow 1-2 dining sets, racks or displays without a permit, provided they are placed in accordance with Town bylaw regulations and Provincial Health regulations.
CS 2020-169	June 2, 2020	That Council direct staff to prepare a report for the next Council meeting with a policy framework for parklet/patio spaces based on a demonstrated desire by local businesses to have such spaces available to them.

INTRODUCTION/BACKGROUND:

Earlier this year Council adopted bylaws clarifying regulations and eliminating fees for sidewalk patios. Since the bylaws were adopted, one new patio has been installed (Zack's) which has been in use since August. The Streets and Traffic Bylaw allows sidewalk patios to operate from March 1st to October 31st of each year. Businesses must remove their sidewalk patios by October 31st and cannot reinstall them until March 1st. Zack's has requested an extension to their permit to allow the sidewalk patio to remain in place during the winter.

Winter is coming. Food and beverage providers are still bound by social distancing regulations and continue to seek solutions to maintain seating capacity. In response, many jurisdictions are considering allowing winter sidewalk patios. Although Ladysmith typically enjoys much milder winters than other places in Canada, winter sidewalk patios require special, case-by-case considerations. The Town must consider traffic and pedestrian safety, accessibility, snow removal, and weather protection. Fire safety is also a major consideration, since the combination of temporary weather protection (e.g. highly flammable fabric weather barriers) and portable heat sources (which often use open flame) poses a risk if not properly managed. Not all sites will be suitable for winter sidewalk patios, however, many locations are viable and staff support creating a bylaw framework to allow winter sidewalk patios in suitable locations.

PROPOSED BYLAW

If Bylaw 2054 is adopted by Council, it will amend the Streets and Traffic Bylaw to allow the Director of Development Services to issue a sidewalk patio permit that authorizes a sidewalk patio to remain in place between October 31st and March 1st. The existing regulation, prohibiting patios between October 31st and March 1st will remain as the default regulation and owners will

be required to specifically request a winter sidewalk patio. The director will review the request and, assuming there are no risks associated with winter use, will authorize the patio to remain in place during the winter.

DISCUSSION

The south island has the warmest winter temperatures in Canada, making Ladysmith an ideal location for winter sidewalk patios. The proposed change provides an additional tool for local businesses to mitigate the impacts of the COVID-19 pandemic and supports increased vibrancy in the Downtown during the winter months. Staff are confident that health safety issues associated with winter sidewalk patios are manageable and recommend approval of the proposed bylaw.

ALTERNATIVES:

Council can choose to:

- 1. Amend Bylaw 2054 and give the bylaw first, second and third reading as amended.
- 2. Refer Bylaw 2054 back to staff for further review as specified by Council.
- 3. Reject Bylaw 2054.

FINANCIAL IMPLICATIONS

None

LEGAL IMPLICATIONS:

None

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

Public consultation is not required to consider or adopt Bylaw 2054.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

Sidewalk patio applications are referred to relevant departments for review and comment. This practice will continue if Bylaw 2054 is approved.

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

Complete Community Land Use
 Green Buildings
 Innovative Infrastructure
 Healthy Community
 Not Applicable

□ Low Impact Transportation

- □ Multi-Use Landscapes
- Local Food Systems
- 🛛 Local, Diverse Economy

ALIGNMENT WITH STRATEGIC PRIORITIES:

□Infrastructure ⊠Community □Waterfront ⊠ Economy □ Not Applicable I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S): Appendix A: Bylaw 2054

TOWN OF LADYSMITH

BYLAW NO. 2054

A Bylaw to Amend "Town of Ladysmith Streets and Traffic Bylaw 1998, No. 1309"

WHEREAS pursuant to the *Local Government Act*, the Municipal Council is empowered to amend the Streets and Traffic Bylaw;

AND WHEREAS the Municipal Council considers it advisable to amend "Streets and Traffic Bylaw 1998, No. 1309";

NOW THEREFORE the Council of the Town of Ladysmith in open meeting assembled enacts as follows:

- (1) Schedule E is amended by deleting "(March 1st to October 31st)" from the last sentence;
- (2) Schedule F is amended by changing Regulation 2 under Part I: General Regulations, to read:

"Unless expressly authorized in a sidewalk patio permit, a sidewalk patio must be removed between the months of October 31st and March 1st." ; and

- (3) Schedule G is amended by:
 - a. deleting "MARCH 1 TO OCTOBER 31" from the subtitle;
 - b. Amending condition 4 to read: "Unless condition 11 expressly authorizes the permit area to be used for a sidewalk patio after November 1st, the permit area may only be used for a sidewalk patio between March 1st and October 31st of each year.";
 - c. Amending condition 6 to read: "Unless condition 11 expressly authorizes the permit area to be used for a sidewalk patio after November 1st, the permittee will remove all sidewalk encumbrances by the 1st of November"; and
 - d. Adding the following as condition 11: "The permit area may also be used for a sidewalk patio between ______ and _____ of each year, including this calendar year, subject to any additional conditions of winter use required by the *Director of Development Services*".

CITATION

(4) This bylaw may be cited for all purposes as "Town of Ladysmith Streets and Traffic Bylaw 1998, No. 1309, Amendment Bylaw #8, 2020, No. 2054".

READ A FIRST TIME		on the		day of
READ A SECOND TIME	on the		day of	
READ A THIRD TIME		on the		day of
ADOPTED		on the		day of

Mayor (A. Stone)

Corporate Officer (D. Smith)

STAFF REPORT TO COUNCIL

Report Prepared By:	Geoff Goodall, Director of Infrastructure Services
	Erin Anderson, Director of Financial Services
Meeting Date:	October 6, 2020
File No:	
RE:	PERMANENT DOWNTOWN WASHROOM

RECOMMENDATION:

That Council:

- 1. Direct staff to amend the budget to \$100k for the permanent downtown washroom, with the funds to come from the Real Property Reserve for \$32k and the remaining funding to come from community donations; and
- 2. Waive the purchasing policy.

EXECUTIVE SUMMARY:

A permanent downtown washroom has been included in previous year's Financial Plans. The 2020-2024 version included a \$150,000 project with \$109,500 in funds from a grant. Since the funding grant was denied, the scope of the project was scaled back and a community group has fundraised to offset some of the costs.

PREVIOUS COUNCIL DIRECTION

CS 2019-020	01/21/2019	That Council:
		1. Advise Ladysmith Kinsmen Club of a grant opportunity and the intention of
		the Town to submit an application for funding for the remainder of the
		downtown public washroom project, and request that the Club continue to
		work as a partner in the development of the downtown washrooms; and
		2. Direct staff to submit an application to the Canada – British Columbia
		Investing in Infrastructure Program (Community, Culture and Recreation) for
		the downtown washroom project, with a budget of \$150,000.00; and
		3. Support the project and commit to its share (\$40,500) of the project, with
		funds to come from reserves; and
		4. Direct staff to include in the 2020-2024 Financial Plan \$26,000.00 for
		servicing and maintenance of the downtown washrooms.
CS 2018-278	07/16/2018	That Council provide a letter of support for the Ladysmith Kinsmen Club to
		accompany their application for funding to BC Gaming for a public washroom
		project.
CS 2018-008	01/15/2018	That Council direct staff to include in the 2018 budget an allocation of funds
		available from the Real Property Reserve as a financial contribution to the
		Ladysmith Kinsmen Club project to construct a public washroom in downtown
		Ladysmith.



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CS 2017-230 07/17/20	 17 That Council: Support the concept of a public washroom being placed in the alley between the buildings at 521 and 531 First Avenue, subject to: The Kinsmen Club presenting a more complete proposal for the washroom and site including: A site/landscape plan and building design with exterior façade details respecting ADP and HRAC comments, and the Downtown Development Permit Area guidelines; and A review of safety and Crime Prevention through Environmental Design (CEPTED) impacts of the proposed washroom and solutions to mitigate impacts. Review by Development Services staff and the Heritage Revitalization Advisory Commission of the site/landscape plan and building design; Approval by Infrastructure Services for the water and sanitary service solutions for the proposed washroom. The Town following the requirements in Section 40 of the Community Charter to commence closure and removal of road dedication to allow a washroom building to be located on that portion of the alley.
	 Approve the site/landscape plan and building design and maintenance costs prior to installation.
CS 2017-179 06/05/20	17 That Council direct staff to refer the proposed washroom concept as provided by the Ladysmith Kinsmen Club in their letter dated March 27, 2017 to the Advisory Design Panel (ADP) and the Heritage Revitalization Advisory Commission (HRAC) for comment, seeking feedback on the exterior design of the building.
CS 2017-180 06/05/20	 That Council refer the proposed washroom concept as provided by the Ladysmith Kinsmen Club in their letter dated March 27, 2017, to the Ladysmith Chamber of Commerce and the Ladysmith Downtown Business Association for their comment.

INTRODUCTION/BACKGROUND:

This downtown washroom project has been in the works for many years. COVID-19 and the downtown patio table project has shown the necessity of a public washroom on 1st Avenue. A temporary washroom was installed where the proposed permanent facility will be placed and, although negative feedback from one neighbouring business was received, overall the response to a washroom facility has been positive.

This project is a community group (Kinsmen) led project. Though the scope of this facility has changed over time, the latest version of the project is expected to cost approximately \$100k. The Town has committed \$32k from the Real Property Reserve and the remaining funding is from donations, grants and Kinsmen fundraising.

Normally, the Town would follow the Purchasing Policy in obtaining quotes and proposals. Since the downtown washroom is a community group project, it is requested that Council

amend the project budget to \$100,000 (from \$150,000) and waive the purchasing policy, which will allow the community group to select suppliers and bidders.

The design of the washroom will be brought to the necessary committees for approval and the official closing of the alley, by bylaw, will be presented to Council.

ALTERNATIVES:

Council can choose to:

- 1. Not accept the donation from the Kinsmen for the washroom project.
- 2. Re-submit a grant application and wait for a funding decision.
- 3. Continue to use a portable washroom in the location.

FINANCIAL IMPLICATIONS;

Due to a scope change, the cost of the project is decreasing. The Town has committed to \$32k from the Real Property Reserve for this project.

There is an operation cost associated with a permanent facility in the amount of \$26k to cover the servicing and maintenance. A portion of this (\$15k) was included in the 2020-2024 Financial Plan.

LEGAL IMPLICATIONS;

As this is a community group led project, waiving the purchasing policy allows the community group to select the vendor.

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

There was one business that voiced their concerns regarding the temporary washroom. Many other businesses and visitors to the downtown support the proposal.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

This project impacts multiple departments. Development Services will oversee the design through the approval process; Public Works will oversee the site servicing, and Parks and Recreation will oversee the maintenance. The proposed presentation schedule of the project plans to the Committees and Council is as follows:

- October 7th CPAC Review
- October 20th DP application to Council
- November 3rd & 17th, stop up and close bylaws to Council

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

□ Complete Community Land Use
 □ Green Buildings
 □ Multi-Use Landscapes
 □ Innovative Infrastructure
 □ Local Food Systems
 □ Healthy Community
 □ Not Applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

☑ Infrastructure☑ Community☑ Waterfront

 \boxtimes Economy \square Not Applicable

I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S):

STAFF REPORT TO COUNCIL

Report Prepared By:				
Meeting Date:				
File No:				
RE:				

Chris Barfoot, Director Parks, Recreation and Culture October 6, 2020

RE-OPENING PLAN FOR SWIMMING POOL

RECOMMENDATION:

That Council direct staff to:

- Reopen the 25m pool and the therapy teach pool at the Frank Jameson Community Centre on November 2nd with limited programming as presented by the Director of Parks, Recreation and Culture; and
- 2. Phase in the opening of the other pool amenities when permitted by the Provincial Health Officer and other regulatory agencies.

EXECUTIVE SUMMARY:

All Town recreation facilities were closed on March 16th, 2020. From that time, most outdoor facilities and many of the components of the Frank Jameson Community Centre (FJCC) have reopened with the exception of the swimming pool, due to the complexities and strict guidelines resulting from COVID-19. Town staff have developed plans, protocols and detailed re-opening strategies necessary to keep everyone safe and healthy while the facility is open and operating.

PREVIOUS COUNCIL DIRECTION

N/A

INTRODUCTION/BACKGROUND:

On March 16th, 2020 the Town of Ladysmith's Parks, Recreation and Culture Department closed all recreation facilities for programs, rentals and drop-in activities. These measures were taken to safeguard the public health of our residents, in accordance with the Provincial Health Officer's order to cancel gatherings of more than 50 people and to practice physical distancing of a minimum of 2 meters, to help prevent the spread of COVID-19.

Closing these facilities had an immediate impact on the community, especially those residents who rely on the services and programs offered by the Parks, Recreation and Culture Department. Since that time, most outdoor amenities and a limited offering of indoor activities at FJCC have re-opened. Outdoor programs, including some local sport organizations, have also resumed activity. Facility rentals are carefully being processed for essential services, and where safe to do so, non-essential services such as community meetings where groups are seeking access to larger facilities to comply with physical distancing. Currently, there are a limited



number of indoor programs at FJCC that have resumed using a phased approach as recommended by the Provincial Health Officer, WorkSafe BC and the British Columbia Recreation and Parks Association (BCRPA).

In order to re-open the remaining components of the indoor facilities, Town staff have been working through complex and detailed re-opening procedures and scheduling scenarios for each component of FJCC in order to ensure public and participants are kept safe and healthy while moving throughout the building as the facility and programs continue to re-open.

In the event of an increase in COVID-19 reported cases, a phased in approach providing the department the ability to scale back and adjust as necessary.

RE-OPENING PLAN FOR SWIMMING POOL

In order to meet current orders, guidelines and recommendations the pool schedule has been modified to ensure physical distancing in and around the swimming pool. Maximum group size numbers (based on the recommended space required for each participant) have been established as to accommodate participants in all areas including the pool, pool deck, change rooms and hallways.

The proposed plan includes:

- Opening the 25m pool and the therapy teach pool (the hot tub and sauna remain closed).
- Providing 10 hours of aquatic fitness per week
- Allowing length swimming for a maximum of 12 per session, using the same reservation system as the fitness centre.
- Allowing for the local swim club to rent 7.5 hours per week for their swim practice
- Eventually offering swim lessons

This will impact FJCC swimming pool operations in the following ways:

FJCC	Normal Operation (pre COVID-19)	Modified Operation Phase 1
	Hours for Nov - Dec	Hours for Nov – Dec *
Public Swims	511	101**
Swim Club	86	52.5
Rentals	154	175
Aquatic Fitness	203	90
Swim Lessons	144	Still developing safety plans

*This does not include Christmas Swim Schedule

**Hot Tub and Sauna will remain closed in Phase 1

When permitted, in future, the number of participants and additional classes can be phased-in. Using a phased approach will provide staff the ability to monitor the appropriate numbers and space management. It will allow the plan to expand or contract services being offered as regulations and recommendations change.

Advantages of Option 1	Disadvantages Option 1
Facility will be available for the multiple user	Demand for available pool use may exceed the
groups that have continued to express interest and	availability due to a decrease in hours than what
need in using the 25-meter swimming pool and the	was available pre-COVID-19
therapy teach pool.	
Will provide aquafit classes, length swimming and family swims.	Rental Revenue and user groups will be impacted due to the lower capacity of the pool which will require renters to pay the same fees for less people in the water.
Staff that have been performing alternative work	
assignments will complete those and be available	The reduction in hours available and bather
to return to their original positions in the	loads/session will have substantial financial
swimming pool.	implications.
 Groups who will benefit include: Many patrons that cannot access land based activities Ladysmith Chemainus Swim Club Synchronized Swim Club LMS Scuba Diving Those seeking rehabilitation Physio providers Families seeking recreation opportunities 	
This will provide recreational opportunities for	
those who have been unable to access them,	
improving health (physical and mental) and over	
all well-being.	

Option 1 – Open the 25m pool and therapy teach pool with limited programing

Option 2 – Status Quo – pool closed until January

Advantages of Option 2	Disadvantages of Option 2
Will minimize the risk of having to close again in	There will be fewer recreational opportunities for
the event of a significant increase in COVID-19	those who cannot access land based recreation
cases resulting in further Provincial Health Orders	which has been strongly expressed by many
or restrictions on the guidelines.	community members and groups through regular
	phone calls, emails and personal communications.
Financial cost savings offsetting the overall impact	
of COVID-19 on FJCC.	Staff will be impacted.

Option 3 – Delay the opening of the pool to the next year's financial plan deliberations

Advantages of Option 3	Disadvantages of Option 3
Provide staff the ability to explore further options	Opening Date will be delayed even further. This
as suggested by Council	may lead to continued community frustration as
	we move into the winter months and recreational
Financial Cost Savings as re-opening dates will be	opportunities become more difficult to access.
delayed	
	The potential Health and wellness impacts will
	increase by not offering this service.
	Staff will be impacted

FINANCIAL IMPLICATIONS;

Back in March when the budget was being re-adjusted due to COVID-19, it was assumed that the pool would be back in operation by September and revenues would be generated as per usual. Since this is not the case, adjustments to the operating planned revenues are required.

One of the largest impacts is the reduced capacity permitted. Before, there could easily be 25 participants in an aqua fit session and 10 swimmers in each length swimming session of the pool for a 67% cost recovery for the operation. With the restriction of the bather loads/session, there is a significant reduction in achievable revenue. There is also an additional cost associated with sanitizing the pool equipment and change rooms between each session. For these reasons, staff are proposing a program fee of \$6.50 for each registered booking. This will allow for a cost recovery of 51% for the 9 weeks from November 2 to December 18, 2020 (see appendix A)

LEGAL IMPLICATIONS;

N/A

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

Community members have strongly expressed that they not only want, but need, to get back to activities that support their physical, mental and social well-being. The swimming pool has played an integral component to their activities and keeping it closed may raise their frustrations.

The re-opening plan for the swimming pool has been carefully planned using the same strict guidelines, procedures and process as the other programs and based on the following assumptions:

- Community members not only want, but need, to get back to activities that support their physical, mental and social well-being.
- Many of the regular pool users cannot access land-based activities and have been unable to access recreation since the pool closure.

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

Complete Community Land Use
 Green Buildings
 Innovative Infrastructure
 Healthy Community

□ Not Applicable

Low Impact Transportation
 Multi-Use Landscapes
 Local Food Systems
 Local, Diverse Economy

ALIGNMENT WITH STRATEGIC PRIORITIES:

□Infrastructure □Community □Waterfront □ Economy □ Not Applicable

I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S):

Appendix A – Proposed 2020 Swimming Pool Phase 1 Plan Appendix B - Modified 7 week schedule (Nov – Dec)

Proposed 2020 Swimming Pool Phase 1 Plan*		2019	Swimming	Pool	Plan	(including
		Christr	nas)			
	9 weeks	s of operation				
Revenues	\$18,092.56	Revenues \$47,470				
Expenses *\$35,343.47 Expenses \$70, 6			, 644			
Cost Recovery	51.2%	Cost R	ecovery		67%	

*Figure includes staff training for new COVID protocols and emergency techniques (\$5,800) that will be completed prior to the swimming pool re-opening for the public.

2020 PHASE 1 AQUATICS - Proposal 1						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	Early Bird 6:00-8:00am		Early Bird 6:00-8:00am		Early Bird 6:00-8:00am	
	AM Aquafit 8:30-9:30am	Deep H2O 8:30-9:30am	AM Aquafit 8:30-9:30am	Deep H2O 8:30-9:30am	AM Aquafit 8:30-9:30am	
	Adaptive Fitness 10:30-11:30am					
	Lengths Swimming 12:00-12:45pm					
	Rentals 1:00-4:00pm	Rentals 1:00-4:00pm	Rentals 1:00-4:00pm	Rentals 1:00-4:00pm	Rentals 1:00-4:00pm	
	Swim Club Rental 4:00-5:30pm					
	Rentals 6:00-8:00pm	Family Swim 6:00-8:00pm	Rentals 6:00-8:00pm	Family Swim 6:00-8:00pm	Rentals 6:00-8:00pm	
		Rentals 8:00-9:00pm		Rentals 8:00-9:00pm		

STAFF REPORT TO COUNCIL

Report Prepared By:	Erin Anderson, Director of Financial Services		
	Geoff Goodall, Director of Infrastructure Services		
Meeting Date:	October 6, 2020		
File No:	5600-04		
RE:	BATTIE TO THETIS WATERMAIN LOOP – BUDGET AMEMDMENT		

RECOMMENDATION:

That Council direct staff to amend the 2020-2024 Financial Plan to include the Battie to Thetis Watermain loop for \$80,000, with \$40,000 to come from the Water Development Cost Charges reserve and \$40,000 to come from the Water reserve.

EXECUTIVE SUMMARY:

Included in the Development Cost Charge (Water) program is the Battie to Thetis Drive Watermain loop connection. This project is a requirement of a subdivision on Thetis Dr. that has been in the works for a number of years. The project is now complete and the developer is entitled to reimbursement through the town's DCC program.

PREVIOUS COUNCIL DIRECTION

CS 2019-	08/12/2019	That Council adopt "Town of Ladysmith Development Cost Charges Bylaw 2019,
265		No. 2008".
CS 2019-	04/01/2019	That Council:
131		1. Proceed with first three readings of Bylaw No. 2008 cited as "Town of
		Ladysmith Development Cost Charges Bylaw 2019, No. 2008."
		2. Refer Bylaw No. 2008 to the Inspector of Municipalities for approval.
		3

INTRODUCTION/BACKGROUND:

The Water Development Cost Charges (DCC) program includes the Battie to Thetis Drive watermain loop connection. This project is budgeted at \$80,000 with an assist factor of 50%, leaving the Town responsible for \$40,000.

The developer has completed the Thetis Drive subdivision, and this project was included in their Works and Services requirement. The developer has applied for the final approval for the subdivision and the Approving Officer will confirm that all of the parts of the Preliminary Layout Approval (PLA) have been completed before approving the DCC payments. Once complete, a pay-over of the \$40,000 is required. A DCC water credit will be provided up to \$40,000 for this development as well. The developer's engineer will confirm the actual cost of the works.



ALTERNATIVES:

This project is in the DCC program; hence, there are no alternatives.

FINANCIAL IMPLICATIONS;

The funds for this project are available in the Water DCC and the Water Reserve.

LEGAL IMPLICATIONS;

n/a

CITIZEN/PUBLIC RELATIONS IMPLICATIONS:

n/a

INTERDEPARTMENTAL INVOLVEMENT/IMPLICATIONS:

Engineering will approve the final work.

ALIGNMENT WITH SUSTAINABILITY VISIONING REPORT:

Complete Community Land Use

□Green Buildings

Healthy Community

□Innovative Infrastructure

Multi-Use Landscapes

□ Low Impact Transportation

Local Food Systems

🗌 Local, Diverse Economy

□ Not Applicable

ALIGNMENT WITH STRATEGIC PRIORITIES:

⊠Infrastructure

Community

□Waterfront

□ Economy □ Not Applicable

I approve the report and recommendation(s).

Erin Anderson, Acting Chief Administrative Officer

ATTACHMENT(S):

BYLAW STATUS SHEET October 6, 2020

Bylaw No.	Description	Status
2052	Town of Ladysmith 2021 Permissive Tax Exemptions Bylaw 2020, No. 2052 (to exempt from taxation certain lands and buildings for the year 2021)	Three readings held, September 15, 2020
2053	Town of Ladysmith Community Services Centre Tax Exemption Bylaw 2020, No. 2053 (to exempt from taxation certain lands and buildings for the years 2021 to 2030)	Three readings held, September 15, 2020