ELECTORAL AREA SERVICES COMMITTEE MEETING AGENDA

WEDNESDAY, AUGUST 16, 2017
BOARD ROOM
175 INGRAM STREET, DUNCAN, BC

1:30 PM

PAGE

1. APPROVAL OF AGENDA

2. ADOPTION OF MINUTES

M1 Regular Electoral Area Services Committee meeting of August 02, 2017 — 1

Recommendation That the minutes of the Regular Electoral Area Services Committee meeting of August 02, 2017 be adopted.

3. BUSINESS ARISING FROM THE MINUTES

4. DELEGATIONS

5. CORRESPONDENCE

C1 Letter from Saltair Community Society, Re: Saltair Community Centre — 7

Recommendation For information

6. INFORMATION

7. REPORTS

R1 Saltair Community Centre Facility Condition Assessment - Report from Engineering Services Department — 9

Recommendation For direction

R2 Application No. 03-F-17DP - Report from Development Services Division — 131

Recommendation That it be recommended to the Board:
1.That Development Permit Application 03-F-17DP (5577 River Bottom Road West) be approved; and
2.That the General Manager of Land Use Services be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of the Official Community Plan No. 1490.

R3 Application No. 09-B-16DP - Report from Development Services Division 155

Recommendation That is be recommended to the Board:
1. That Development Permit Application No. 09-B-16DP (2786 Meadowview Road) be approved.
2. That the General Manager of Land Use Services Development be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of Official Community Plan Bylaw No. 3510.

R4 Application No. 01-A-17DP/S - Report from Development Services Division 197

Recommendation That it be recommended to the Board that Development Permit Application No. 01-A-17DP/S (2720 Mill Bay Road) be denied as it is inconsistent with development permit guidelines 11.4.12A Sign Guidelines 1, 2, 3 & 4.

R5 Application No. 2-E-14TUP - Report from Development Services Division 203

Recommendation That it be recommended to the Board that the application to renew Temporary Use Permit 2-E-14TUP to allow three additional special event shoots per year and adjusted start times for weekend competitive shoots from 10:00 a.m. to 9:00 a.m. in 2018, 2019 and 2020 be approved.

R6 Application No. 20-C-17BE - Report from Inspection & Enforcement Division 209

Recommendation That it be recommended to the Board that the Cowichan Valley Regional District wishes to “opt out” of providing comment to the Liquor Control and Licencing Branch with regard to the application for a Permanent Change to a Liquor Licence for increased liquor service hours by the Cobblestone Inn (liquor licence 038301) located at 3566 Holland Avenue, Cobble Hill (Area C).

R7 Curbside Recycling - Contamination Audit Results - Report from Recycling & Waste Management Division 221

Recommendation For information

R8 Statutory Right of Way for Honeymoon Bay - Report from Water Management Division 225

Recommendation That it be recommended to the Board that a Statutory Right of Way be registered over Honeymoon Bay R.V. Park Inc. land (Lot 9, Section 34, Renfrew District) for the purpose of installing discharge piping and hydro service infrastructure for the Honeymoon Bay Water System.

R9 Saltair Water System, Statutory Right-of-Way, 10335 Chemainus Road - Report from Water Management Division 243

Recommendation That it be recommended to the Board that a Statutory Right of Way be registered through 10335 Chemainus Road (PID: 005-835-003) for the purpose of installing a watermain and future maintenance of the Saltair Water System.

R10 Cowichan Bay Sewer Inclusion Request - 1500 Cowichan Bay Road - Report from - Water Management Division 253

Recommendation That it be recommended to the Board:
1. That the Certificate of Sufficiency confirming that a sufficient petition requesting inclusion into the Cowichan Bay Sewer System Service Area be received.
2. That CVRD Bylaw No. 2128 – Cowichan Bay Sewer System Service Establishment Bylaw, 2000, be amended to include the property described as PID 005-490-227.

R11 Arbutus Ridge Sewer Loan Authorization Bylaw - Report from Water Management Division 259

Recommendation That it be recommended to the Board:
1. That the Certificate of Sufficiency, confirming that sufficient petitions authorizing the borrowing of up to $2,475,000.00, be received.
2. That a Loan Authorization bylaw be established for the purpose of borrowing for the Arbutus Ridge Sewer System Service Area and forwarded to the Board for consideration of three readings and, following provincial approval, adoption.

R12 July 2017 Building Inspections Report - Report from Inspection & Enforcement Division 263

Recommendation For information

R13 Electoral Area Strategic Focus Area Review - Budget Direction - Report from the Office of the CAO 267

Recommendation That it be recommended to the Board that the strategic actions identified in the August 3, 2017 Electoral Area Strategic Focus Area Review Budget Direction report be approved and that the associated budget requirements be prepared for consideration during the 2018 budget process.

8. UNFINISHED BUSINESS

9. NEW BUSINESS

10. QUESTION PERIOD

11. CLOSED SESSION

Motion that the Closed Session Agenda be approved, and that the meeting be closed to the public in accordance with the *Community Charter* Part 4, Division 3, Section 90, subsections as noted in accordance with each agenda item.

CS M1 - Closed Session Electoral Area Services Committee Minutes of August 2, 2017

CS R1 - Verbal Report from Bylaw Enforcement Officer, Inspection & Enforcement Division Re: Potential Litigation {Sub (1)(g)}

CS R2 - Verbal Report from Bylaw Enforcement Officer, Inspection & Enforcement Division Re: Potential Litigation {Sub (1)(g)}

CS NB1 - Verbal Report from Inspection & Enforcement Division Re: Potential Litigation {Sub (1)(g)}

12. ADJOURNMENT

The next Electoral Area Services Committee Meeting will be held Wednesday, September 6, 2017 at 1:30 PM, in the Board Room, 175 Ingram Street, Duncan, BC.

Committee Members

Director I. Morrison, Chairperson	Director M. Clement	Director L. Iannidinardo
Director M. Marcotte, Vice-Chairperson	Director K. Davis	Director K. Kuhn
Director S. Acton	Director M. Dorey	Director A. Nicholson

Minutes of the Electoral Area Services Committee Meeting held on Wednesday, August 2, 2017 in the Board Room, 175 Ingram Street, Duncan BC at 12:31 PM.

PRESENT: Director I. Morrison, Chair
Director S. Acton
Director M. Clement <until 1:55 PM>
Director K. Davis
Director L. Iannidinardo
Director M. Marcotte
Director A. Nicholson
Alternate Director S. Jonas <after 12:33 PM>

ALSO PRESENT: B. Carruthers, Chief Administrative Officer (CAO)
R. Blackwell, General Manager, Land Use Services
H. Hatami, General Manager, Engineering Services Department
M. Tippett, Manager, Regional & Community Planning
R. Conway, Manager, Development Services
B. Dennison, Manager, Water Management
B. Farquhar, Manager, Parks & Trails
T. Soroka, Parks & Trails Planner
B. Suderman, Planner III
S. Herrera, Planner II
H. Huffman, Senior Environmental Technologist
L. Knodel-Joy, Senior Engineering Technologist
J. Adair, Solid Waste Operations Superintendent
K. Madge, Recording Secretary
J. Hughes, Secretary III

ABSENT: Director M. Dorey
Director K. Kuhn

APPROVAL OF AGENDA

It was moved and seconded that the agenda be amended with the addition of one New Business item:

NB1; Sahtlam Local Area Plan Advisory Subcommittee; and

that the agenda, as amended, be approved.

MOTION CARRIED

12:33 PM Alternate Director S. Jonas entered the meeting at 12:33 PM.

ADOPTION OF MINUTES

M1 Regular Electoral Area Services Committee meeting of July 19, 2017

It was moved and seconded that the minutes of the regular Electoral Area Services Committee meeting of July 19, 2017 be adopted.

MOTION CARRIED

BUSINESS ARISING FROM THE MINUTES

BA1 Lindley Little, RPF, Planning Forester and Glenn Piggot, RPF, Planning Forester, B.C. Timber Sales (BCTS) Strait of Georgia, Ministry of Forests, Lands and Natural Resource Operations provided a PowerPoint presentation regarding the Replacement of BCTS Strait of Georgia Business Area's East and Southwest Coast Forest Stewardship Plan on July 19, 2017. At the August 2, 2017 Electoral Area Services Committee meeting Director Nicholson brought forth a recommendation for consideration.

It was moved and seconded that a formal response be sent to BC Timber Sales (BCTS) regarding the replacement of the Strait of Georgia Business Area's East and Southwest Coast Forest Stewardship Plan that emphasizes the need:

1. **For "whole of watershed" planning and coordination of forest management, and;**
2. **For BCTS, as a government agency, to model exemplary ecosystem-based and climate change-wise forest management.**

MOTION CARRIED

CORRESPONDENCE

C1 Grant-in-Aid Request, Electoral Area E - Cowichan Station/Sahtlam/Glenora - Cowichan Station Area Association

It was moved and seconded that it be recommended to the Board that a Grant-in-Aid, Electoral Area E - Cowichan Station/Sahtlam/Glenora, in the amount of $1380 be provided to Cowichan Station Area Association to support " Rec and Roll " after school youth program.

MOTION CARRIED

INFORMATION

IN1 Items 1 and 2 were received for information:
1. Area D Parks Commission Minutes - June 19, 2017; and
2. Area E Parks Commission Minutes - July 13, 2017.

REPORTS

R1 Application No. 04-B-17DVP - Report from Development Services Division

It was moved and seconded that it be recommended to the Board that Application No. 04-B-17DVP (2386 Shawnigan Lake Road) to vary Section 5.14 (a) of Zoning Bylaw No. 985 to permit the modification of a dwelling located within the 15 metre watercourse setback, be approved.

MOTION CARRIED

R2 Application No. 06-C-16DP - Report from Development Services Division

It was moved and seconded that it be recommended to the Board that Application No. 06-C-16DP (1355 Fisher Road) be approved; and that the General Manager of Land Use Services be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of Official Community Plan Bylaw No. 3510.

MOTION CARRIED

R3 Licence of Occupation Renewal For Elliots Beach Park and Michael Lake Trail in Electoral Area H - North Oyster/Diamond - Report from Parks & Trails Division

It was moved and seconded that it be recommended to the Board:

1. **That the Licence of Occupation agreement with the Ministry of Transportation and Infrastructure beginning September 1, 2017, for Elliots Beach Park (Licence #100800) in Electoral Area H – North Oyster/Diamond, be approved for renewal for up to 10 years; and**
2. **That the Licence of Occupation agreement with the Ministry of Transportation and Infrastructure beginning September 1, 2017, for Michael Lake Trail (Licence #100801) in Electoral Area H – North Oyster/Diamond, be approved for renewal for up to 10 years.**

MOTION CARRIED

R4 Proposed Donation of Picnic Shelter in Mile 77 Park (Electoral Area I - Youbou/Meade Creek) - Report from Parks & Trails Division

It was moved and seconded that it be recommended to the Board that a proposed donation of materials and labour, from the owners of Laketown Ranch, to construct a 20ft x 20ft foot picnic shelter in Mile 77 Park in Electoral Area I – Youbou/Meade Creek, be accepted.

MOTION CARRIED

R5 Requisition Limit Increase (Electoral Area I - Youbou/Meade Creek) - Critical Location Streetlighting Service Area - Report from Water Management Division

It was moved and seconded that it be recommended to the Board that a bylaw be prepared to amend "CVRD Bylaw No. 2144 – Electoral Area I – Youbou/Meade Creek Critical Location Streetlighting Service Bylaw, 2000", to increase the maximum annual requisition limit from $1,245 to $1,555.

MOTION CARRIED

R6 Addition of Electoral Area G Saltair (excluding Gulf Islands) to CVRD Bylaw No. 3716 - Smoke Control Regulation Bylaw, 2013 - Report from Recycling & Waste Management Division

It was moved and seconded that it be recommended to the Board that a bylaw

be prepared to amend Bylaw No. 3716 – Smoke Control Regulation Bylaw, 2013", to include Electoral Area G - Saltair (excluding Gulf Islands).

MOTION CARRIED

R7 Union of BC Municipalities (UCBM) Minister Meeting - Verbal Report from B. Carruthers, CAO

The CAO provided a verbal report focusing on the the following topics to discuss at the Ministerial meetings at the 2017 UBCM Convention.

Minister of Environment and Climate Change Strategy:
Fisher Road Aquifer Monitoring
Soils Management and Bylaw/Removal of contaminated soils at South Island Aggregates
Regional District of Nanaimo tree/vegetation removal (Electoral Area H)

Minister of Forests, Lands and Natural Resources Operations, and Rural Development:
Riparian Area Protection

Minister of Municipal Affairs and Housing:
Approving Officer Authority
Affordable Housing efforts in Cowichan Valley
Levels of fines for Municipalities vs Regional Districts

Minister of Energy, Mines and Petroleum Resources:
Soils Bylaw and contaminated soil landfills

Minister of Health:
Cowichan District Hospital

Minister of Transportation and Infrastructure:
Roadside pathways/increased funding for active transportation
Approving Officer Authority

Minister of Public Safety and Solicitor General:
Mill Bay RCMP Building

Deputy Ministers/Assistant Deputy Ministers:
Mark Zacharias, Assistant Deputy Minister, Ministry of Environment and Climate Change Strategy; Craig Sutherland, Assistant Deputy Minister, Forests, Lands, Natural Resource Operations, and Rural Development Re: Cobble Hill Aquifer Monitoring

NEW BUSINESS

NB1 Establishment of a Sahtlam Local Area Plan Advisory Subcommittee – Verbal Report

It was moved and seconded that a Sahtlam Local Area Plan Advisory Subcommittee be established to provide recommendations on how to resolve a number of issues owing to the unique character of the Sahtlam community, including zoning and governance, and that the Subcommittee report back to the Electoral Area Services Committee by June 2018.

MOTION CARRIED

CLOSED SESSION

1:32 PM **It was moved and seconded that the meeting be closed to the public in accordance with the *Community Charter* Part 4, Division 3, Section 90 Appointments {Sub (1)(a)} and Potential Litigation {Sub (1)(g)}**

MOTION CARRIED

RISE FROM CLOSED SESSION

2:06 PM **It was moved and seconded that the Board rise with report on Item CSR1, and return to the Open portion of the meeting.**

MOTION CARRIED

CSR1 **It was moved and seconded that the following individuals be appointed to the Sahtlam Local Area Plan Advisory Subcommittee:**

1. Mariah Wallener;
2. Helen Reid;
3. Robert (Bob) Menzies;
4. Mike Lees;
5. Heather Pritchard;
6. Judy Brayden;
7. Julia Rylands; and
8. Joe Allan.

MOTION CARRIED

ADJOURNMENT

2:18 PM **It was moved and seconded that the meeting be adjourned.**

MOTION CARRIED

_____ _____

Chair Recording Secretary

Dated: _____

The Saltair Community Society, despite the uncertainty regarding the Building Condition Assessment Report, has forged ahead investing large amounts of sweat equity and a small amount of operating funds into making the Centre operational for limited activities and events. The Society feels the following points are relevant to the CVRD Directors and staff discussions of the Building Condition Assessment and the future of the Saltair Community Centre.

- ILM Education Centre enrolled 60 children (infants and preschool) during the first half of 2017. Their program provides working parents with affordable daycare for their children. ILM employs 9 child care workers and currently pays $1500.00/month rent and pays all utilities (approximately $12,000.00/year) for the building.
- Chemainus Sketch Group has provided a letter of intent for a long term rental of a room in the Community Centre.
- Saltair Quilters Group has rented a room once a week since September, 2016.
- Saltair District Ratepayers Association (SDRA), Saltair/Area G Parks Commission use the Meeting Room on a monthly basis, and there have been three Public Meetings and a number of social events held at the Community Centre.
- Photo Studio at the Community Centre is a one of a kind room with an infinity wall and has provided rental income.
- Inquiries have been received from individuals and groups regarding space rentals for training sessions and activities, as well as availability of gym for sports activities.

The Saltair Community Society thanks the Cowichan Valley Regional District Directors and staff for their support to date, and look forward to moving ahead in the future towards a viable Community Centre in Saltair.

STAFF REPORT TO COMMITTEE

DATE OF REPORT	August 4, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	General Manager Engineering Services Department
SUBJECT:	Saltair Community Centre Facility Condition Assessment
FILE:	

PURPOSE/INTRODUCTION

The purpose of this report is to inform the Electoral Area Services Committee of the results of the Saltair Community Centre Facility Condition Assessment. The authors of the report, McQuaig and Associates Engineering Ltd., have also prepared a short presentation for the Committee.

RECOMMENDED RESOLUTION

For direction.

BACKGROUND

The Cowichan Valley Regional District (CVRD) purchased the Saltair Community Centre (formerly Mt Brenton School) in 2014, The building was constructed in 1950 as a school and sat unoccupied for a number of years prior to the CVRD's acquisition. The building is currently leased to the Saltair Community Society.

As part of the development of the CVRD's Asset Management Plan, McQuaig and Associates Engineering Ltd. (McQuaig) were contracted to conduct a Facility Condition Assessment for the Saltair Community Centre. A Facility Condition Assessment is a comprehensive inventory of all building components with an estimate of the costs associated with renewal, repair, and code compliance issues, to determine both the immediate and long-term cost liabilities for building component lifecycle renewal, deferred maintenance, and functional inadequacies, based on industry-standard cost databases. McQuaig have prepared two reports: Attachment A – Facility Condition Assessment Saltiar Community Centre; and Attachment B – Building Envelope Condition Assessment for Gymnasium.

ANALYSIS

Overall the Saltair Community Centre is considered in fair condition and has been maintained at standards that would be considered average for this type of building. Key major maintenance and asset renewal projects recommended in the next five years include:

- Renewal of roofing system
- Renewal of exterior wall cladding
- Renewal of exterior doors and windows
- Renewal of ceiling finishes
- Replacement of furnace
- Renewal of Ventilation system
- Renewal of electrical service and distribution system

FINANCIAL CONSIDERATIONS

Attachment A – Facility Condition Assessment Saltiar Community Centre includes a 10 year investment strategy for the Saltair Community Centre (page 14). The total estimated investment

over 10 years is $3,074,593, of which $737,436 is recommended to be invested immediately to replace the failing roofing systems, repair the gymnasium, and upgrade the heating, electrical and ventilation systems. The 2015 Custom Valuation and Loss Control Report prepared by SCM Risk Management estimated the insured replacement value of the building to be $2,722,337. A class D cost estimate for demolition was $300,000 – 350,000.

COMMUNICATION CONSIDERATIONS

With the direction from the Committee, McQuaig is available to present the results of the assessment at a community meeting in Saltair.

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

N/A

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☒ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☐ Land Use Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

Prepared by:

Austin Tokarek, B. Sc., CEA
Asset Coordinator

Reviewed by:

Not Applicable
Not Applicable

Hamid Hatami, P. Eng.
General Manager

ATTACHMENTS:
Attachment A – Facility Condition Assessment Saltiar Community Centre
Attachment B – Building Envelope Condition Assessment for Gymnasium Saltair Community Centre

McCUAIG & ASSOCIATES
ENGINEERING LTD.

FACILITY CONDITION ASSESSMENT SALTAIR COMMUNITY CENTRE

3850 South Oyster Road, Ladysmith
British Columbia

Prepared for: Austin Tokarek, Asset Coordinator
Engineering Services Department
Cowichan Valley Regional District
175 Ingram Street
Duncan, BC V9L 1N8

Prepared by: McCuaig & Associates Engineering Ltd.
#201 – 33 East 8th Avenue
Vancouver, BC V5T 1R5

Date: July 21, 2017

McCuaig Ref.: 20170401-C-RPT-FCA-01-FNL

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McCUAIG & ASSOCIATES
ENGINEERING LTD.

1.0 INTRODUCTION

1.1 TERMS OF REFERENCE

McCuaig & Associates Engineering Ltd. (MAE) was retained by Cowichan Valley Regional District (CVRD) to conduct a Facility Condition Assessment (FCA) for Saltair Community Centre (SCC), located at 3850 South Oyster Road in Ladysmith, BC.

The purpose of this assessment was to complete a visual, non-destructive walkthrough review of the building to produce a qualitative and quantitative assessment of the building condition in order to identify the condition of the building assets and any deficient components. This report is accompanied by a lifecycle report forecasting future renewals and major maintenance work over 5-year and 10-year periods.

In the gymnasium area, an invasive review involving multiple exploratory openings was conducted to review various building envelope components both exposed and normally hidden. Note that the invasive reviews were limited to the gymnasium area only and a separate report is prepared for the gymnasium at SCC.

The detailed terms of reference are described in MAE's written proposal entitled: 'Request for Proposal No. ES-017-17 Facility Condition Assessment for Saltair Community Centre.'

1.2 DOCUMENTS REVIEWED

The following documents were provided to MAE for our review and reference:

- Copies of architectural drawings dated April 21, 1950 by Thomas B. McArravy Architect
- Asbestos Air Sampling and Condition Assessment Report dated July 7, 2016 by North West Environmental Group Ltd.
- Air Quality Review dated July 7, 2016 by North West Environmental Group Ltd.
- Hazardous Materials Survey by Hazpro Environmental Ltd.
- Custom Valuation and Loss Control Report dated December 11, 2015 by SCM Risk Management Services
- Roof Condition Survey and Report dated July 20, 2014 by Westcoast Roof Inspection Services Ltd.
- Fire Safety Inspection Form dated May 5, 2016 by Firewise Consulting

1.3 METHODOLOGY

This section describes how this assessment was conducted.

1. Prior or our site work, available drawings, maintenance documents, and relevant previous assessment reports were reviewed in order to become familiar with the project.

2. An interview with Bill Clearly, former Mt. Brenton Elementary School principal and current president of Saltair Community Society, was conducted to review recent major repair and renewals history.

3. Visual non-invasive reviews of a representative sample of the facility's elements listed in Uniformat II Elemental Classification systems were conducted.

Our on-site review was completed on May 29, 2017. The weather was generally dry and sunny during the site visit with temperatures ranging from 20 to 25 degrees Celsius.

MAE applied the following condition rating to each component as per *Schedule B: Condition Assessment Matrix* provided in RFP ES-017-17:

Condition (Grade)	Performance	Structure	External	Internal	Services	Fittings	Typical Useful Life Remaining
5 - Excellent (A)	Fits for Future	Sound structure.	Constructed with sound materials, true to line and level. No evidence of deterioration or discolouration.	Constructed with sound materials, true to line and level. No evidence of deterioration or discolouration.	All components operable and well maintained.	Well secured and operational, sound of function and appearance.	Greater than 45%
4 - Good (B)	Adequate for Now	Functionally sound structure.	Showing minor wear and tear and minor deterioration of surfaces.	Showing minor wear and tear and minor deterioration of surfaces.	All components operable.	Operational and functional, minor wear and tear.	Between 10 to 45%
3 - Fair (C)	Requires Intervetion	Adequate structure, some evicence of foundation movement, minor cracking.	Appearance affected by minor cracking, staining, or minor leakage. Indications of breaches of weatherproofing. Minor damage to coatings.	Appearance affected by minor cracking, staining, or minor leakage, some dampness or mildew. Minor damage to wall/ceiling finishes.	Occasional outages, breakdowns or blockages. Increased maintenance required.	Generally operational. Minor breakage.	
2 - Poor (D)	At Risk	Structure functioning but with problems due to foundation movement. Some significant cracking.	Damaged, weakened or displaced. Appearnce affected by cracking, staining, overflows, or brekages. Breaches of weatherproofing evident. Coatings in need of heavy maintenance or renewal.	Damaged, weakened or displaced. Appearance affected by cracking, staining, dampness, leakage, or breakages. Breaches of waterproofing evident. Finishes of poor quality and in need of replacement.	Failures of plumbing electrical and mechanical components common place.	Fittings of poor quality and appearance, often inoperable and damaged.	
1- Very Poor (F)	Unfit for Sustained Service	Structure has serious problems and concern is held for the integrity of the structure.	Badly damaged or weakened. Appearance affected by cracking, staining, overflows, leakage or damage. Breaches of waterproofing. Coating badly damaged.	Badly damaged or weakened. Appearance affected by cracking, staining, leakage, or wilful damage. Breaches of waterproofing. Finishes badly damaged, marked and in need of replacement.	Plumbing electrical and mechanical components are unsafe or inoperable.	Most are inoperable or damaged	Less than 10%

1.4 ASSUMPTIONS & LIMITATIONS

For the purpose of this study, we have assumed that the design service life of the building to be in the range of 50 to 99 years, which we consider to be reasonable for an educational building of this type. The building's design service life has not been verified on any of the documentation that was made available to MAE. We also assumed an annual inflation rate of 2 percent.

It should be noted that reviews that are described in this report were limited to the areas and assemblies that are specifically noted in the report. No testing or dismantling of any assemblies was performed and reviews were made on a random basis with no attempt to review or inspect every element or portion of the buildings; therefore, it is possible that some deficiencies may not have been discovered. Our comments are not a guarantee or warranty of any aspect of the condition of the buildings whatsoever.

Our opinions of probable costs are based on normal engineering practice using "square foot" or unit cost and/or our own experience with similar projects. The costs provided constitute an "order of magnitude" value to assist the CVRD with planning for predicted future expenses. Opinions of probable costs allocated to maintenance or renewal items should not be considered set costs. These values are established based on current market conditions and product availability. The cost of construction materials and labour are influenced by many variables. Where applicable, our opinions of probable costs allow for consulting fees, taxes, and inflation.

Please also note that it is difficult to provide an accurate opinion of cost estimate without some preliminary design and a clearly defined scope of work. The actual cost of the work cannot be known until an accurate scope of work is prepared, material quantities have been reliably estimated, project drawings and specifications have been produced, contractors have bid on the project, and the extent of any hidden damage is known.

Given the volatility of construction prices, MAE assumes no responsibility for the future accuracy of our projected estimated costs. Moreover, our opinion of remaining service life is not guarantee that the components will not fail earlier than projected.

This study should be viewed as a dynamic process that necessitates regular review and updating for both projected remaining service life and related costs. Items that are to be undertaken in several years should be reviewed closer to the date of the work.

Should our services be required, MAE is available to assist the CVRD in obtaining quotations for future maintenance or renewals work.

2.0 BUILDING DESCRIPTION

SCC was constructed in approximately 1950 in the residential neighbourhood of the Township of Ladysmith. The building is predominantly surrounded by single family homes to the west, east and north and park to the south.

Table 1. General Information of Saltair Community Centre

Address:	3850 South Oyster Road, Ladysmith, BC
Zoning District:	P-2 Institutional 1 Zone
Construction Year:	1950
Gross Floor Area:	18,300 sq. ft.
Replacement Value*:	$2,722,337.00

**Custom Valuation and Loss Control report prepared by SCM Risk Management Services dated December 11, 2015*

The building consists of a 1-storey wood-frame structure on top of a concrete foundation. The exterior of the building is clad with face sealed stucco and wood siding. The windows and sliding doors are wood-framed with single-glazing. The low-sloped roofs, commonly referred to as a "flat roof", are covered with built-up roofing and 2-ply modified bituminous sheet membrane with perimeter scuppers and drains.

From 1950 to 2014, the building was used as an elementary school. It is our understanding that the original building was expanded by three additions at separate times; however, the time of each expansion is unknown. In 2014, the CVRD purchased the property and the building has been leased to a licensed daycare and Saltair Community Society.

SCC contains nine classrooms, a gymnasium, three mechanical rooms, five washrooms, and various other work/storage spaces. The gymnasium is currently closed off due to water damage and falling ceiling tiles.

3.0 BUILDING ASSET EVALUATION

Overall, SCC is in fair condition for a building of its age. The building's equipment and grounds have been maintained at standards that would be considered average for a building of this type. This maintenance has allowed most components to remain serviceable throughout their expected life.

Detailed condition evaluations of each component including location, description, chronological age, remaining service life, and outstanding deficiencies are presented in Appendices A, B and C.

3.1 STRUCTURAL SUMMARY

As most structural elements are concealed by finishes, comments are limited to visible portions. Generally, the wood-frame structure and cast-in-place concrete foundation with crawlspace appeared to be in good condition. MAE did not observe any excessive cracking or other evidence of structural distress. Water ingress through the gymnasium roof and its structural implications have been discussed in detail in a separate report.

3.2 ARCHITECTURAL SUMMARY

There are two types of above grade wall claddings at Saltair Community Centre: face-sealed stucco and painted wood siding.

The use of face-sealed stucco cladding systems has ceased due to their generally poor performance history in the coastal climate of British Columbia, which is characterized by high wetting exposure and low drying potential, due to the difficulty in achieving a perfect seal at interfaces and joints. Face sealed assemblies rely on the stucco as the primary defense against exterior moisture. Many factors such as workmanship, building settlement, material deterioration, and lack of maintenance can contribute to moisture penetration in to a face-sealed assembly. Due to the lack of a drainage cavity and limited drying capacity, any moisture that migrates beyond the stucco can compromise the overall performance and durability of the wall assembly.

Rainscreen assemblies are now mandated for all new and remediated cladding systems. This system is a form of double-wall construction that uses an outer layer to keep out the rain and an inner layer to provide thermal insulation, prevent excessive air leakage and carry wind loading. The outer layer breathes like a skin while the inner layer reduces energy losses. The structural frame of the building is kept dry, as water never reaches it or the thermal insulation. Evaporation and drainage in the cavity removes water that penetrates between panel joints. Water droplets are not driven through the panel joints or openings

because the rainscreen principle means that wind pressure acting on the outer face of the panel is equalized in the cavity.

The existing exterior wall claddings at SCC have exhausted their expected service life. We noted surface cracks, moderate staining and poor interface details. We would expect the areas clad with face-sealed assemblies to be due for remediation within approximately 5 years' time. At the time of renewals, a new rainscreen exterior wall assembly will be required to be installed. If CVRD were to carry this work out in a single year, a budget of roughly $500,000 is anticipated in 2021.

The existing windows at SCC are wood-framed, single-glazed windows. The windows reviewed were typically without any sealant or flashings to direct moisture away from the wall surface below. We noted deteriorating paint finishes in the window frames and sills at most windows we reviewed and moisture related issues such as water stains and microbial growth at the gymnasium windows. We also noted that some awnings have been replaced with aluminum framed single glazed units.

The windows have far exceeded their reliable service life and do not meet today's standards. We recommend that they be replaced with high-performance windows that meet the new requirements of the British Columbia Building Code incorporating new details such as proper head/sill flashing and sealant. This work should be completed in conjunction with the exterior wall cladding replacement. The estimated budget for window replacement is in the range of $92,000.

From our experience with building rehabilitations, it is not uncommon for some high price items to be completed in phases rather than in a single year. This strategy usually comes with a higher overall cost but the owners have the ability of spreading the costs over several years. Depending on the CVRD's preference and availability of funds, the building envelope rehabilitation at SCC including exterior wall cladding, windows, and doors could be completed over a multi-year period. We recommend roughly 25% of work to be completed annually from 2021 to 2024. Approximately $150,000 is anticipated in the first year and this budget is to be increased at 2% annually until the project completion.

The roofs provided at SCC are predominantly low-sloped roofs protected with built-up roofing (BUR) and two-ply SBS membrane. The roofs appeared to be in poor condition with extensive moss growth, missing drain covers, evidence of multiple past repairs, deteriorating metal flashing and rainwater leaders, stains in ceiling and soffit finishes below, and bleeding, bubbling and alligatoring in the SBS cap sheet.

We recommend all the roofs be replaced as soon as possible. Estimated renewal cost is in the range of $682,000.

3.3 MECHANICAL SUMMARY

The domestic water distribution system and sanitary drainage system appeared to be functioning without any reported issues. As most of the distribution pipes are concealed in finishes, we were not able to verify piping materials. We are not aware of any recent major repair or replacement related to these systems. Given the age and pipe materials typically used, a wholesale replacement will be likely in the next 5 to 7 years for the plumbing systems. Prior to the replacement, we recommend engaging a qualified professional (i.e. mechanical/plumbing engineer) to conduct a detailed condition assessment. An invasive condition assessment involving taking samples of the existing pipes to measure remaining pipe wall thickness would provide a more accurate estimate of the remaining service life of the copper pipes. Depending on the findings of the assessment, the wholesale replacement of the domestic water distribution system and sanitary drainage system may be required.

Four furnaces operating on fuel oil were found at SCC. It is our understanding that Furnaces 1, 2 and 3 are no longer being used. We recommend these furnaces along with the fuel oil storage tanks be properly decommissioned and removed from the site at an estimated budget of $7,000. Note that we did not verify presence of Furnace 3 due to limited access.

Furnace 4, found in the daycare area, was last maintained in January 2017. It is our understanding that the Saltair Community Society is planning to replace this equipment with a gas-fired furnace. We recommend replacing the existing furnace with an energy efficient furnace at an estimated budget of $7,600. CVRD may also consider heat pump as an alternative option that is more energy efficient than a gas-fired furnace at an approximate value of $10,000.

Three fuel storage tanks connected to the furnaces are provided outside the building at east and west elevations. As mentioned above, at the time of the furnace renewal with gas connection, these tanks will no longer be needed and will have to be properly decommissioned and removed from the site.

Two chimney vents constructed with bricks and mortar provide ventilation for the furnace equipment. The chimneys appeared to be in fair condition with efflorescence, moss growth, hairline cracks, and deteriorating sealants and flashing at roof-to-chimney interfaces. Depending on the building's future needs, these chimneys should be reviewed in detail, any deficiencies noted should be addressed and bricks and mortar should be re-pointed as required.

The wall-mounted gymnasium exhaust fan appeared to be dated. It is our understanding that the gymnasium has not been actively used and as such the fan has not been used for some time. We did not test the fan; however, given the age and poor interior condition of the

gymnasium, an upgrade in ventilating system is recommended along with a humidistat at an estimated budget of $5,000 immediately. Refer to *Building Envelope Condition Assessment for Gymnasium* prepared by MAE for detailed analysis and recommendations.

Ceiling mounted exhaust fans are provided at washrooms. The fans typically have 20 years of service life and will require replacement in the next 5 years at a budget of $2,200.

Several electric baseboard heaters and wall mounted heaters provide heating at various rooms. It is our understanding that the wall mounted electric heaters were added in 2013 due to the lack of heat. The heaters reviewed were functional without any reported issues and no major replacement work is anticipated in the short term.

3.4 ELECTRICAL SUMMARY

The main power distribution system with sub-panels and breaker panels located throughout the building have been functioning without any reported issues. We were not aware of any recent maintenance or repair activities related to the electrical distribution system. Given the age of the equipment, we recommend the CVRD to engage a qualified professional (i.e. electrical engineer) to conduct a detailed condition assessment including infrared scanning and cleaning of the equipment to provide a more precise estimate on the remaining service life and comment on the capacity of the existing system. This assessment will be in the range of $7,500.

Wall and soffit-mounted exterior light fixtures were present throughout the site. The exterior light fixtures appear to be functioning without any reported issues. We noted a broken light fixture near the fenced play area. The exterior light fixtures are recommended to be replaced in conjunction with the exterior wall renewal scheduled for 2021. The associated cost is approximately $11,000.

Ceiling mounted fluorescent lighting was found throughout the interior of the building. Generally, the interior lighting equipment was functioning without any reported issues. We noted water stains inside the light fixture above the hallway between Staff Rm 5 and Stores 11. We were told this was from the roof leak in the past. A wholesale replacement of the interior light fixtures is anticipated in 2024 with an estimate budget of $43,000.

Consideration should be given to upgrading the interior and exterior light fixtures and lamps with daylight or motion sensors, dimmers, timers, high intensity lighting and/or LEDs to provide energy savings and enhance security.

3.5 FIRE & LIFE SAFETY SUMMARY

The fire safety system reviewed during the investigation included fire control annunciator panel, fire detection and alarms, emergency egress equipment, and fire sprinkler system. Generally, the equipment was in good condition and properly tagged, which indicated that the required regular reviews and repairs were being completed.

However, the fire sprinkler system found in Furnace Room 3 did not have any service tags. The latest report from Firewise Consulting dated May 5, 2017 also indicated that it appeared to have not been serviced. We recommend engaging a qualified professional (i.e. fire sprinkler system engineer or contractor) to review the existing fire sprinkler system and address any outstanding deficiencies for occupant safety.

The rest of the building does not have a fire sprinkler system. A major renovation may trigger a fire sprinkler system requirement. Comments on the likelihood of the CRVD requiring this upgrade is beyond the scope of this report.

3.6 INTERIOR SUMMARY

The interior of the building has a variety of floor coverings such as carpeting, ceramic tile and resilient flooring. Painted walls and ceilings were present throughout the building. Acoustic ceiling tiles were found in Classroom 6 and the gymnasium.

The interior finishes were generally in fair condition with the areas with higher traffic in worse condition than the areas with low traffic. It is our understanding that some of the areas received new finishes approximately 4 years ago. The carpet flooring and wall finishes are due for renewal in the next 5 to 7 years. Deteriorating ceiling finishes due to past water leaks in Staff Rm 5 and gymnasium should be repaired and replaced as soon as possible. A budget of $15,000 and $36,000 have been assigned to the gymnasium ceiling tile replacement and repainting of ceiling respectively.

Various interior swing doors reviewed were in fair condition. We recommend repainting the doors and frames as required.

3.7 SITE SUMMARY

Concrete and asphalt paving are provided at the perimeter of the building. The concrete and asphalt paving reviewed were generally in fair condition with cracks and heaving. Causes for cracks may include prolonged exposure to exterior weather conditions, settlement, and uplift due to tree roots. We recommend cracks and uneven surface be repaired as soon as possible to prevent a tripping hazard.

A wholesale replacement of the concrete pavement is expected in 2022 at a budget of $41,000.

Sanitary sewer waste from the building is directed to an onsite underground septic tank and distribution system. According to Bill Clearly, the septic system was pumped out in 2015 and minor repairs were completed to the connection to the building. There are no current reported issues. Given the age, we recommend that a study to confirm performance and remaining useful life be undertaken.

4.0 5-YEAR CAPITAL PLANNING

Major maintenance and renewal costs are those costs required when the components must be replaced, even if adequate regular on-going maintenance has been carried out. Renewal costs are not intended to provide "upgrades" to any building components unless the present requirements (codes or technology) dictate that an upgrade is necessary. Otherwise all estimates for renewals assumes replacing "like for like."

A 5-year capital plan consisting of keep up costs that are required to maintain the existing building running in the short term has been prepared. Refer to Appendix A for a detailed breakdown of the renewals cost by each component over the next 5 years. Some of the key major maintenance and asset renewal projects contemplated in the next 5 years are:

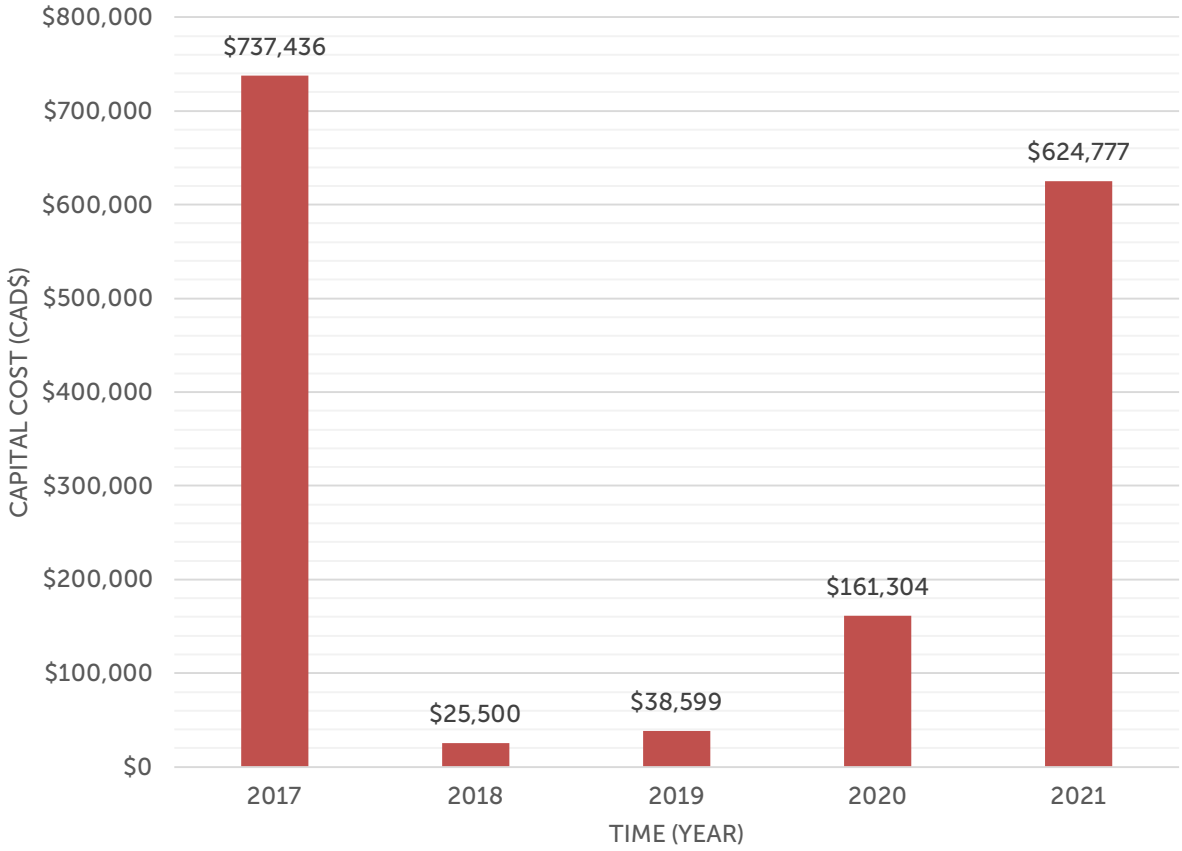
- Renewal of roofing systems
- Renewal of exterior wall claddings (approximately 25%)
- Renewal of exterior windows and doors (approximately 25%)
- Renewal of ceiling finishes
- Condition assessment of domestic water plumbing distribution system
- Condition assessment of sanitary drainage system
- Replacement of furnace
- Decommissioning and removal of furnaces
- Decommissioning and removal of oil storage tanks
- Renewal of ventilation system
- Condition assessment and maintenance of the furnace room sprinkler system
- Condition assessment of electrical equipment
- Renewal of electrical service and distribution system
- Renewal of exterior light fixtures
- Repair of asphalt paving
- Repair of concrete paving
- Condition assessment of septic system

Table 2 lists estimated annual capital expenditure anticipated in each year from 2017 to 2021.

Table 2. Five Year Capital Expenditure Summary

YEAR	ESTIMATED ANNUAL CAPITAL EXPENDITURE (Future $)
2017	$737,436
2018	$25,500
2019	$38,599
2020	$161,304
2021	$624,777
TOTAL	$1,587,615

Graph 1. Estimated 5-Year Capital Expenditures



The total amount of expected expenditures for the next 5-years in future dollars is approximately $1.7 million to achieve the major maintenance and renewals goals. The peak predicted renewal year in the 5-year plan is 2017 with $737,436 of forecasted expenditures.

The building components that are subject to major renewals in 2017 are roofing, soffit, gymnasium ceiling tiles, and gymnasium fan.

It should be noted that the forecasted renewal items in the above tactical plan might not occur in the particular listed fiscal year. The allocated timelines for the major maintenance and renewals are based on the expected service life of the asset and further study may be required to determine when the assets will require replacement.

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5.0 10-YEAR CAPITAL PLANNING

The recommended ten-year cost forecast involves renewals items that are due in the next 10 years. The total amount of expected expenditures for the next 10-years in future dollars is approximately $3 million to achieve the major maintenance and renewals goals. As is shown in the table and graph below, the peak predicted renewal year is 2022. The major renewals included in this year involve exterior wall cladding, windows, doors, interior finishes, plumbing fixtures, domestic water system, sanitary waste system, concrete pavement, concrete stairs and ramps, and septic system. The ten-year forecast should be considered a planning tool, as it is not as accurate as the previously discussed 5-Year Tactical Plan.

Table 3. Ten Year Capital Expenditure Summary

YEAR	ESTIMATED ANNUAL CAPITAL EXPENDITURE (Future $)
2017	$737,436
2018	$25,500
2019	$38,599
2020	$161,304
2021	$624,777
2022	$759,494
2023	$284,578
2024	$297,736
2025	$121,267
2026	$23,902
TOTAL	$3,074,593

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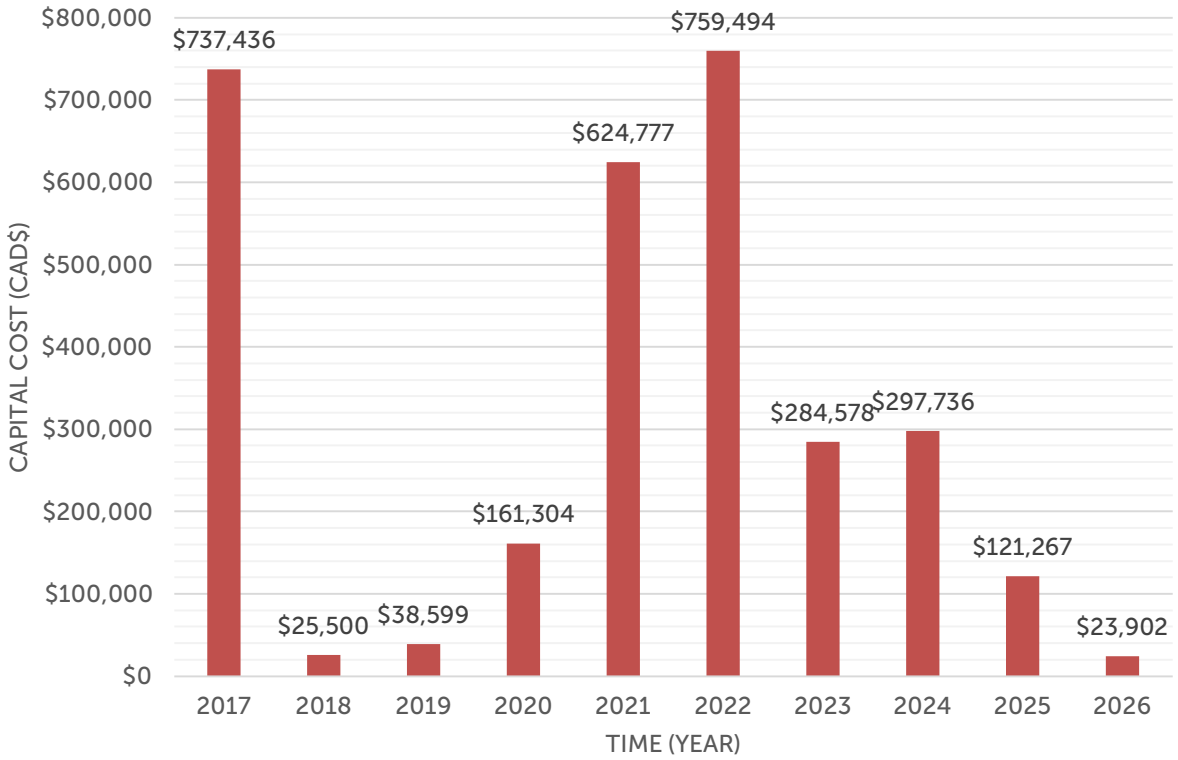
Graph 2. Estimated 10-Year Capital Expenditures



6.0 CLASS D COST ESTIMATE FOR DEMOLITION

For the demolition of the SSC, we estimate a budget of $300,000 to $350,000 would be required. This budget includes demolition and disposal of building structure, concrete foundation, roofing, various building equipment and services, and removal and disposal of all hazardous building materials. The accuracy range of a Class D cost estimate is ±50% as per Budget Guidelines for Consulting Engineering Services by Association of Professional Engineers and Geoscientists of BC (APEGBC).

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7.0 FINAL REMARKS

It should be noted that reviews that are described in this report were limited to the areas and assemblies that are specifically noted in the report. Except where specifically noted, no testing or dismantling of any assemblies was performed and reviews were made on a random basis with no attempt to review or inspect every element or portion of the buildings. Our comments are not a guarantee or warranty of any aspect of the condition of the buildings whatsoever.

This report was prepared by McCuaig & Associates Engineering Limited (MAE) for the account of CVRD. The material in it reflects MAE's best judgment in light of the information available to us at the time of preparation. MAE accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. The recommendations that are described in this report are not intended to replace detailed engineering specifications and therefore the recommendations contained this report should not be used as the basis of a contract to perform remedial work on the subject building.

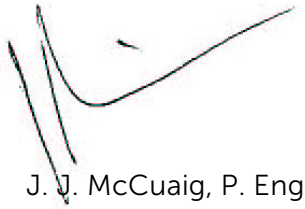
We would be pleased to meet with CVRD to review this report and answer questions that may exist. We trust this meets your requirements at this time, and should you have any questions or concerns, please contact our office.

McCUAIG & ASSOCIATES ENGINEERING LTD.

Prepared by:

Claire Ha, P. Eng.

Reviewed by:



J. J. McCuaig, P. Eng.

Ref. No. **20170401**-C-RPT-CRF-01-FNL

APPENDIX A

BUILDING ASSET INVENTORY & 10-YEAR CAPITAL PLANNING

Component Information							Estimates		Cost (Present $)		Asset Life Analysis					10-Year Capital Plan (Future $)										
UNIFORMAT	Category	Component	Comments	Recommendations	Condition (Grade)	Deficiency Type	Quantity	Unit	Unit Cost	Replacement Cost	Expected Service Life	Last Major Action Year	Chronological Age	Recommended Component Renewal Year	Recommended Action Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
A10	Foundation	Foundation with Crawlspace	Cast-in-place concrete foundation reviewed appeared to be in good condition without any reported issues. Replacement of this component is not anticipated.	Not applicable	5 - Excellent (A)	No Known / Reported Deficiency	18300	SF	$40	$732,000	100	1950	67	2050	2050	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
A10	Foundation	Crawlspace Dampproofing & Perimeter Drainage	We did not verify presence of dampproofing and perimeter drainage as it is a normally hidden component. The replacement cost of perimeter drainage and/or foundation damp proofing may range from $500 to $1,500 per linear foot which could be a significant cost. It has been our experience that some portion of this work may be necessary as early as 25 years but portions of this work may never be necessary. The existing pipes and damp proofing are underground and cannot be assessed visually as part of this report. Prior to replacement, we recommend a detailed review to determine the reasonable replacement cost and timeframe for this work.	Subject to the study, a provision for the replacement is included. Replace dampproofing and perimeter drainage system as required.	Not Applicable	Not Applicable	821	LF	$500	$410,500	40	1950	67	2021	2021	$0	$0	$0	$0	$444,338	$0	$0	$0	$0	$0	$444,338
A10	Foundation	Perimeter Drain & Dampproofing Assessment	We did not verify presence of dampproofing and perimeter drainage as it is a normally hidden component. The replacement cost of perimeter drainage and/or foundation damp proofing may range from $500 to $1,500 per linear foot which could be a significant cost. It has been our experience that some portion of this work may be necessary as early as 25 years but portions of this work may never be necessary. The existing pipes and damp proofing are underground and cannot be assessed visually as part of this report. Prior to replacement, we recommend a detailed review to determine the reasonable replacement cost and timeframe for this work.	Verify presence of dampproofing and perimeter drainage. Engage a qualified professional (e.g. building envelope engineer) to conduct a detailed condition assessment of these components if they are present.	Not Applicable	Not Applicable	1	Each	$10,000	$10,000	25	1950	67	2021	2017	$10,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$10,000
B10	Superstructure	Wood Framing, Exterior Walls	Superstructure assumed to be consisting of dimensional lumber, joists, studs and beams. Replacement of this component is not anticipated.	Not applicable	4 - Good (B)	No Known / Reported Deficiency	18300	SF	$40	$732,000	100	1950	67	2050	2050	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
B2010	Exterior Walls	Painted Wood Siding, Face Sealed	Painted vertical wood siding installed over building paper, wood substrate and wood framing found at north gymnasium wall and southeast corner of the building.	Replace wood siding along with associated flashing and sealants. Consideration should be given to replacement of the exterior wall assembly to a rainscreen assembly incorporating a drainage cavity. We have assumed the renewal would be carried out	3 - Fair (C)	Backlog Maintenance / Renewal	963	SF	$15	$14,445	25	1950	67	2021	2021	$0	$0	$0	$0	$3,909	$3,987	$4,067	$4,148	$0	$0	$16,111
B2010	Exterior Walls	Painted Wood Soffit with Vent Strip	Painted wood soffit over a wood framing substrate. Most soffits reviewed appeared to be in fair condition. The soffit below canopy on south side were in poor condition with microbial growth and stains. They were wet to touch and presence of moisture was found in the roof framing cavity.	Replace wood soffit and associated components in conjunction with roofing replacement.	1- Very Poor (F)	Backlog Maintenance / Renewal	1642	SF	$3	$4,105	30	1950	67	2017	2017	$4,105	$0	$0	$0	$0	$0	$0	$0	$0	$0	$4,105
B2010	Exterior Walls	Painted Stucco, Face Sealed	Acrylic coated stucco applied directly over building paper on exterior sheathing. The face-sealed exterior wall assembly generally was lacking flashing and sealants. Most exterior walls were protected under roof overhangs. Some deficiencies observed during the site visit included staining and cracks on wall surfaces, poor interface details and etc. When the existing wall assembly is renewed, a rainscreen assembly is required and unit costs reflect this upgrade.	Replace stucco cladding with a rainscreened assembly incoporating improved insulation, air barrier, drain cavity, flashing and sealants. Consideration should be given to replacement of vent hoods, light fixtures, exterior doors and windows, and other accessories that penetrated the cladding at the time of cladding replacement. We have assumed the renewal would be carried out over a 4-year period, approximately 25% annually.	2 - Poor (D)	Backlog Maintenance / Renewal	7722	SF	$55	$424,710	25	1950	67	2021	2021	$0	$0	$0	$0	$114,930	$117,229	$119,573	$121,965	$0	$0	$473,696
B2010	Exterior Walls	Painted Stucco, Face Sealed	Acrylic coated stucco applied directly over building paper on exterior sheathing. The face-sealed exterior wall assembly generally was lacking flashing and sealants. Most exterior walls were protected under roof overhangs. Some deficiencies observed during the site visit included staining and cracks on wall surfaces, poor interface details and etc. When the existing wall assembly is renewed, a rainscreen assembly is required and unit costs reflect this upgrade.	Clean exterior stucco surfaces to remove atmospheric dirt, vegetative growth and other stains. This work to include all building envelope components including windows, doors, and roofs. [Extent of work and frequency depends on environmental exposure conditions.]	2 - Poor (D)	Backlog Maintenance / Renewal	1	Allowance	$20,000	$20,000	2	1950	67	2021	2023	$0	$0	$0	$0	$0	$0	$0	$0	$0	$23,902	$23,902
B2010	Exterior Walls	Above Grade Foundation Wall, Coating	Exposed concrete foundation perimeter walls are coated. Deteriorating paint finishes, hairline cracks and stains were noted.	Re-coat the exterior concrete surfaces.	2 - Poor (D)	Backlog Maintenance / Renewal	880	SF	$5	$4,400	10	1950	67	2021	2021	$0	$0	$0	$0	$4,871	$0	$0	$0	$0	$0	$4,871
B2020	Exterior Windows	Wood Framed, Single Glazed Windows	Wood framed windows with single glazing units, and awning operators.	Replace wood framed windows and associated components. We have assumed the renewal would be carried out over a 4-year period, approximately 25% annually.	1- Very Poor (F)	Backlog Maintenance / Renewal	1125	SF	$75	$84,375	25	1950	67	2021	2021	$0	$0	$0	$0	$22,833	$23,289	$23,755	$24,230	$0	$0	$94,107
B2030	Exterior Doors	Metal Swing Doors in Wood Frame	Metal swing doors with glass inserts in painted wood frame at the main entrance.	Replace main entrance swing doors. We have assumed the renewal would be carried out over a 4-year period, approximately 25% annually.	3 - Fair (C)	Backlog Maintenance / Renewal	1	Each	$5,000	$5,000	40	1950	67	2021	2021	$0	$0	$0	$0	$5,412	$0	$0	$0	$0	$0	$5,412
B2030	Exterior Doors	Metal Swing Exit Doors	Painted metal swing doors with or without glass inserts at various exits.	Replace metal exit doors.	3 - Fair (C)	Backlog Maintenance / Renewal	8	Each	$2,000	$16,000	40	1950	67	2021	2021	$0	$0	$0	$0	$4,330	$4,416	$4,505	$4,595	$0	$0	$17,845
B30	Roofing	Flat Roof - SBS	Two plies of manufactured modified bituminous (styrene-butadiene-styrene aka SBS) membrane at low-sloped roofs. Some deficiencies such as blistering, alligatoring cracks in the membrane, loss of granules, moss growth, and collection of debris were observed. No reported active leak. We recommend conducting regular maintenance seasonally and a roof condition assessment prior to renewal to accurately estimate the remaining service life of the roof.	Replace SBS membrane roof assembly and associated component such as drains and flashing.	2 - Poor (D)	Backlog Maintenance / Renewal	5617	SF	$35	$196,597	25	1990	27	2017	2017	$196,597	$0	$0	$0	$0	$0	$0	$0	$0	$0	$196,597
B30	Roofing	Tar & Gravel Roofing	Multiple layers of built-up roofing (BUR), also known as tar and gravel roofs. The BUR systems generally are comprised of alternating layers of bitumen and reinforcing fabrics. The roofs appeared to have far exceeded their service life. Evidences of leaks were found in the roofing assemblies, ceiling and/or soffit finishes below.	Replace existing BUR with a new 2-ply SBS roof assembly.	1- Very Poor (F)	Backlog Maintenance / Renewal	13864	SF	$35	$485,234	25	1950	67	2017	2017	$485,234	$0	$0	$0	$0	$0	$0	$0	$0	$0	$485,234
C1030	Fittings	Washroom Partition	Privacy panels and miscellaneous hardware fittings such as pilaster, panel, door, anchors, hinges, latches and brackets.	Replace washroom partitions and associated hardware.	3 - Fair (C)	No Known / Reported Deficiency	7	Each	$1,500	$10,500	25	1950	67	2022	2022	$0	$0	$0	$0	$0	$11,593	$0	$0	$0	$0	$11,593
C1030	Fittings	Classroom Cabinets	Built in cabinets, shelving, and countertops with laminate facing.	Replace classroom cabinets, shelving and countertops.	3 - Fair (C)	Backlog Maintenance / Renewal	9	Per Room	$7,500	$67,500	20	1950	67	2023	2023	$0	$0	$0	$0	$0	$0	$76,016	$0	$0	$0	$76,016
C1040	Interior Doors	Painted Interior Swing Doors	Solid core wood swing doors with and without wired glazing. Last paint year is unknown. Swing doors appeared to be in fair condition.	Replace interior wood swing doors as required.	3 - Fair (C)	Backlog Maintenance / Renewal	35	Each	$600	$21,000	25	1950	67	2027	2027	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C1040	Interior Doors	Painted Interior Swing Doors	Solid core wood swing doors with and without wired glazing. Last paint year is unknown. Swing doors appeared to be in fair condition.	Repaint interior wood swing doors as required.	3 - Fair (C)	Backlog Maintenance / Renewal	467	SF	$3	$1,401	10	1950	67	2027	2020	$0	$0	$0	$1,592	$0	$0	$0	$0	$0	$0	$1,592

Component Information							Estimates		Cost (Present $)		Asset Life Analysis					10-Year Capital Plan (Future $)										
UNIFORMAT	Category	Component	Comments	Recommendations	Condition (Grade)	Deficiency Type	Quantity	Unit	Unit Cost	Replacement Cost	Expected Service Life	Last Major Action Year	Chronological Age	Recommended Component Renewal Year	Recommended Action Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
C1040	Interior Doors	Painted Metal Swing Doors with and without Wired Glazing	Painted metal swing doors in pressed steel or painted wood frames at hallways.	Replace interior metal swing doors as required.	3 - Fair (C)	Backlog Maintenance / Renewal	2	Each	$2,000	$4,000	30	1950	67	2027	2027	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C1040	Interior Doors	Painted Metal Swing Doors with and without Wired Glazing	Painted metal swing doors in pressed steel or painted wood frames at hallways and gymnasium.	Repaint interior metal swing doors as required.	3 - Fair (C)	Backlog Maintenance / Renewal	27	SF	$3	$80	10	1950	67	2020	2020	$0	$0	$0	$531	$0	$0	$0	$0	$0	$0	$531
C20	Stairs	Interrior Stairs	Internal stairs with resilient flooring, rubber nosing, and handrails.	The building is not fully accessible due to a lack of wheelchair lift at the stairs. In the event of a major renovation within the building, modifications may be required to meet the current requirements of the code.	4 - Good (B)	Grandfathered Code Issue	1	Each	$2,500	$2,500	100	1950	67	2050	2050	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C3010	Wall Finishes	Interior Windows	Glass set in finished wood frame as demising wall between interior spaces.	Replace interior glazing assembly.	4 - Good (B)	No Known / Reported Deficiency	6	each	$250	$1,500	20	2010	7	2030	2030	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C3010	Wall Finishes	Painted Drywall	Primers and multiple pigmented coating finishes applied to interior gypsum wallboard.	Repaint wall surface including preparation of substrate. Given the age of the building, a HAZMAT survey should be conducted prior to any interior renovation work.	3 - Fair (C)	No Known / Reported Deficiency	17000	SF	$2	$34,000	10	2013	4	2023	2023	$0	$0	$0	$0	$0	$0	$38,290	$0	$0	$0	$38,290
C3020	Floor Finishes	Resilient Flooring	Various types of sheet flooring appeared to have been installed at varying times. They generally appeared dated with evidences of past localized repairs.	Replace resilient flooring. Given the age of the building, a HAZMAT survey should be conducted prior to any interior renovation work.	3 - Fair (C)	No Known / Reported Deficiency	14000	SF	$10	$140,000	20	1950	67	2022	2022	$0	$0	$0	$0	$0	$154,571	$0	$0	$0	$0	$154,571
C3020	Floor Finishes	Ceramic Tiles	Ceramic tile on mortar bed and substrate with grout. Ceramic tile flooring appeared to have been installed at various years and it was generally dated.	Replace ceramic tile flooring as required.	2 - Poor (D)	Backlog Maintenance / Renewal	1000	SF	$10	$10,000	25	1950	67	2022	2022	$0	$0	$0	$0	$0	$11,041	$0	$0	$0	$0	$11,041
C3020	Floor Finishes	Laminate Wood Flooring	Laminate wood flooring over floor substrate. It was reported that the laminate flooring was installed approximately 4 years ago.	Replace laminate wood flooring.	5 - Excellent (A)	No Known / Reported Deficiency	1000	SF	$10	$10,000	15	2014	3	2029	2029	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C3020	Floor Finishes	Sports Flooring at Gymnasium	Sports flooring with game lines appeared to be in fair condition.	Replace gymnasium flooring and game lines.	3 - Fair (C)	No Known / Reported Deficiency	3000	SF	$16	$48,000	30	1950	67	2024	2024	$0	$0	$0	$0	$0	$0	$0	$55,137	$0	$0	$55,137
C3030	Ceiling Finishes	Acoustic Ceiling Tile at Classroom 6	Suspended grid of metal T channels with infill acoustic tiles that form a drop ceiling. Acoustic ceiling appeared to be in good condition.	Replace ceiling tiles as required.	5 - Excellent (A)	No Known / Reported Deficiency	915	SF	$5	$4,575	30	2014	3	2044	2044	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
C3030	Ceiling Finishes	Fibreboard Ceiling Tile at Gymnasium	Glued and stapled fabreboard ceiling tiles in gymnasium ceiling appeared to be in poor condition with staining, microbial growth, dampness, and peeling finishes. Ceiling tiles have been fallen off at a few areas.	Replace ceiling tiles in conjunction with BUR roofing replacement.	1- Very Poor (F)	Safety Risk	3000	SF	$5	$15,000	30	1950	67	2017	2017	$15,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$15,000
C3030	Ceiling Finishes	Painted Ceiling	Primer and multiple pigmented finish coat applied to interior gypsum wallboard. Painting ceiling appeared in fair condition with some staining and peeling paint at some locations from roof leaks above.	Repaint ceiling surfaces including preparation of substrate. Given the age of the building, a HAZMAT survey should be conducted prior to any interior renovation work.	3 - Fair (C)	Backlog Maintenance / Renewal	17385	SF	$2	$34,770	10	1950	67	2019	2019	$0	$0	$36,414	$0	$0	$0	$0	$0	$0	$0	$36,414
D2010	Plumbing Fixtures	Toilets & Urinals	Toilets and urinals in washrooms appeared to be in fair condition without any reported issues. Last replacement year is unknown.	Replace toilets and urinals as required. Replacement in conjunction with domestic water distribution system is recommended.	3 - Fair (C)	No Known / Reported Deficiency	15	Each	$1,000	$15,000	30	1950	67	2022	2022	$0	$0	$0	$0	$0	$16,561	$0	$0	$0	$0	$16,561
D2010	Plumbing Fixtures	Sinks and Lavatories	Sinks and lavatoris are provided at each classroom; staff room; and washrooms. They generally appeared to be in fair condition without any reported issues. Last replacement year is unknown.	Replace sinks and lavatories as required. Replacement in conjunction with domestic water distribution system is recommended.	3 - Fair (C)	No Known / Reported Deficiency	17	Each	$600	$10,200	25	1950	67	2022	2022	$0	$0	$0	$0	$0	$11,262	$0	$0	$0	$0	$11,262
D2020	Domestic Water Distribution	Copper Distribution Piping Throughout	Copper distribution piping throughout the building. It appeared to have been replaced on an as-needed basis and there is no record of last major replacement/repair. We recommend engaging a qualified professional (i.e. mechanical/plumbing engineer) to conduct a condition assessment to estimate remaining service life prior to renewal of this component.	Replace components of domestic plumbing distribution system, including domestic valves.	3 - Fair (C)	No Known / Reported Deficiency	1	Allowance	$50,000	$50,000	25	1950	67	2022	2022	$0	$0	$0	$0	$0	$55,204	$0	$0	$0	$0	$55,204
D2020	Domestic Water Distribution	Copper Distribution Piping Throughout	Copper distribution piping throughout the building. It appeared to have been replaced on an as-needed basis and there is no record of last major replacement/repair. We recommend engaging a qualified professional to conduct a condition assessment to estimate remaining service life prior to renewal of this component.	Engage a qualified professional (i.e. mechanical/plumbing engineer) to conduct a domestic water system condition assessment prior to re-pipe.	3 - Fair (C)	Backlog Maintenance / Renewal	1	Each	$10,000	$10,000	n/a	1950	67	2022	2018	$0	$10,200	$0	$0	$0	$0	$0	$0	$0	$0	$10,200
D2030	Sanitary Waste	Sanitary Waste System	Mixture of copper, ABS and cast iron piping with mechanical joints, p-traps, and fittings. Given the material and age we recommend conducting a condition assessment to accurately estimate the remaining service life.	Repair components of sanitary drainage distribution system, as required.	3 - Fair (C)	No Known / Reported Deficiency	1	Allowance	$50,000	$50,000	50	1950	67	2022	2022	$0	$0	$0	$0	$0	$55,204	$0	$0	$0	$0	$55,204
D2030	Sanitary Waste	Sanitary Waste System	Mixture of copper, ABS and cast iron piping with mechanical joints, p-traps, and fittings. Last flushing year is unknown. Given the material and age we recommend conducting a condition assessment to accurately estimate the remaining service life.	Engage a qualified professional (i.e. mechanical/plumbing engineer) to conduct a detailed condition assessment of the sanitary drainage system.	3 - Fair (C)	Backlog Maintenance / Renewal	1	Each	$10,000	$10,000	n/a	1950	67	2022	2018	$0	$10,200	$0	$0	$0	$0	$0	$0	$0	$0	$10,200
D2095	Domestic Water Heaters	DHW Storage & Heating	Electric water heater by John Wood (Model: JW50SDE30 Serial No.: U1310F703434 Capacity: 184 L) installed in 2013. No reported issues.	Replace domestic hot water heater every 10 years.	5 - Excellent (A)	No Known / Reported Deficiency	1	Each	$1,500	$1,500	10	2013	4	2023	2023	$0	$0	$0	$0	$0	$0	$1,689	$0	$0	$0	$1,689
D3012	Gas Supply System	Gas Distribution System	It is our understanding that the gas meter was installed by utility provider for future connection to gas fired appliances. No appliance is connected to the gas supply at the time of our site visit.	[PLACEHOLDER COMPONENT]	Not Applicable	Not Applicable	0	Each	$0	$0	50	N/A	N/A	N/A	N/A	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
D3023	Furnaces	Furnace 4	Oil burning furnace (100,000 BTU) by Kumfort Furnace Limited. The last maintenance was completed in Jan 2017 by Columbia Fuels. It is our understanding that the Saltair Community Society plans to replace this furnace with a gas-fired furnace in near future.	Replace furnace with an energy efficient furnace.	3 - Fair (C)	Backlog Maintenance / Renewal	1	Each	$7,000	$7,000	20	1950	67	2021	2021	$0	$0	$0	$0	$7,577	$0	$0	$0	$0	$0	$7,577
D3023	Furnaces	Furnace 1, 2 & 3	Three oil furnaces with chimney vents. It is our understanding that these furnaces have not been used for years. Due to limited access, MAE was not able to verify presence of Furnace 3.	Decomission and remove furnaces and related piping and accessories.	Not Applicable	Backlog Maintenance / Renewal	3	Each	$2,000	$6,000	20	1950	67	2017	2017	$6,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$6,000
D3041	Air Distribution Systems	Ductwork for heating and venting.	No reported issues. This is a normally hidden component and was not visually reviewed for this report. Full replacement of this component is not anticipated.	Replace ducting as required.	3 - Fair (C)	No Known / Reported Deficiency	1	Allowance	$15,000	$15,000	75	1950	67	2030	2030	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$^

Component Information							Estimates		Cost (Present $)		Asset Life Analysis					10-Year Capital Plan (Future $)										
UNIFORMAT	Category	Component	Comments	Recommendations	Condition (Grade)	Deficiency Type	Quantity	Unit	Unit Cost	Replacement Cost	Expected Service Life	Last Major Action Year	Chronological Age	Recommended Component Renewal Year	Recommended Action Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
D3045	Exhaust Ventilation Sytems	Washroom Exhaust Fans	Exhaust fans appeared to be dated. We did not test these fans.	Replace washroom exhaust fans with higher efficiency fans. Consideration should be given to installation of humidistats where applicable.	3 - Fair (C)	Backlog Maintenance / Renewal	3	Each	$700	$2,100	20	1950	67	2019	2019	$0	$0	$2,185	$0	$0	$0	$0	$0	$0	$0	$2,185
D3045	Exhaust Ventilation Sytems	Gymnasium Wall Mounted Fan, Humidstat and Air Intake Review	Wall mounted exhaust fan in gymnasium. It is our understanding that the gym has not been actively used and the fan has not been used for the past 3 years.	Review the adequacy of existing fan and fresh air intake. Upgrade the gymnasium exhaust fan with a higher efficiency fan along with a humidistat as required.	1- Very Poor (F)	Backlog Maintenance / Renewal	1	Allowance	$5,000	$5,000	20	1950	67	2017	2017	$5,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$5,000
D3045	Exhaust Ventilation Sytems	Chimneys	Chimney vents constructed with brick and mortar for furnaces. It is our understanding that Furnace 1, 2 and 3 are no longer being used. Depending on the CVRD's future plan for this facility, the chimney may be demolished or repointed.	Re-point brick and mortar of the chimney and replace related accessories.	2 - Poor (D)	Backlog Maintenance / Renewal	2	Alowance	$2,500	$5,000	40	1950	67	2018	2018	$0	$5,100	$0	$0	$0	$0	$0	$0	$0	$0	$5,100
D4010	Sprinklers	Sprinkler System in Furnace 4 Room	Exposed wet sprinklers, upright sprinkler heads, and steel piping. Latest inspection tags or report was not present for our review. We recommend the owners engage a qualified professional (i.e. fire sprinkler system engineer) to review this component in detail as soon as possible.	Engage a qualified professional (i.e. sprinkler system engineer) to review the existing sprinkler system and address any deficiencies as required to ensure the system is serviceable.	1- Very Poor (F)	Safety Risk	1	Allowance	$2,500	$2,500	50	1950	67	2017	2017	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,500
D5010	Electrical Service and Distribution	Electrical Service and Distribution	Electrical room equipment with main switch, breakers and wiring to several local sub-panels and mechanical loads. Given the age, we recommend conducting a detailed condition assessment including infrared scanning and cleaning of equipment.	Engage qualified professionals (i.e. electrical engineer and electrical contractor) to review the eixisting electrical distribution system. Conduct infrared scanning to verify that terminations are sound and operating temperatures of all conducting parts are within allowable limits. Correct any conditions contributing to overheating if it occurs. Clean and test main breakers and central distribution panel board.	3 - Fair (C)	Backlog Maintenance / Renewal	1	Allowance	$7,500	$7,500	40	1950	67	2020	2017	$7,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$7,500
D5010	Electrical Service and Distribution	Electrical Service and Distribution	Electrical room equipment with main switch, breakers and wiring to several local sub-panels and mechanical loads. Given the age, we recommend conducting a detailed condition assessment including infrared scanning and cleaning of equipment.	Replace components of the electrical distribution equipment, as required.	3 - Fair (C)	Backlog Maintenance / Renewal	1	Each	$150,000	$150,000	40	1950	67	2020	2020	$0	$0	$0	$159,181	$0	$0	$0	$0	$0	$0	$159,181
D5022	Lighting Equipment	Interior Light Fixtures	Ceiling mounted fluorescent lighting throughout for interior direct, indirect and accent lighting applications.	Replace interior light fixtures, as required, for aesthetic purposes, to match ballast replacement cycles, or technological obsolescence.	3 - Fair (C)	No Known / Reported Deficiency	150	Each	$250	$37,500	20	1950	67	2024	2024	$0	$0	$0	$0	$0	$0	$0	$43,076	$0	$0	$43,076
D5022	Lighting Equipment	Exterior Light Fixtures	Wall mounted and recessed soffit pot lighting controlled by timers for exterior direct, indirect and security applications. We recommend replacing the light fixtures in conjunction with exterior cladding replacement.	Replace exterior light fixtures, as required, for aesthetic purposes, to match ballast replacement cycles, or technological obsolescence.	2 - Poor (D)	Backlog Maintenance / Renewal	1	Allowance	$10,000	$10,000	20	1950	67	2021	2021	$0	$0	$0	$0	$10,824	$0	$0	$0	$0	$0	$10,824
D5037	Fire Alarm System	Annunciator Panel, Gongs, Pull Stations, Fire Extinguishers, Smoke and Heat Detectors	Microprocessor based fire alarm control panel by Mircom Series 4001 unit with DSC PowerSeries PC 4020 fire alarm monitoring system. Fire detection devices to detect fire and smoke conditions and initiate timely response. Fire alarm system is inspected annually and repaired/replaced as required. Last inspection was at May 17, 2016.	Replace fire alarm annunciator panels, control panel, and field devices, excluding field wiring	4 - Good (B)	No Known / Reported Deficiency	1	Each	$20,000	$20,000	20	1950	67	2024	2024	$0	$0	$0	$0	$0	$0	$0	$22,974	$0	$0	$22,974
D5091	Exit & Emergency Light Systems	Exit and Emergency Lights	Exit lights and emergency lighting equipment to facilitate evacuation from the interior of the building in the event of an emergency. Emergency lighting is tested annually and repairs made as required.	Cyclical replacement of emergency lighting and exit signs.	4 - Good (B)	No Known / Reported Deficiency	1	Allowance	$1,500	$1,500	15	1950	67	2024	2024	$0	$0	$0	$0	$0	$0	$0	$1,723	$0	$0	$1,723
D5090.05	Electric Heating	Electric Baseboard Heaters with Thermostats	Wall mounted, electric convector baseboard heaters with electrical fins for localized space heating and integral thermostat control. No reported issues.	Cyclical replacement of electric baseboard heaters, as required.	3 - Fair (C)	No Known / Reported Deficiency	5	Each	$500	$2,500	20	1950	67	2024	2024	$0	$0	$0	$0	$0	$0	$0	$2,872	$0	$0	$2,872
D5090.05	Electric Heating	Wall Mount Electric Heaters	Wall-mounted electric fan heaters with integral thermostat control for localized space heating. We did not test this equipment. No reported issues.	Cyclic replacement of wall mounted electric heaters, as required.	5 - Excellent (A)	No Known / Reported Deficiency	4	Each	$600	$2,400	20	2013	4	2033	2033	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
G2020	Parking Lots	Asphalt Paved Parking	Asphalt paving was in fair condition with cracks and heaving. Unenven paving should repaired to avoid a trip hazard and for the parking areas to remain serviceable.	Repair asphalt cracks and heaving.	3 - Fair (C)	Safety Risk	1	Allowance	$1,000	$1,000	25	1950	67	2025	2017	$1,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000
G2020	Parking Lots	Asphalt Paved Parking	Asphalt paving was in fair condition with cracks and heaving. Unenven paving should repaired to avoid a trip hazard and for the parking areas to remain serviceable.	Replace asphalt paved parking area.	3 - Fair (C)	Safety Risk	20700	SF	$5	$103,500	25	1950	67	2025	2025	$0	$0	$0	$0	$0	$0	$0	$0	$121,267	$0	$121,267
G2030	Pedestrian Paving	Concrete Paved Pedestrian Walkway	The concrete paving reviewed were generally in fair condition with cracks and heaving. Causes for cracks may include prolonged exposure to exterior weather conditions, settlement, and uplift due to tree roots. We recommend cracks and uneven surface be repaired as soon as possible to prevent a tripping hazard.	Repair concrete cracks and heaving.	3 - Fair (C)	Safety Risk	1	Allowance	$1,000	$1,000	40	1950	67	2022	2017	$1,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000
G2030	Pedestrian Paving	Concrete Paved Pedestrian Walkway	The concrete paving reviewed were generally in fair condition with cracks and heaving. Causes for cracks may include prolonged exposure to exterior weather conditions, settlement, and uplift due to tree roots. We recommend cracks and uneven surface be repaired as soon as possible to prevent a tripping hazard.	Replace concrete paved pedestrian walkways.	3 - Fair (C)	Safety Risk	2500	SF	$15	$37,500	40	1950	67	2022	2022	$0	$0	$0	$0	$0	$41,403	$0	$0	$0	$0	$41,403
G2030	Pedestrian Paving	Concrete Stairs & Ramps	Several exterior stairs and ramps are provided at entry/exit points of SCC. The stairs and ramps reviewed were generally in fair condition. The stairs and ramps probably met the requirements at the time of construction; however, they do not meet the current requirements of the accessibility. At the time of the renewal, modifications to the stairs, ramps, guardrails and handrails should be incorporated to meet the latest edition of British Columbia Building Code and Accessibility Handbook.	Replace exterior concrete stairs, ramps, guardrails and handrails.	3 - Fair (C)	Grandfathered Code Issue	4	Each	$45,000	$180,000	30	1950	67	2022	2022	$0	$0	$0	$0	$0	$198,735	$0	$0	$0	$0	$198,735
G3020	Sanitary Sewer	Septic Tanks	Sanitary sewer waste form the building is directed to an onsite underground septic tank and distribution system. According to the site contact, the septic system was pumped out in 2015 and minor repairs were completed to the connection to the building. There are no current reported issues. Given the age, we recommend that a study to confirm performance and remaining useful life be undertaken.	Engage qualified professionals (i.e. plumbing contractor and mechanical engineer) to conduct a detailed condition assessment of the existing septic system.	3 - Fair (C)	No Known / Reported Deficiency	1	Allowance	$ 2,500.00	$ 2,500.00	40	1950	67	2022	2017	$2,500	$0	$0	$0	$0	$0	$0	$0	$0	$0	$2,500

Component Information							Estimates		Cost (Present $)		Asset Life Analysis					10-Year Capital Plan (Future $)										
UNIFORMAT	Category	Component	Comments	Recommendations	Condition (Grade)	Deficiency Type	Quantity	Unit	Unit Cost	Replacement Cost	Expected Service Life	Last Major Action Year	Chronological Age	Recommended Component Renewal Year	Recommended Action Year	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	Total
G3020	Sanitary Sewer	Septic Tanks	Sanitary sewer waste form the building is directed to an onsite underground septic tank and distribution system. According to the site contact, the septic system was pumped out in 2015 and minor repairs were completed to the connection to the building. There are no current reported issues. Given the age, we recommend that a study to confirm performance and remaining useful life be undertaken.	Subject to the study, a provision for the replacement is included. Replace underground septic services, including all appurtenances.	3 - Fair (C)	No Known / Reported Deficiency	1	Allowance	##########	$ 35,000.00	40	1950	67	2022	2022	$0	$0	$0	$0	$0	$38,643	$0	$0	$0	$0	$38,643
G3060	Fuel Distribution	Fuel Oil Storage Tank Removal	3 Fuel oil storage tanks (1140 HDB bottom outlet, double bottom 12 Guage by Tidy Tanks Ltd.) were found outside the building. It is our understanding that the Saltair Community Society plans to replace the furnace with a gas-fired furnace in near future. As such these storage tanks will no longer be needed.	Decomission and remove two oil storage tanks that are no longer being used and related piping and accessories.	2 - Poor (D)	Backlog Maintenance / Renewal	2	Each	$ 500.00	$ 1,000.00	40	1950	67	2017	2017	$1,000	$0	$0	$0	$0	$0	$0	$0	$0	$0	$1,000
G3060	Fuel Distribution	Fuel Oil Storage Tank Removal	3 Fuel oil storage tanks (1140 HDB bottom outlet, double bottom 12 Guage by Tidy Tanks Ltd.) were found outside the building. It is our understanding that the Saltair Community Society plans to replace the furnace with a gas-fired furnace in near future. As such these storage tanks will no longer be needed.	Decomission and remove one oil storage tank and related piping and accessories in conjunctio with Furnace 4 renewal.	3 - Fair (C)	Backlog Maintenance / Renewal	1	Each	$ 500.00	$ 500.00	40	1950	67	2021	2021	$0	$0	$0	$0	$541	$0	$0	$0	$0	$0	$541
									Total Cost:	$4,326,891						$737,436	$25,500	$38,599	$161,304	$619,565	$754,178	$279,156	$292,206	$121,267	$23,902	$3,053,112

Approvals

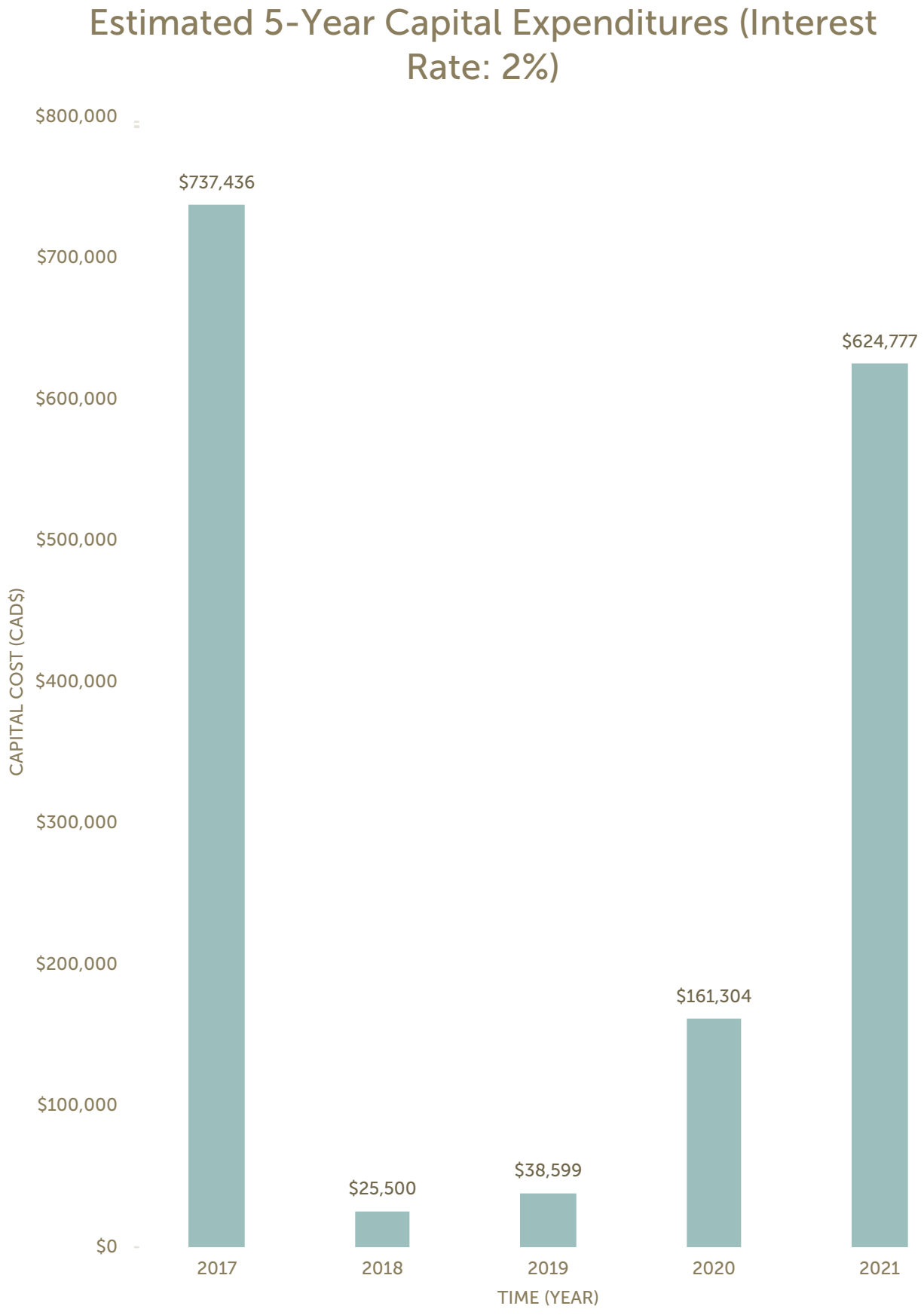
Employee: _____ Date Submitted: _____

Checked by: _____ Date Approved: _____

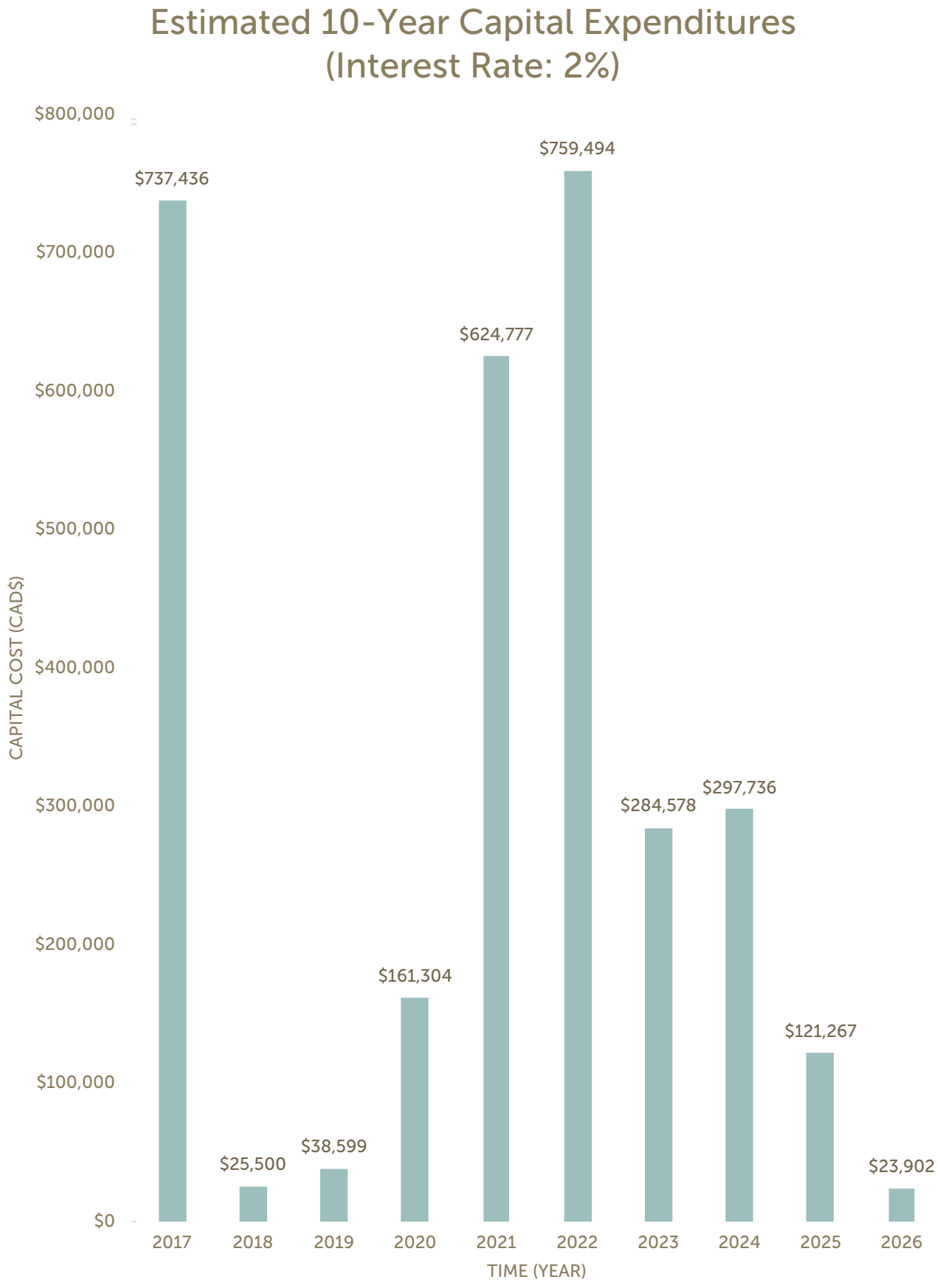
R1

APPENDIX B

ESTIMATED 5-YEAR CAPITAL EXPENDITURES


Estimated 5-Year Capital Expenditures (Interest Rate: 2%)
$800,000
$700,000
$600,000
$500,000
$400,000
$300,000
$200,000
$100,000
$0
CAPITAL COST (CAD$)
$737,436
$25,500
$38,599
$161,304
$624,777
2017
2018
2019
2020
2021
TIME (YEAR)

APPENDIX C
ESTIMATED 10-YEAR CAPITAL EXPENDITURES


Estimated 10-Year Capital Expenditures
(Interest Rate: 2%)
$800,000
$700,000
$600,000
$500,000
$400,000
$300,000
$200,000
$100,000
$0
CAPITAL COST (CAD$)
$737,436
$25,500
$38,599
$161,304
$624,777
$759,494
$284,578
$297,736
$121,267
$23,902
2017
2018
2019
2020
2021
2022
2023
2024
2025
2026
TIME (YEAR)

APPENDIX D
BUILDING DEFICIENCY PHOTOS

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
A10 – Foundation	Foundation with Crawl Space			
		Photo 1 – General view of foundation crawlspace	**Photo 2** – A crack in foundation wall	
B10 – Superstructure	Wood Framing			
		Photo 3 – View of an attic space	**Photo 4** – View of a crawlspace	

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2010 – Exterior Walls	Painted Wood Siding, Face Sealed			
		Photo 5 – Painted wood siding on north elevation	**Photo 6** – Painted wood siding on southwest elevation	Photo 7 – Poor painted wood siding wall-to-brick chimney interface detail
B2010 – Exterior Walls	Painted Wood Soffit with Vent Strip			
		Photo 8 – Typical painted wood soffit with perimeter vent strips	Photo 9– Painted wood soffit with blistering and microbial growth	**Photo 10** – Moisture and microbial growth on painted wood soffit

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2010 – Exterior Walls	Painted Stucco, Face Sealed			
		Photo 11 – Typical stucco exterior wall	Photo 12 – Graffitti on stucco wall	Photo 13 – Stains on stuccon wall
				
		Photo 14 – Base of wall at northwest corner of the gymnasium	Photo 15 – Typical flasshing and sealant detail at roof-to-wall interface	Photo 16 – Opening in stucco and sealant at a roof-to-wall interface

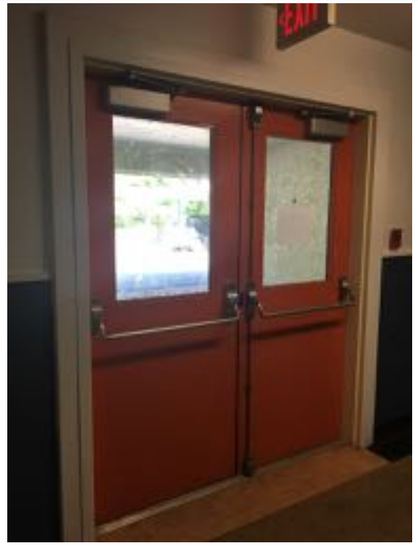
UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2010 – Exterior Walls	Painted Stucco, Face Sealed (continued)			
		Photo 17 – Delaminating stucco cladding at a corner	Photo 18 – Poor stucco wall-to-brick chimney interface detail	Photo 19 – Hairline crack, stains, and deteriorating stucco coating
B2010 –Exterior Walls	Above Grade Foundation Wall, Coating			
		Photo 20 – Typical painted above-grade foundation wall	Photo 21 – Deteriorating coating at base of wall	Photo 22 – Hairline cracks in foundation wall and coating

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2010 –Exterior Walls	Above Grade Foundation Wall, Coating (continued)			
		Photo 23 – Cracks in concrete wall and deteriorating coating		
B2020 – Exterior Windows	Wood Framed, Single Glazed Windows			
		Photo 24 – Typical window	Photo 25 – Condensation on window panes inside gymnasium	Photo 26 – Condensation on window panes inside gymnasium

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2020 – Exterior Windows	Wood Framed, Single Glazed Windows (continued)			
		Photo 27 – Close up of condensation on a window pane	Photo 28 – Microbial growth at window perimeter	Photo 29 – Metal frame window replacements found at a few locations
				
		Photo 30 – Deteriorating window sill	Photo 31 – Microbial growth on window coverings at gymnasium storage room	Photo 32 – Close up of microbial growth on window coverings

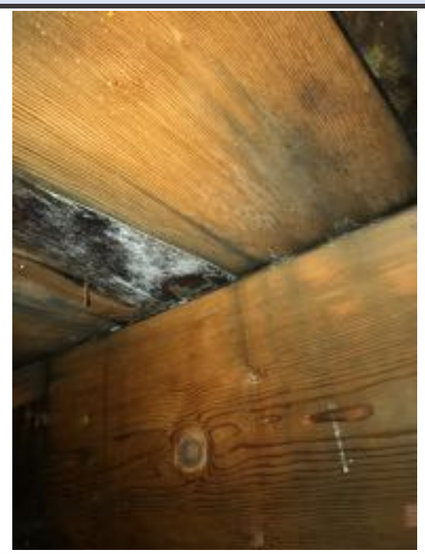
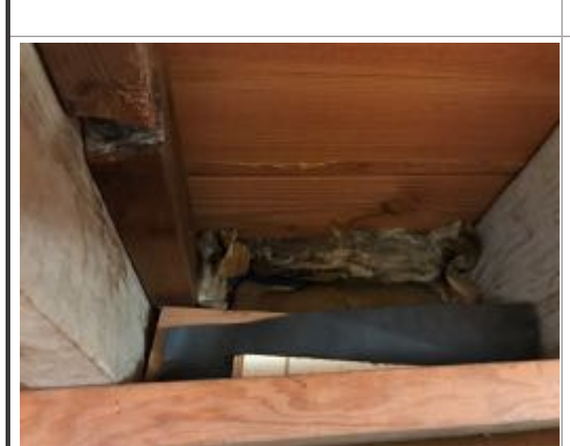
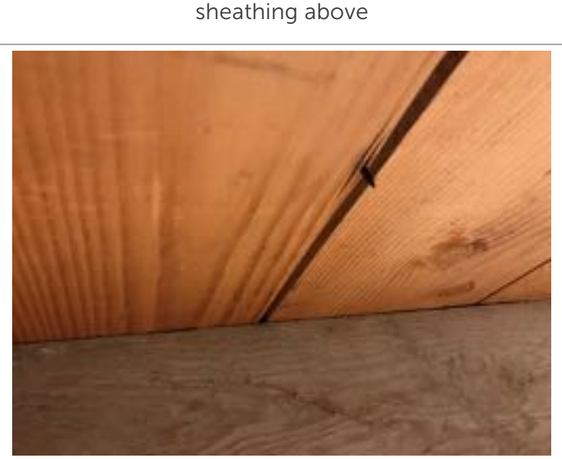
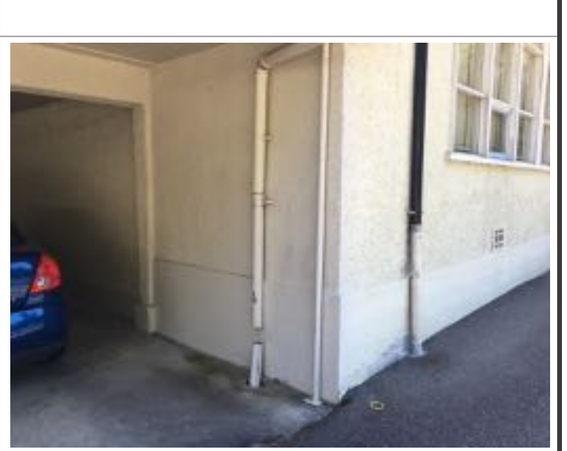
UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2020 – Exterior Windows	Wood Framed, Single Glazed Windows (continued)			
		Photo 33 – Typical awning window	Photo 34 – Deteriorating wood frames and paint finishes	Photo 35 – Boarded up window
				
		Photo 36 – Broken glazing in Storage Room 20	Photo 37 – Nails in window frame	Photo 38 – Staining and microbial growth on window frames

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2020 – Exterior Windows	Wood Framed, Single Glazed Windows (continued)			
		Photo 39 – Deteriorating window frame and paint finishes & deteriorating sealant around glazing perimeter		
B2030 – Exterior Doors	Metal Swing Exit Doors in Wood Frame			
		Photo 40 – Double swing entrance door assembly		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B2030 – Exterior Doors	Metal Swing Exit Doors			
		Photo 41 – Double swing gymnasium exit doors	Photo 42 – Double swing exit doors with wired glazing	
B30 – Roofing	Flat Roof - SBS			
		Photo 43 – General view of SBS roofing	Photo 44 – Typical drain	Photo 45 – Staining and collection of debris on roof surface

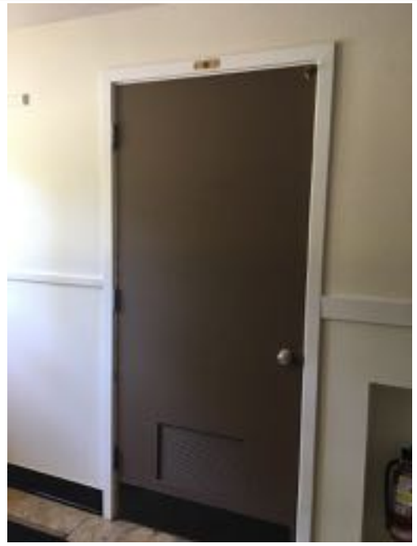
UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B30 – Roofing	Flat Roof – SBS (continued)			
		Photo 46 – Alligator cracks and bubbling in SBS cap sheet	Photo 47 – Damaged and corroded mechanical vent	
B30 – Roofing	Tar & Gravel Roofing			
		Photo 48 – An overview of tar & gravel roofing	Photo 49 – Extensive moss growth on sloped roofs	Photo 50 – Moss growth on flat roofs

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B30 – Roofing	Tar & Gravel Roofing (continued)			
		Photo 51 – Peeling pain in fascia boards; staining on perimeter flashing	Photo 52 – Evidence of past repair	Photo 53 – Multiple past repair areas
				
		Photo 54 – Typical drain without drain cover	Photo 55 – A mechanical penetration in roof assembly with a plastic seal	Photo 56 – Collection of moisture inside roofing assembly at gymnasium canopy

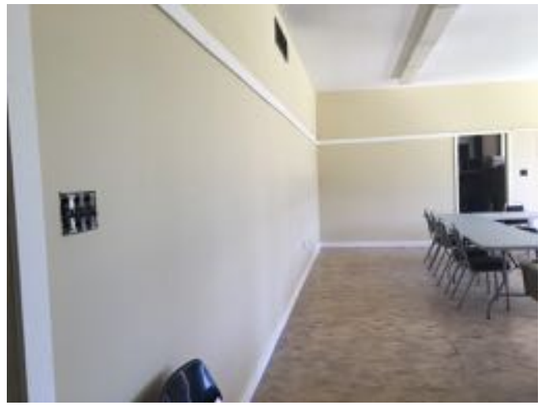
UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B30 – Roofing	Tar & Gravel Roofing (continued)			
		Photo 57 – Pooling water sitting on soffit	Photo 58 – Stains and microbial growth on framing members; rusted nail penetrating through sheathing above	Photo 59 – Damaged perimeter flashing
				
		Photo 60 – Water stains and microbial growth on wood members within gymnasium roofing assembly	Photo 61 – A nail penetrating through the wood decking at gymnasium roofing assembly	Photo 62 – A disconnected rainwater leader; different rainwater leader materials

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
B30 – Roofing	Tar & Gravel Roofing (continued)			
		Photo 63 – Rusted base of column under gymnasium canopy	Photo 64 – Rusted base of column and damaged concrete column base under gymnasium canopy	Photo 65 – Damaged concrete column base under gymnasium canopy
C1030 – Fittings	Washroom Partitions			
		Photo 66 – Typical washroom partition		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C1030 – Fittings	Classroom Cabinets			
		Photo 67 – Cabinets and countertops at gymnasium kitchen	Photo 68 – Painted wood shelving found at each classroom	Photo 69 – Painted wood shelving along windows in each classroom
				
		Photo 70 – Typical cabinets and countertops found in each classroom		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C1040 – Interior Doors	Painted Interior Swing Doors			
		Photo 71 – Typical classroom door with a glazing insert	Photo 72 – Typical painted wood swing door	Photo 73 – Metal swing doors with glazing inserts near main entrance
				
		Photo 74 – Doors to gymnaisum sealed and blocked to limit access		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C1040 – Interior Doors	Painted Metal Swing Doors with and without Wired Glazing			
		Photo 75 – Metal door to the electrical/mechanical service room	Photo 76 – Unfinished finishes around hallway swing doors	Photo 77 – Hallway double swing doors with glazing inserts
C20 – Stairs	Interior Stairs			
		Photo 78 – View of interior stairs		

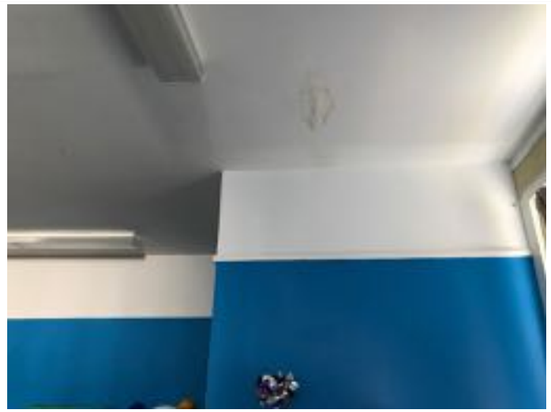
UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C3010 – Wall Finishes	Interior Windows			
		Photo 79 – Interior windows between Classroom 6 & 7	Photo 80 – Interior windows at Office 4	
C3010 – Wall Finishes	Painted Drywall			
		Photo 81 – Typical painted wall	Photo 82 – Painted hallway wall	Photo 83 – Gymnasium wall with ghosting of studs

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C3020 – Floor Finishes	Resilient Flooring			
		Photo 84 – Resilient flooring type 1	Photo 85 – Resilient flooring type 2	Photo 86 – Resilient flooring type 3
				
		Photo 87 – Resilient flooring type 4		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C3020 – Floor Finishes	Ceramic Tiles			
		Photo 88 – Tiled flooring in Boys Lav 13 & Girls Lav 15	Photo 89 – Tiled flooring in Lav 10	
C3020 – Floor Finishes	Laminate Wood Flooring			
		Photo 90 – Laminate wood flooring in Classroom 18		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C3020 – Floor Finishes	Carpet Flooring			
		Photo 91 – Carpet flooring throughout daycare areas		
C3020 – Floor Finishes	Sports Flooring at Gymnasium			
		Photo 92 – Gymnasium flooring with game lines		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C3030 – Ceiling Finishes	Acoustic Ceiling Tile at Library 6			
		Photo 93 – Acoustic ceiling tiles at Library 6		
C3030 – Ceiling Finishes	Fibreboard Ceiling Tile at Gymnasium			
		Photo 94 – Bulging and sagging tiles throughout gymnasium	Photo 95 – West gymnasium ceiling where multiple ceiling tiles have fallen off	Photo 96 – Microbial growth on the backside of ceiling tile

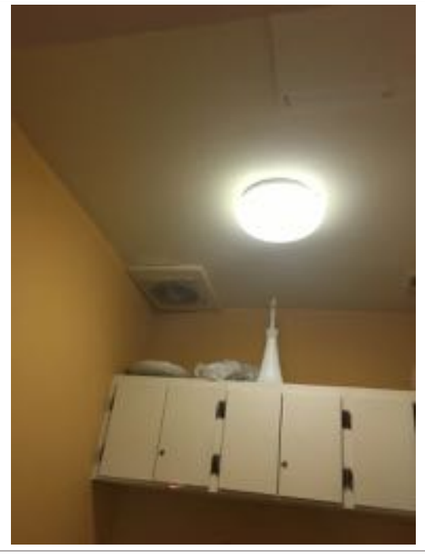
UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
C3030 – Ceiling Finishes	Painted Ceiling			
		Photo 97 – Typical ceiling view	Photo 98 – Stain found in hallway ceiling	Photo 99 – Stains found in hallway ceiling reported to be from a roof leak
				
		Photo 100 – Peeling paint finishes in Staff Rm 5		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D2010 – Plumbing Fixtures	Toilets & Urinals			
		Photo 101 – Typical toilet and lavatory	Photo 102 – Typical toilet in Boys and Girls Lav	Photo 103 – Typical urinals in Boys Lav
D2010 – Plumbing Fixtures	Sinks & Lavatories			
		Photo 104 – Typical sink	Photo 105 – Lavatories in Boys and Girls Lav	

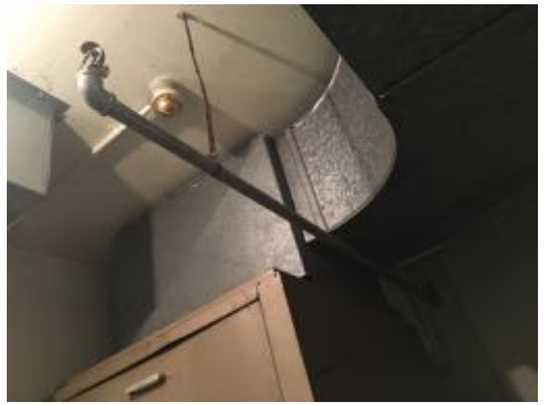
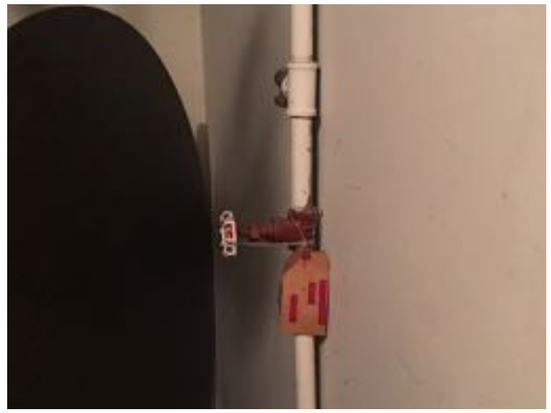
UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D2020 – Domestic Water Distribution	Copper Distribution Piping Throughout			
		Photo 106 – Copper pipes from hot water tank		
D2030 – Sanitary Waste	Sanitary Waste System			
		Photo 107 – Typical under sink pipes	Photo 108 – Copper pipes found under a sink	

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D2095 – Domestic Water Heaters	DHW Storage & Heating			
		Photo 109 – Hot water storage and heating tank		
D3012 – Gas Supply System	Gas Distribution System			
		Photo 110 – Gas meter found at northeast corner of the building		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D3023 - Furnaces	Furnace 4			
		Photo 111 – Furnace 4 in Furnace Rm 9		
D3023 - Furnaces	Furnaces 1, 2 & 3			
		Photo 112 – Furnace 1 in Furnace Room 3	Photo 113 – View of ducting and Furnace 2	Photo 114 – View of Furnace 1 and 2

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D3041 – Air Distribution System	Ductwork for Heating and Ventilation			
		Photo 115 – Ducting inside Furnace Room 3		
D3045 – Exhaust Ventilation Systems	Washroom Exhaust Fans			
		Photo 116 – Exhaust fan in Lav 10	Photo 117 – Exhaust fan in Boys Lav 13	

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D3045 – Exhaust Ventilation Systems	Gymnasium Wall Mounted Fan			
		Photo 118 – Wall mounted gymnasium fan		
D3045 – Exhaust Ventilation Systems	Chimneys			
		Photo 119 – Chimney found in the middle of the roofs	Photo 120 – Chimney found at the southeast corner of the building	Photo 121 – Moss growth, deteriorating brick and mortar, and efflorescence found on chimney

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D4010 – Sprinklers	Sprinkler System in Furnace 4 Room			
		Photo 122 – View of sprinkler pipe and head	Photo 123 – Sprinkler valve found in Furn 9	
D5010 – Electrical Service and Distribution	Electrical Service and Distribution			
		Photo 124 – Main incoming power	Photo 125 – Electrical service found in Furnace Room 3	

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D5022 – Lighting Equipment	Interior Light Fixtures			
		Photo 126 – Typical fluorescent lights	Photo 127 – View of T-8 fluorescent tubes	Photo 128 – A stain inside light fixture
D5022 – Lighting Equipment	Exterior Light Fixtures			
		Photo 129 – Typical exterior wall mounted light	Photo 130 – A broken exterior light overlooking fenced play area	

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D5037 – Fire Alarm System	Annunciator Panel, Gongs, Pull Stations, Fire Extinguishers, Smoke and Heat Detectors			
		Photo 131 – Typical pull station	Photo 132 – Typical fire extinguisher	Photo 133 – Fire alarm panel found at the main entrance
				
		Photo 134 – Typical heat detector		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D5091 – Exit & Emergency Light Systems	Exit and Emergency Lights			
		Photo 135 – Typical exit light		
D5090.05 – Electric Heating	Electric Baseboard Heaters with Thermostats			
		Photo 136 – Typical electric baseboard heater		

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
D5090.05 – Electric Heating	Electric Cadet Heaters			
		Photo 137 – Typical wall mounted electric cadet heater		
G2020 – Parking Lots	Asphalt Paved Parking			
		Photo 138 – View of asphalt paved fenced play area	Photo 139 – A potential trip hazard near fenced play area	Photo 140 – Close up of the trip hazard

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
				
		Photo 141 - A potential trip hazard near basketball court		
G2030 – Pedestrian Paving	Concrete Paved Pedestrian Walkway			
		Photo 142 – Typical concrete paved walkway	Photo 143 – Crack in concrete paved walkway	Photo 144 – Uneven walking surface near covered parking area

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
				
		Photo 145 – A sizeable crack at walkway and exterior stairs transition at east elevation		
G2030 – Pedestrian Paving	Concrete Stairs & Ramps			
		Photo 146 – Stairs and ramp at south exit	Photo 147 – Stairs at east exit	Photo 148 – Stairs from street on north elevation

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
G2030 – Pedestrian Paving	Concrete Stairs & Ramps (continued)			
		Photo 149 – A temporary ramp found on southeast corner of the building		
G3020 – Sanitary Sewer	Septic Tanks			
		Photo 150 – View of septic system	Photo 151 – Septic system access point	

UNIFORMAT	COMPONENT	COMPONENT PHOTOS & DEFICIENCIES		
G3060 – Fuel Distribution	Fuel oil storage tanks			
		Photo 152 – Corroded fuel tank found on southeast elevation	Photo 153 – A fuel tank found on northeast elevation	

McCUAIG & ASSOCIATES
ENGINEERING LTD.

BUILDING ENVELOPE CONDITION ASSESSMENT FOR GYMNASIUM

SALTAIR COMMUNITY CENTRE

3850 South Oyster Road, Ladysmith, British Columbia

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Date: July 21, 2017

McCuaig Ref.: 20170401-C-RPT-BEC-01-FNL

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EXECUTIVE SUMMARY

McCuaig & Associates Engineering Ltd. was retained by the Cowichan Valley Regional District (CVRD) to complete a Building Envelope Condition Assessment (BECA) for the gymnsasium at Saltair Community Centre, located at 3850 South Oyster Road in Ladysmith, BC.

This report describes our reviews and observations of the roof areas, exterior wall assemblies, and windows of the gymnasium; provides recommendations to rectify observed building envelope deficiencies; and provides an estimate for order of magnitude costs to implement our recommendations.

Saltair Community Centre was constructed in 1950 in the residential of Township of Ladysmith. The gymnasium is located at the northeast side of the Saltair Community Centre. It is our understanding that they gymnasium has been closed off to the public due to ceiling tiles that are at risk of falling and high spore concentration for Basidiospores as per the Indoor Air Quality Assessment completed on July 8, 2016 by North West Environmental Group Ltd.

This investigation consisted of:

- Visual review of various building envelope components, both exposed and normally hidden; and
- Obtaining and analyzing 39 moisture content readings from the walls and roofs.

SUMMARY OF OBSERVATIONS

Roof Assemblies

The roofs at the gymnasium of Saltair Community Centre are generally in poor condition with a BUR system that has far exceeded its reliable service life, evidences of leaks and microbial growth on soffit and ceiling tile materials. The roofs should be replaced as soon as possible with a more robust roofing assembly system that resists condensation within the assembly.

Interior Conditions

Evidences of condensation observed inside the gymnasium indicate that interior moisture is not being adequalty managed. Exterior roofs, walls, windows and doors are no longer thermally efficient and do not meet today's expected standard.

An upgrade in ventilation system in combination with improvements to the building envelope assemblies is recommended.

Exterior Walls

Exterior walls appear to have provided adequate performance to date. MAE did not observe any leaks into interior spaces we reviewed; however, the future performance of the walls is questionable as face sealed systems have poor performance history in the costal climate of British Columbia.

Windows and Doors

The windows and doors at the gymnasium have exceeded their expected service life. Most windows displayed moderate condensation. We recommend upgrading the aluminum windows and doors with new energy efficient windows and doors to meet the current building code requirements and to improve performance.

SUMMARY OF RECOMMENDATIONS

Our recommendations, along with order of magnitude budgets to implement our recommendations, are summarized in Table 1. Costs include allowances for taxes, consulting fees, and contingency cost to repair hidden damage.

Construction costs are influenced by several variables, not all of which are readily predictable. As such, it is important to note that actual costs cannot be known until designs have been developed and work has been completed.

Table 1 – Summary of Recommendations, Budgets and Time Frames

Reference	Recommendation	Time Frame	Order of Magnitude Costs (Consulting fees & GST not included)
Option 1 – Targeted Repair			
5.1.1	Replace both Roof Type I and Type II.	As soon as possible	$250,000
5.1.2	Implement regular reviews of the sloped roof as a part of the building maintenance program and monitor the roof on an on-going basis for any leaks. Maintenance usually includes clearing drains and rainwater leaders and reviewing for damaged roofing.	Annually	$2,000
5.2.1	Ventilation system upgrades should include the following components: ▪ Upgrade gymnasium fan to more powerful models; ▪ Install a new humidistat which would automatically turn the fans on when the relative humidity reaches a preset level; ▪ Review of the fresh air intakes as required to ensure that adequate air exchange is occurring.	As soon as feasible	$5,000
5.2.1	The Owner should engage the services of a qualified indoor air quality consultant to review and evaluate the mould and fungus colonies and advise on a course of action. This recommendation should be implemented as soon as possible.	As soon as feasible	$5,000

Reference	Recommendation	Time Frame	Order of Magnitude Costs (Consulting fees & GST not included)
5.3	Replace exterior wall assembly in medium term to bring up the exterior wall to meet the current standards with proper details. This may involve: ▪ Removal of existing cladding, sheathing membrane, sheathing and insulation; ▪ Review of structural members and replacement of damaged members as required; and ▪ Installation of new insulation, sheathing, sheathing membrane, rainscreen cladding system, sealants, flashing and other related accessories.	Within next 5 to 10 years	Budget $250,000 to $300,000
5.4.1	Replace existing wood-framed single-glazed windows and doors with new and more energy efficient window systems to meet current code requirements. Conduct this work in conjunction with Recommendation 5.3.	As soon as feasible	$15,000

1.0 INTRODUCTION

McCuaig & Associates Engineering Limited (MAE) was retained by the Cowichan Valley Regional District (CVRD) to conduct a Building Envelope Condition Assessment (BECA) for Gymnasium at Saltair Community Centre located at 3850 South Oyster Road in Ladysmith, B.C.

This report has been organized into a number of sections and appendices. A description of the subject matter of each section and appendix is presented below. Section titles are indicated in bold uppercase font.

The **INTRODUCTION** provides an overview of the assessment including terms of reference and a description of the building.

The **DOCUMENTS REVIEWED** section describes the documents that were made available to MAE for the investigations on site. The relevant information that was obtained from the drawings is also described.

The methods and tools that were used to conduct this assessment are described in the **METHODOLOGY** Section of the report.

The section entitled **DESCRIPTION OF BUILDING ENVELOPE ASSEMBLIES** describes the relevant building envelope assemblies that enclose the building.

In the **OBSERVATIONS, DISCUSSIONS AND RECOMMENDATIONS** Section, our field observations are described and their relevance to the performance of the building envelope is discussed. Photos that illustrate many of our observations are also contained in this Section. Where applicable, recommendations to correct observed deficiencies are also included in the Section.

In the **CONCLUSION** section, our recommendations is presented in tabular form. The table that is presented in this Section provides order of magnitude estimates of the costs associated with each recommendations (where applicable) and a time frame to implement each recommendation (where applicable).

Our concluding remarks, including the limitations of this investigation, are contained in the section entitled **FINAL REMARKS.**

APPENDIX A contains a Glossary of Terms referred to throughout this report.

The locations where moisture probe readings and exploratory openings were taken are presented in **APPENDIX B** with relevant comments..

APPENDIX C contains a list of all moisture probe results that were obtained including applicable comments.

1.1 TERMS OF REFERENCE

This investigation is to review the building enclosure for concerns of potential moisture ingress in accordance with the following scope of work:

1. Review of assessment reports prepared by other consultants (if available).

2. Review of relevant drawings for typical details pertaining to the building envelope (if available).

3. Review of known problem areas, which may pertain to the existing conditions as revealed to the Consultant by the Owner.

4. Following the findings of the Hazardous Materials Survey, conduct exploratory openings to review the condition of exterior walls and roofs and provide recommendations (include repairs for exploratory openings).

5. Review of historical data related to leaks or other damage that the Owner may have on file. This may include discussions with the current building tenants.

6. Visual review of interior wall and ceiling surfaces.

7. Provide a written report including description of existing system, observations, conclusions, broad-scope recommendations including budget pricing and/or cost estimates; itemized with a component breakdown and prioritization of repairs.

The detailed terms of reference are described in MAE's written proposal entitled: 'Request for Proposal No. ES-017-17 Facility Condition Assessment for Saltair Community Centre.

1.2 BUILDING DESCRIPTION & HISTORY

Saltair Community Centre was constructed in 1950 in the residential of Township of Ladysmith. The building is predominantly surrounded by single family homes to the west, east and north and park to the south.

Table 2 – General Information of Saltair Community Centre

Address:	3850 South Oyster Road, Ladysmith, BC
Zoning District:	P-2 Institutional 1 Zone
Construction Year:	1950
Gross Floor Area:	18,300 sq. ft.

The building consists of 1-storey wood-frame structure on top of a concrete foundation. The exterior of the building is clad with face sealed stucco and wood siding. The windows and sliding doors are wood-framed with single-glazing. The sloped and low-sloped roofs, commonly referred to as a "flat roof", are covered with built-up roofing and 2-ply modified bituminous sheet membrane with internal drains.

From 1950 to 2014, the building was used as an elementary school (Mt. Brenton Elementary School). It is our understanding that the original building was expanded by 3 additions at separate times, however, the time of each expansion is unknown. In 2014, the CVRD purchased the property and the building has been leased to a licensed daycare and Saltair Community Society.

The Saltair Community Centre contains nine classrooms, a gymnasium, three mechanical rooms, five washrooms, and various other work/storage spaces. The gymnasium is currently closed and sealed due to potential water damage and falling ceiling tiles.

The CMHC Best Practice Guide for Wood Frame Envelopes in The Coastal Climate of British Columbia (Best Practice Guide) defines four exposure categories to assist in the evaluation of general performance expectations of building envelope systems. The four exposure categories are: no risk, low risk, medium risk, and high risk. The categories have been defined based on combinations of roof overhang, wall height, and surrounding terrain. Based on the criteria that have been defined in the Best Practice Guide, the walls assessed that enclose Saltair Community Centre are in the exposure classification of **medium risk.**

2.0 DOCUMENTS REVIEWED

The following documents were provided to MAE for our review and reference:

- Copies of architectural drawings dated April 21, 1950 by Thomas B. McArravy Architect
- Asbestos Air Sampling and Condition Assessment Report dated July 7, 2016 by North West Environmental Group Ltd.
- Air Quality Review dated July 7, 2016 by North West Environmental Group Ltd.
- Hazardous Materials Survey by Hazpro Environmental Ltd.
- Custom Valuation and Loss Control dated December 11, 2015 by SCM Risk Management Services
- Roof Condition Survey and Report dated July 20, 2014 by Westcoast Roof Inspection Services Ltd.

3.0 METHODOLOGY

This Section describes how our investigations conducted.

- Prior or our site work, available drawings, maintenance documents, and relevant previous assessment reports were reviewed in order to become familiar with the project.

- An interview with Bill Clearly, former Mt. Brenton Elementary School principal and current president of Saltair Community Society was conducted to review recent repair history.

- Visual reviews of randomly selected building envelope components that are normally exposed to view were conducted. This included reviews of roofs, exterior face of walls, and window assemblies.

- Selected building envelope components that are normally hidden were visually reviewed. "Exploratory openings" were cut into the exterior walls, interior walls, roofs, and soffits so that underlying components that are normally hidden were visually reviewed. Moisture probe readings were obtained using a Delmhorst BD2100 moisture meter. A total of 39 readings were obtained and their locations are indicated on Drawings B2 to B5 in Appendix B.

Our on-site review was completed on May 29, 2017. The weather was generally dry and sunny during the site visit with temperatures ranging from 20 to 25 degrees Celsius. In the 60 days prior to May 29, 2017, a total of 216 mm of rain fell on 33 days. This is much higher than the 30-year average of 113 mm for the same period (April and May). This suggests that the invasive reviews occurred at a time when the building envelope was likely wetter than it would normally be for the same time of year. The weather data, which pertains to the Nanaimo A weather station, was collected from the Environment Canada Website and The Weather Network.

4.0 DESCRIPTION OF BUILDING ENVELOPE ASSEMBLIES

Descriptions of the various building envelope assemblies that are the subject of this report are provided in this Section. The descriptions are based on our experience with similar buildings, and, in some instances, our invasive visual reviews. There has been no attempt to verify the presence of all of the components described herein.

4.1 ROOF ASSEMBLIES

Two types of roofs are present at the gymnasium:

- Roof Type I - sloped roof directly over the gymnasium
- Roof Type II - low-sloped roof over the gymnasium entrances, covered parking and pedestrian walkway

Photo 1 – An overview of Roof Type I

Photo 2 – An overview of Roof Type II

Both roofs are covered with built-up roofing (BUR), also known as tar and gravel roofing. A BUR system generally is comprised of alternating layers of bitumen and reinforcing fabrics. The roofs shed exterior moisture over the roof surface into scuppers and internal drains and then the moisture collected is directed down through rain water leaders. The components that make up Roof Type I and II are shown in Figure 1 and Figure 2 respectively.

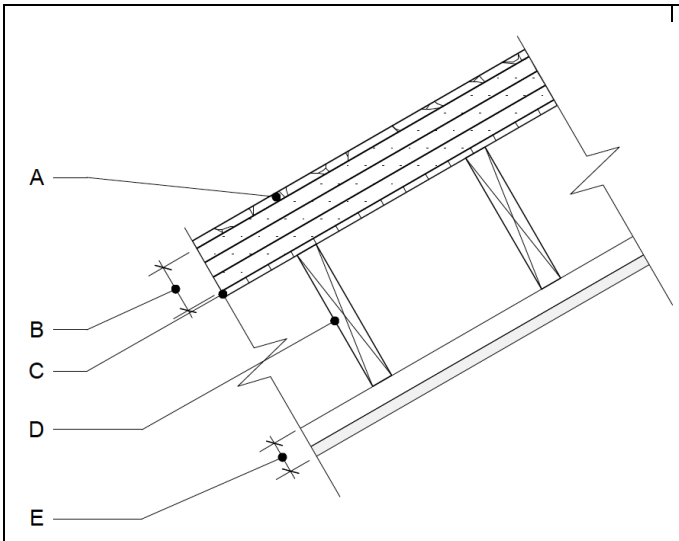

Figure 1 – Roof Type I

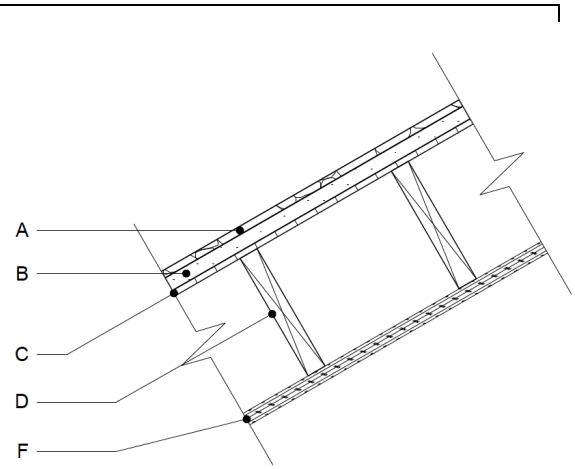

Figure 2 – Roof Type II

A. Built-Up Roofing Membrane

This is the main component that protects the building from water infiltration. In a BUR system, the bitumen provides the waterproofing and the felts act as the reinforcement Typically 3 to 4 layers of bitumen and roofing felts are finished with an aggregate layer. The aggregates provide protection against puncture and UV rays. It is crucial that the BUR system is sealed tightly to avoid leakge into the inner membrane and underlying structure.

B. Fibreboard

Fibreboard insulation is composed of wood, cane or other vetegable fibres and waterproofing binders. A fibreboard roof insulation that is adhered in a roof assembly with hot asphalt must have an asphalt coating on the top and bottom surfaces. Fibreboard roof insulation is compatible with asphalt and does not require an overlay. However, it has low thermal values compared to other roof insulating materials and is susceptible to moisture damage.

C. Wood Board Decking

The decking serves two main purposes: providing lateral support for the roof joists and/or trusses and providing a sutable substrate to which the roofing system is installed. The wood board decks include togue and groove, shiplapped or splined boards. Wood board decks often have many surface defects that should be addressed prior to its acceptance as a roof deck. If the wood decking is exposed to moisture for an extended period of time it will deteriorate. Furthermore, moisture can travel through the decking

to the underlying structural wood components causing them to deteriorate. Prolonged exposure to the moisture will compromise the structural capacity of the roof.

D. Roof Joist

The structural framing provides the structural support for the roof assembly.

E. Fibreboard Ceiling Tiles on Strapping

The interior of the roofing assembly was finished with ceiling tiles on strapping at the gymnasium of Saltair Community Centre.

F. Painted Wood Soffit with Continuous Screened Soffit Vents

Roofs must be vented to prevent heat buildup and to minimize condensation. Continuous screened soffit vents provide passive ventilation using convection. Soffit vents are usually screened to keep out birds and insects. The screening impedes the flow of air, as such the the vent area should be increased to allow for the screen. Air flow can be enhanced by providing a vent opening at the top of the roof.

Note that we were not able to verify the presence of a vapour barrier within the roofing assembly. A vapour barrier is a material with low vapour permeablility that is located within the assembly to control the flow of vapour and limit the potential for condensation due to diffusion. The location of the vapour barrier within the assembly is key to minimizing condensation and control of vapour transmission. In the coastal climate of BC, the vapour barrier must be located on the warm side of the assembly. If warm water vapour is allowed to come into contact with colder components, such as the inside face of the exterior sheathing, condensation could occur which may allow liquid water to accumulate within the hidden sections of the roof assembly.

The typical life span of this type of roofing system is approximately 20 years depending on factors such as: thermal movement, wind, UV light, pedestrian traffic, workmanship, moisture exposure levels, freeze-thaw cycles, drainage, and maintenance. Poor attic ventilation can significantly reduce the assembly's reliable service life.

4.2 INDOOR CONDITION

Condensation in an interior space is produced by moisture generating activities such as washing, and breathing. Condensation generally increases when:

- The number of occupants/users within area increases;

- Moisture generating activities such as cooking, showering/bathing, dish washing, and doing laundry take place;
- Windows and doors are poorly designed to resist heat flow between interior and exterior spaces; and
- There is an inadequate supply of fresh air.

Condensation can be controlled by:

- Eliminating cold interior surfaces;
- Ensuring adequate air changes. A combination of suitably designed exhaust fans and fresh air intakes or open windows can provide adequate ventilation within the gymnasium. The exhaust fans and open windows should be used whenever moisture generating activities occur.

Excessive condensation can damage interior surfaces and provide conditions for microbial growth. It is beyond MAE's area of expertise to comment on mould or fungal colonies.

During the course of our interior review, we noted one ventilating fan on top of the west wall. We were not able to test the fan.

4.3 EXTERIOR WALLS

The exterior walls of the gymnasium are clad with a face sealed system consisting of stucco and painted wood siding. Figure 3 shows typical exterior wall assemblies based on our invasive reviews and our experience with similar buildings. There was no attempt to verify the presence or condition of some of the normally hidden components.

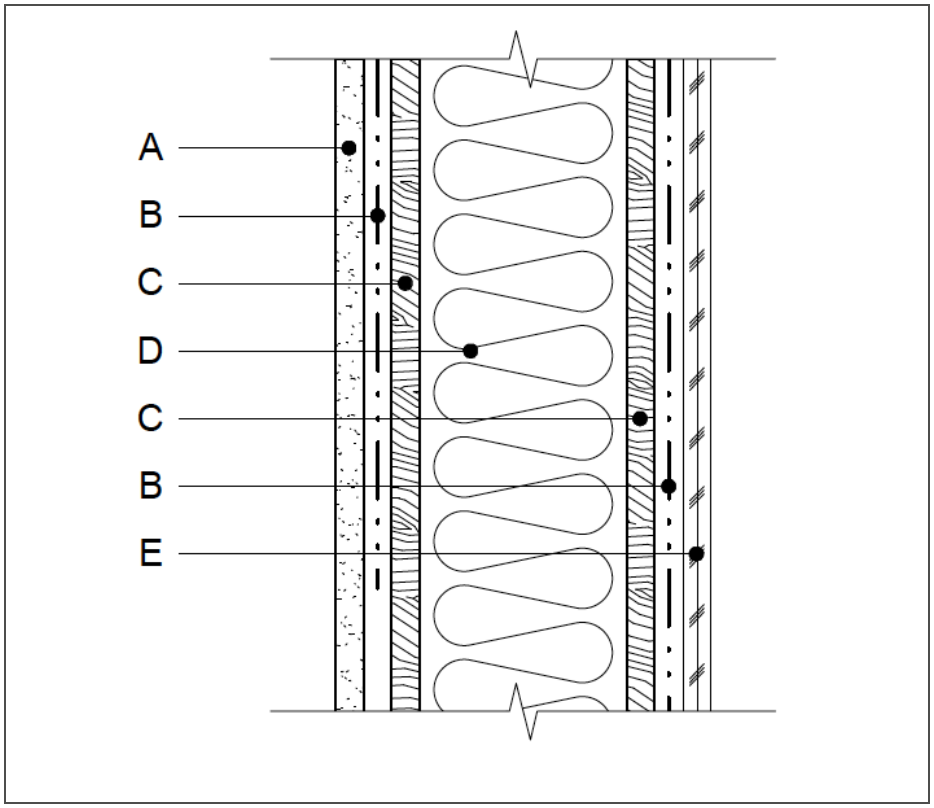

Figure 3 – Exterior Wall Assembly

The components listed in Figure 3 are described below.

A. Wood Siding or Stucco

The wood siding or stucco provides the primary resistance to water ingress by blocking the passage of bulk water.

B. Building Paper

The building paper functions as a secondary deterrent to water ingress. It consists of paper that has been impregnated with asphalt. The asphalt makes the paper water repellant. Note that building paper is water repellent not water proof. It is current practice to rate building paper as 30 minute or 60 minute. The rating indicates how long the paper can remain wet before water should be expected to soak through. Although the presence of the building paper was confirmed at our exploratory openings, its rating was not confirmed.

In order for the building envelope assembly to remain effective, the building paper must not be permitted to remain wet for prolonged periods of time.

C. Wood Board Sheathing

This component provides backing for the building paper and cladding. The sheathing also provides lateral support for the studs.

If the exterior sheathing is exposed to moisture for an extended period of time it will deteriorate. Furthermore, moisture can travel through the sheathing to the underlying structural wood components causing them to deteriorate. Prolonged exposure to moisture will compromise the structural capacity of the studs and eventually the entire wall.

D. Wood Studs and Insulation

The studs form part of the buildings' primary structural system, thus they must transfer gravity, wind, and seismic loads from the roof, floors, and walls to the foundation.

The insulation reduces heat flow between the inner and outer sides of the wall assembly. The insulation's effectiveness would be reduced if it becomes water damaged.

E. Painted Plywood Sheathing

The interior of the gymnasium wall was finished with painted plywood sheathing.

Note that vapour barrier was not found within the wall assemblies we reviewed. As mentioned in Section 4.1, to control the flow of vapour and limit the potential for condensation due to diffusion, the vapour barrier must be located on the warm side of the assembly.

The exterior wall assembly at Saltair Community Centre's gymnasium can be described as face sealed assembly that relies on the wood siding or stucco as the primary defense against exterior moisture. A face sealed assembly has been well known for its poor performance in coastal climate of British Columbia, which is characterized by high wetting exposure and low drying potential, due to the difficulty in achieving perfect seal at interfaces and joints. Many factors such as workmanship, building settlement, material deterioration, and lack of maintenance can attribute to creating openings that may allow moisture penetration into the face sealed assembly. Due to a lack of rainwater cavity and limited drying capacity, any moisture passed beyond the siding can compromise the overall performance and durability of the wall assembly.

Alternatively, a rainscreen assembly provides a more reliable exterior wall cladding system by incorporating a drainage cavity. The drainage cavity improves the drying capacity of the wall

assembly by providing an egress route and ventilation for any accidental moisture penetration. Good performance can be expected from a rainscreen assembly with an effective air barrier and compartmentalization of the cavity to ensure pressure equalization between the cavity and exterior environment.

In a typical rehabilitation project, existing siding is removed to reveal the exterior sheathing, structural members, and insulation. Once any compromised components are replaced or repaired, a new rainscreen cladding system incorporating proper detailing, a drain cavity, and an air barrier should be installed.

4.4 WINDOWS AND DOORS

The windows at the gymnasium are wood-framed single-glazed windows. Two window types found at the gymnasium are fixed and awning. Window frames are generally flush with the exterior face of the exterior siding walls and are typically surrounded by a continuous wood trim. Photos 3 and 4 show a typical exterior windows. Generally no flashing was present at the windows.

Photo 3 – Typical clerestorey window

Photo 4 – Typical window at gymnasium kitchen

No sealant of any type was used at any of the window/wall interfaces that were observed. The lack of sealant will increase the likelihood of water infiltration and allow air to pass through the window/wall interfaces. The increased airflow will:

- Increase the likelihood of air and water infiltration;
- Reduce the buildings' energy efficiency;
- Increase the likelihood of condensation on the inside face of the window assemblies, and;

- Increase the cold drafts in the vicinity of windows.

The exterior doors that provide access to each unit are steel door assemblies that have been mounted in wood frames. The doors are protected by overhangs and are thus relatively unlikely to experience water ingress problems.

5.0 OBSERVATIONS, DISCUSSIONS AND RECOMMENDATIONS

This Section describes relevant observations and, where applicable, our recommendations to address observed deficiencies. Unless specifically noted otherwise, implementation of the recommendations need not be considered urgent; however, delaying their implementation will, over time, increase the magnitude of the noted deficiencies, which in turn will increase the eventual cost of implementation. In general, the recommendations described in the following sections should be implemented within the next five years, preferably sooner if budgets permit.

Each recommendation is presented with an order of magnitude budget, which has been derived from our experience with similar projects.

It is difficult to provide an accurate cost estimate without some preliminary design work and a clearly defined scope of work. The actual cost of the work cannot be known until material quantities have been reliably estimated, project drawings and specifications have been produced, contractors have bid on the project and the extent of hidden damage is known.

Where applicable, budget values account for consulting fees, taxes and contingency costs for hidden damages, but do not account for inflation.

Exploratory Opening (EO) locations are indicated on Sheets B2 to B5 in Appendix B. The data that was collected from our EO's is presented in Moisture Probe Result Tables C1 to C4 in Appendix C. All of the moisture probe readings were obtained from wood board, studs, joists, strapping, decking and exterior sheathing samples.

Moisture probe data has been categorized as follows:

- **Category 1** includes all Exploratory Openings where moisture probe readings were less than 17.9 percent and there was no indication of water damage. Wood moisture content less than 17.9 percent indicates that the wood is relatively dry and wood decaying fungal growth will not likely occur or continue. Moisture content of less than 17.9 percent does not guarantee that moisture related problems have not occurred in the past, but indicates that moisture related problems are not likely worsening.

- **Category 2** includes all Exploratory Openings where moisture probe readings were between 18.0 percent and less than 19.9 percent and there was no indication of water

damage. Moisture content readings between 18.0 and 19.9 percent suggest that the wood may be getting wet from external influences.

- **Category 3** includes all Exploratory Openings where moisture probe readings were 20.0 percent to 27.9 percent and there were no indications of water damage. Where the wood moisture content exceeds 20.0 percent it is likely getting wet from sources other than ambient humidity and wood decaying fungal growth is possible.

- **Category 4** includes all Exploratory Openings where moisture probe readings were 28.0 percent or higher and/or there was probable water ingress and/or other indications of water damage. Where the wood moisture content exceeds 28.0 percent water is entering the envelope from sources other than ambient humidity and wood decaying fungal growth and germination are probable.

To summarize, the higher the Category number, the more likely that water ingress has occurred. The results of our moisture probe data are summarized in Table 2.

Table 3 – Summary of Moisture Probe Data

	Category 1	Category 2	Category 3	Category 4
Number of Readings	25	2	9	3
Percent of Total	64%	5%	23%	8%

A review of Appendices B and C indicate that most moisture probe readings at the exterior and interior walls were in Category 1.

Category 2, 3 and 4 readings were obtained from ceiling, soffit and roof openings.

5.1 ROOFS

Both roof types found at the gymnasium were in poor condition with many outstanding deficiencies.

MAE made the following observations for Roof Type I:

- Majority of the roof was covered with heavy moss growth. It was difficult to review the condition of the roof due to the thick moss growth. Refer to Photo 5.
- Scuppers and rainwater leaders were generally free of debris, however, they appeared to be in poor condition with stains, deteriorating sealants, and rusting fasteners. Refer to Photo 6.

- Painted wood soffits with a series of vent openings appeared to be in fair condition. Refer to Photo 7.
- Metal flashing above the fascia boards at the perimeter of the roof were in poor condition with stains, deteriorating sealants, opening at corners, and deteriorating paint finish. Refer to Photo 8.
- Painted wood fascia boards at the perimeter of the roofs appeared to be in poor condition with peeling paint. Some fascia board reviewed were not painted. Refer to Photo 8.
- The moisture reading from the exploratory opening from were below 10% and the underlying roofing assembly appeared dry.

Photo 5 – Extensive moss covering the roofing

Photo 6 – View of a scupper and rainwater leader in poor shape

Photo 7 – Typical wood soffit with a vent strip

Photo 8 – Typical flashing and fascia boards

MAE made the following observations for Roof Type II:

- North section of the roof was covered with heavy moss growth. It was difficult to review the condition of the roof due to the thick moss growth. Refer to Photo 9.
- Evidences of past repairs were noted in the middle of the roof area. Refer to Photo 10 and 11.
- Scuppers were generally free of debris, however they appeared to be in poor condition with stains, deteriorating sealants, and rusting fasteners.
- Metal flashing at the perimeter of the roof were in poor condition with stains, deteriorating sealants, opening at corners and seams, and deteriorating paint finish.
- Painted wood fascia boards at the perimeter of the roofs appeared to be in poor condition with peeling paint.
- Painted wood soffits at the southeast corner of the covered parking and pedestrian walkway were in poor condition with blistering paint finishes, rust stains, and microbial growth. Refer to Photo 12 and 13.
- In general, the west side of the roof was dry while east side of the roof was wet. We infer that the roof slopes down towards east. The moisture readings from the exploratory opening on the west side ranged between 7.9% and 13%, while the moisture readings from the east side ranged between 20.1% to 36.2%.
- Category 2, 3 and 4 readings were obtained from both soffit and roof openings on the west side of the roof.
- We observed pooling of water inside the framing cavity and the roof components were wet to touch. Refer to Photo 14 and 15.
- We observed a rusted nail penetrating through the sheathing, water stains and microbial growth on wood members. Refer to Photo 13.

Photo 9 – Extensive moss covering the north side of the roof

Photo 10 – An evidence of past repair

Photo 11 – Three additional repairs

Photo 12 – Blistering paint finish and microbial growth on painted wood soffit

Photo 13 – Another example of blistering paint finish and microbial growth on painted wood soffit

Photo 14 – Pooling water sitting on sofft

Photo 15 – Rusted nail penetrating through sheathing above and stains and microbial growth on wood members

The existing roofing assemblies at the gymnasium were generally in poor condition. It is our opinion that the BUR assemblies have far exceeded their reliable service life and appeared to have been compromised at multiple locations due to sharp objects such as nails puncturing through the membrane.

We carried out dew-point analyses on the roof system and determined that frequent condensation within the roof structure is likely. This analysis is confirmed by the observed microbial growth within the roof cavity.

We recommend that the existing BUR systems be replaced as soon as possible with a more robust system such as a two-ply SBS membrane system. The BUR is not a common re-roofing option in the coastal climate of British Columbia.

We recommend that the existing roofing membrane is removed to reveal the underlying sheathing and structures. Once any compromised components are replaced or repaired, a new waterproofing system with improved insulation, ventilation and drainage should be installed. This system must be designed to resist condensation within the assembly.

Recommendation 5.1.1

Replace both Roof Type I and Type II.

Budget: $250,000
Time Frame: As soon as possible

Recommendation 5.1.2

Implement a regular review of the sloped roof as a part of the building maintenance program and monitor the roof on an on-going basis for any leaks. Maintenance usually includes clearing drains and rainwater leaders and reviewing for damaged membrane.

Budget: $2,000
Time Frame: Annually

5.2 INDOOR CONDITIONS

During the interior review, we observed evidences of moderate to extensive condensation on most windows. Issues pertaining to the window performance will be further discussed in Section 5.4 WINDOWS AND DOORS.

Our observations of the interior conditions of the gymnasium are as follows:

- Fibreboard ceiling tiles that are stapled to strapping were generally saggy and soft. Few tiles have detached from the ceiling and it did not require much force to remove them

from the strapping manually. The backside of the ceiling tiles we reviewed were black or dark with microbial growth. The finishes of the fibreboard ceiling tiles were peeling or detaching from the fibreboard. Refer to Photo 16 and 17.

- The moisture readings from the interior ceiling openings varied between 9.5% to 25.6%. Category 2 and 3 readings were obtained from roof joists.
- At the east ceiling opening, we observed a nail penetration through the wood decking, and stains and microbial growth on wood members. Refer to Photo 18 and 19.
- We observed ghosting of the wood studs on the interior walls. Refer to Photo 20.
- It is our understanding that the gymnasium has not been used actively for the past 3 years and the exhaust fan has not been operating regularly. The fan was not tested; however, it appeared dated. Refer to Photo 20.

Photo 16 – Bulging and sagging ceiling tiles throughout

Photo 17 – Backside of the ceiling tiles that fell off from the ceiling

Photo 18 – A nail penetrating through the wood decking

Photo 19 – Water stains and microbial growth on wood members

Photo 20 – Ghosting of studs on south wall and fan

High humidity within an interior space has a tendency to condense on colder surfaces such as walls and windows and increase the likelihood of microbial growth. The condensed water vapour will stain windowsills and affected areas. To counteract high humidity levels, the space users should open windows and use exhaust fans regularly.

The observed evidence of condensation indicates that interior moisture is not being adequately managed. Management of interior moisture can be improved by upgrading the ventilation system in combination with improvements to building envelope assemblies.

It is beyond MAE's area of expertise to evaluate or identify the mould or fungal colonies. We recommend engaging the services of a qualified indoor air quality consultant to review, evaluate evidence of mould and fungus colonies and advise on a course of action.

Recommendation 5.2.1

Ventilation system upgrades should include the following components:

- Upgrade gymnasium fan to a more powerful model;
- Install a humidistat which would automatically turn the fan on when the relative humidity reaches a preset level;
- Review of the fresh air intakes as required to ensure that adequate air exchange is occurring.

Budget: $5,000
Time Frame: As soon as feasible

Recommendation 5.2.2

The Owner should engage the services of a qualified indoor air quality consultant to review and evaluate the mould and fungus colonies and advise on a course of action. This recommendation should be implemented as soon as possible.

Budget: $5,000
Time Frame: Immediately

5.3 EXTERIOR WALLS

Most of the moisture probe readings at the exterior walls were in the acceptable range without any reported leaks. Our visual review of the exterior walls included the following observations:

- Except for the west elevation, the majority of the exterior walls are well protected under roof overhang above.
- There is little application of sealant on the exterior wall interfaces. No sealant was found at wall penetrations and fenestrations.
- Generally, flashing was not provided at exterior walls. Base wall flashing was found at the the interface of Roof Type II and gymnasium walls. It appeared as the existing stucco cladding was cut out and the base wall flashing and a continuous bead of sealant were installed. Refer to Photo 21.
- Openings were found in uneven stucco cladding along the base wall flashing and sealant. Refer to Photo 22.
- Rainwater leaders are attached directly to the stucco cladding. No sealant was found around the fastener penetration through the stucco cladding. Refer to Photo 23.
- The stucco cladding terminates at the grade on the north elevation. The best practice guide requires the cladding to terminate minimum 8 inches above finished grade. Refer to Photo 24.
- Hairline cracks and stains were observed on the face of the stucco finish.

Photo 21 – View of base wall flashing and sealant at roof-to-wall interface

Photo 22 – An opening above the flashing and sealant due to uneven stucco at base of wall

Photo 23 – Typical attachment of rain water leaders to the exterior wall without any sealant around the fasteners

Photo 24 – View of north wall where stucco cladding terminates at grade

The exterior wall assembly is at risk of water leakage given that it is a face sealed wall assembly, which relies on shedding the majority of rainwater at the stucco and wood siding that have exceeded their expected service lives. Although the moisture ingress path through the walls has not been confirmed, the future performance of the exterior walls at is difficult to predict.

Our visual review has found that the construction of the exterior walls generally does not meet the current industry standards, and that they are susceptible to moisture related problems. The lack of appropriate detailing at critical areas such as the base of the wall and material interface adds to the risk of moisture ingress. Although the wall systems seem to be performing adequately at present, it is unlikely that the exterior walls will provide adequate performance in the long-term.

It is our opinion that the exterior walls should be reconstructed with a proper rainscreen cladding system incorporating a drain cavity, better insulation, and carefully designed details at interfaces and joints. We recommend a comprehensive building envelope rehabilitation that not only includes a new rainscreen wall assembly, but also window and door upgrades. The comprehensive building envelope rehabilitation will be able to address deficiencies most effectively, minimize inconsistencies among different components, improve energy efficiency, and provide robust performance.

The hazardous material survey from 2014 has detected Chrysotile in the exterior stucco; therefore, proper abatement procedures should be followed to meet the requirements of WorkSafeBC.

Recommendation 5.3

Perform comprehensive building envelope rehabilitation in medium to long-term to bring up the exterior wall to meet the current standards with proper details. This may involve:

- Removal of existing cladding, sheathing membrane, sheathing and insulation;
- Inspection of structural members and replacement of damaged members as required; and
- Installation of new insulation, sheathing, sheathing membrane, rainscreen cladding system, sealants, flashing and other related accessories.

We recommend this work to be completed in conjunction with roof replacement (see Recommendation 5.1.1), ventilation system upgrade (see Recommendation 5.2.1) and windows and door upgrades (see Recommendation 5.4).

Budget: $250,000 to $300,000
Time Frame: Within next 5 to 10 years

5.4 WINDOWS AND DOORS

Our visual review of the windows and doors included the following:

- There is generally no sealant at window and door perimeters.
- The window frames show paint peeling and decaying wood at locations reviewed.
- There is no sealant and head, jamb or sill flashing around the windows or doors.
- The windows and doors are generally well protected from roof overhang above.

- Condensation and fogging were observed on the inside face of glazing. Refer to Photo 25 and 26.
- Microbial growth was observed around the glazing perimeter and window sills. Refer to Photo 27, 28 and 29.
- Window coverings at the storage rooms were stained black with microbial growth. Refer to Photo 30.
- The windows on the south wall of the gymnasium have been boarded up from outside and could not be reviewed. Refer to Photo 31.

Photo 25 – Condensation and foggoing on the inside face of glazing

Photo 26 – Close up of the condensation on window glazing

Photo 27 – Microbial growth around window around the glazing perimeter

Photo 28 – Microbial growth on window sill

Photo 29 – Microbial growth and deteriorating paint finishes at window frame and sill

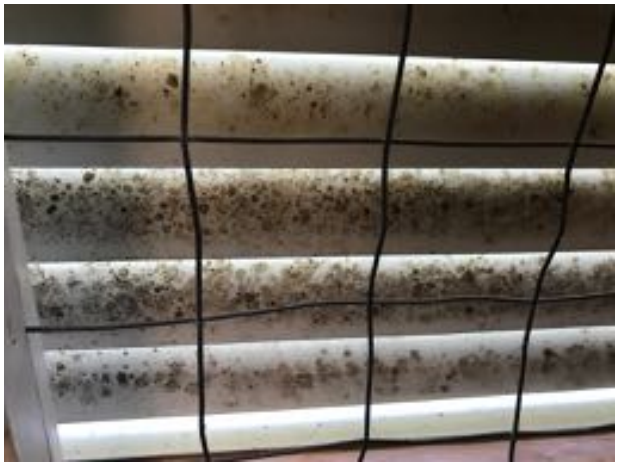

Photo 30 – Microbial growth on window covering

Photo 31 – Boarded up windows of on south elevation

The windows and doors at the gymnasium have exceeded their reliable service life. With respect to the energy performance and occupant comfort, the windows and doors will not be able to meet today's standards due to the age of the materials and apparent decay observed in the wood frames.

MAE recommends replacing the wood frame windows and doors as part of the building envelope rehabilitation mentioned in Section 5.3 Exterior Walls. Upgrading with a high-performance windows and doors that meet the new requirements of the British Columbia Building Code and incorporating new details such as proper head/sill flashing and sealant are recommended. The newly upgraded windows and doors will meet the current building code requirements, provide energy savings, and eliminate condensation issues.

Recommendation 5.4

Replace existing wood-framed single-glazed windows and doors with new and more energy efficient window systems to meet current code requirements. Conduct this work in conjunction with Recommendation 5.3.

Budget: $15,000
Time Frame: Immediately

6.0 CONCLUSION

The gymnasium at Saltair Community Centre is generally performing poorly with high-risk roof and wall assemblies and components that have exhausted or are reaching the end of their service lives. The condition of the existing building envelope components have declined as a results of multiple contributing sources: poorly managed interior moisture due to lack of heating or ventilation; absence of maintenance or renewal activities; water ingress through roofing membrane, sheathing and structural members that are exposed to moisture ingress; inadequate venting and air circulation from little to no use of the space; and regular occurences of condensation on cold surfaces such as windows, walls, and ceiling.

MAE suggests a comprehensive building envelope rehabilitation including new roofs, new rainscreen wall cladding, new windows and doors, and mechanical system upgrades. Since most building envelope components are interrelated and their repair or replacement work should be completed in conjunction with one another, it is more practical to adopt the comprehensive repair than a targeted repair. This approach will provide robust performance, consistency in work, and reduced risk of future problems from other high risk or aging assemblies. We expect the order of magnitude cost for comprehensive building envelope rehabilitation work to be in a range of $550,000. This work can be staged on a priority basis over the next five to ten years.

Table 3 provides a summary of recommendations for the two options. Note that it is not possible to provide an accurate cost estimate for redevelopment without accurate construction drawings, preliminary design work, and a clearly defined scope of work. The actual cost of the work cannot be known until a scope of work is established and material quantities have been reliably estimated. Project drawings and specifications are typically required to allow accurate cost estimated to be completed. The actual final costs are only known when contractors have bid on the project and have completed construction.

Table 4 – Summary of Recommendations, Budgets and Time Frames

Reference	Recommendation	Time Frame	Order of Magnitude Costs (Consulting fees & GST not included)
5.1.1	Replace both Roof Type I and Type II.	As soon as feasible	$250,000
5.1.2	Implement regular reviews of the sloped roof as a part of the building maintenance program and monitor the roof on an on-going basis for any leaks. Maintenance usually includes clearing drains and rainwater leaders and reviewing for damaged roofing.	Annually	$2,000
5.2.1	Ventilation system upgrades should include the following components: ▪ Upgrade gymnasium fan to more powerful models; ▪ Install a new humidistat which would automatically turn the fans on when the relative humidity reaches a preset level; ▪ Review of the fresh air intakes as required to ensure that adequate air exchange is occurring.	As soon as feasible	$5,000
5.2.1	The Owner should engage the services of a qualified indoor air quality consultant to review and evaluate the mould and fungus colonies and advise on a course of action. This recommendation should be implemented as soon as possible.	As soon as feasible	$5,000

Reference	Recommendation	Time Frame	Order of Magnitude Costs (Consulting fees & GST not included)
5.3.b	Replace exterior wall assembly in medium term to bring up the exterior wall to meet the current standards with proper details. This may involve: ▪ Removal of existing cladding, sheathing membrane, sheathing and insulation; ▪ Review of structural members and replacement of damaged members as required; and ▪ Installation of new insulation, sheathing, sheathing membrane, rainscreen cladding system, sealants, flashing and other related accessories.	Within 5 to 10 years	Budget $250,000 to $300,000
5.4.1	Replace existing wood-framed single-glazed windows and doors with new and more energy efficient window systems to meet current code requirements. Conduct this work in conjunction with Recommendation 5.3.	Immediately	$15,000

7.0 FINAL REMARKS

It should be noted that reviews that are described in this report were limited to the areas and assemblies that are specifically noted in the report. Except where specifically noted, no testing or dismantling of any assemblies was performed and reviews were made on a random basis with no attempt to review every element or portion of the building. Our comments are not a guarantee or warranty of any aspect of the condition of the building whatsoever.

This report was prepared by McCuaig & Associates Engineering Limited (MAE) for the account of the Cowichan Valley Regional District (CVRD). The material in it reflects MAE's best judgment in light of the information available to us at the time of preparation. Any use that a third party makes of this report, or any reliance on or decisions to be made based on it, are the responsibility of such third parties. MAE accepts no responsibility for damages, if any, suffered by any third party as a result of decisions made or actions based on this report. The recommendations that are described in this report are not intended to replace detailed engineering specifications and therefore the recommendations contained in this report should not be used as the basis of a contract to perform remedial work on these buildings.

We would be pleased to meet with CVRD to review this report and answer questions that may exist. We trust this meets your requirements at this time, and should you have any questions or concerns, please contact our office.

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Ref. No. 20170401-C-RPT-BEC-01-FNL

APPENDIX A

GLOSSARY OF TERMS

Glossary of Terms

Air Barrier: Materials and components that by themselves or collectively control the flow of air through an assembly and thus limit the potential for heat loss and condensation due to air movement.

Air leakage: The uncontrolled flow of air through a building envelope or a component of a building envelope as a result of a pressure difference.

Authority Having Jurisdiction: The governmental body responsible for the enforcement of the British Columbia Building Code.

Building Envelope: Referred to as environmental separator in Building codes, includes all the components of the surrounding building structures such as walls, ceilings and floors that separate the indoor environment from the outdoor environment.

Building Paper: Refers to asphalt impregnated sheet material that creates a water shedding surface between the cladding and the sheathing.

Capillary action: The process of water movement through materials with tiny pores.

Cladding: Refers to a material or component of the wall assembly, which forms the outer surface of the wall, and is exposed to the environment.

Clerestory: Upper parts of walls above the main roof pierced with windows to allow light to penetrate.

Deflection: Refers to a water management principle that utilizes features of the building and assembly geometry to limit the exposure of the assemblies to rain.

Dew point: The temperature at which a given air/water vapour mixture is saturated with vapour water (that is, 100 per cent relative humidity). If air is in contact with a surface below this temperature, condensation will form on the surface.

Diffusion: The movement of water vapour through materials (including air) and caused by a difference in vapour pressure. It is dependent on air movement.

Equilibrium moisture Content: The percentage of moisture in the wood or Gypsum wall board when it reaches a state of equilibrium with the immediate environment. This is always fluctuating and depends on the relative humidity.

Gypsum wall board: A sheet of gypsum which is sandwiched between a backing component. The backing component can be either paper based or glass based. Paper faced gypsum wall board is more susceptible to water damage than glass faced gypsum wall board.

Fibre saturation point: The point at which the cell walls are saturated with water but the cell cavities are empty, usually about 28 per cent.

House Wrap Or Building Wrap: Refers to a sheet plastic material which is used as a breather-type sheathing membrane, generally between the wall sheathing material and the exterior cladding. Although at one time used as a proprietary term, house wrap is now used to represent a generic group of materials. One common type of house wrap consists of Spun-Bonded Polyolefin (SBPO), another is made of Spun-Bonded Polypropylene.

Humidistat: A control which turns on a (usually bathroom) fan when the ambient relative humidity reaches a pre-set level. This device is used to help control interior condensation.

Moisture barrier: Any material that is used to retard the passage or flow of moisture into the assembly, thus preventing condensation.

Moisture content (MC): The amount of water in a material such as wood or Gypsum Wall Board, expressed as a percentage of the oven-dry weight of the material.

Permeability: A measure of the ease with which water can pass through a material.

Pressure-treated wood: Wood that has been treated with chemical preservatives in order to make it resistant to deterioration caused by environmental conditions.

Rainscreen: A wall designed to prevent rain penetration by providing a cavity between the cladding and the backup wall and vents the wall to allow moisture drainage.

Relative humidity: The percentage of the existing partial pressure of water vapour in a space to the saturation pressure at the same temperature, for example, air containing half the amount of moisture it can hold has a relative humidity of 50 per cent.

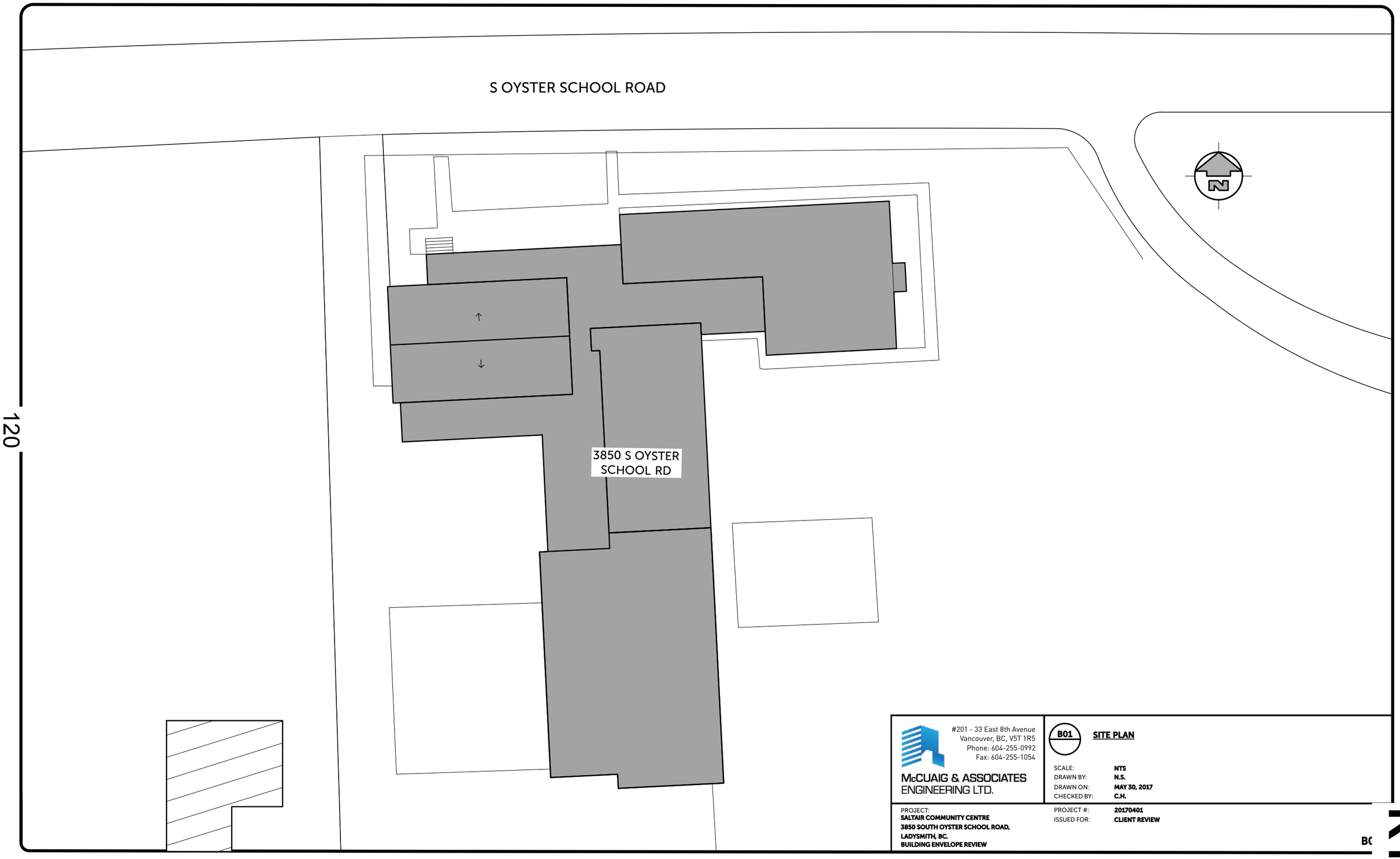
Sheathing Membrane: Refers to a material (generally OSB, plywood, paper faced gypsum wall board or glass faced gypsum wall board) used to provide structural stiffness to the wall framing and to provide structural backing for the cladding and sheathing paper.

Stack effect: A phenomenon caused by gravity where warm air rises in a house and exfiltrates through the upper half of the house, causing infiltration through the lower part of the house.

Vapour barrier: A material with low vapour permeability that is located within the assembly to control the flow of vapour and limit the potential for condensation due to diffusion.

APPENDIX B

EXPLORATORY OPENINGS LOCATION DRAWINGS



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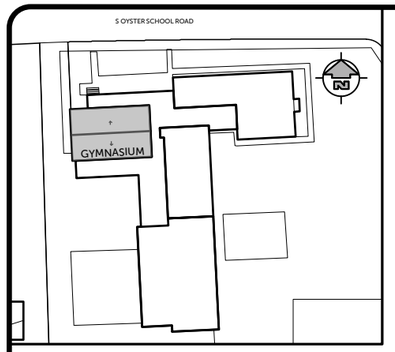
B01 **SITE PLAN**

SCALE:	**NTS**
DRAWN BY:	**N.S.**
DRAWN ON:	**MAY 30, 2017**
CHECKED BY:	**C.H.**
PROJECT #:	**20170401**
ISSUED FOR:	**CLIENT REVIEW**

PROJECT:
SALTAIR COMMUNITY CENTRE
3850 SOUTH OYSTER SCHOOL ROAD,
LADYSMITH, BC.
BUILDING ENVELOPE REVIEW

R1



WOOD STUD	
EO	B2.3a
11.3%	

WOOD BOARD	
EO	B2.3b
9.7%	

WOOD BOARD	
EO	B2.2a
9.5%	

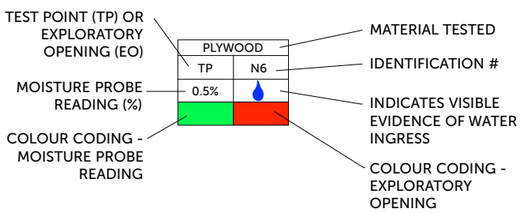
WOOD BOARD	
EO	B2.2b
10.1%	

WOOD BOARD	
EO	B2.1a
8.4%	

WOOD BOARD	
EO	B2.1b
9.5%	

WOOD STUD	
EO	B2.1c
9.8%	

NOTE: TEST LOCATIONS INDICATED ON PHOTOS OR DRAWINGS ARE APPROXIMATE LOCATIONS ONLY.



MOISTURE CONTENT:

	WOOD	CATEGORY
	< 17.9%	1 - ACCEPTABLE
	18% TO 19.9%	2 - POTENTIAL PROBLEM
	20% TO 27.9%	3 - POTENTIAL PROBLEM
	> 28%	4 - PROBABLE WATER INGRESS

MOISTURE CONTENT:

	GYPSUM	CATEGORY
	< 0.5%	1 - ACCEPTABLE
	0.5% to 1.0%	2 - POTENTIAL PROBLEM
	> 1.0%	3 - PROBLEM AREAS

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B02 **INTERIOR WALL OPENINGS - PLAN VIEW**

SCALE: 1:200
DRAWN BY: N.S.
DRAWN ON: MAY 30, 2017
CHECKED BY: C.H.

PROJECT: SALTAIR COMMUNITY CENTRE
3850 SOUTH OYSTER SCHOOL ROAD,
LADYSMITH, BC.
BUILDING ENVELOPE REVIEW

PROJECT #: 20170401
ISSUED FOR: CLIENT REVIEW

B0

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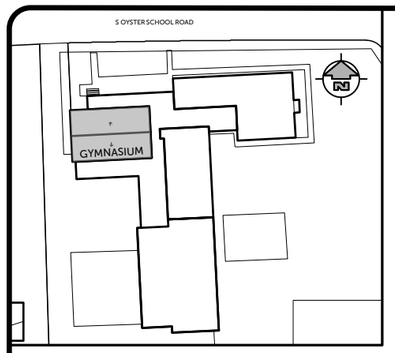
R1



WOOD JOIST	
EO	B3.1a
22.4%	

WOOD JOIST	
EO	B3.1b
14.5%	

WOOD JOIST	
EO	B3.1c
17.4%	

WOOD JOIST	
EO	B3.1d
10.2%	

WOOD STRAPPING	
EO	B3.1e
13.6%	

WOOD DECKING	
EO	B3.1f
10.4%	

WOOD JOIST	
EO	B3.1g
25.6%	

WOOD JOIST	
EO	B3.1h
21.0%	

WOOD STRAPPING	
EO	B3.1i
14.3%	

WOOD JOIST	
EO	B3.1j
18.6%	

WOOD DECKING	
EO	B3.1k
13.5%	

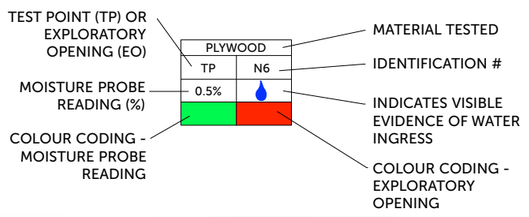
WOOD JOIST	
EO	B3.1l
19.1%	

WOOD JOIST	
EO	B3.1m
24.9%	

WOOD JOIST	
EO	B3.2a
10.6%	

WOOD JOIST	
EO	B3.2b
9.5%	

NOTE: TEST LOCATIONS INDICATED ON PHOTOS OR DRAWINGS ARE APPROXIMATE LOCATIONS ONLY.



MOISTURE CONTENT:

WOOD	CATEGORY
< 17.9%	1 - ACCEPTABLE
18% TO 19.9%	2 - POTENTIAL PROBLEM
20% TO 27.9%	3 - POTENTIAL PROBLEM
> 28%	4 - PROBABLE WATER INGRESS

MOISTURE CONTENT:

GYPSUM	CATEGORY
< 0.5%	1 - ACCEPTABLE
0.5% to 1.0%	2 - POTENTIAL PROBLEM
> 1.0%	3 - PROBLEM AREAS

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B03 **INTERIOR CEILING OPENINGS - PLAN VIEW**

SCALE: 1:200
DRAWN BY: N.S.
DRAWN ON: MAY 30, 2017
CHECKED BY: C.H.

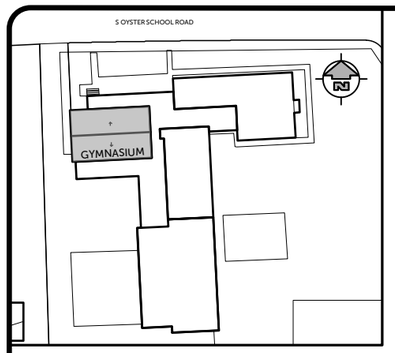
PROJECT: SALTAIR COMMUNITY CENTRE
3850 SOUTH OYSTER SCHOOL ROAD,
LADYSMITH, BC.
BUILDING ENVELOPE REVIEW

PROJECT #: 20170401
ISSUED FOR: CLIENT REVIEW

B0

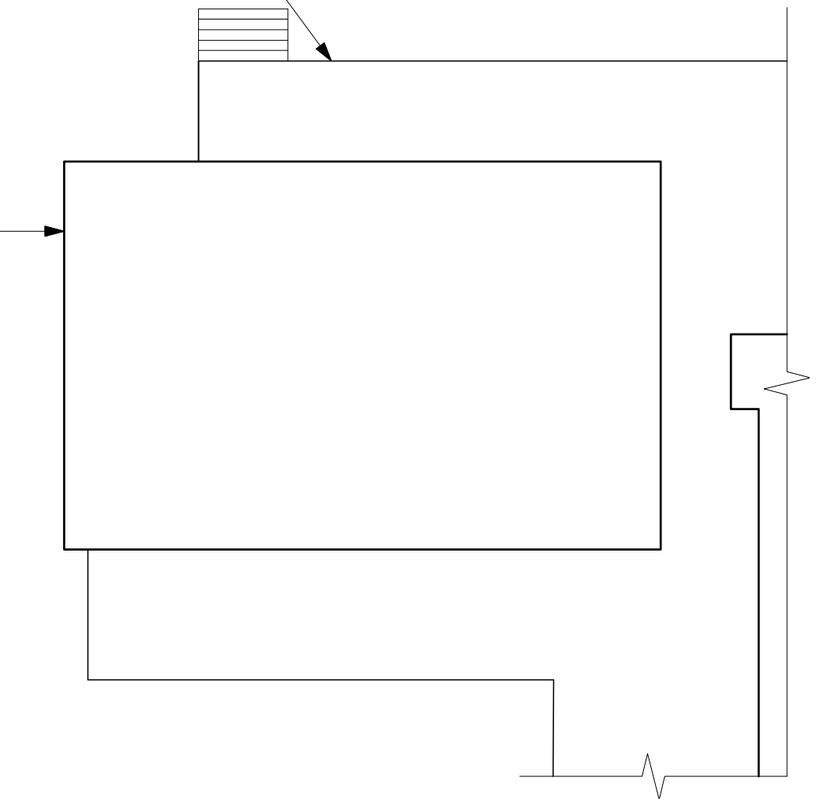
R1

122

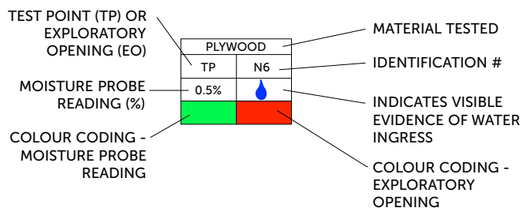


WOOD STUD	
EO	B4.1
12.4%	

WOOD STUD	
EO	B4.2
12.8%	



NOTE: TEST LOCATIONS INDICATED ON PHOTOS OR DRAWINGS ARE APPROXIMATE LOCATIONS ONLY.



MOISTURE CONTENT:

WOOD	CATEGORY
< 17.9%	1 - ACCEPTABLE
18% TO 19.9%	2 - POTENTIAL PROBLEM
20% TO 27.9%	3 - POTENTIAL PROBLEM
> 28%	4 - PROBABLE WATER INGRESS

MOISTURE CONTENT:

GYPSUM	CATEGORY
< 0.5%	1 - ACCEPTABLE
0.5% to 1.0%	2 - POTENTIAL PROBLEM
> 1.0%	3 - PROBLEM AREAS

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B04 **EXTERIOR WALL OPENINGS - PLAN VIEW**

SCALE: 1:200
DRAWN BY: N.S.
DRAWN ON: MAY 30, 2017
CHECKED BY: C.H.

PROJECT: SALTAIR COMMUNITY CENTRE
3850 SOUTH OYSTER SCHOOL ROAD,
LADYSMITH, BC.
BUILDING ENVELOPE REVIEW

PROJECT #: 20170401
ISSUED FOR: CLIENT REVIEW

B0

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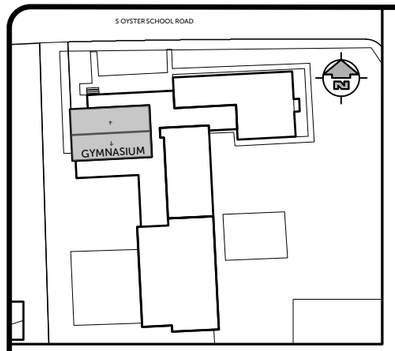
R1



GYMNASIUM ROOF

WOOD JOIST	
EO	B5.9
8.3%	

PLYWOOD	
EO	B5.10
10.4%	

WOOD JOIST	
EO	B5.3a
7.9%	

WOOD JOIST	
EO	B5.3b
8.1%	

PLYWOOD	
EO	B5.8
8.1%	

PLYWOOD	
EO	B5.7
13.0%	

PLYWOOD	
EO	B5.6
23.9%	

PLYWOOD	
EO	B5.1
9.9%	

WOOD JOIST	
EO	B5.2a
27.5%	

PLYWOOD	
EO	B5.2b
20.1%	

PLYWOOD	
EO	B5.2c
24.2%	

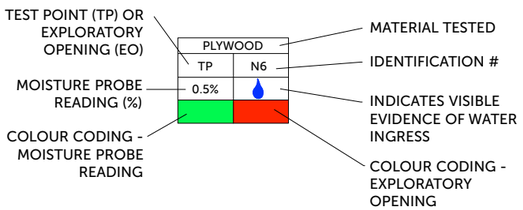
WOOD JOIST	
EO	B5.2d
24.8%	

PLYWOOD	
EO	B5.2e
28.5%	

WOOD JOIST	
EO	B5.4
30.1%	

PLYWOOD	
EO	B5.5
36.2%	

NOTE: TEST LOCATIONS INDICATED ON PHOTOS OR DRAWINGS ARE APPROXIMATE LOCATIONS ONLY.



MOISTURE CONTENT:

	WOOD	CATEGORY
	< 17.9%	1 - ACCEPTABLE
	18% TO 19.9%	2 - POTENTIAL PROBLEM
	20% TO 27.9%	3 - POTENTIAL PROBLEM
	> 28%	4 - PROBABLE WATER INGRESS

MOISTURE CONTENT:

	GYPSUM	CATEGORY
	< 0.5%	1 - ACCEPTABLE
	0.5% to 1.0%	2 - POTENTIAL PROBLEM
	> 1.0%	3 - PROBLEM AREAS

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B05 **ROOF OPENINGS - PLAN VIEW**

SCALE: 1:200
DRAWN BY: N.S.
DRAWN ON: MAY 30, 2017
CHECKED BY: C.H.

PROJECT: SALTAIR COMMUNITY CENTRE
3850 SOUTH OYSTER SCHOOL ROAD,
LADYSMITH, BC.
BUILDING ENVELOPE REVIEW

PROJECT #: 20170401
ISSUED FOR: CLIENT REVIEW

B0

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R1

APPENDIX C

MOISTURE PROBE RESULTS

Table C1 - Saltair Community Centre - Gymnasium

Moisture Probe Results - Interior Wall Openings

Building Wall Section	EO Designation	M.C %	EO Category	Material	Comments
B2	*B2.1a*	*8.4%*		*Wood Board*	*Wood Board*
B2	*B2.1b*	*9.5%*		*Wood Board*	*Wood Board*
B2	*B2.1c*	*9.8%*		*Wood Stud*	*Wall Stud*
B2	*B2.2a*	*9.5%*		*Wood Board*	*Wood Board*
B2	*B2.2b*	*10.1%*		*Wood Board*	*Wood Board*
B2	*B2.3a*	*11.3%*		*Wood Stud*	*Wall Stud*
B2	*B2.3b*	*9.7%*		*Wood Board*	*Wood Board*

GWB Gypsum Wall Board
PLY Plywood
EO Exploratory Opening

EO Designation
BX.X indicates that the EO location is shown on DWG BX.

West Elevation - Moisture Results				%
	GWB	PLY		
7	0% - 0.5%	0% - 17.9%	Category 1 - Acceptable moisture content and no indication of water damage	100%
0	N/A for GWB	18% - 19.9%	Category 2 - Potentially unnacceptable and no indication of water damage	0%
0	0.5% - 1.0%	20% - 27.9%	Category 3 - Potential Problem Area and no indication of water damage	0%
0	Over 1.0%	28% and Greater	Category 4 - Probable Water Ingress and/or other indications of water damage	0%

Note: *There is no Category 2 designation for readings taken from gypsum wall board*

Table C2 - Saltair Community Centre - Gymnasium

Moisture Probe Results - Interior Ceiling Openings

Building Wall Section	EO Designation	M.C %	EO Category	Material	Comments
B3	*B3.1a*	*22.4%*		*Wood Joist*	*Water stain, microbial growth*
B3	*B3.1b*	*14.5%*		*Wood Joist*	
B3	*B3.1c*	*17.4%*		*Wood Joist*	
B3	*B3.1d*	*10.2%*		*Wood Joist*	
B3	*B3.1e*	*13.6%*		*Wood Strapping*	
B3	*B3.1f*	*10.4%*		*Wood Decking*	
B3	*B3.1g*	*25.6%*		*Wood Joist*	
B3	*B3.1h*	*21.0%*		*Wood Joist*	
B3	*B3.1i*	*14.3%*		*Wood Strapping*	
B3	*B3.1j*	*18.6%*		*Wood Joist*	
B3	*B3.1k*	*13.5%*		*Wood Decking*	
B3	*B3.1l*	*19.1%*		*Wood Joist*	
B3	*B3.1m*	*24.9%*		*Wood Joist*	
B3	*B3.2a*	*10.6%*		*Wood Joist*	
B3	*B3.2b*	*9.5%*		*Wood Joist*	

GWB Gypsum Wall Board
PLY Plywood
EO Exploratory Opening

EO Designation
BX.X indicates that the EO location is shown on DWG BX.

West Elevation - Moisture Results				%
	GWB	PLY		
9	0% - 0.5%	0% - 17.9%	Category 1 - Acceptable moisture content and no indication of water damage	60%
2	N/A for GWB	18% - 19.9%	Category 2 - Potentially unnacceptable and no indication of water damage	13%
4	0.5% - 1.0%	20% - 27.9%	Category 3 - Potential Problem Area and no indication of water damage	27%
0	Over 1.0%	28% and Greater	Category 4 - Probable Water Ingress and/or other indications of water damage	0%

Note: *There is no Category 2 designation for readings taken from gypsum wall board*

Table C3 - Saltair Community Centre - Gymnasium

Moisture Probe Results - Exterior Wall Openings

Building Wall Section	EO Designation	M.C %	EO Category	Material	Comments
B4	*B4.1*	*12.4%*		*Wood Stud*	*Below window*
B4	*B4.2*	*12.8%*		*Wood Stud*	*Stucco wall*

GWB Gypsum Wall Board
PLY Plywood
EO Exploratory Opening

EO Designation
BX.X indicates that the EO location is shown on DWG BX.

West Elevation - Moisture Results				%
	GWB	PLY		
2	0% - 0.5%	0% - 17.9%	Category 1 - Acceptable moisture content and no indication of water damage	100%
0	N/A for GWB	18% - 19.9%	Category 2 - Potentially unnacceptable and no indication of water damage	0%
0	0.5% - 1.0%	20% - 27.9%	Category 3 - Potential Problem Area and no indication of water damage	0%
0	Over 1.0%	28% and Greater	Category 4 - Probable Water Ingress and/or other indications of water damage	0%

Note: *There is no Category 2 designation for readings taken from gypsum wall board*

Table C4 - Saltair Community Centre - Gymnasium

Moisture Probe Results - Exterior Roof Openings

Building Wall Section	EO Designation	M.C %	EO Category	Material	Comments
B5	*B5.1*	*9.9%*		*Plywood*	
B5	*B5.2a*	*27.5%*		*Wood Joist*	*Damp; water pooling in the cavity*
B5	*B5.2b*	*20.1%*		*Plywood*	*Damp; water pooling in the cavity*
B5	*B5.2c*	*24.2%*		*Plywood*	*Damp; water pooling in the cavity*
B5	*B5.3d*	*24.8%*		*Wood Joist*	*Damp; water pooling in the cavity*
B5	*B5.2e*	*28.5%*		*Plywood*	*Wet to touch; water pooling in the cavity*
B5	*B5.3a*	*7.9%*		*Wood Joist*	*Water pooling in the cavity*
B5	*B5.3b*	*8.1%*		*Wood Joist*	*Water pooling in the cavity*
B5	*B5.4*	*30.1%*		*Wood Joist*	*Wet to touch; stains; microbial growth;*
B5	*B5.5*	*36.2%*		*Plywood*	*Deteriorating paint finish; microbial growth; and stains*
B5	*B5.6*	*23.9%*		*Plywood*	
B5	*B5.7*	*13.0%*		*Plywood*	
B5	*B5.8*	*8.1%*		*Plywood*	
B5	*B5.9*	*8.3%*		*Wood Joist*	
B5	*B5.10*	*10.4%*		*Plywood*	

GWB Gypsum Wall Board
PLY Plywood
EO Exploratory Opening

EO Designation
BX.X indicates that the EO location is shown on DWG BX.

West Elevation - Moisture Results				%
	GWB	PLY		
7	0% - 0.5%	0% - 17.9%	Category 1 - Acceptable moisture content and no indication of water damage	47%
0	N/A for GWB	18% - 19.9%	Category 2 - Potentially unnacceptable and no indication of water damage	0%
5	0.5% - 1.0%	20% - 27.9%	Category 3 - Potential Problem Area and no indication of water damage	33%
3	Over 1.0%	28% and Greater	Category 4 - Probable Water Ingress and/or other indications of water damage	20%

Note: *There is no Category 2 designation for readings taken from gypsum wall board*

STAFF REPORT TO COMMITTEE

DATE OF REPORT	July 28, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Development Services Division Land Use Services Department
SUBJECT:	Development Permit Application for 5577 West River Bottom Road
FILE:	03-F-17DP

PURPOSE/INTRODUCTION

The purpose of this report is to consider a Development Permit application for the construction of a single family dwelling within the Cowichan River Development Permit Area.

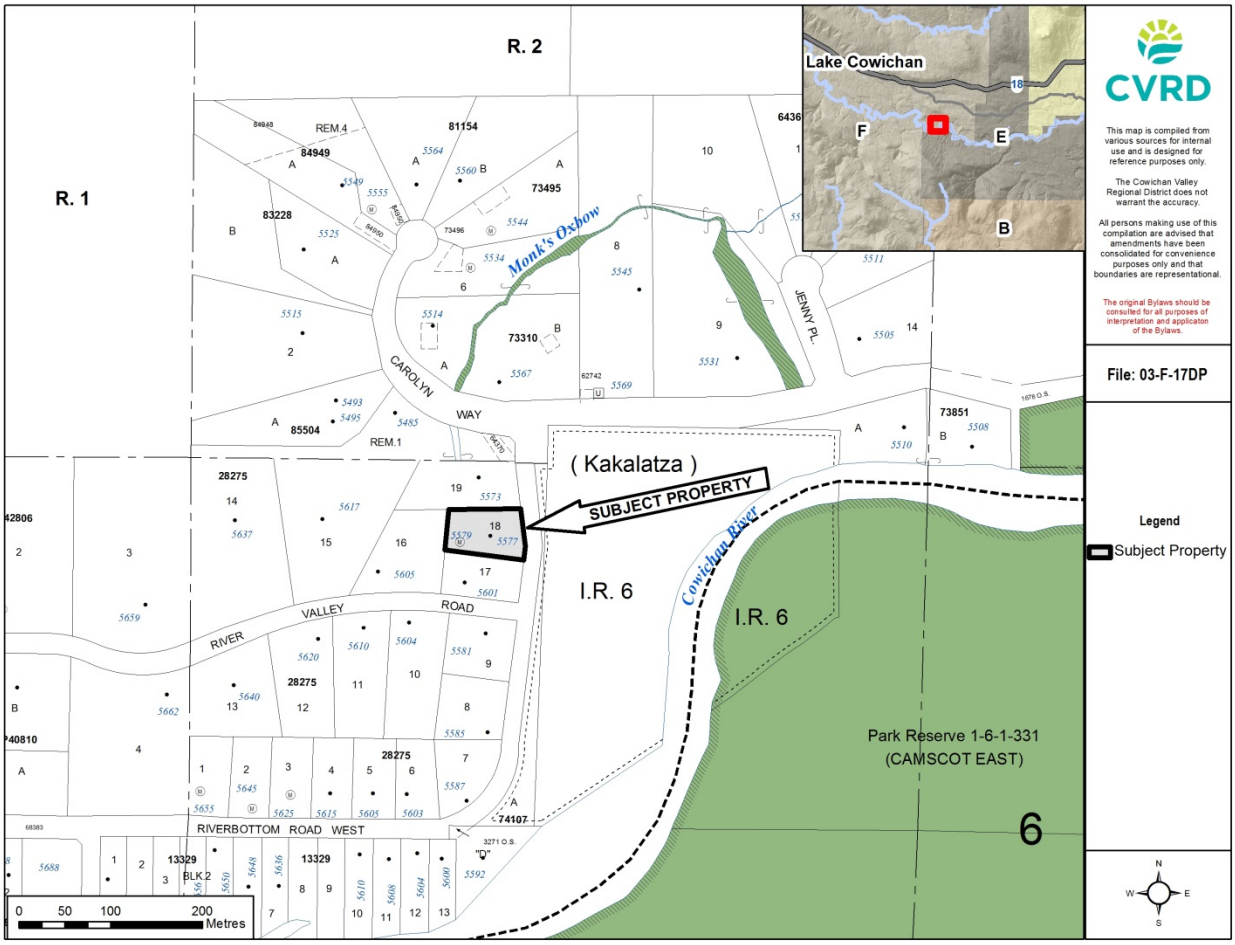
RECOMMENDED RESOLUTION

That it be recommended to the Board:
1.That Development Permit Application 03-F-17DP (5577 River Bottom Road West) be approved; and
2.That the General Manager of Land Use Services be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of the Official Community Plan No. 1490.

BACKGROUND

Legal Description:	Lot 18, Section 7, Range 2, Sahtlam District, Plan 28275 (PID: 002-036-398)
Address:	5577 West Riverbottom Road
Date Application Received:	May 2, 2017
Owner/Applicant:	Dan McComb
Size of Parcel:	0.4185 ha (1.03 acres)
Existing Zoning:	RC-3 (River Corridor)
Existing Plan Designation:	River Corridor
Existing Use of Property:	Residential
Existing Use of Surrounding Properties:	
North:	Residential
South:	Cowichan River
East:	Cowichan River
West:	Residential
Road Access:	West Riverbottom Road
Environmentally Sensitive Areas:	Cowichan River
Fire Protection:	Sahtlam Volunteer Fire Department
Archaeological Site:	None identified

LOCATION MAP



APPLICATION SUMMARY

This application was received May 2, 2017 for the purposes of building a new single family dwelling within the Cowichan River Development Permit Area. Currently on the property is a small cabin and a residential accessory building. The applicants are proposing to build a new dwelling and keep the existing one.

COMMISSION / AGENCY / DEPARTMENTAL CONSIDERATIONS

N/A

OFFICIAL COMMUNITY PLAN/POLICY CONSIDERATIONS

The property is within the Cowichan River Development Permit Area (DPA) of the Electoral Area E and portions of F Official Community Plan, which specifies guidelines regarding the Riparian Areas Regulation and protection of development from hazardous conditions, specifically flooding and erosion potential.

PLANNING ANALYSIS

In 1989, the CVRD commissioned a study assessing the flooding and erosion potential of sections of the Cowichan River. The study was prepared by Hardy BBT Limited, a firm of geotechnical engineers, who created a hazard map delineating zones of varying flood and erosion potential.

The subject property is within "Zone B" which is defined as conditionally suitable for further development. Please see attached excerpt of the Hardy BBT report map.

The principal requirement for development in Zone B pursuant to the Cowichan River Development Permit guidelines is submission of a geotechnical assessment. A report by Madrone Environmental Services Ltd. indicated that 'the land may be used safely for the use intended".

The Development Permit application adequately addresses the DPA guidelines, and staff recommends approval (Option 1).

OPTIONS

1. That Development Permit Application 3-F-17DP (5577 West Riverbottom Road) be approved, and that the General Manager of Planning and Development be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of Official Community Plan Bylaw No. 1490.

2. That Development Permit Application 3-F-17DP (5577 West Riverbottom Road) be denied.

Prepared by:

Emily Young, BA (Plan)
Planning Technician

Reviewed by:

Rob Conway, MCIP, RPP
Manager

Ross Blackwell, MCIP, RPP, A. Ag.
General Manager

ATTACHMENTS:
Attachment A – Flood Assessment Report - Madrone (March 14, 2017)
Attachment B – Hardy BBT Map
Attachment C - Subject Property Map
Attachment D - McComb PERMIT

MADRONE
environmental services ltd.

FLOOD ASSESSMENT

5577 Riverbottom Road West
Sahtlam, BC

FOR:

Dan McComb & Carol Baloun
5577 Riverbottom Road West
Sahtlam, BC
V9L 6H8

BY:

Nathaniel Tougas, P.Eng.
Madrone Environmental Services Ltd.

March 14, 2017

MADRONE ENVIRONMENTAL SERVICES LTD.
1081 CANADA AVENUE • DUNCAN • BC • V9L 1V2
TEL 250.746.5545 • FAX 250.746.5850 • WWW.MADRONE.CA

DOSSIER: 17.0042

MADRONE
environmental services ltd.

Synopsis

As requested by Mr. Dan McComb & Mrs. Carol Baloun (the 'Client'), Mr. Nathaniel Tougas, P.Eng., (the "Qualified Professional") of Madrone Environmental Services Ltd. ('Madrone') conducted a Flood Assessment for the proposed development (i.e. new construction of a single-family dwelling) at 5577 Riverbottom Road West, Sahtlam, B.C. (the 'Land' or the 'Property'). The Land is situated within the Cowichan River Development Permit Area (DPA) of the Cowichan Valley Regional District (the 'CVRD'; the "Approving Authority").

My assessment report meets the requirements of the CVRD for a development permit and building permit application and it follows "Professional Practice Guidelines – Legislated Flood Assessments for a Changing Climate in BC" (APEGBC, 2012).

I collected and reviewed appropriate background information. I reviewed the proposed residential development on the Property. I conducted field work on and beyond the Property. I reported on the results of the field work on and beyond the Property. I considered changed conditions (i.e. climate change) on and beyond the Property.

For a flood hazard analysis, I have: reviewed and characterized floods that may affect the Property; estimated the flood hazard on the Property; and included the effects of climate change and land use change. I have: compared the level of flood hazard tolerance adopted by the Approving Authority with the findings of my investigation; made a finding on the level of flood hazard tolerance on the Property based on the comparison; and made recommendations to reduce the flood hazards on the Property. I have reported on the requirements for future inspections of the Property.

Based on my comparison between the findings from the investigation and the adopted level of flood hazard tolerance, I hereby give my assurance that, based on the conditions contained in the flood assessment report, for a development permit, as required by the *Local Government Act* (Sections 488 and 491 (2)), my report will "assist the local government in determining what conditions or requirements under [Section 491] subsection (2) it will impose in the permit" and, for a building permit, as required by the Community Charter (Section 56), "the Land may be used safely for the use intended" with a recommended registered covenant.

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FIGURES

MADRONE
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FLOOD ASSESSMENT

5577 Riverbottom Road West Sahtlam, BC

1 Introduction

As requested by Mr. Dan McComb & Mrs. Carol Balour (the 'Client'), Mr. Nathaniel Tougas, P.Eng., (the "Qualified Professional") of Madrone Environmental Services Ltd. ('Madrone') conducted a flood assessment for the proposed development at 5577 Riverbottom Road West, Sahtlam, B.C. (the 'Land' or the 'Property').

1.1 Objectives

I understand that the proposed development consists of the new construction of a single-family dwelling on Land that is situated within the Cowichan River Development Permit Area (DPA), as identified in the Cowichan Valley Regional District's (CVRD; the "Approving Authority") Cowichan-Koksilah Official Community Plan Bylaw No. 1490, 1994. This DPA is designated according to Section 488 of the *Local Government Act* to protect development from hazardous conditions.

The objectives of this assessment, therefore, are, for a development permit, as required by the *Local Government Act* (Sections 488 and 491 (2)), to "assist the local government in determining what conditions or requirements under [Section 491] subsection (2) it will impose in the permit" and, for a building permit, as required by the Community Charter (Section 56), to determine whether "the Land may be used safely for the use intended."

1.2 Study Area and Methodology

The study area includes a 1-km reach of the Cowichan River floodplain that is approximately 550 m SSW to 350 m ENE from the Property.

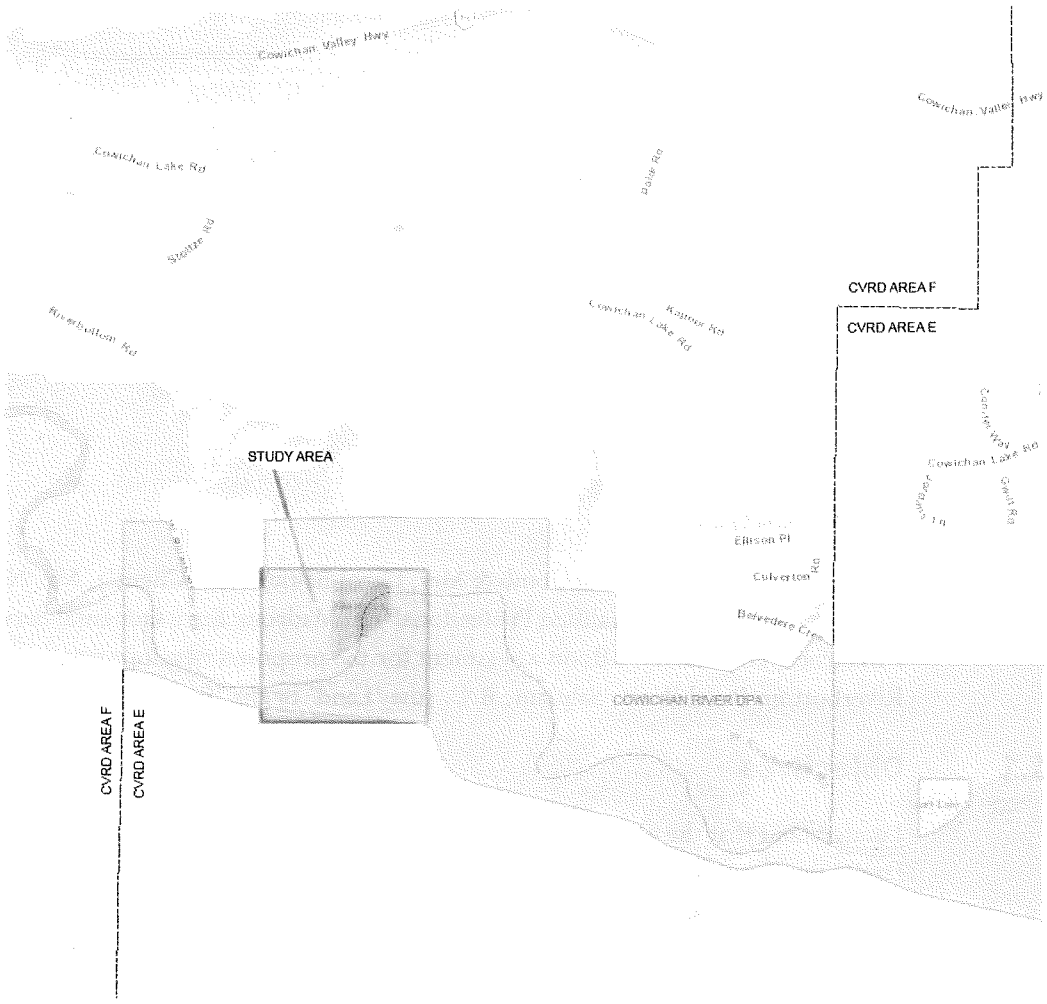


FIGURE 1: MAP OF STUDY AREA WITHIN COWICHAN RIVER DPA
NOTICE THE COWICHAN RIVER DPA ENCOMPASSES THE STUDY AREA AND INCLUDES PARTS OF CVRD AREAS E & F.

On March 1, 2017, Mr. Ken Hughes-Adams, M.Eng., P.Eng., and I traversed the study area at a reconnaissance intensity level – relative elevations along Riverbottom Road and down to Cowichan River were measured by clinometer and observed by sight, respectively, the river between adjacent floodplain mapping cross-sections was observed, and placemarks with geo-tagged photos were added to Avenza Maps on a mobile tablet.

Fieldwork was conducted after background study.

1.3 Background Information

For this assessment, I collected and reviewed:

- The jurisdiction's relevant development bylaw[1];
- The jurisdiction's web map[2];
- Floodplain mapping[3] and accompanying design brief[4];
- Surficial geology mapping[5];
- Climate data – historical[6] and future[7]; and
- Previous hydrotechnical reports[8].

[1] Cowichan Valley Regional District. (amended 2016, February 10). *Cowichan-Koksilah Official Community Plan Bylaw No. 1490, 1994*. Retrieved from http://www.cvrd.bc.ca/DocumentCenter/Home/View/556

[2] Cowichan Valley Regional District. (modified 2016, November 23). CVRD Web Map. Retrieved March 2017, from http://geocortex.cvrd.bc.ca:5050/Html5Viewer/Index.html?configBase=http://geocortex.cvrd.bc.ca:5050/Geocortex/Essentials/Public/REST/sites/defaultPublic/viewers/Html5Viewer/virtualdirectory/Resources/Config/Default

[3] BC Ministry of Environment. (1997, September 30). *Cowichan River (Riverbottom Road Area)*. 1:5000. Floodplain Mapping, Drawing No. 91-33-2, Sheet 2.

[4] BC Ministry of Environment, Lands and Parks. (1997). A Design Brief on the Floodplain Mapping Project - Cowichan and Koksilah Rivers near Duncan and the Cowichan River (Riverbottom Road Area). Victoria, BC.

[5] Blyth, H.E., and Rutter, N.W. (1993). *Surficial geology of the Duncan area*. (1:50,000). British Columbia Geological Survey Open File 1993-27. British Columbia Ministry of Energy, Mines and Petroleum Resources.

[6] Environment Canada. (modified 2016, April 9). *1981 – 2010 Climate Normals and Averages – Normals Data – North Cowichan*. Retrieved from http://climate.weather.gc.ca/climate_normals/results_1981_2010_e.html?searchType=stnName&txtStationName=north+cowichan&searchMethod=contains&txtCentralLatMin=0&txtCentralLatSec=0&txtCentralLongMin=0&txtCentralLongSec=0&stnID=76&dispBack=1

[7] PCIC. (2012). *Plan2Adapt*. Retrieved March 2017, from University of Victoria: https://www.pacificclimate.org/analysis-tools/plan2adapt

[8] Hardy BBT Ltd. (1989). Assessment of Flooding and Erosion Potential of Cowichan River near Riverbottom Road.

2 Physical Setting

This section describes the location, terrain, climate and hydrology of the study area.

2.1 Location

The study area is located on the north side of the Cowichan River, midway between Lake Cowichan and Cowichan Bay, and in the Hamlet of Lower Sahtlam of the CVRD Electoral Area F.

2.2 Terrain

The most recent surficial geology map (Blyth & Rutter, 1993) indicates that Holocene fluvial processes now dominate the modern Cowichan valley, and that sand and gravel has been deposited by the Cowichan River in the study area. I observed sand and gravel within the active floodplain and I expect these materials were historically deposited to a substantial thickness (> 1 m) up to and including the Property.-

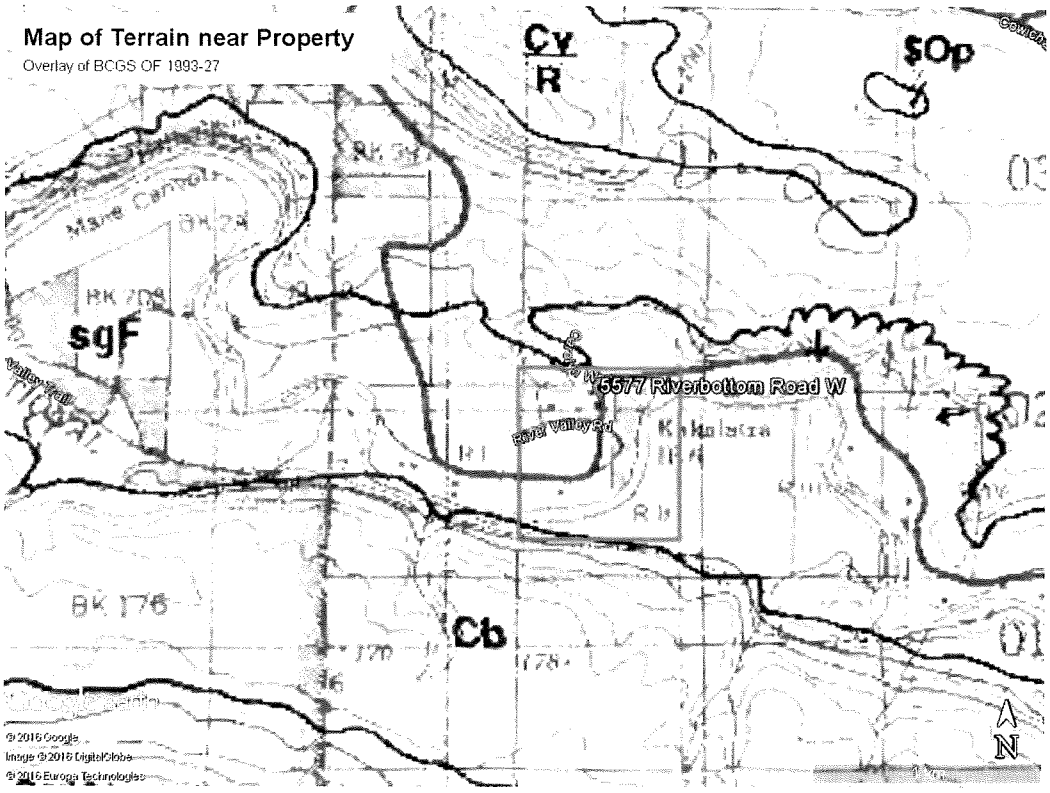


FIGURE 2. MAP OF TERRAIN NEAR PROPERTY
NOTICE THE FLUVIAL SAND AND GRAVEL (sgF) DEPOSITED IN THE STUDY AREA (GREEN OUTLINE). NOTICE THE LANDSLIDE SYMBOLS (HEADWALL SCAR) EASTWARD ALONG THE COWICHAN RIVER.

Surface expression on the Property and on Riverbottom Road within the study area is plain (slopes between 0-5%), while it is undulating (non-linear rises and hollows with slopes generally less than 26%) between Riverbottom Road and the Cowichan River.

2.3 Climate & Hydrology

The "Georgia Basin Low Flow Zone" (Coulson & Obedkoff, 1998) has a Mediterranean climate with wet, mild winters, and dry summers created by the rain-shadow of the Insular Mountains to the west. Specifically, climatic conditions on the Property have historically likely very similar to those recorded at the nearest Environment Canada weather station (i.e. North Cowichan, approximately 15 km east of Property at 46 m elevation). During the period 1981-2010, the mean annual precipitation was 1153 mm including a mean annual snowfall of 44 cm, while extreme daily precipitation was 77 mm on October 16, 2003.

Climate change for Cowichan Valley in the 2050s is projected to consist of 5% wetter winters with 39% less snowfall, and 18% drier summers.

The Cowichan River has its headwaters in Cowichan Lake, from which it flows in an easterly direction for approximately 46 km and empties into Cowichan Bay. As published by Water Survey of Canada (WSC), the Cowichan River at the gauge near Duncan has a drainage area of 826 km^2, 596 of which are above the Cowichan Lake outlet.

Annual peak flows for the Cowichan River generally occur in November, December or January, and are the result of heavy rainfall or rain combined with a melting snowpack.

3 Flood Hazard Analysis

My flood hazard analysis involved the review and characterization of flooding that may affect the Property, followed by a quantitative estimate of the flood hazard and considering climate change.

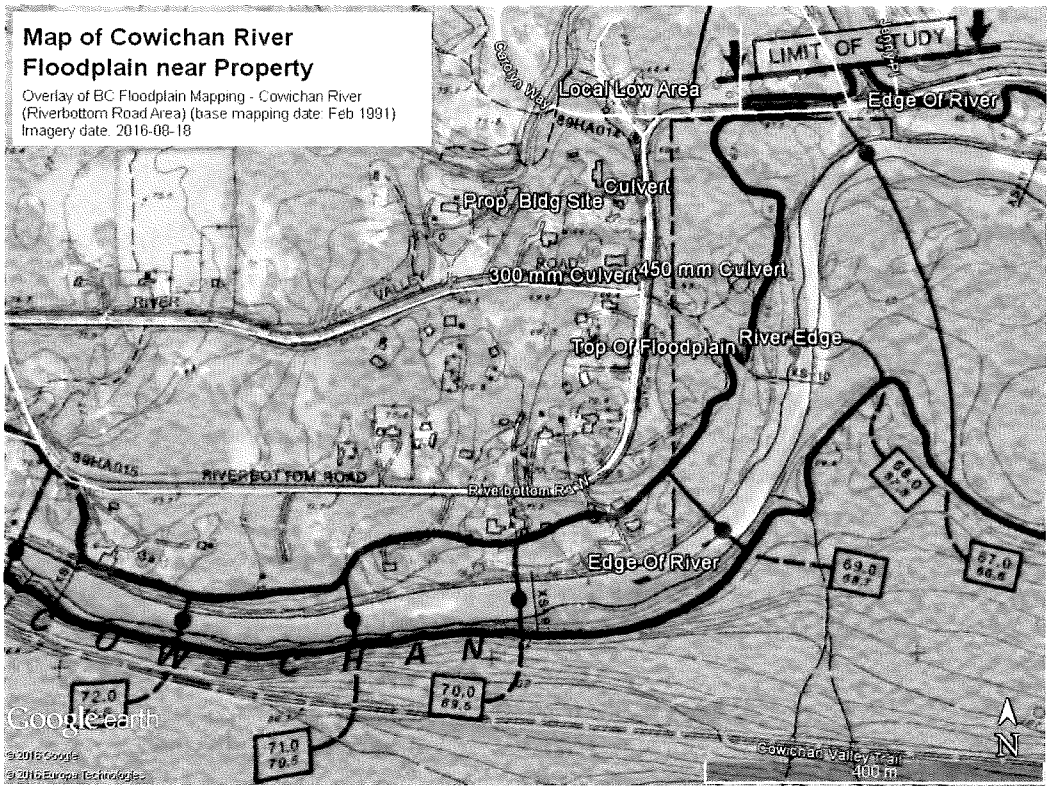


FIGURE 3. MAP OF COWICHAN RIVER FLOODPLAIN NEAR PROPERTY
NOTICE THAT THE PROPOSED BUILDING SITE IS SITUATED BEYOND THE 200-YEAR FLOODPLAIN LIMIT ON THE OUTDATED (1997) MAP. NOTICE THE PLACEMARKS BY MADRONE DURING SITE RECONNAISSANCE (2017-03-01), INCLUDING THE "RIVER EDGE" WHICH IS CURRENTLY EAST OF THAT SHOWN ON THE BASE MAPPING (1991).

3.1 Water Levels

The Property is situated beyond the 200-year floodplain limit on the outdated (1997) map; however, we considered the effects of climate change in our analysis. The design brief that accompanied the 1997 map included hydraulic analysis with sensitivity to design flow (Q). This sensitivity analysis allowed for the evaluation of flood levels for increases in flows, as expected from climate change.

For example, a 16% increase in the 200-year daily design discharge (Q200D = 600 m^3/s), or an equivalent flow to the 200-year instantaneous design discharge (Q200I = 700 m^3/s), resulted in an average water level increase of 0.22 m. At this flow rate, water levels at all 24 cross sections, including XS-10 (nearest to the Property), remained within the 200-year design flood level (including a freeboard of 0.6 m). A 30% increase in Q resulted in

an average water level increase of 0.40 m – water levels at 2 cross sections exceeded flood level by a maximum of 0.20 m.

Although I have not determined whether any statistically significant trend is detectable in storm precipitation and in flood magnitude/frequency, I consider a 16% increase in design discharge to reasonably account for climate change in the 50-year design life of the proposed development and to follow practice guidelines (APEGBC, 2012). Maintaining the allowance for freeboard, this adjustment results in a 200-year flood construction level of approximately 68.4 m GSC at XS-10 on the 1997 map.

If flood levels do reach this elevation here, as I expect they eventually will, then, based on the topography in the 1997 map and excluding any dikes or similar works upstream, the low-lying area east of Riverbottom Road may flood by up to 0.3 m (1 ft), flowing north around the high mound before discharging east back into Cowichan River. In this hazard scenario, the proposed building would be situated at least 60 m away and across the road (including ditches on either side) from the flood limit.

3.2 Bank Erosion

A hydrotechnical report, which was conducted prior to the BC Floodplain Mapping of the Cowichan River, stated that, upstream from Duncan, much of the Cowichan River was "laterally unstable" and "characterized by significant lateral erosion and channel switching." (Hardy BBT Ltd, 1989)

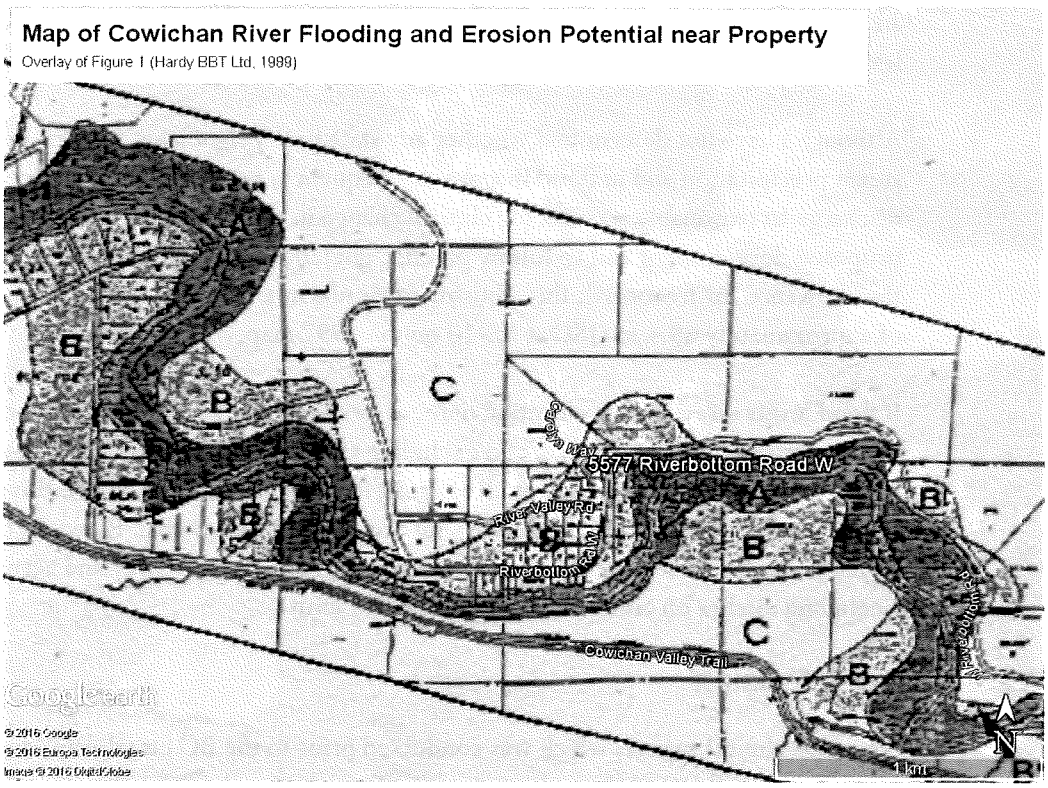


FIGURE 4. MAP OF COWICHAN RIVER FLOODING AND EROSION POTENTIAL NEAR PROPERTY
NOTICE THAT THE PROPERTY IS SITUATED WITHIN "ZONE B: LANDS ARE BEYOND THE PROBABLE LIMITS OF RIVER EROSION WITHIN THE 50 YEAR PLANNING HORIZON, BUT MAY BE SUBJECT TO FLOODING." (Hardy BBT Ltd, 1989)

By comparing the BC Floodplain Map (base map dated 1991) with the satellite imagery (dated 2016), it appears that the north-oriented reach in the study area has laterally migrated eastward by up to the full channel width (40 m near XS-10). This suggests, and field evidence supports, a bank erosion rate of 2.7 m per year in recent time.

Potential impacts for Cowichan Valley in the 2050s include higher intensity precipitation and increased runoff, leading to more frequent higher river flows and increased bank erosion. Therefore, I expect the Cowichan River to more quickly migrate east in this area in the future, which would decrease the likelihood of flooding west toward the Property at XS-10.

4 Conclusions and Recommendations

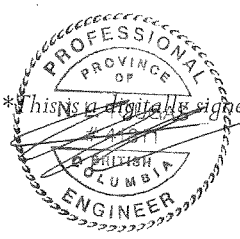
I have determined that the Land is elevated above the 200-year flood level, including freeboard and considering climate change. The provincial guideline for flood hazard is the 200-year flood level; therefore, for a development permit, as required by the *Local Government Act* (Sections 488 and 491 (2)), my report will "assist the local government in determining what conditions or requirements under [Section 491] subsection (2) it will impose in the permit" and, for a building permit, as required by the Community Charter (Section 56), "the Land may be used safely for the use intended" with a recommended registered covenant that this report must remain on title until superseded.

Due to the uncertainty in current climate models, the design discharge and corresponding flood magnitudes, and erosion rates may vary from the given estimates. Furthermore, the construction of structural mitigation works or land use change upstream, or the substantial elevation of the weir at Cowichan Lake may increase flood magnitudes in the study area. Therefore, this assessment report is valid for a period of no greater than 5 years from the issue date and without significant hydrological changes in Cowichan River.

5 Closure

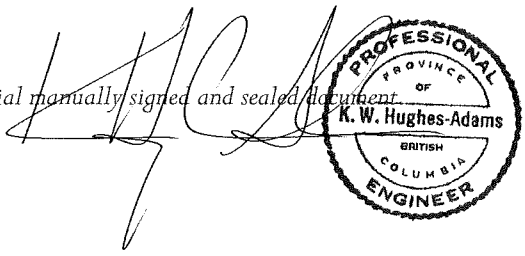
We trust that this report meets the applicable requirements. We grant permission to the Cowichan Valley Regional District to use this report in the development permit and building permit applications. Please contact us if you require further information or services.

Prepared by:



Nathaniel Tougas, P.Eng.

Reviewed by:



Ken Hughes-Adams, M.Eng., P.Eng.

** This is a digitally signed duplicate of the official manually signed and sealed document.*

6 Limitations

To properly understand the recommendations and opinions contained in this report, its limitations, and Madrone's rights and responsibilities, reference must be made to entire report, including, without limitation, all appendices, drawings, and figures.

A geo-hazard site investigation can reduce, but not wholly eliminate uncertainty regarding the natural hazards at a site, given reasonable limits of time and cost. Madrone Environmental Services Ltd. (Madrone) has conducted this investigation and prepared this report in a manner consistent with the level of care normally exercised by qualified professionals currently practicing in the area under similar conditions and budgetary constraints. No other warranties, either expressed or implied, are made. If unexpected environmental conditions are encountered on the site, Madrone must be notified in order that we may determine if modifications to our findings are necessary.

Madrone has made reasonable efforts to investigate the extent and properties of soil, rock and water at locations that are representative of conditions in the relevant portions of the project site. However, due to the nature of geotechnical engineering, there is an inherent risk that some conditions were not detected, and that actual subsurface conditions may vary considerably from the investigation points and with the passage of time. You are responsible for ensuring that any other party making use of any documents prepared by Madrone regarding the project also acknowledges and accepts this risk.

Madrone has prepared this report for the exclusive use of its client. This report is intended to assist the client in a rezoning, subdivision, and building permit process. This report was prepared considering circumstances applying specifically to the client and applies only to the specific property identified in the report. It is intended only for internal use by the client for the purposes for which it was commissioned and for use by government agencies regulating the specific activities to which it pertains. It is not reasonable for other parties to rely on the observations or conclusions contained herein.

Where practical, Madrone has attempted to verify the information provided to us by you or other individuals or organizations. However, Madrone does not accept any responsibility for any inaccuracies, deficiencies, or omissions resulting from receipt of incorrect or fraudulent information.

Madrone's investigation and findings specifically does not address regulatory compliance of your subject property per requirements of the B.C. *Environmental Management Act* and its subordinate regulations including, but not limited to, the *Contaminated Sites Regulation*.

Any verbal advice provided by Madrone, though given in good faith, may be subject to misinterpretation. Consequently Madrone does not accept responsibility for any verbal advice unless the advice is confirmed in writing. Madrone will not be responsible for any project decisions you, your agents or contractors make if the decisions were made without Madrone's advice or are inconsistent with Madrone's advice.

6.1 Limitations on Liability

The total amount of all claims you may have against Madrone or any present or former partner; executive officer, director, stockholder, employee or agent thereof under this engagement, including but not limited to claims for negligence, negligent misrepresentation and breach of contract, are strictly limited to the amount of any professional liability insurance that Madrone may have available for such claims.

Madrone is not liable for any consequential loss, injury or damages you suffer, including but not limited to loss of use, earnings and business interruption.

No claim may be brought against Madrone in contract or tort more than two (2) years after Madrone's involvement in the project.

6.2 Intellectual Property

Copyright in this report and associated documents prepared by Madrone, including those prepared at your request or direction, remain the property of Madrone. We hereby grant you alone a non-transferable license to use documents in connection with the particular project for which the documents were prepared. This license does *not* apply to any draft version of any document. You will not use the documents in connection with any other work, or project without the prior written approval by Madrone. If you are in breach of any obligation to make payment to Madrone, Madrone may revoke the licence referred to above and you will cause to be returned to Madrone all the documents and all copies thereof and you will remove from your computer systems any electronic copies of any of the documents. Field notes and technical documents used by and/or produced by Madrone are not subject to distribution.

ATTACHMENT B

R2

R1

Sec. 8

Sec. 8

30

150

ZONE B

ZONE C

ZONE B

ZONE

COWICHAN

31606

42806

28275

13329

24921

13363

1789

1-6-1-331

I.R. 6 (Kakalatza)

PARK RESERVE (CAMSCOT EAST)

RIVER VALLEY ROAD

WEST RIVER ROAD

BOTTOM ROAD

WILDWOOD ROAD

PLAN 1678 O.S.

PLAN 1215 O.S.

PLAN 672 R/W

CANADIAN NATIONAL RAILWAY

WATER LINE FROM AIR PHOTOS

H.W.M. FROM L.R.O. PLAN

H.W.M. FROM FIELD NOTES

R2

ATTACHMENT C

CVRD

This map is compiled from various sources for internal use and is designed for reference purposes only.

The Cowichan Valley Regional District does not warrant the accuracy.

All persons making use of this compilation are advised that amendments have been consolidated for convenience purposes only and that boundaries are representational.

The original Bylaws should be consulted for all purposes of interpretation and applicaton of the Bylaws.

File: 03-F-17DP

TRIM Orthophoto (2014)

N W E S

R2

COWICHAN VALLEY REGIONAL DISTRICT

DEVELOPMENT PERMIT

FILE NO: 03-F-17DP

DATE: August 01, 2017

REGISTERED PROPERTY OWNER(S):

DANIAL GEORGE MCCOMB

5577 RIVERBOTTOM ROAD

DUNCAN BC V9L 6H8

1. This Development Permit is now issued and is subject to compliance with all of the bylaws of the Cowichan Valley Regional District applicable thereto, except as specifically varied or supplemented by this Permit.

2. This Development Permit applies to any and all buildings, structures and other development located on those lands within the Regional District as described below (legal description):

   Lot 18, Section 7, Range 2, Sahtlam District, Plan 28275 (PID: 002-036-398)

3. Authorization is hereby given for the construction of a single family dwelling within the Cowichan River development Permit Area, in accordance with Schedule A.

4. The land described herein shall be developed in substantial compliance with the terms and provisions of this Permit and any plans and specifications attached to this Permit shall form a part thereof.

5. The following Schedule is attached and forms a part of this Permit:

   Schedule A – Flood Assessment Report – Madrone (March 14, 2017)

This Permit is not a Building Permit. No certificate of final completion shall be issued until all items of this Development Permit have been complied with to the satisfaction of the Planning and Development Department.

ISSUANCE OF THIS PERMIT HAS BEEN AUTHORIZED BY RESOLUTION NO. _____ PASSED BY THE BOARD OF THE COWICHAN VALLEY REGIONAL DISTRICT THE _____DAY OF _____, _____.

Subject to the terms of this Permit, if the holder of this Permit does not substantially start any construction within 2 years of its issuance, this Permit will lapse.

I HEREBY CERTIFY that I have read the terms and conditions of the Development Permit contained herein. I understand and agree that the Cowichan Valley Regional District has made no representations, covenants, warranties, guarantees, promises or agreements (verbal or otherwise) with DANIAL GEORGE MCCOMB (owner) and DDS HOLDING LTD. (applicant) other than those contained in this Permit.

Owner/Agent (signature)	**Witness (signature)**
Print Name	**Print Name**
Date	**Date**

STAFF REPORT TO COMMITTEE

DATE OF REPORT	August 16, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Development Services Division Land Use Services Department
SUBJECT:	Development Permit Application 9-B-16DP (2786 Meadowview Place)
FILE:	9-B-16DP

PURPOSE/INTRODUCTION

The purpose of this report is to present a development permit application for a proposed subdivision that would create five new lots pursuant to the Shawnigan Village Development Permit Area guidelines and Shawnigan Lake Zoning Bylaw No. 985.

RECOMMENDED RESOLUTION

That is be recommended to the Board:

1. That Development Permit Application No. 09-B-16DP (2786 Meadowview Road) be approved.

2. That the General Manager of Land Use Services Development be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of Official Community Plan Bylaw No. 3510.

BACKGROUND

At the Electoral Area Services Committee meeting of June 21, 2017, the committee reviewed development permit application 9-B-16DP and provided the following recommendation to the CVRD Board:

That consideration of Development Permit Application No. 9-B-16DP (2786 Meadowview Road) be deferred until the Ministry of Transportation and Infrastructure has confirmed in writing if it accepts the recommendations of the Hydrology Report prepared by J.E. Anderson & Associates dated February 27, 2017, and the proposed drainage ditch right of way.

This motion was passed by the CVRD Board at its June 28, 2017 meeting. Recently, the CVRD received correspondence from the Ministry of Transportation and Infrastructure regarding the proposed subdivision and the associated drainage works, so the development permit application is presented again for the Committee's consideration. The staff report regarding the application is included with this report as Attachment A

ANALYSIS

When this application was reviewed by the EASC in June, it was uncertain if MoTI would approve the subdivision as proposed or if the recommendations in the applicant's hydrology report and a proposed right of way over a drainage ditch would be accepted.

The Ministry has recently issued a "Preliminary Layout Approval" letter to the applicant. The letter confirms the Ministry's in-principle acceptance of the proposed layout, acceptance of the recommendations of the February 27, 2017 hydrology report, and acceptance of a statutory right of way for the drainage ditch. As the EASC and Board's requirements for consideration of the

development permit application have been satisfied, the application is being brought back for the Committee's consideration.

As this application complies with applicable development permit guidelines, approval of the permit is recommended.

Options:

Option 1:

1. That Development Permit Application No. 09-B-16DP (2786 Meadowview Road) be approved.

2. That the General Manager of Land Use Services Development be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of Official Community Plan Bylaw No. 3510.

Option 2:
That Development Permit No. 9-B-16DP (2786 Meadowview Road) be denied due to stated inconsistencies with applicable development permit guidelines.

Option 1 is recommended.

FINANCIAL CONSIDERATIONS

N/A

COMMUNICATION CONSIDERATIONS

N/A

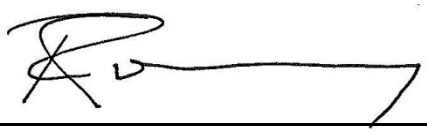
STRATEGIC/BUSINESS PLAN CONSIDERATIONS

N/A

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☐ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☐ Land Use Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

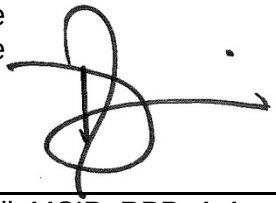
Prepared by:



Rob Conway, MCIP, RPP
Manager

Reviewed by:

Not Applicable
Not Applicable



Ross Blackwell, MCIP, RPP, A.Ag.
General Manager

ATTACHMENTS:
Attachment A – June 21, 2017 EASC Staff Report
Attachment B – July 31, 2017 Preliminary Layout Approval Letter

STAFF REPORT TO COMMITTEE

DATE OF REPORT	June 13, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of June 21, 2017
FROM:	Development Services Division Land Use Services Department
SUBJECT:	Development Permit Application No. 09-B-16DP (2786 Meadowview Road)
FILE:	09-B-16DP

PURPOSE/INTRODUCTION

The purpose of this report is to present a development permit application for a subdivision that would create five new lots pursuant to the Shawnigan Village Development Permit Area (DPA) guidelines and Shawnigan Lake Zoning Bylaw No. 985.

RECOMMENDED RESOLUTION

That is be recommended to the Board:

1. That Development Permit Application No. 09-B-16DP (2786 Meadowview Road) be approved subject to 1) the applicant providing written confirmation from the Ministry of Transportation and Infrastructure accepting the recommendations of the Hydrology Report prepared by J.E. Anderson & Associates dated February 27, 2017 and 2) the applicant provide written confirmation from Ministry of Transportation & Infrastructure accepting to the Right-of-Way for the proposed drainage ditch; and
2. That the General Manager of Land Use Services Development be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of Official Community Plan Bylaw No. 3510.

BACKGROUND

Location:	2786 Meadowview Road
Owner:	Cowichan Valley Kitchens
Size of Land Parcel:	1 hectare (2.5 acres)
OCP Designation:	Village Residential
Existing Zoning:	R-3 – Residential
Use of Existing Property:	Vacant
Use of Surrounding Properties:	
North:	Park & Residential
South:	Residential
East:	Residential
West:	Residential
Road Access:	Meadowview Road
Water:	Shawnigan Lake North Water System
Sewage Disposal:	Within Shawnigan Beach Estate Sewer System Proposed: Septic Fields
Environmentally Sensitive Areas:	Possible wetland
Fire Protection:	Shawnigan Lake Fire Service

Wildfire Hazard Rating: Moderate

LOCATION MAP

APPLICATION SUMMARY

The purpose of this application is to consider a Development Permit for the subdivision of 2786 Meadowview Road (see Attachment A). The applicant is proposing to subdivide the 1 hectare parent parcel into five 0.2 hectare lots. Each parcel is proposed to be serviced by the CVRD, managed Shawnigan Lake North Water System and individual septic fields.

The property is currently vacant, partially forested, and includes a low lying area that seasonally floods on proposed Lot E (see Attachment B). Based on a hydrology report prepared in support of the application, the proposal is to backfill the low lying area and construct a ditch to direct the stormwater runoff to an existing drainage route within a CVRD park.

COMMISSION / AGENCY / DEPARTMENTAL CONSIDERATIONS

The application was referred to the Area B Advisory Planning Commission which passed the following motion (see Attachment C):

> ***"Motion is recommended to accept the application as per the Hydrology Report and the three recommendations outlined in it:***
> *1. The low-lying area be backfilled and the water redirected to a CVRD park to the north via a 2.0 meter ditch;*
> *2. That the ditch be located within a Statutory Right-of-Way that is in favor of the BC MoT;*

and,
3. That the fill area be landscaped with a minimum of 150 mm of absorbent topsoil to not increase downstream flows into the park.
AND
4. Conditional upon the BC MoT acceptance of the Hydrology Report.
Moved and carried.

AND we recommended that:
The CVRD take the necessary steps to remedy the impaired drainage infrastructure on Lot 68 (as listed on page 1, Attachment D, of JEA Hydrology Report) and make sure that the party responsible maintains it accordingly into the future."

OFFICIAL COMMUNITY PLAN/POLICY CONSIDERATIONS

Official Community Plan
The proposed development is subject to the Shawnigan Village Development Permit Area Guidelines. Applicable guidelines include:

General Guidelines:
- Removal of invasive species
- Reducing the risk of flooding

Rainwater Management, and Environmental Protection:
- Stormwater runoff should be managed onsite using natural solutions such as rain gardens and bio-swales to prevent damage to roads, surrounding properties and sensitive watershed features.
- Pervious surfaces should predominate, to encourage infiltration of water.

Subdivision:
- The removal of trees should only be allowed when necessary and where alternative vegetation and water retention measures can be achieved.

Zoning
As per Shawnigan Lake Zoning Bylaw No. 985, the subject property is zoned R-3 (Residential). Permitted uses include: single family residential dwelling; horticulture; home based businesses; bed and breakfast accommodation; daycare nursery school accessory to a residence; and, small suite or secondary suite. Maximum parcel coverage is 30% for all buildings and structures, and minimum parcel size for a parcel serviced by community water system is 0.2 hectares (0.49 acres).

PLANNING ANALYSIS

Official Community Plan – Development Permit Area Guidelines
It is the responsibility of the applicant to demonstrate how their application meets the applicable guidelines of the Shawnigan Village DPA. The following section explains how the applicant intends to meet the DPA guidelines.

General Guidelines
Removal of Invasive Species: As invasive species, primarily scotch broom, were found on the subject property, the applicant is proposing to remove all invasive species as a condition of the Development Permit.

Flooding Risk: When the CVRD and Ministry of Transportation and Infrastructure (BC MoT) staff conducted a joint site visit of the subject property, a low lying area approximately 10 m wide and 30 m long was identified with standing water on proposed Lot E. During the visit, the applicant explained that stormwater runoff was being directed onto his property via a BC MoT culvert located under Meadowview Road (see Attachment D). ge piece of plywood and bags of cement were

found blocking the culvert opening on the west side of Meadowview Road. According to the applicant, these measures were taken to stop the flow of stormwater onto the subject property, changes not authorized by BC MoT.

Given the standing water found on proposed Lot E, and the flooding that currently occurs onto the service road and neighbouring properties (Lot 34 & 35) during heavy rain events, the CVRD and BC MoT jointly expressed concerns about the potential flooding risk that could result from developing the subject property. As a result, the CVRD in partnership with BC MoT requested the applicant provide a report certified by a Professional Engineer addressing the following: 1) that the development will not result in property damage or the loss of life on the site or in the surrounding areas; 2) the classification of low lying area (i.e. is it considered a wetland); and, 3) the source of the water pooling onto the property.

A hydrology report was prepared by a Registered Professional Engineer at JE Anderson & Associates (see Attachment E) and an Environmental Assessment was conducted by a Registered Professional Biologist at Madrone Environmental Services (see Attachment F). Based on the findings of the Madrone report, the low lying area is classified as a 'seasonally wetted area', and is not connected to fish habitat and thus not subject to the Riparian Areas Regulation. It also does not represent a typical wetland habitat; however, the area does contain vegetation that is adapted to higher levels of moisture. As for the source of the pooling water, the Biologist believes the source is rain and snow melt that is conveyed onto the property via the BC MoT ditch and culvert located under Meadowview Road.

Based on the results of the hydrology assessment, the Engineer believes the source of the pooling water is the BC MoT culvert, which directs uphill drainage onto the subject property and then the CVRD park. Given these findings, the Engineer recommendations the following:

1. The low lying area be backfilled and the water directed to a CVRD park to the north via a 2.0 metre ditch;
2. That the ditch be located within a Statutory Right-of-Way that is in favor of the BC MoT;
3. That the fill area be landscaped with a minimum of 150 mm of absorbent topsoil; and
4. That a Geotechnical Engineer will be required to certify any walls or fill that will be supporting future buildings.

The report states that the filling of the low lying area will not increase downstream flows into the CVRD park, and that there will be no downstream concerns related to the proposed Lot E changes.

BC MoT has expressed concern to the CVRD regarding the findings of the Hydrology Report, specifically related to the classification of the seasonally wetted area and the recommendation to backfill. Staff have yet to receive a verbal or written confirmation from BC MoT accepting the recommendations of the report. As BC MoT is the jurisdiction responsible for managing drainage, Staff informed the applicant that it would be advisable to work out the concerns raised by BC MoT in advance of the Development Permit being considered by the Electoral Area Services Committee. That way, should BC MoT insist that changes be made to the proposed site drainage solution, the applicant will not be required to resubmit a Development Permit application and/or hold a Development Permit that is inconsistent with the conditions of the Preliminary Layout Approval (PLA).

As the applicant has expressed a desire to move the Development Permit forward without a resolution from BC MoT, Staff recommend approval of the Development Permit subject the applicant submitting a written confirmation to the CVRD from BC MoT 1) accepting the recommendations of the Hydrology Report and 2) accepting to hold the Statutory Right-of-Way for the proposed drainage ditch, prior to issuance of the Development Permit.

Rainwater Management
Rock pit infiltration systems for each lot are proposed to be constructed to managed rainwater onsite, as per a covenant registered on title. Should the systems exceed capacity for managing rainwater, overflow will be directed to the roadside ditch at the front of the parcels (see Attachment G).

Subdivision Guidelines:
Tree removal is only proposed for the building site for this subdivision.

Zoning
Based on the Zoning Bylaw requirements, the application meets the minimum lot size requirements of 0.2 hectares. Use and parcel coverage are unknown as this time, and thus will be assessed at the building permit stage.

Parkland Dedication
Parkland dedication pursuant to Section 510 of the *Local Government Act* is not required, as parkland was provided during the subdivision of Lots 1-7 of Plan No. 78487 (see Attachment I).

Recommendation
As this application complies with applicable Development Permit guidelines, approval of the permit is recommended.

OPTIONS

Option 1

1. That Development Permit Application No. 09-B-16DP (2786 Meadowview Road) be approved subject to 1) the applicant providing written confirmation from the Ministry of Transportation and Infrastructure accepting the recommendations of the Hydrology Report prepared by J.E. Anderson & Associates dated February 27, 2017 and 2) the applicant provide written confirmation from Ministry of Transportation & Infrastructure accepting to the Right-of-Way for the proposed drainage ditch; and,
2. That the General Manager of Land Use Services Development be authorized to permit minor revisions to the permit in accordance with the intent of development permit guidelines of Official Community Plan Bylaw No. 3510.

Option 2

That it be recommended to the Board that Development Permit No. 09-B-16DP (2786 Meadowview Road) be denied due to the stated inconsistencies with applicable development permit guidelines.

RECOMMENDATION

Staff recommends Option 1.

Prepared by:

Kasia Biegun
Planner I

Reviewed by:

Rob Conway, MCIP, RPP
Manager

Mike Tippett, MCIP, RPP
A/General Manager

ATTACHMENTS:
Attachment A – Subject Property Map
Attachment B – Proposed Subdivision Plan
Attachment C – APC Minutes
Attachment D – Existing Drainage
Attachment E – Hydrology Report
Attachment F – RAR Assessment Letter
Attachment G – Rainwater Management Plan
Attachment H – Park Dedication
Attachment I – Draft Development Permit

ATTACHMENT A

CVRD

This map is compiled from various sources for internal use and is designed for reference purposes only.

The Cowichan Valley Regional District does not warrant the accuracy.

All persons making use of this compilation are advised that amendments have been consolidated for convenience purposes only and that boundaries are representational.

The original Bylaws should be consulted for all purposes of interpretation and applicaton of the Bylaws.

File: 09-B-16DP

TRIM Orthophoto (2014)

N
W
E
S

R3

SUBDIVISION PLAN OF LOT 1, SECTION 3, RANGE 2 SHAWNIGAN DISTRICT PLAN VIP78487

PLAN EPP63278

ATTACHMENT B

BCGS 92B. 062

Scale = 1:500

10 5 0 10 20 30 40 50

Metres

The Intended plot size of this plan is
560 mm in width by 432 mm in height
(C size) when plotted at a scale of 1:500

DRAFT PLAN JULY 25 2016

LEGEND

Bearings are NAD 83 (CSRS) 3.0.0.BC.1.NVI grid bearings derived from carrier phase GPS observations and and are referred to the central meridian of Zone 10 (123° West). To obtain local astronomic bearings referred to the meridian through the traverse hub control point GPS TH 1101 subtract 0° 29' 32" from grid bearings.

This plan shows horizontal ground-level distances based on an ellipsoidal elevation of 131.5 metres.

To compute grid distances, multiply ground-level distances by the combined factor 0.99960785

The UTM coordinates and estimated network horizontal accuracy are derived from GPS single frequencies ties to PGC5 WCDA-PGC Situated at North Saanich BC NRCan Station No. 987003 and ALBH WCDA-PGC , Situated at Albert Head , Victoria BC, NRCan Station No. 927000

The estimated network horizontal accuarcy at the 95% confidence level is 0.01 metres.

All distances are in metres and decimals thereof.

- ● denotes standard iron post found.
- ○ denotes standard iron post placed.
- △ denotes traverse hub placed.
- ha. denotes hectares.
- SIP denotes short iron pin.
- DH denotes Drillhole in rock

DL 19

68

PLAN 46688

35

34

33

1

PLAN VIP82177

2

PLAN VIP78487

SECTION 3

RANGE 2

LOT 1

A 0.200 ha.

B 0.200 ha.

C 0.200 ha.

D 0.200 ha.

E 0.200 ha.

165

89° 23.607

26.113

26.320

25' 72.234

Fd IP disturbed

93° 12' 40"

09" 21.961

134°42'11"

133°

70.882

30' radial

22"

d=56.262

80.000

147°52" 82.902

179°25'23" 78.005

179°25'23" 75.185

173°

178°39'00" 74.254

15'

25"

d=55.503

r=

78.676

15'

83°

84°

8.374

129°29'42"

11.100 25"

15.589 83°

173°15'25" 2.000

BEARING DERIVATION 26' 193.223

26.265 15'

SIP DH

15.644 25"

173°15'25" 2.000

Fd IP disturbed

11.620 83°15'25"

97°21'05" 41.324

52"

MEADOWVIEW ROAD

GPS TH 1101

GPS TH 1101
Datum NAD83(CSRS) 3.0.0.BC.1.NVI UTM ZONE 10
UTM Northing 5389341.132
UTM Easting 451954.625
Estimated Horizontal Positional accuracy 0.01 m
Point Combined factor = 0.9996073
Convergence -0° 29' 23"

GPS TH 1108

GPS TH 1108
Datum NAD83(CSRS) 3.0.0.BC.1.NVI UTM ZONE 10
UTM Northing 5389322.444
UTM Easting 451762.384
Estimated Horizontal Positional accuracy 0.01 m
Point Combined factor = 0.9996084

G.W. LINDBERG LAND SURVEYING INC.
Professional Land Surveyor
Surveying & Geomatics Services
9261 Chemainus Road Tel. (250) 246-9393
Chemainus, B.C. V0R 1K5

This plan lies within the jurisdiction of the Approving Officer for the Ministry of Transportation and Infrastructure

This plan lies within the Cowichan Valley Regional District.

The field survey represented by this plan w
completed on the 15 th day of June, 2016
Gerald W. Lindberg, BCLS 730

R3

CVRD

SOUTH COWICHAN/ELECTORAL AREA B APC MEETING

Date: Thursday, June 1, 2017 - 7 PM
Place: Shawnigan Lake Community Centre
Address: 2804 Shawnigan Lake Rd., Shawnigan Lake, BC

MINUTES

Present:
Bruce Stevens, Chair
Dave Hutchinson, Vice-Chair
Kelly Musselwhite, Secretary
Pieter Devries, APC
Mike Hennessey, APC
Steve McLeod, APC
Sarah Malerby, APC

Absent :
Grant Treloar, APC

Guests:
Sierra Acton, Area Director
Susan Kaufmann, Chair, Area E APC
Linda O'Connor, Citizen
Cliff Evans, Citizen
Robert Arndt, 09-B-16DP Applicant

1. **INTRODUCTIONS – round table**

2. **ADOPTION OF Minutes of the meeting of May 8, 2017 – moved and carried**

3. **REPORTS AND UPDATES - none**

4. **BUSINESS ARISING FROM MINUTES**

5. **DELEGATIONS - none**

6. **CORRESPONDENCE - none**

7. **INFORMATION - none**

8. **NEW BUSINESS**

a) 09-B-16DP Robert Arndt - Cowichan Valley Kitchens –

Motion is recommended to accept the application as per the Hydrology Report and the three recommendations outlined in it:

1. The low-lying area be backfilled and the water redirected to a CVRD park to the north via a 2.0 meter ditch;
2. That the ditch be located within a Statutory Right-of-Way that is in favor of the BC MoT; and,
3. That the fill area be landscaped with a minimum of 150 mm of absorbent topsoil to not increase downstream flows into the park.

AND

4. Conditional upon the BC MoT acceptance of the Hydrology Report.

Moved and carried.

AND we recommended that:
The CVRD take the necessary steps to remedy the impaired drainage infrastructure on

Lot 68 (as listed on page 1, Attachment D, of JEA Hydrology Report) and make sure that the party responsible maintains it accordingly into the future.

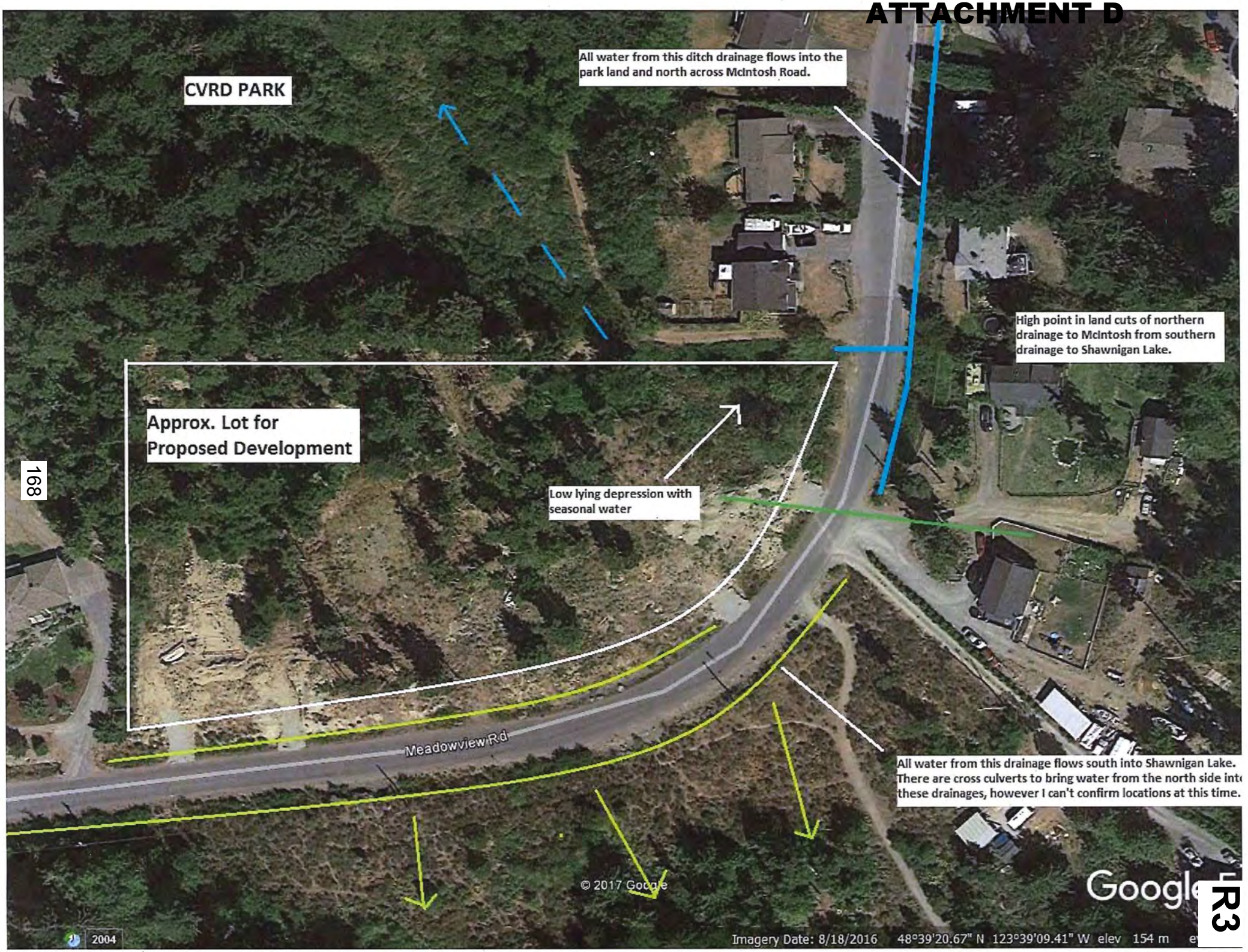
b) APC Protocol - Discussion

9. UNFINISHED BUSINESS - none

10. OTHER - none

11. PUBLIC QUESTIONS - none

12. ADJOURNMENT – 8:40 pm


CVRD PARK
All water from this ditch drainage flows into the park land and north across McIntosh Road.
High point in land cuts of northern drainage to McIntosh from southern drainage to Shawnigan Lake.
Approx. Lot for Proposed Development
Low lying depression with seasonal water
Meadowview Rd
All water from this drainage flows south into Shawnigan Lake. There are cross culverts to bring water from the north side int these drainages, however I can't confirm locations at this time.
© 2017 Google
Google
2004
Imagery Date: 8/18/2016 48°39'20.67" N 123°39'09.41" W elev 154 m

LEGAL SURVEYS
MUNICIPAL ENGINEERING
LAND DEVELOPMENT AND MANAGEMENT

JEA J.E. ANDERSON & ASSOCIATES
SURVEYORS - ENGINEERS

April 18, 2017

File No. 30054

Robert Arndt
2797 Meadowview Road
Shawnigan Lake, BC V0R 2W1

RE: 2786 Meadowview Road Drainage – Proposed 5-Lot Subdivision

---

Robert Arndt is planning a five-lot subdivision at 2786 Meadowview Road in Shawnigan Beach Estates in the Cowichan Valley Regional District (CVRD).

As part of the subdivision Development Permit submission, a hydrology study of the site is required to resolve the existing road culvert drainage and the proposed fill on Lot E.

The MoTI requested clarification of the drainage report submitted in late 2016. Since that time, we have visited the site several times, and a Qualified Environmental Professional has been retained.

1.0 Existing Drainage

1.1 General Drainage

Existing drainage from the proposed lots flows in two directions.

The west side of Lot D and Lot A, B, and C generally drain toward the ditch on Meadowview Road, with drainage flowing down the ditch to the west.

The east side of Lot D and Lot E flow to the north towards a large, flat, vegetated Lot 68. Lot 68 is very flat, and water tends to pond in the area during very wet weather. Beyond the Lot 68, drainage flows through a storm drain by Park Place, and then across McIntosh Road and into the forest. CVRD mapping indicates a watercourse on the north side of McIntosh Road.

Existing drainage generally includes:

- A ditch along Meadowview Road;
- A culvert crossing Meadowview Road directing drainage into proposed Lot E;
- Ditches and low lying land through Lot 68;
- A plugged 600mm CSP culvert;
- A 200mm PVC;
- An 1100mm culvert at the downstream end of Lot 68; and
- A network of drainage right of ways through Lot 68 and Lot 34 (1989).

☑ 1A - 3411 Shenton Road
Nanaimo, BC V9T 2H1
Phone 250-758-4631
Fax 250-758-4660

☐ 4212 Glanford Avenue
Victoria, BC V8Z 4B7
Phone 250-727-2214
Fax 250-727-3395

☐ 170 Morison Ave, PO Box 247
Parksville, BC V9P 2G4
Phone 250-248-5755
Fax 250-248-6199

WWW.JEANDERSON.COM

1.2 MoTI 600mm Culvert and Lot 68 Access

The existing 600mm culvert crossing Meadowview Road directs uphill drainage onto Lot E and then to Lot 68. This culvert is generally dry. The outlet invert is approximately JEA 132.0m, which is approximately 0.1m above the downstream water ponding elevations. Flow from the approximately 4.2 ha upstream drainage area probably flows under the road, with the culvert flowing only during and a few days after wet weather.

On the north side of proposed Lot E, there is an access road to Lot 68, generally on Lot 68 property. This is also a drainage right of way. At low flows, this access road restricts the eastward flow of the drainage from the MoTI culvert.

During higher flows, drainage from the existing culvert generally flows through proposed Lot E, to a low point in the Lot 68 access road, and then spreads out over a wide area, continuing through proposed Lot E, across the Lot 68 access, and down the access road. Because of the width of flow, water levels won't rise much.

On the north side of the Lot 68 access road, back yards are low, and owners of Lots 34 and 35 have concerns about additional water flowing in their direction, particularly related to their low backyards. There is an existing drainage right-of-way on Lot 34 and Lot 68 but these rights-of-way don't get much flow as they have been filled in. Lots 34 and 35 generally drain to the west toward Lot 68.

1.3 Historical Drainage

Prior to construction of roads in the area, drainage probably flowed down from the uphill area above Meadowview Road and into the low portions of Lot 68. The uphill area length of travel is under 150m, and is short enough that the drainage probably did not concentrate. In particular, it would not all have concentrated at the 600mm culvert.

When Meadowview Road and the related subdivision was constructed, drainage was directed to the end of the road via ditching, and allowed to flow into the adjacent low area on adjacent property. The existing drainage right of way on Lot 34 was probably set up to take this drainage, but a road crossing culvert was not installed to match into this right of way.

MoTI has advised that they have a 2004 drainage report for the subdivision that created Robert Arndt's lot. MoTI indicates that the report indicates "that Meadowview Road used to terminate just to the north of the existing culvert, where this natural depression existed before the land rises up again just to the south, blocking water flow from the catchment areas to the south. These catchment areas are detailed on a drainage report dating to 2004 when Mr. Arndt's property was subdivided off the larger parcel."

There was no SRW over Robert Arndt's land created for the drainage from the culvert, perhaps because at the 2004 subdivision stage, the drainage was considered a natural drainage route. However, when the property was subdivided, and the drainage was shown flowing through the new lot, the new owner of the new lot became responsible for maintaining the drainage through his lot, even though there is no SRW. We have not seen this drainage plan.

The above is a best guess at the drainage history given our limited research. We expect that further research could be done to confirm that our best guesses are correct.

Robert Arndt presently has a concern with the MoTI drainage flowing onto his property as it is limiting subdivision potential, and there are significant costs involved in resolving this issue. In late 2016, JE Anderson and Associates prepared a report that proposed a ditch in a 2m wide MoTI Right of Way. This right of way would direct the MoTI ditch drainage onto Lot 68 where it was directed decades ago as part of a previous subdivision. Subsequently, JEA has advised that the ditch does not have to be located in an SRW – maintenance could be the responsibility of the future Lot E owner but this is not a good idea given the existing right of way on the Lot 68 access.

2.0 Proposed Drainage

2.1 Lot E Drainage and Fill

It may be too late to direct drainage onto the existing 2m wide drainage right of way over Lot 34 and the right of way on Lot 68. Digging out the Lot 34 right of way would have a significant negative impact on Lot 34.

Instead, we propose to generally follow the present drainage route on proposed Lot E, while trying to reduce drainage flow toward Lot 34. We propose a protected drainage route for the drainage downstream of the culvert, with a ditch in a new 2.0m right-of-way on the north side of proposed Lot E. The right of way will be in favor of the BC Ministry of Transportation and Infrastructure (MoTI), although Cowichan Valley Regional District may also want to access the ditch for maintenance. Access for ditch maintenance will have to be via the existing Lot 68 access road with drainage right of way. In order to provide sufficient capacity with some freeboard, the ditch should be minimum 0.5m deep relative to the access road. The ditch invert will be lower than the existing ground, so drainage toward Lot 34 will not be increased. The capacity of the ditch will be controlled more by the Lot 68 elevations to the north than by the proposed ditch size.

To reduce the flows onto the road, the ditch will extend past the high point on the north side of proposed Lot E to a point where drainage can flow onto lower ground on Lot 68 over a significant length (minimum 3 metres).

The proposed fill will have a negligible effect on downstream drainage due to the size of the Lot 68 area where ponding of water can take place. In addition, the new fill on Lot E will be placed above the water table, so the fill will absorb water when it rains. Rainfall in ponding / saturated areas flows away quickly whereas rainfall on unsaturated ground is partially infiltrated. The placement of fill in this case will not increase downstream flows, particularly if the surface is permeable / absorbent topsoil. We recommend that the landscaped fill areas on Lot E be covered with minimum 150mm of absorbent topsoil on ground scarified to a depth of 150mm. Topsoil could be select native topsoil.

Calculations regarding 600mm culvert flows and capacities and ditch capacities are provided in Appendix A. Comments on the downstream 1100mm culvert are also provided.

A Geotechnical Engineer will be required to certify any walls or fills that will be supporting future buildings.

We understand that the site has been reviewed by an Environmental Professional, and Riparian Area Regulations are not triggered by filling Lot E and constructing a roadside ditch.

A drainage area plan, proposed ditch section at the access road, a grading plan for the site, and the SRW plan are attached.

2.2 Lot A to Lot E Soaker Wells

There is a covenant on the existing one hectare lot requiring soaker wells. A drainage report was prepared by Cowichan Engineering Services Ltd. dated May 31, 2016 commenting on rock pit infiltration systems.

3.0 Summary

Lot E will be filled and a ditch in a new statutory right of way will be constructed to direct the drainage from the 600mm MoTI culvert toward the west side of Lot E, well north of the Lot 68 access.

- The flows from the 600mm culvert will flow to Lot 68 as existing, and as constructed as part of the subdivision that included Lot 68.
- The ditch will be deeper than existing ground, and will reduce the extent of flow toward Lot 34. Drainage during high flows will continue to overtop the road.
- The ditch will be extended well past the high point on the north side of Lot E (minimum 3m).
- The filling will not increase downstream flows, and there are no downstream concerns related to the proposed Lot E changes.
- The proposed work does not trigger Riparian Areas Regulations.
- The new ditch in an SRW will be maintained by MoTI or by CVRD.
- The MoTI may request that there not be an SRW, with maintenance by the lot owner.
- A Lot E MBFE of JEA 132.5m is suitable based on what is presently happening with drainage in the area. However, if the MoTI plans to re-establish a drainage route along the existing right of way, a higher MBFE (JEA 133m) would be preferable for this lot.

Please call if you have any questions.

Yours truly,
JE Anderson & Associates

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
W. J. BUCHANAN

Jim Buchanan, P. Eng.
JB/dlk

Attachments

APPENDIX A

DRAINAGE CALCULATIONS

600mm Culvert Flows and Capacity:

Flows based on Rational Formula with Q = RAIN

Where:
R = Rational Formula Coefficient (0.5 for fairly large lots). MMCD indicates R = 0.55 for low density residential, 0.4 for suburban residential for the 100 year storm. Based on one third suburban and two thirds low density residential, average is 0.5)
A = Drainage Area (4.2 ha)
I = Rainfall Intensity (Tc = 20 min, I 100 is +/- 40mm/hr – from MNC IDF Curves). The Tc = 20 minutes included 15 minutes for lot time of concentration plus 5 minutes for ditch flow. To confirm the rainfall intensity, we can assume Victoria International Airport 20 minute rainfall, 33mm/hr x 1.05 for elevation x 1.15 for increase in future intensity = 40mm/hr. We then confirmed that this was reasonable against Shawnigan Lake rainfall information.
N = Rational Formula Constant 2.78

Q = RAIN = 0.5 x 4.2 x 40 x 2.78 = 233 L/s

For a 15 minute time of concentration and (rainfall 44mm/hr) and R = 0.55, the flow would be 280 L/s.

Capacity of 600mm culvert with HW/D = 1 is approximately 300 L/s. (based on inlet control as at the 20 minute intensity storm).

Based on a 60 minute time of concentration with rainfall 25mm/hr, 100 year flow will be 150 L/s to 180 L/s.

The above calculations are based on a 100 year return period. This is very conservative as Supplement to TAC 1010.A indicates that local road culverts can be designed for the 50 to 100 year return storm, ditches for the 10 to 25 year return storm.

Ditch Capacity:

Capacity of 0.5m deep ditch (0.4m depth of water assuming 100mm freeboard) with 1.0m wide base and 2:1 side slope one side, vertical other side, 0.3% slope, Mannings n = 0.043 based on excavated ditch with some weeds:

Capacity 235 L/s

The actual ditch flows will be restricted by downstream ground elevations that will be above the ditch invert. During high flows, drainage will still cross / pond on the Lot 68 access road.

Drainage Velocities

The above ditch velocity at 233 L/s is 0.47 m/s. Actual velocities will be less due to the downstream flow restrictions. No erosion protection is required on the Lot 68 access or on the wall.

Velocity exiting the culvert will be approximately 1.0m/s. Provide 150mm minus riprap erosion control pad at the outlet of the culvert.

Influence of downstream ground levels on ditch capacities:

Assume:
8m channel width with 2:1 side slopes at JEA elevation 131.80m at the end of the proposed ditch.
8m channel width with 2:1 side slopes at JEA elevation 131.75m at 100m from the end of the proposed ditch.
Mannings n = 0.05 based on flood plain with grass, some bush
Flow 233 L/s

From Hydrocad, flow depth is approximately 150mm.

Water depth at the end of the proposed Lot E ditch will be approximately 131.95m
Water depth at 50m from end of Lot E ditch (at culvert outlet) at 0.2% slope will be approximately 132.05m (0.05m above the culvert outlet, not significant for outlet control).
Drainage will vary to 200mm deep on Lot 68 access and 100mm above the top of bank of the 500mm deep ditch.

Downstream 1100mm Culvert Backup:

Q100 = RAIN (Tc = 40 minutes due to ponding)

Q100 = 0.5 x 20 ha assumed x 30mm/hr x 2.78 = 830 L/s.

Backup at 830 L/s will be HW/D = 0.65 X 1.1 = 0.7m.

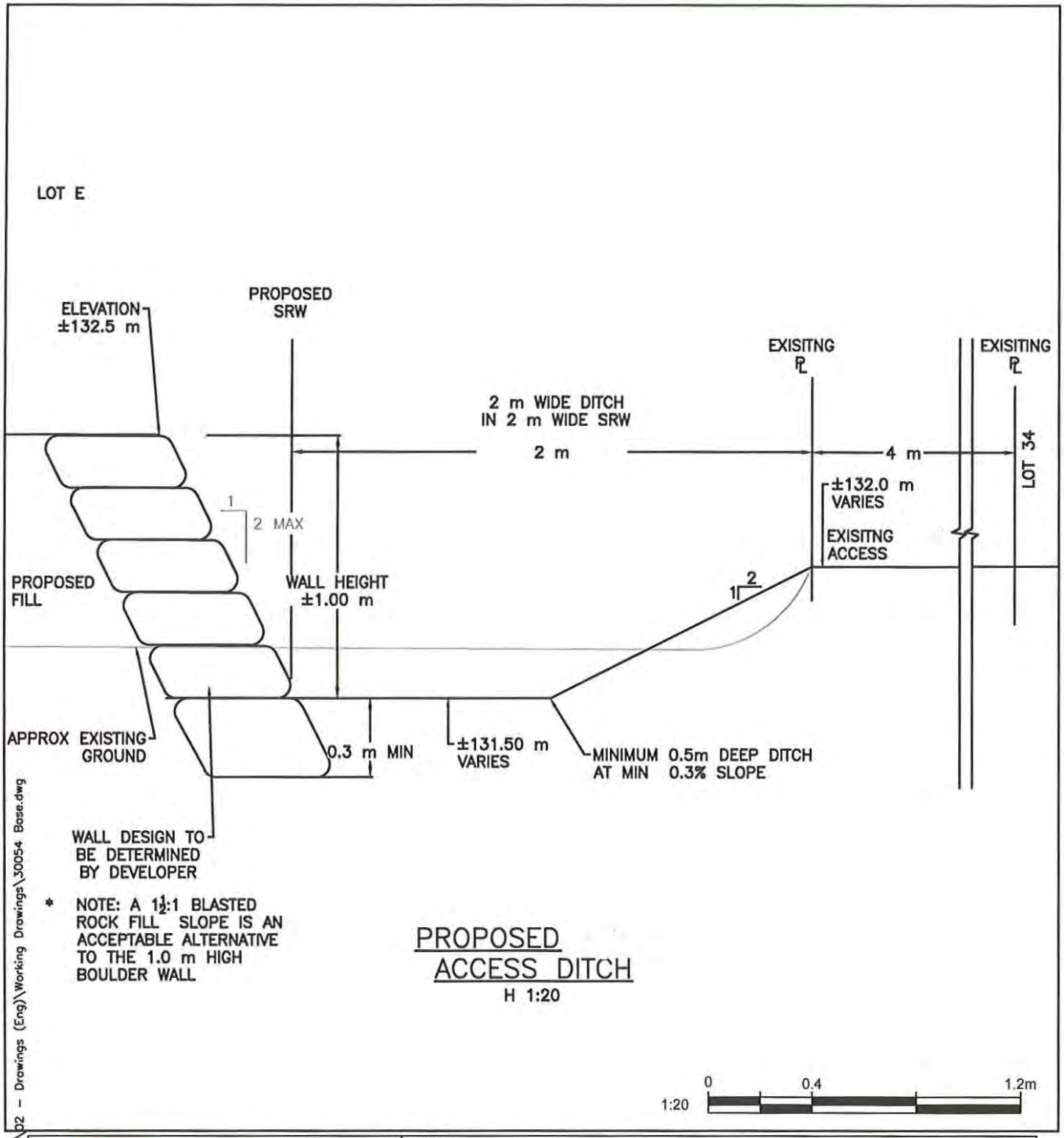
Capacity of 1100mm CSP drain at 0.2% and n= 0.021 is 856 L/s. The slope of the pipe may govern.

To be conservative, the 100 year return flow may reach 1.0m above the culvert inlet.

We expect that the existing 1100mm culvert invert is well over 1.0m below the level of water presently ponding on proposed Lot E. Therefore, the backup of drainage at the 1100mm culvert will not create more ponding depth on proposed Lot E.

The above calculations are sufficient for their purpose, which is to show that backup of water from the 1100mm culvert will not reach above the present ponding on proposed Lot E.


B1
14 ha
FLOW ROUTE
FLOW ROUTE
ROAD
D 600
D 200
D 1100
40m SRV



V:_Engineering\30054 Bob Arndt\02 - Drawings (Eng)\Working Drawings\30054 Base.dwg

JEA J.E. ANDERSON & ASSOCIATES
SURVEYORS -- ENGINEERS
4212 GLANFORD AVE, VICTORIA, BC, V8Z 4B7
TEL: 250 - 727 - 2214 FAX: 250 - 727 - 3395
E-MAIL : info@jeonderson.com

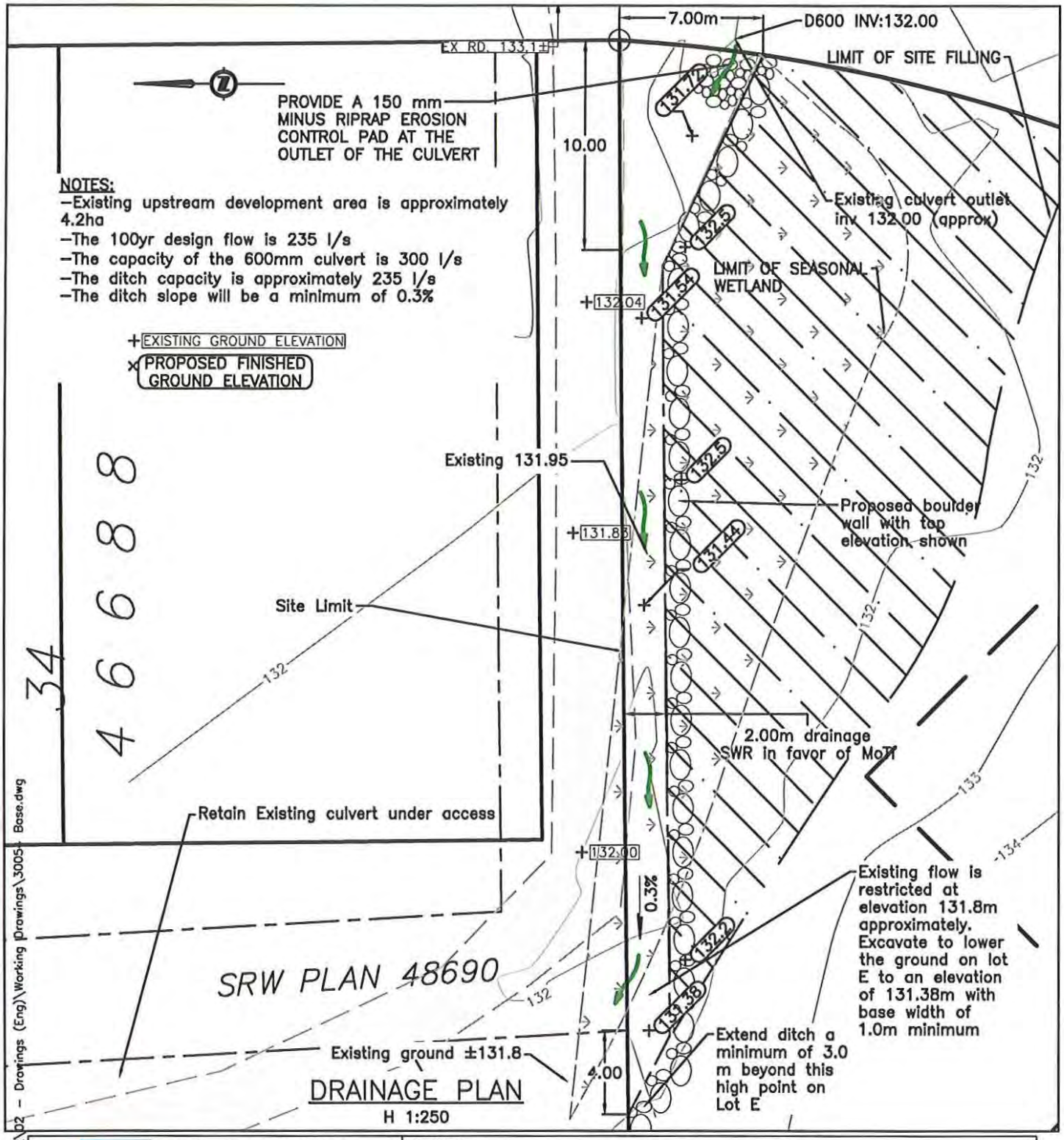
DRAWN: NM	SCALE: 1:20
MAY 02 2017	
SHEET 1 OF 1	

CLIENT ROBERT ARNDT

PROJECT
2786 MEADOWVIEW ROAD
PROPOSED ACCESS DITCH

30054 - 01 - SK1

ENG: PROJECT NO 30054



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JEA J.E. ANDERSON & ASSOCIATES
SURVEYORS -- ENGINEERS
4212 GLANFORD AVE, VICTORIA, BC, V8Z 4B7
TEL: 250 - 727 - 2214 FAX: 250 - 727 - 3395
E-MAIL : info@jeanderson.com

DRAWN: NM	SCALE: 1:250
MAY 02 2017	
SHEET 1 OF 1	

CLIENT ROBERT ARNDT

PROJECT

2786 MEADOWVIEW ROAD SITE GRADING PLAN

PROJECT NO - 30054 - D1

ENG: PROJECT NO 30054

PLAN OF STATUTORY RIGHT OF WAY THROUGH LOTS 34, 56, 57 AND 68, DISTRICT LOT 19, SHAWNIGAN DISTRICT, PLAN 46688.

PURSUANT TO SECTION 113 LAND TITLE ACT.
B.C.G.S. 92B·062

01

This plan lies within the Cowichan Valley Regional District.

PLAN 48690

Deposited in the Land Title Office at Victoria, B.C. this 22 day of June, 1989.

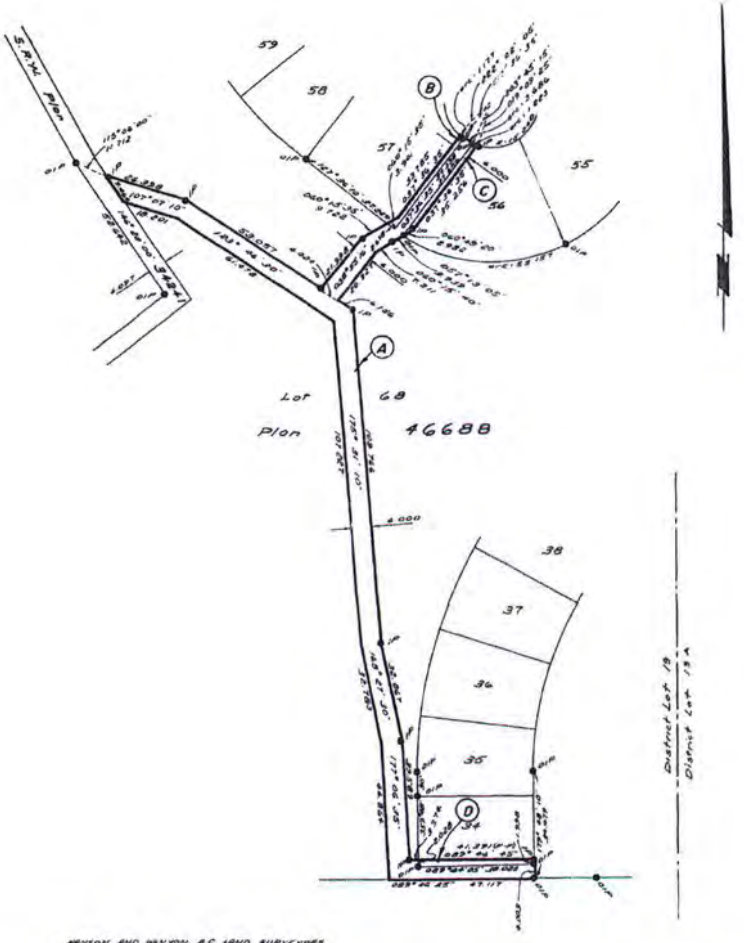
Deputy Registrar

SCALE 1:750

LEGEND
- ⊕ OIP denotes standard iron post found.
- ⊕ IP denotes standard iron post set.
- R denotes radius.
- A denotes arc.
- m² denotes square metres.
- Bearings are Astronomic and are derived from plan 46688.
- All distances are in metres.

Book of Reference

District Lot 19, Shawnigan District, Plan 46688.		
Area Designation	Lot No.	Area
A	68	0.2130 ha
B	57	46.60 m²
C	56	42.8 m²
D	34	76.54 m²



Registered Owners:

276507 British Columbia Ltd.
(Inc. No. 275,507)

Authorized Signatory

Authorized Signatory

I, Michael H. Hanson, a British Columbia land surveyor, of the city of Duncan, in British Columbia, certify that I was present at and personally superintended the survey represented by this plan and that the survey and plan are correct. The survey was completed on the 31st day of January, 1989.

Michael H. Hanson
B.C.L.S.

HANSON AND HANYON, B.C. LAND SURVEYORS
#104 - 35 QUEENS ROAD
DUNCAN, B.C. V9L 2W1 748-4745
FILE: 88-328

178

R3

MADRONE
environmental services ltd.

1081 Canada Avenue
Duncan, BC V9L 1V2
P: 250.746.5545
F: 250.746.5850
www.madrone.ca
info@madrone.ca

April 5, 2017

Robert Arndt
2797 Meadowview Road
Shawnigan Lake, BC V9T 5W5

Dear Mr. Arndt,

It is my understanding that you are submitting an application for subdivision of Lot 1 (PID: 026-225-956), Meadowview Road, Shawnigan Lake, BC. In this particular case, the proposal involves subdividing the 2.5 acre parcel in to five 0.5 acre lots. You have enlisted my assistance in order to determine the applicability of the provincial Riparian Areas Regulation (RAR) process to a portion of your property that becomes seasonally inundated with stormwater runoff.

In most cases, any development activities within the Riparian Assessment Area (RAA) - 30 m from the edge of a "stream" - including lakes, wetlands, ponds, creeks, rivers and ditches, are subject to a RAR assessment by a Qualified Environmental Professional (QEP). The regulation applies to "development" along streams, as governed by local government regulation, or the approval of residential, commercial, industrial or ancillary activities under Part 26 of the *Local Government Act*.

There are some instances where development inside the 30 m RAA does not require the completion of an assessment under the RAR. For example, water-bodies that do not support salmonids, game fish or regionally significant fish species and do not connect by surface flow to fish habitat are not considered "streams" under the RAR methodology. In addition, a QEP can use professional judgment when classifying watercourses that are poorly defined and connectivity to fish habitat by surface flow is not obvious. These types of watercourses are also exempt from the RAR process, as per Section 1.4.2 of the RAR guidelines.

At your request, I visited the subject property on March 31, 2017 and noted that the property has been altered through anthropogenic influences resulting from construction of Meadowview Road and land clearing activities that have taken place on the subject property and adjacent properties. There are no construction footprints on the subject property, which is bordered to the north and south by residential properties, the east by

Meadowview Road and the west by parkland. Overall, the topography of the property is relatively subdued with slopes onsite ranging between 2% and 8%.

At the time of the assessment, it was noted that most of the property is void of vegetation and is composed of exposed soil. Vegetation growth is confined to the central portion of the property, including the northern boundary and immediately adjacent to the seasonally wetted area. For the purposes of this assessment, the property was divided into upland terrestrial habitat and the seasonally wetted area. At the time of the assessment it was noted that Douglas-fir (*Pseudotsuga menziesii*) represented the dominant tree species throughout the upland habitat. Understorey vegetation consists mainly of oceanspray (*Holodiscus discolor*), salal (*Gaultheria shallon*), dull Oregon grape (*Mahonia nervosa*), trailing blackberry (*Rubus ursinus*) and sword fern (*Polystichum munitum*).

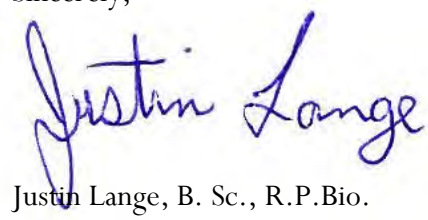
The seasonally wetted area, which is approximately 10 m wide and 30 m long, is located along the northern boundary of the property. Stormwater runoff is directed from the roadside ditch that runs parallel to Meadowview Road, under the road and onto the property via a 400 mm closed metal pipe (CMP). Water that flows onto the property is not contained and during periods of high runoff, flows over the existing service road that was constructed immediately north of the property. Although the wetted area does not represent typical wetland habitat, it does contain vegetation that is adapted to higher levels of moisture. Red-osier dogwood (*Cornus stolonifera*), reed canary grass (*Phalaris arundinacea*) and red alder (*Alnus rubra*) were noted in the seasonally wetted area at the time of the assessment.

Based on field observations, the seasonally wetted area does not provide suitable habitat for fish. The wetted area also does not appear to connect to known fish habitat. The wetted area is runoff sourced by rain and snow melt that is conveyed on to the property via a CMP and road ditch network. There is no potential for this wetted area to support resident fish, nor is there any potential for fish to enter the wetted area on a seasonal basis due to the lack of connectivity to downstream habitat. A limited amount of water was observed at the time of the assessment.

In my professional opinion, the subject property (Lot 1 Meadowview Road) does not require the completion of an assessment under the RAR; due to the fact the seasonally wetted area does not meet the definition of a stream outlined in the RAR assessment methodology. There are two factors that support this conclusion: firstly, there is no connectivity by surface flowing water to known fish habitat; secondly, the drainage does not support salmonids, game fish or regionally significant fish species. As a result, the RAR process does not apply.

I appreciate your diligence in contacting me regarding this matter. If you have any questions, please do not hesitate in contacting the undersigned.

Sincerely,



Justin Lange, B. Sc., R.P.Bio.
Aquatic/Terrestrial Biologist.

APPENDIX A

SITE PHOTOS

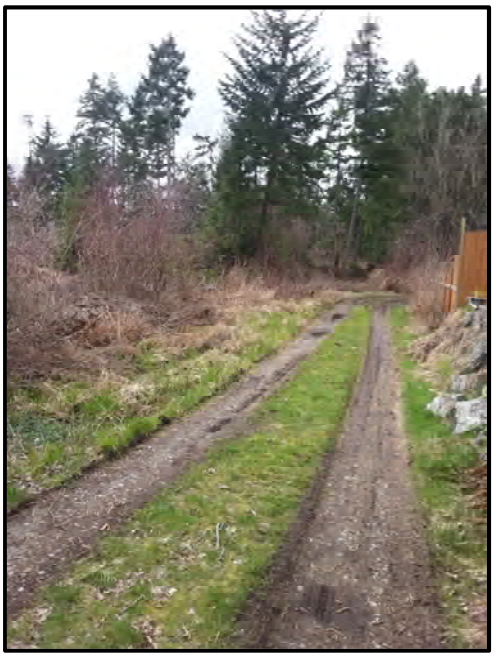
Looking northwest at the assessment area from Meadowview Road. It should be noted that the assessment area represents the northern-most section of the property.

Looking north along the roadside ditch that runs parallel to Meadowview Road. Water is directed onto the subject property, from the roadside ditch via a CMP.

A representative photo of the outlet of the CMP that directs stormwater runoff onto the subject property.

Looking northwest at the area that becomes seasonally inundated with stormwater runoff (marked with red arrows). Note the wetted area also marks the lowest point of the property.

The western terminus of the area that becomes inundated on a seasonal basis with stormwater runoff. Note the vegetation in the photo is representative of species that are not tolerant of high moisture levels.



Looking west along the existing service road, which borders the northern boundary of the property. This road appears to flood during events containing high amounts of precipitation.

COWICHAN CES ENGINEERING SERVICES LTD.

715 Canada Avenue
Duncan BC
V9L 1V1
Phone 250-737-1440
Fax 250-737-1551
cowichanengineering@shaw.ca

May 31, 2016

File No: 1269-C

Cowichan Valley Regional District
175 Ingram Street
Duncan, BC
V9L 1N8

Attention: Alison Garnett - Planner

Re: Meadowview – Lot 1, Section 3, Range 2, Shawnigan District, Plan VIP78487

A drainage report has been completed to support the Development Permit application for the above subject property. The development area consists of 1.0 hectares divided into five (5) lots of approximately 0.20 hectares per lot.

The site is covered with a few trees and has a large broom presence which will be removed as part of the development with stormwater runoff flowing overland in both the north and south direction. The subject property has a ridge extending through the middle property which creates this pattern with the southern areas of the lots going to the roadside ditch along Meadowiew, while the northern area flow to a low lying area on the adjacent property. In both cases they ultimately drain to an unnamed water course approximately 100m west of the site.

Rock pit infiltration systems with 50% voids are proposed for each lot; roof and driveway runoff will be directed to the infiltration pit. The pits are to be located along the frontage of the lots (see attached sketch) as the proposed sewage disposal fields are located in the rear of the lots. This infiltration system will have a 200mm overflow pipe that connects to the road side ditch should the system exceed its capacity; while perimeter drains will be connected directly to the rock pit overflow pipe. Peak flow is computed via HydroCAD computer model, input parameters and results are summarized in the below table. The infiltration system is designed to attenuate post development to pre-development flow up to 5-year storm events. We have modelled the system at various building or impervious coverage areas ranging from 10% to 30% conforming to the maximum R3 zoning.

Table 1: Summary of 5-year Pre, Post, and Post Development Release Rates

R3 Zone Lot Building Coverage		Pre-Development		Post Development		Stormwater Management	
-	Area	CN	Flow (L/s)	CN	Flow (L/s)	Rock pit Facility 50% Voids	Release Rate (L/s)
10%	200m^2	76	2.8	79	3.7	2mx1.5mx1m	2.7
20%	400m^2	76	2.8	81	4.4	4mx2.3mx1m	2.5

COWICHAN CES ENGINEERING SERVICES LTD.

715 Canada Avenue
Duncan BC
V9L 1V1
Phone 250-737-1440
Fax 250-737-1551
cowichanengineering@shaw.ca

30%	600m^2	76	2.8	83	5.1	5mx3mx1m	2.6

The proposed drainage design conformed to the CVRD and MoTI design parameters; however, if you have any questions or concerns, please contact us at the above contacts.

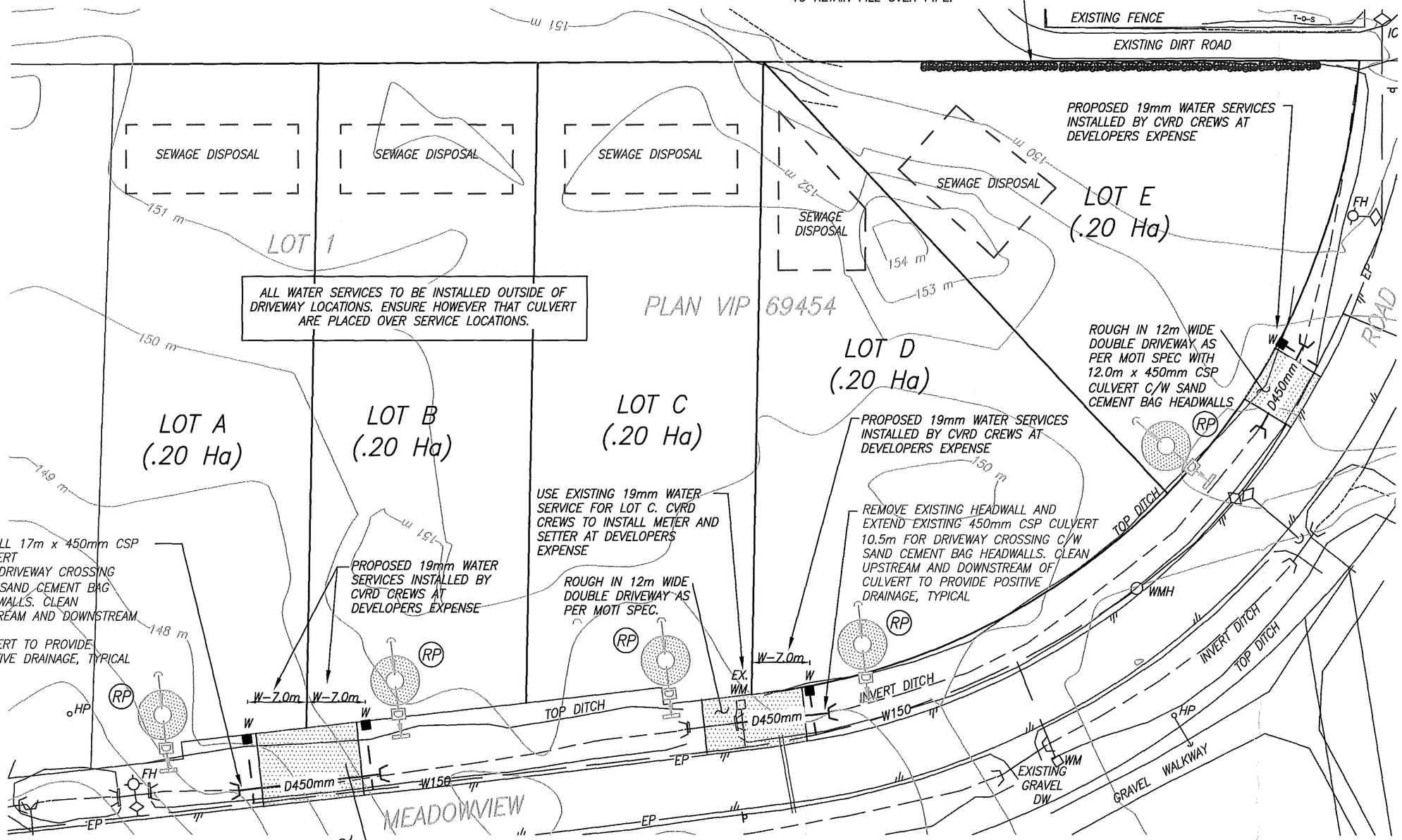
We hope this satisfies the permit requirements, please contact me with any questions or comments.

Sincerely,

Cowichan Engineering Services Ltd

Cam Williams, AScT.

encl.



PLAN: MEADOWVIEW RD

SCALE: 1:500(HZ)

GENERAL NOTES:

1. REFER TO LEGAL SURVEY PLAN FOR TRUE LOT DIMENSIONS AND AREAS.
2. ALL DIMENSIONS AND ELEVATIONS ARE IN METRIC.
3. CONSTRUCT ALL WORKS IN ACCORDANCE WITH THE RELEVANT MINISTRY OF TRANSPIRATION INFRASTRUCTURE (MOTI), COWICHAN VALLEY REGIONAL DISTRICT, B.C BUILDING CODE, AND MMCD SPECIFICATIONS AND STANDARD DRAWINGS, EXCEPT AS MAY BE INDICATED ON THE DRAWINGS.
4. CONTACT BC ONE CALL & UTILITY COMPANIES FOR LOCATIONS OF ALL UNDERGROUND SERVICE IN AND AROUND THE WORK SITE.
5. CONTACT THE CONSULTANT AT LEAST 24 HOURS IN ADVANCE OF TESTS.
6. REPLACE ALL UTILITIES AND INFRASTRUCTURE DAMAGED DURING CONSTRUCTION TO THE SATISFACTION OF THE OWNER AT CONTRACTOR EXPENSE.
7. CONTRACTOR TO PREVENT THE RELEASE OF ANY ON SITE SEDIMENT OR DELETERIOUS SUBSTANCES TO ANY EXISTING STORM SYSTEMS.
8. PROPERTY OWNER IS TO REMOVE ALL EVASIVE VEGETATION FROM THE PROPERTY

CLIENT: COWICHAN VALLEY KITCHENS

SHEET TITLE: DRAINAGE PLAN TO ACCOMPANY THE DEVELOPMENT PERMIT APPLICATION FOR LOT 1, SECTION 3, RANGE 2, SHAWNIGAN DISTRICT, PLAN VIP78487

COWICHAN ENGINEERING SERVICES LTD.

COWICHAN ENGINEERING SERVICES
715 CANADA AVENUE
DUNCAN, BC
V9L 1V1

DRAWN: SB	DATE: 2016/03
CHECKED: CW	FILE: 1287–C
SCALE: AS–SHOWN	DWG: 1287–C
	LAYOUT:

188

R3

CVRD

MEMORANDUM

DATE: February 11, 2016 **FILE NO.** 1-B-16SA

TO: Alison Garnett, Planner II, Planning & Development Department

FROM: Tanya Soroka, Parks & Trails Planner, Planning & Development Department

SUBJECT: Proposed Subdivision of Lot 1, Section 3, Range 2, Shawnigan District, Plan VIP78487—Parkland Dedication Requirement under Section 510 of the *Local Government Act*

Please be advised that parkland dedication requirements under Section 510 (previously Section 941 of the *Local Government Act*) have previously been met for this proposed subdivision on Meadowview Road. Five percent parkland dedication was provided at the time of the original subdivision application in 2001, when Shawnigan Hills Athletic Park was dedicated to the CVRD as part of Phase I on Wildflower Road. Phase 2 created the 7 lots on Meadowview Road (7-B-03SA).

There will be no further park dedication requirements during further subdivision of any of the lots 1-7 of Section 3, Range 2, Shawnigan District, Plan VIP78487.

Submitted by,

Tanya Soroka

TS/dsb

pc: Director S. Fursteneau, Electoral Area B – Shawnigan Lake

z:\2016 data\parks & trails\planning tech\feb 11-memo to planning re proposed subdivision.docx

CVRD

This map is compiled from various sources for internal use and is designed for reference purposes only.

The Regional District does not warrant the accuracy.

All persons making use of this compilation are advised that amendments have been consolidated for convenience purposes only and that boundaries are representational.

The original Bylaws should be consulted for all purposes of interpretation and applicaton of the Bylaws.

Printed: June 5, 2017

COWICHAN VALLEY REGIONAL DISTRICT

DEVELOPMENT PERMIT

FILE NO: 09-B-16DP

DATE: _____

REGISTERED PROPERTY OWNERS:

_____

_____

_____

1. This Development Permit is issued subject to compliance with all of the bylaws of the Regional District applicable thereto, except as specifically varied or supplemented by this Permit.
2. This Development Permit applies to and only to those lands within the Regional District legally described as:

   Lot 1, Section 3, Range 2, Shawnigan District, Plan VIP78487
   (PID 026-225-956)
3. Authorization is hereby given for subdivision to create 4 new lots in accordance with the attached Schedules, and the following:

Prior to removing, altering, disrupting or destroying any vegetation or soils:

Implementation and maintenance of Erosion and Sediment Control measures including but not limited to:

- Installing silt fencing;
- Where possible, conducting earthworks activities during dry months of the year;
- Covering temporary fills or stockpiles with sheeting or tarps;
- Installing sediment ponds or traps to retain washdown water and sediments at construction site access points;
- Halting construction during periods of significant precipitation;
- Staging development activities to allow re-establishment of vegetation and minimize bare areas; and
- Seeding or re-vegetating cut and fill slopes and disturbed areas and using mulches and other organic stabilizers to minimize erosion until vegetation is re-established.

Prior to issuance of a Building Permit:

Removal of invasive species prior to issuance of a Building Permit (see Schedule C).

Prior to issuance of an Occupancy Permit:

a) Implementation of the Hydrology Report prepared by J.E. Anderson

& Associates dated, April 18, 2017 (see Schedule D); and,

b) Implementation of the Rainwater Management Plan prepared by Cowichan Engineering Services, dated May 31, 2016 (see Schedule E).

4. The following Schedules are attached:

Schedule A – Proposed Subdivision Plan
Schedule B – R-3 Zoning
Schedule C – Invasive Species Guide
Schedule D – Hydrology Report as prepared by J.E. Anderson & Associates dated, April 18, 2017
Schedule E – Rainwater Management Plan prepared by Cowichan Engineering Services, dated May 31, 2016

This Permit is not a building permit or subdivision approval. No certificate of final completion or recommendation of subdivision approval by the Cowichan Valley Regional District shall be issued until all items of this Development Permit have been complied with to the satisfaction of the Planning & Development Department.

ISSUANCE OF THIS PERMIT HAS BEEN AUTHORIZED BY RESOLUTION NO. _____ & _____ PASSED BY THE BOARD OF THE COWICHAN VALLEY REGIONAL DISTRICT THE _____ DAY OF _____, 2017.

Subject to the terms of this Permit, if the holder of this Permit does not substantially start any construction within 2 years of its issuance, this Permit will lapse.

I HEREBY CERTIFY that I have read the terms and requirements of the Development Permit contained herein. I understand and agree that the Cowichan Valley Regional District has made no representations, covenants, warranties, guarantees, promises or agreements (verbal or otherwise) with _____ (owners), other than those contained in this Permit.

Owner/Agent (signature)	Witness (signature)
Print Name	Print Name
Date	Date

BRITISH COLUMBIA | Ministry of Transportation and Infrastructure

PROPOSED SUBDIVISION PRELIMINARY LAYOUT APPROVAL

Your File #: 1269-C
eDAS File #: 2016-00078
Date: Jul/31/2017

Robert Arndt C/O;

Phil Buchanan, P.Eng.
J.E. Anderson & Associates
4212 Glanford Avenue
Victoria, BC V8Z 4B7

Re: Proposed Subdivision of Lot 1, Section 3, Range 2, Shawnigan District, Plan VIP78487, 2786 Meadowview Road, Shawnigan Lake

Your proposal for a 5 lot Conventional subdivision has received preliminary layout approval, subject to the following condition(s):

1. Written confirmation from Island Health that all proposed lots are suitable for onsite septic system use as original application revised from community system. Island Health to be notified of the setback requirement from the wetland area when reviewing all lots.

2. Written confirmation from the Cowichan Valley Regional District that all required bylaws and regulations have been met, including proof of connection to Shawnigan Lake North community water system.

3. Written confirmation from the Cowichan Valley Regional District that any required development permits and development variance permits have been issued. Copies of any covenants completed as part of these processes are to be included with the confirmation.

4. Written confirmation from Island Health that all proposed lots are suitable for onsite septic system use as original application revised from community system.

Local District Address
Saanich Area Office 240-4460 Chatterton Way Victoria, British Columbia V8X 5J2 Canada Phone: (250) 952-4515 Fax: (250) 952-4508

5. Applicant to note BC Hydro requirement for Statutory Right-of-Way on property. See BC Hydro email dated February 15, 2016, for details.

6. Due to the location of the proposed lots on the curve of Meadowview Road, the Ministry requires the applicant to 'flag' the proposed access locations for proposed lots D & E. An onsite meeting is to be arranged to review these accesses.

7. Jim Buchanan, JE Anderson & Associates, to be the Engineer of Record (EOR) for filling in the wet/marshy area and constructing the drainage ditch.

   The following must be adhered to:

   a) The Engineer of Record (EOR) shall execute and submit to the Ministry representative the signed original Assurance of Professional Design and Commitment for Field Reviews (Form H1252).

   b) The parties will confirm the assignment of field review responsibilities in accordance with the assignments noted in Schedule A - Summary of Design and Field Review Assignments (Form H1252a).

   c) Upon completion of the construction the EOR will submit an Assurance of Professional Design - Post Construction (Form H1253), attaching copies of any Assurance of Field Reviews and Compliance (Form H1254) upon which the EOR is relying.

8. Provision of an acceptable covenant, registrable pursuant to Section 219 of the Land Title Act, that prohibits building on or locating of the septic field in the area which has been altered on proposed Lot E as authorized in the hydrology report completed by Jim Buchanan, JE Anderson & Associates dated April 18, 2017. Covenant to be in favour of the Minister of Transportation and Infrastructure.

9. The applicant shall provide a suitably worded statutory right-of-way agreement pursuant to Section 218 of the Land Title Act in favour of the Minister of Transportation and Infrastructure to maintain the drainage ditch as recommended in the Hydrology Report, completed by Jim Buchanan, JE Anderson & Associates, dated April 18, 2017 for Proposed Lot E, located at Lot 1, Section 3, Range 2, Shawnigan District, Plan VIP78487. The statutory right-of-way width shall be as recommended in the Hydrology Report (April 18, 2017) and constructed to the Engineer of Records approval. The statutory right-of-way agreement must be given priority over all financial charges.

10. Within the covenant and statutory right-of-way documents, the Minister shall be identified as Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure, Parliament Buildings, Victoria, BC, V8V 1X4.

11. As covenants are required to address concerns raised by the Ministry and/or other agencies, the necessary notation listing the covenant holders and the number of covenants for each shall be included on the Schedule of Owners and Witnesses of the Application to Deposit Plan at Land Title Office. A notation on the plan image listing the covenants is also required.

12. The necessary Approving Officer statement in the covenants required as a condition of approval of the proposed subdivision must be included on the Form D of the covenant document.

13. Ministry file number 2016-00078 to be included in all final plans and documents.

14. If you have questions or concerns about the conditions laid out in the PLA, please contact the District Development Technician. If you still have questions or concerns after speaking with the District Development Technician, you may contact the Provincial Approving Officer directly. It is important to provide, in writing, any new information or changes that you wish to be considered during the reconsideration process.

    As covenants are required to address concerns raised by the Ministry and/or other agencies, the necessary notation listing the covenant holders and the number of covenants for each shall be included on the Schedule of Owners and Witnesses of the Application to Deposit Plan at Land Title Office. A notation on the plan image listing the covenants is not required.

    The necessary Approving Officer statement in the covenants required as a condition of approval of the proposed subdivision must be included on the Form D of the covenant document.

    Within the covenant document, the Minister shall be identified as Her Majesty the Queen in right of the Province of British Columbia as represented by the Minister of Transportation and Infrastructure, Parliament Buildings, Victoria, BC, V8V 1X4.

The approval granted is only for the general layout of the subdivision and is valid for one year from the date of this letter. However, if at any time there is a change in legislation or regulations this preliminary layout approval is subject to review and may be cancelled.

Submission of Final Plans (Survey Plan Certification and Application to Deposit) to be accompanied by a current Tax Certificate (FIN 55), together with a plan examination fee of $50.00 plus $100.00 per lot created by the plan (for a Total of $550.00). If paying by cheque, make payable to the Minister of Finance.

If you have any questions please feel free to call Grace Sherratt at (250) 952-4511.

Please quote file number 2016-00078 when contacting this office.

Signed on behalf of Provincial Approving Officer
by

David Koch
District Development Technician

Attachments

cc: CVRD - Planning

STAFF REPORT TO COMMITTEE

DATE OF REPORT	August 3, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Development Services Division Land Use Services Department
SUBJECT:	Development Permit Application No. 01-A-17DP/S | Mill Bay Pharmasave
FILE:	01-A-17DP/S (2720 Mill Bay Road)

PURPOSE/INTRODUCTION

The purpose of this report is to present a request for an appeal of a development permit application for a fascia sign.

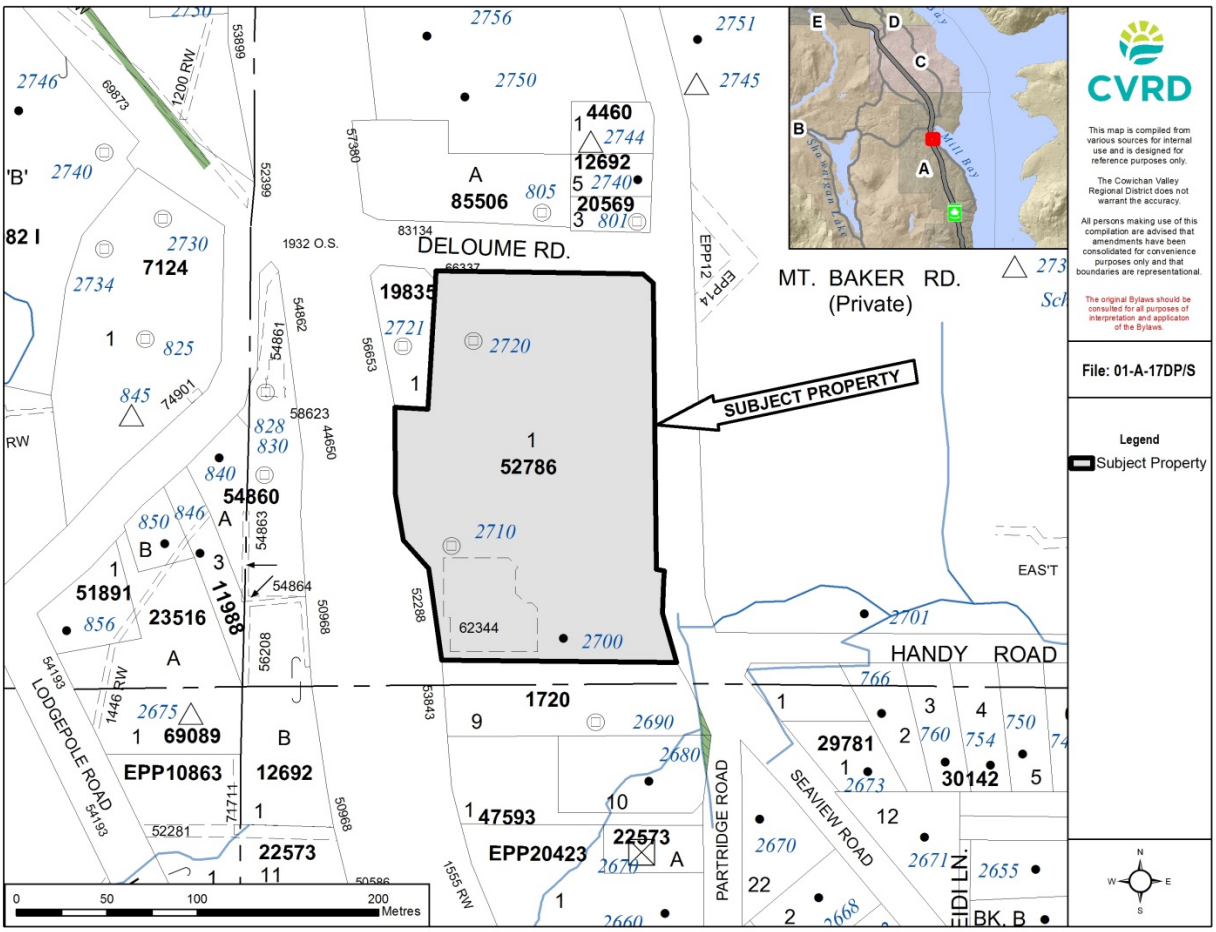
RECOMMENDED RESOLUTION

That it be recommended to the Board that Development Permit Application No. 01-A-17DP/S (2720 Mill Bay Road) be denied as it is inconsistent with development permit guidelines 11.4.12A Sign Guidelines 1, 2, 3 & 4.

BACKGROUND

Location of Subject Property:	2720 Mill Bay Road
Legal Description:	Lot 1, Section 2, Range 9, Shawnigan District, Plan VIP52786 (PID: 017-428-157)
OCP Designation	Commercial
Existing Zoning	C-5
Use of Property:	Commercial
Use of Surrounding Properties:	
North	C-7 (Village Service Commercial)
East	P-2A (Private School Institutional)
South	C-5 (Village Commercial)
West	C-5 (Village Commercial)
Road Access:	Deloume Road
Environmentally Sensitive Areas:	None identified
Archaeological Site:	None identified
ALR Status:	Out

LOCATION MAP



APPLICATION SUMMARY

This application was received April 27, 2017. A Development Permit was required for the installation of a fascia sign on the Mill Bay Pharmasave. The property is within the Mill Bay Village Development Permit Area, and is subject to the sign guidelines of Official Community Plan No. 3510. The application was reviewed for consistency with the Official Community Plan (OCP) and its guidelines. Upon review it became evident to staff that the proposed sign was inconsistent with the objectives of the OCP for the following reasons: lack of natural construction materials, inappropriate character for the architectural design of buildings located within the village core, and illumination of the sign. These concerns were brought to the attention of the applicant. A new proposal was submitted which added a painted wood background. Although an effort was made by the applicant to reach compliance, staff are still of the opinion that the proposed sign is inconsistent with the DPA guidelines.

A report was then issued for consideration to the General Manager of Planning & Development with a recommendation for denial and the application was denied. Where an application has been refused by the General Manager of Planning & Development, the applicant has the right to appeal the delegated decision to the CVRD Board of Directors.

COMMISSION / AGENCY / DEPARTMENTAL CONSIDERATIONS

This application was not referred to the Electoral Area A Advisory Planning Commission (APC), as the CVRD Fees and Procedures Bylaw exempts referral of development permit applications for signs.

OFFICIAL COMMUNITY PLAN/POLICY CONSIDERATIONS

South Cowichan OCP Bylaw 3510: Mill Bay Village Plan established the Mill Bay Village Development Permit Area.

The Mill Bay Village Development Permit Area has established guidelines for the installation of all commercial signs. The relevant guidelines are as follows:

11.4.12A Sign Guidelines

1. Signs will be constructed of natural materials and must complement the architectural design of buildings on the site.

2. The use of thematic, painted, hand-crafted wooden fascia signs are preferred over other types of signs.

3. Signs should identify uses and shops clearly, but be scaled to the pedestrian rather than automobile traffic moving at speed limits.

4. All forms of illuminated signs are strongly discouraged.

CVRD Sign Bylaw No. 1095 establishes the maximum sign area allowed based on the street frontage of the proposed site.

The copy area shall not exceed twenty percent (20%) of the sign area. However, this percentage may be increased to thirty percent (30%) if there are no projecting signs and up to fifty percent (50%) if there are no projecting, free standing and canopy signs. In no case shall the copy area exceed 0.185 square metres (2 sq. ft.) per lineal 0.30 metre (per lineal foot) of the frontage of the premises.

PLANNING ANALYSIS

The intention of having development permit areas with guidelines specific to the type of development, is in part to achieve a consistent quality and character of development across the community, but also implement objectives and goals the community may have for the area. These guidelines are intentional and should be addressed as accurately as possible.

The guidelines of this development permit area establish clear parameters for any newly proposed sign in the Mill Bay Village. Each application is reviewed based on compliance with applicable guidelines and should only be compared to other applications where it proves to be beneficial to the delivery of the DPA guidelines. The guidelines look to achieve consistency throughout the area, and require a high level of design on commercial sites. Signage that has been deemed inconsistent with the guidelines could have significant design implications for the associated area, if they were to proceed as is, in so far as it becoming precedent setting.

Specifically in areas of high visibility, such as the Mill Bay Village Centre, which has a distinct theme of natural signage, the guidelines are imperative to the form and character of place. The overarching goal of this development permit area is to create a harmonized village character in the core of Mill Bay. One way of reaching this goal is by requiring a consistent approach to signage in the Village. In an effort to achieve compliance with the intent and guidelines of the Mill Bay Village DPA, staff are recommending that the application, as proposed, be denied.

In the context of the Mill Bay Village Plan, the sign guidelines specifically state all commercial signage should be in keeping with the existing form and character of existing signage. Staff are of the opinion that the sign is not made of natural material and does not complement the design of the existing building, nor the surrounding properties or landscape. Present signage on Mill Bay

Road includes fascia signs made mostly of wood, which are consistent with the intention of the development permit area.

Staff are of the opinion that the proposed signage is inconsistent with the development permit guidelines. Examples of appropriate signage can be found attached to this report. Staff are recommending Option 1 below.

It should be noted that efforts were made by staff to work with the applicant to achieve better consistency with the development permit guidelines of the Mill Bay Village Plan.

OPTIONS

Option 1. That Development Permit Application No. 01-A-17DP/S (Mill Bay Pharmasave) be denied as it is inconsistent with development permit guidelines 11.4.12A Sign Guidelines 1, 2, 3, & 4.

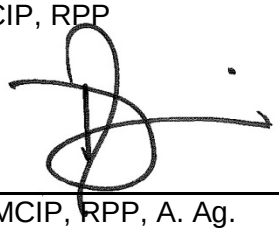
Option 2. That Development Permit Application No. 01-A-17DP/S be approved.

Prepared by:

Emily Young, BA (Plan)
Planning Technician

Reviewed by:

Rob Conway, MCIP, RPP
Manager

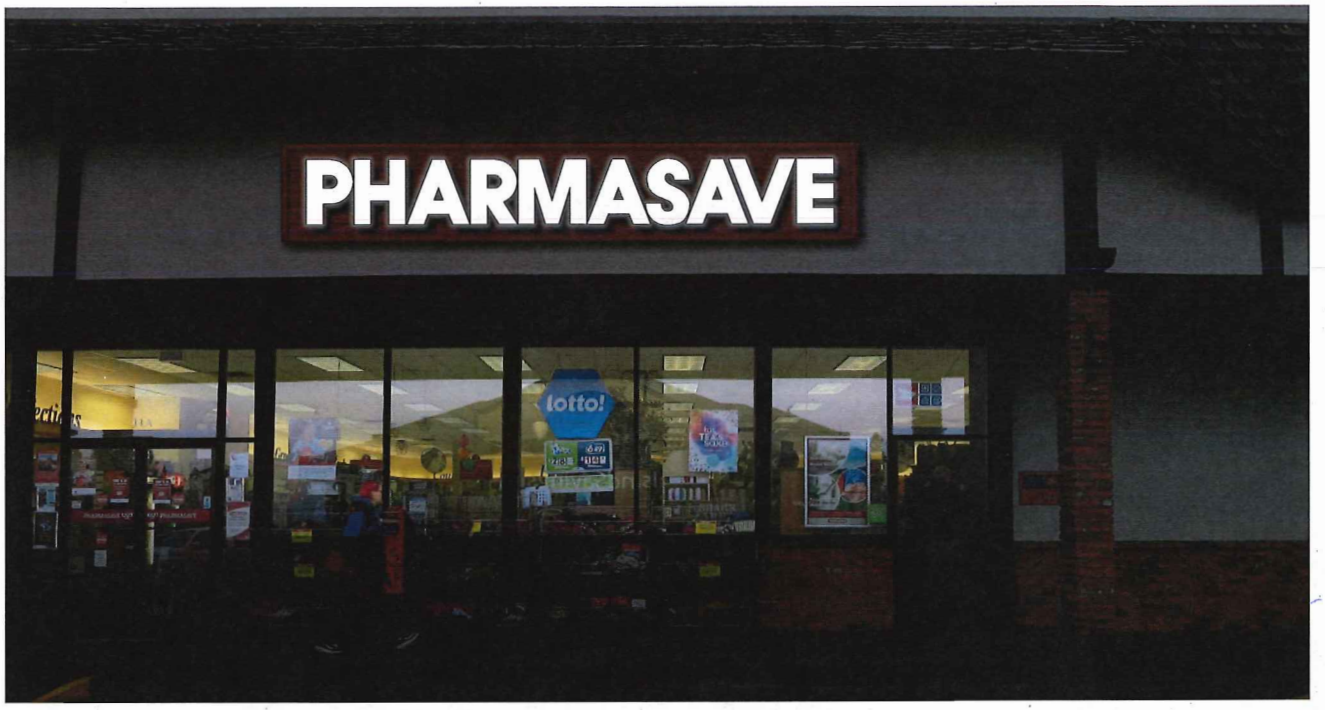


Ross Blackwell, MCIP, RPP, A. Ag.
General Manager

ATTACHMENTS:
Attachment A – Proposed Signage
Attachment B – Examples of Signage

ATTACHMENT A

PHARMASAVE - MILL BAY
ELEVATION 1: Channel Letters



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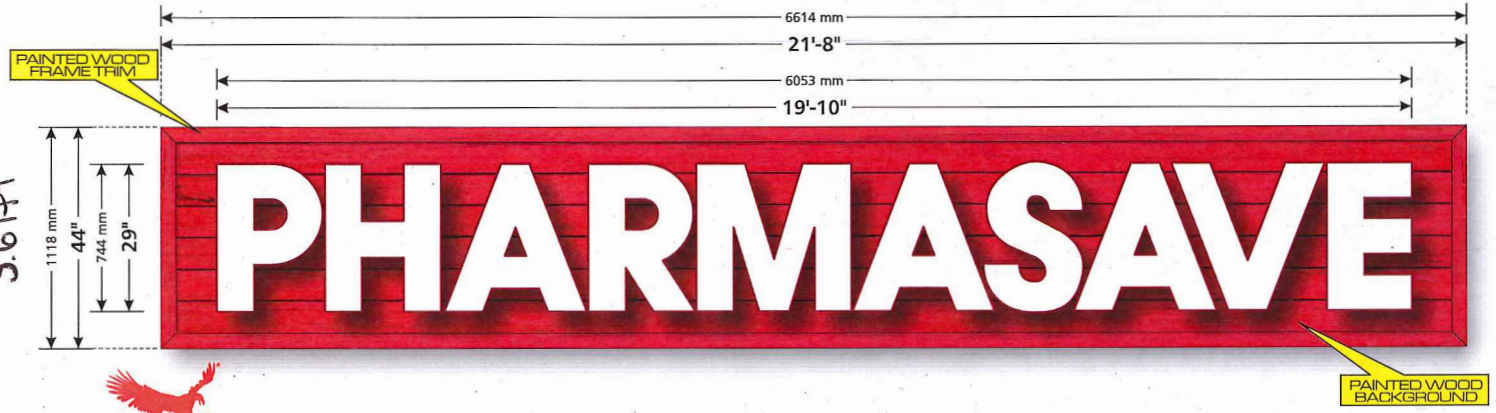

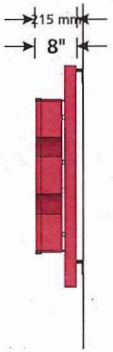

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106 - 2298 MILLSTREAM ROAD, VICTORIA, BC V9B 6H2
250.589.6769 TalonSigns.com

DATE:	May.25/17
PROOF:	05
SALES:	Renee Eastman
ARTIST:	Joe Eastman
SCALE:	1"=24"
PAGE:	2

CONSTRUCTION:
-5" Aluminum Channel Edge* or Let-R-edge
-4.5mm White Acrylic Faces (1" Trim-Cap*)
-Internal & Halo White LED Illumination
-Wood Backer Panel with Wood Frame
-Pharmasave Red Enamel Finish
-Installed to Designated Area on Building

COLOURS & GRAPHICS:
☐ White Acrylic
■ Pantone 193 C Red

CUSTOMER APPROVAL: _____
DATE: _____
LANDLORD APPROVAL: _____
DATE: _____

Intertek
All Talon Signs Ltd. Electric Signs & Displays are Tested & Certified

R4

EXAMPLES OF SIGNAGE

The following examples of signage would be found consistent with the objectives of the Official Community Plan. The design concepts of the examples below are entirely reflective of a village setting given the size, color, materiality and simplicity.

STAFF REPORT TO COMMITTEE

DATE OF REPORT	July 28, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 2, 2017
FROM:	Development Services Division Land Use Services Department
SUBJECT:	Application to Renew Temporary Use Permit 2-E-14TUP (Cowichan Valley Trap and Skeet Club)
FILE:	2-E-14TUP

PURPOSE/INTRODUCTION

The purpose of this report is to present an application requesting renewal of Temporary Use Permit 2-E-14TUP.

RECOMMENDED RESOLUTION

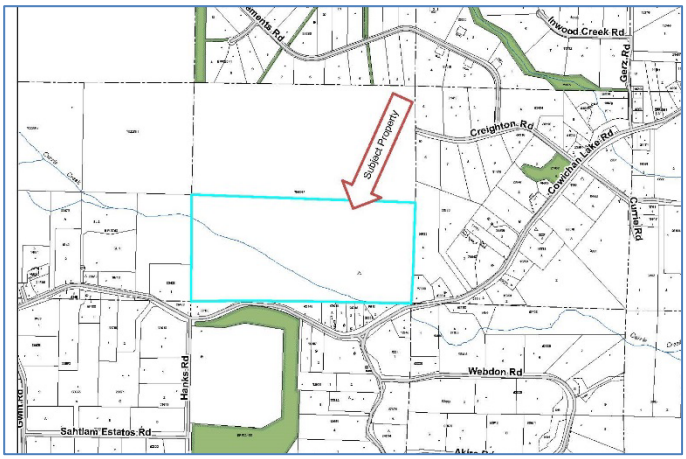
That it be recommended to the Board that the application to renew Temporary Use Permit Application No. 2-E-14TUP (Cowichan Valley Trap and Skeet Club) to allow three additional special event shoots per year and adjusted start times for weekend competitive shoots from 10:00 a.m. to 9:00 a.m. in 2018, 2019 and 2020 be approved.

BACKGROUND

A Temporary Use Permit was issued to the Cowichan Valley Trap and Skeet Club in 2015. The permit authorized the Club to undertake "special shoots" for three days in 2015, 2016 and 2017. It also permitted the Club to commence shooting at 9am rather than 10am on specified days.

The *Local Government Act* allows Temporary Use Permits to be issued for up to three years and to be renewed for a further three years. This application is requesting renewal of temporary use permit 2-E-14TUP to allow three special shoot days per year in 2018, 2019 and 2020 in addition to the shoot days permitted by Zoning Bylaw No.1840. The applicant is also requesting authorization to commence some weekend shoot days at 9am rather than the 10 am start time specified in the Zoning Bylaw.

LOCATION MAP



APPLICATION SUMMARY

The application requests approval to conduct three special event shoots in 2018, 2019 and 2020 in addition to the two weekend shoot days per month presently permitted. Requested dates for the special event shoots are summarized in Table 1.

Table 1:

Year	Date	Event
2018	Saturday, April 14	Shooting Competition
	Saturday, April 28	Shooting Competition
	Sunday, November 4	Fundraiser Shoot
2019	Saturday, April 13	Shooting Competition
	Saturday, April 27	Shooting Competition
	Sunday, November 3	Fundraiser Shoot
2020	Saturday, April 11	Shooting Competition
	Saturday, April 25	Shooting Competition
	Sunday, November 1	Fundraiser Shoot

In addition, the Club is requesting 9 am start times for the above special shoot days and 9am start times on the following regular shoot dates:

Table 2:

2018	2019	2020
January 17	January 6	January 5
February 18	February 17	February 16
March 4	March 3	March 1
March 11	March 10	March 8
April 14	April 13	April 11
April 28	April 27	April 25
June 3	June 2	June 7
October 14	October 13	October 18
October 28	October 27	October 25
November 18	November 10	November 8

The 9a.m. start time allows the Club to finish the shooting competitions earlier than would otherwise be possible with a 10 a.m. start time.

COMMISSION / AGENCY / DEPARTMENTAL CONSIDERATIONS

In accordance with *CVRD Development Application Procedures and Fees Bylaw No. 3275*, this application was not referred to the Area E Advisory Planning Commission.

This application was not referred to external agencies.

OFFICIAL COMMUNITY PLAN/POLICY CONSIDERATIONS

Section (e) of the P-4 zone contemplates the issuance of temporary use permits for shooting times outside of the shooting times specifically permitted with the P-4 zone:

(e) Special Event Temporary Uses

(1) Temporary uses not permitted by this Bylaw may be permitted by a special events temporary use permit as follows:

a. Outdoor recreational shot gun shooting between the hours of 6:00p.m. and 9p.m. on a weekday other than Tuesday that is specified in the permit, which need not be the same day of the week in every week, provided that no more than one week in any calendar week is used for recreational shooting on the premises;

b. Outdoor recreational shot gun shooting on two consecutive weekend days specified in the permit, between the hours of 9:00 a.m. and 6:00 p.m.; and

c. Outdoor recreational shot gun shooting on weekends days in excess of two weekend days per calendar month that are specified in the permit, between the hours of 9:00 a.m. and 6:00 p.m.

(2) A special events temporary use permit may specify any condition that the Regional Board considers appropriate for managing the impact of the temporary use on residents of the surrounding area.

PLANNING ANALYSIS

The Cowichan Valley Trap and Skeet Club property was rezoned in October, 2014 to a new P-4 (Shooting Range) zone. Prior to the zoning amendment, the property had been zoned R-2 (Suburban Residential), but the use of the property as a recreational shot gun range was permitted as a legal non-conforming use.

In response to neighbour complaints about the possible unauthorized expansion of shooting facilities on the property, the Cowichan Valley Regional District petitioned the BC Supreme Court in the early 1990's to issue an injunction to preclude shooting on the property and an order for shooting facilities on the property to be demolished.

The Court determined that the shooting range was lawful non-conforming and issued an order in January 1994 that limited the extent to which the property could be used as a shot gun range. Among other things, the Court Order restricted fire arms discharge on the property to one fixed regular evening per week and one full day, two weekends per month. The order also authorized the CVRD to allow "special event shoots" in addition to the regular shoot days permitted. Between 1995 and 2014 the Cowichan Valley Trap and Sheet Club submitted annual requests for extra shoot days for tournaments and competitive shoots and the Board has traditionally approved 2-3 special event shoots annually.

When the P-4 zoning was drafted for the Cowichan Valley Trap and Skeet property, it was intended to maintain the status quo by limiting shooting activity to what the Court order allowed. This was done by permitting the same shoot days in the P-4 zoning as were permitted by the Court. Because there is no statutory authority for local government to simply allow special shoot days by CVRD Board resolution, a temporary use permit process was established for authorizing special event shoots. Whereas special event shoots were authorized in the past by Board resolution in accordance with the Court order, they now require authorization by temporary use permit. The temporary use permit process is specified in the *Local Government Act* and CVRD Development Application Procedures and Fees Bylaw No. 3275.

The requested special shoot days and 9am start times are consistent with what has occurred at the range for many years. Staff are not aware of complaints or neighbourhood objections to the temporary use permit that was issued in 2015, and consider the requested permit renewal to be compatible with past practice and neighbourhood expectations. The Club has committed to

posting the shoot schedule at the Club's driveway entrance and on its website, and it is recommended that this be a requirement of the permit if it is renewed.

Renewal of the permit is recommended.

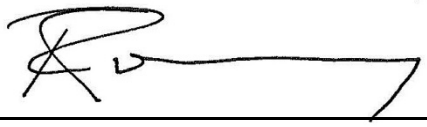
OPTIONS

1. That the application to renew Temporary Use Permit 2-E-14TUP to allow three additional special event shoots per year and adjusted start times for weekend competitive shoots from 10:00a.m. to 9:00a.m. in 2018, 2019 and 2020 be approved.

2. That the application to renew Temporary Use Permit 2-E-14TUP to allow three additional special event shoots per year and adjusted start times for weekend competitive shoots from 10:00a.m. to 9:00a.m. in 2018, 2019 and 2020 be denied.

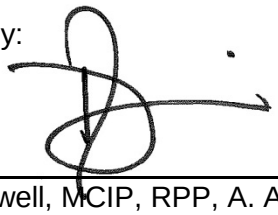
3. That a public meeting be held to receive public input prior to consideration of the application to renew Temporary Use Permit 2-E-14TUP.

Prepared by:



Rob Conway, MCIP, RPP
Manager

Reviewed by:



Ross Blackwell, MCIP, RPP, A. Ag.
General Manager

ATTACHMENTS:
Attachment A – Draft Temporary Use Permit (Renewal)

SPECIAL EVENT TEMPORARY USE PERMIT (Renewal)

FILE NO: 2-E-14TUP

DATE: AUGUST 23, 2017

REGISTERED PROPERTY OWNER:

COWICHAN VALLEY TRAP & SKEET CLUB
4505 COWICHAN LAKE ROAD
DUNCAN BC

1. **This Temporary Use Permit is renewed subject to compliance with all of the bylaws of the Regional District applicable thereto, except as specifically varied or supplemented by this Permit.**

2. **This Temporary Use Permit applies to and only to those lands within the Regional District described below:**

   The South ½ of Section 9, Range 8, Sahtlam District (PID: 009-850-741)

3. **Authorization is hereby given for the use of the subject property for outdoor recreational shotgun shooting, in addition to shooting permitted by Section 10.4(a) of Zoning Bylaw 1840, between 9:00 a.m. and 6:00 p.m. on the following days:**

Year	Date	Event
2018	Saturday, April 14	Shooting Competition
	Saturday, April 28	Shooting Competition
	Sunday, November 4	Fundraiser Shoot
2019	Saturday, April 13	Shooting Competition
	Sunday, April 27	Shooting Competition
	Sunday, November 3	Fundraiser Shoot
2020	Saturday, April 11	Shooting Competition
	Saturday, April 25	Shooting Competition
	Sunday, November 1	Fundraiser Shoot

Authorization is also given to commence shooting on the following days at 9:00 a.m.

2015	2016	2017
Sunday, January 17	Sunday, January 6	Sunday, January 5
Sunday, February 18	Sunday, February 17	Sunday, February 16
Sunday, March 4	Sunday, March 3	Sunday, March 1
Sunday, March 11	Sunday, March 10	Sunday, March 8
Sunday, April 14	Sunday, April 13	Sunday, April 11
Sunday, April 28	Sunday, April 27	Sunday, April 25
Sunday, June 3	Sunday, June 2	Sunday, June 7
Sunday, October 14	Sunday, October 13	Sunday, October 18
Sunday, October 28	Sunday, October 27	Sunday, October 25
Sunday, November 9	Sunday, November 10	Sunday, November 8

4. The use shall be subject to the following:

- **The property owner is required to post and maintain the times and dates for the year of all shooting events at the driveway entrance to the property and the Cowichan Valley Trap and Skeet Club Website by January 1st of that year.**
- **This permit is valid to December 31, 2020.**

ISSUANCE OF THIS PERMIT RENEWAL HAS BEEN AUTHORIZED BY RESOLUTION NO. XX-XX PASSED BY THE BOARD OF THE COWICHAN VALLEY REGIONAL DISTRICT THE XXTH DAY OF AUGUST, 2017.

I HEREBY CERTIFY that I have read the terms and conditions of the Temporary Use Permit contained herein. I understand and agree that the Cowichan Valley Regional District has made no representations, covenants, warranties, guarantees, promises or agreements (verbal or otherwise) with JACK FONCK on behalf of COWICHAN VALLEY TRAP AND SKEET CLUB other than those contained in this Permit.

Owner/Agent (signature)	**Witness (signature)**
Print Name	**Print Name**
Date	**Date**

STAFF REPORT TO COMMITTEE

DATE OF REPORT	August 3, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Inspection & Enforcement Division Land Use Services Department
SUBJECT:	3566 Holland Avenue – Cobblestone Inn Permanent Change to a Liquor Licence Application
FILE:	20-C-17BE

PURPOSE/INTRODUCTION

The purpose of this report is to satisfy a Liquor licence application requirement for local government input submitted by the Cobblestone Inn at 3566 Holland Avenue (Area C).

RECOMMENDED RESOLUTION

That it be recommended to the Board that the Cowichan Valley Regional District wishes to "opt out" of providing comment to the Liquor Control and Licencing Branch with regard to the application for a Permanent Change to a Liquor Licence for increased liquor service hours by the Cobblestone Inn (liquor licence 038301) located at 3566 Holland Avenue, Cobble Hill (Area C).

BACKGROUND

An application for a Permanent Change to a Liquor Licence has been submitted on August 3, 2017 by the Cobblestone Inn located at 3566 Holland Avenue, Cobble Hill (Area C).

ANALYSIS

This application requires input from local government in the form of a resolution. Essentially the request is for increasing the liquor service hours from 10am - midnight Sunday to Thursday and 11am to 1am Friday and Saturday to 9am – midnight Sunday to Thursday and 9am to 1am Friday and Saturday (see table on page 3 of the application). The closing times remain unchanged while the opening times move 1 hour earlier Sunday to Thursday and 2 hours earlier on Friday and Saturday. The attached email from Dave Kral (General Manager) explains the reasons for the proposed changes. At this point, the CVRD must choose either to "opt out" of this process and entrust the Liquor Control and Licencing Branch to process the application entirely or "opt in" and provide comments to the LCLB.

If the CVRD chooses to "opt in" and provide comments, criteria will need to be taken into account including:

- The impact of noise on the community in the immediate vicinity of the establishment;
- The impact on the community if the application is approved; and
- (for a food primary regarding hours after midnight or patron-participation entertainment)

Whether the amendment may result in the establishment being operated in a manner that is contrary to its primary purpose.

If the CVRD chooses to "opt out" of this process, there will be complete reliance on the LCLB to manage and take full responsibility of this licence. Choosing to "opt in" would require staff time to arrange the gathering and sorting of public input, which, to the best of the writer's knowledge, has

not been done before for this type of application. While there has been some history of late night disturbances at this location, there has not been any complaints forwarded to this office regarding early morning disturbances.

FINANCIAL CONSIDERATIONS

N/A

COMMUNICATION CONSIDERATIONS

N/A

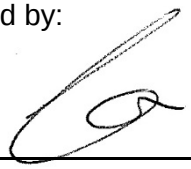
STRATEGIC/BUSINESS PLAN CONSIDERATIONS

N/A

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☐ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☐ Land Use Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

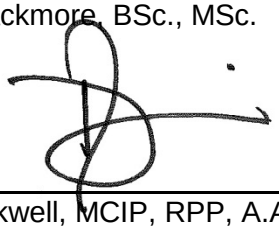
Prepared by:



Nino Morano
Bylaw Enforcement Officer

Reviewed by:

Robert Blackmore, BSc., MSc.
Manager



Ross Blackwell, MCIP, RPP, A.Ag.
General Manager

ATTACHMENTS:

Attachment A - Liquor Licence Application
Attachment B - Email from Dave Kral
Attachment C – Email Cpl Williams

BRITISH COLUMBIA

Liquor Control and Licensing Branch
4th Floor, 3350 Douglas St, Victoria, BC V8W 9J8
Mail: PO Box 9292 Stn Provincial Govt, Victoria, BC V8W 9J8
Phone: 1 866 209-2111 Fax: 250-952-7066

APPLICATION FOR A PERMANENT CHANGE TO A LIQUOR LICENCE
ALL LICENCE TYPES

Liquor Control and Licensing Form LCLB005B

Instructions:
Complete all applicable fields and submit with the required documentation, if applicable, and payment as outlined in Part 9 of this application form. If you have any questions about this application, call Liquor Control and Licensing Branch (LCLB) toll-free at: 1 866 209-2111.

Licensee Information

Licensee name (as shown on licence): Cobblestone Inn

Establishment name (as shown on licence): Cobblestone Inn

	Street	City	Province	Postal Code
Establishment Location address (as shown on licence):	3566 Holland Avenue	Cobble Hill	BC	V0R 1L0
Mailing address: (All correspondence will go to this address)	Po Box 190	Cobble Hill	BC	V0R 1L0

Business Tel with area code: 250 743 4232 Business Fax with area code: 250 743 2566

Business e-mail: dave@thecobblestone.ca

Contact Name: Dave Kral (last / first / middle) Title/Position: General Manager

Note: An authorized signing authority of a licensee can appoint a representative to interact with the branch on their behalf by completing form LCLB101 *Add, Change or Remove Licensee Representative*

Contact Person

The applicant authorizes the person below to be the primary contact for the duration of the application process only.

Name: Dave Kral Phone number: 250 732 4202 or 250 743 4232

E-mail address: dave@thecobblestone.ca

Type of Change Requested

Please check (☑) appropriate box(es) below and provide licence numbers affected for each requested change. You may complete more than one change section on this form. An incomplete application will be held for a maximum of thirty (30) days.If still incomplete after the thirty (30) day period, the application may be terminated. See Part 12 for the approval process for the change you have requested.

Type of change requested	Licence numbers affected (Mandatory)	Job Number (Office Use Only)
☐ 1. Establishment/business or licence name change (p.2)		(C2-LIC) (sub)
☐ 2. Food-primary entertainment endorsement (p.2)		(C2-LIC) (sub)
☐ 3. Request for change in terms and conditions/request for discretion (p.2)		(C3-LIC) (sub)
☐ 4. Live theatres requesting liquor service (p. 2)		(C3-LIC) (sub)
☒ 5. Change to hours of liquor service (p.3)	036301	(C3-LIC) (sub)
☐ 6. Catering endorsement (p.4)		(C3-LIC) (sub)
☐ 7. Temporary off-site sale endorsement (p.4)		(C2-LIC) (sub)

Applying for other permanent changes to your licence?

- To apply for alterations or additions to a licensed establishment (structural changes), use an *Application for a Structural Change*. For Liquor Primary and Liquor Primary Club, use form LCLB012A; for Food Primary, use LCLB012B; for Manufacturer and Winery Endorsements, use LCLB013; for Wine Store and Licensee Retail Store, use LCLB012C.
- To apply to have a third party operator operate your licensed establishment, use the *Application to Add or Change a Licensee's Third Party Operator* (LCLB026)
- To apply for a change to the shareholders, directors, licensee name or to add a receiver or executor, use the *Application for a Permanent Change to a Licensee* (LCLB005A).

R6

Part 1: Establishment or Business Name Change and/or Licence Name Change

C2 - L

To be completed when the licensee wishes to change the name of an establishment or business and/or licence.

Note: If a name change results in a change in exterior signs, the signs are subject to branch approval.

Fee: $220 per licence x ☐ licences = $ ☐

Establishment or business name change:

Current establishment or business name as shown on licence: N/A

Proposed name:

Licence name changes:

Licence #: Current licence name:

Proposed licence name:

Licence #: Current licence name:

Proposed licence name:

Attach the following:

☐ Sketch or picture of the proposed establishment or business signage.

Also complete Parts 8 and 9

Part 2. Entertainment Endorsement (Food Primary licenses only)

C2 - LIC

According to the type of entertainment being applied for, complete below and attach required documents:

Patron participation entertainment endorsement (e.g., dance floor):

Note: Patron participation entertainment must end by midnight. Fee: $330 per licence x ☐ licences = $ ☐

N/A

☐ Submit a letter of intent describing, in detail, the form of patron participation entertainment proposed and where it will take place in your restaurant.

☐ Request a local government/First Nation resolution commenting on the application (local government must complete Part 11 of this form. For further information on local government resolutions, read Part 10).

There are restrictions related to forms of entertainment, sound systems, etc. If you are uncertain about any of the details of your proposal, consult with licensing staff at LCLB in Victoria. (see contact information on page 1 of this form).

Note: When relocating a Food-Primary establishment: An endorsement for patron participation entertainment cannot transfer location without local government/First Nations comment and LCLB approval. This is required because the local government/First Nation must be provided an opportunity to reconsider the impact of the endorsement on the community given the establishment's new location. Use this form to reapply for the endorsement but do not pay the application fee(s).

Are you submitting an application to transfer the location of a Food Primary licence with this application? ☐ Yes ☐ No

Also complete Parts 8 and 9

Part 3. Request of Change in Terms and Conditions/Request for Discretion

C3 - LIC

This section may be used for requests to change the terms and conditions on a liquor licence including requests for discretion. Depending on the nature of the licence change requested, local government/first nation (LG/FN) and public input may be required.

Complete A and B:

Fee: $220 per licence x ☐ licences = $ ☐

A) Type of Request:

N/A

☐ Hours extension outside permitted hours of liquor service - Also complete Part 5

☐ Change to event driven term and condition - requires LG/FN resolution - LG/FN must complete Part 11

☐ Change or close of primary business with a liquor licence onsite

☐ Other

B) Attach:

A letter of intent describing, in detail, the proposed change to your licence. To request discretion, provide a written submission detailing compelling reasons/exceptional circumstances for your request and why a request for discretion should be approved. All documentation to support your request for discretion must be submitted with this application.

Also complete Parts 8 and 9

Part 4. Live theatres requesting liquor service in conjunction with films/broadcasts

C3 - LIC | Fee: $330

Licensed live event theatres may apply for permission to serve liquor in conjunction with films and broadcasts. Please provide a written proposal detailing your request. LCLB will forward your application to your local government/first nation for comment. Consideration will also be given to the compliance history of the establishment.

N/A

Also complete Parts 8 and 9

Part 12: Application and Approval Process – What happens next?

For the following change requests (all C2):

- Part 1 Establishment or Licence Name Change
- Part 2 Food-Primary Entertainment Endorsement (requires local government/First Nations resolution).
- Part 8 Temporary Off-site Sale Endorsement

The process is:

1. Applicant will complete the appropriate section of this form and Parts 8 and 9, and attach all required documents.
2. Applicant must submit a complete application package and fee to the Liquor Control and Licensing Branch.
3. Liquor Control and Licensing Branch (LCLB) staff will review the application package for completeness and will advise the applicant of any information/documentation required before the application can be processed. If a complete application is not received within 30 days of notification, your application will be terminated and you will have to re-apply and pay the application fees.
4. LCLB staff will advise the applicant and the liquor inspector when the application is approved.

For the following change requests:

- Part 3 Change to Terms and Conditions and Request of Discretion (all C2)
- Part 4 Live theatres requesting liquor service (all C2)
- Part 5 Change to Hours of Sale (may require local government/First Nations resolution) (all C3)

The process is:

1. Applicant will complete the appropriate section of this form and Parts 9 and 10, and attach all required documents.
2. Applicant must submit a complete application package and fee to the Liquor Control and Licensing Branch.
3. Liquor Control and Licensing Branch (LCLB) staff will review the application package for completeness and will advise the applicant of any information/documentation required before the application can be processed. If a complete application is not received within 30 days of notification, your application will be terminated and you will have to re-apply and pay the application fees.
4. LCLB staff may request your local liquor inspector to provide comments regarding your application.
5. LCLB staff will advise the applicant and the liquor inspector when the application is approved.

For the following change request:

- Part 6 Catering Endorsement (all C1)

The process is:

1. Applicant will complete the appropriate section of this form and Parts 9 and 10, and attach all required documents.
2. Applicant must submit a complete application package and fee to the Liquor Control and Licensing Branch.
3. Liquor Control and Licensing Branch (LCLB) staff will review the application package for completeness and will advise the applicant of any information/documentation required before the application can be processed. If a complete application is not received within 30 days of notification, your application will be terminated and you will have to re-apply and pay the application fees.
4. If the application requirements have been met, the applicant will be asked to contact the inspector for an interview/final inspection. Before contacting the inspector for the interview/final inspection, the applicant must have the inspector interview letter.
   Note: The applicant must contact the local area inspector to arrange for a final inspection by the date noted on the letter (30 days from the date on the letter). If the inspector is not contacted to arrange for a final inspection or for an extended time, the application will be terminated.
5. At your final inspection, the inspector will verify that your business location meets the requirements for a catering licence by reviewing the food selection, the kitchen equipment, advertising and staffing resources. If the inspector is not satisfied you business location meets the requirements of a catering licence you may be asked to makes changes and schedule a second (2nd) inspection to confirm you meet the requirements of a catering licence. A fee $200 will be charged if a second (2nd) inspection is required
6. LCLB staff will advise the applicant and the liquor inspector when the application is approved.

Part 13: Submit Application Package

Once signed by local government/First Nation, submit your complete application package to:

Liquor Control and Licensing Branch
Courier: 4th Floor, 3350 Douglas St., Victoria BC V8Z 3L1
Mail: PO Box 9292 Stn Prov Govt Victoria, BC V8W 9J8
E-mail: liquor.licensing@gov.bc.ca

If you have any questions, contact us toll-free at 866-209-2111 or email us at liquor.licensing@gov.bc.ca. Visit our website for more information: www.gov.bc.ca/liquorregulationandlicensing

The information requested on this form is collected by the Liquor Control and Licensing Branch under Section 26 (a) and (c) of the *Freedom of Information and Protection of Privacy Act* and will be used for the purpose of liquor licensing and compliance and enforcement matters in accordance with the *Liquor Control and Licensing Act*. Should you have any questions about the collection, use, or disclosure of personal information, please contact the Freedom of Information Officer at PO Box 9292 STN PROV GVT, Victoria, BC, V8W 9J8 or by phone toll free at 1-866-209-2111.

Part 5. Change to Hours of Liquor Service

Licensees may apply to revise hours of liquor service, subject to any restrictions within the *Liquor Control and Licensing Act*, Regulations, branch policies and/or original terms and conditions of licensing.

Check (☑) the appropriate change, and provide the requested information and documents:

A) Food Primary

☐ Request to change hours of liquor service between 9am - midnight Fee: $220 per licence x [ ] licences = $ [ ]
- complete proposed hours of liquor service table below

☐ Request to extend hours of liquor service between midnight - 4am Fee: $330 per licence x [ ] licences = $ [ ]
- complete proposed hours of liquor service table below
- if requesting to extend hours outside of 9am - 4am, also complete Part 3
- request a local government resolution - local government must complete Part 11 of this form.

B) Liquor-Primary, manufacturer lounge or special event area

☐ Request to change the hours of liquor service within the hours currently approved:
- complete proposed hours of liquor service table below Fee: $220 per licence x [ ] licences = $ [ ]

☑ Request to change the hours of liquor service outside the hours currently approved:
- complete proposed hours of liquor service table below Fee: $330 per licence x [1] licences = $ [330]
- if requesting to extend hours outside of 9am - 4am, also complete Part 3
- request a local government resolution - local government must complete Part 11 of this form.

C) Licensee Retail Store/Wine Store

☐ Request to extend hours outside of 9am - 11pm
- complete proposed hours in table below
- complete Part 3

Complete the tables below, indicating current and proposed hours of liquor sales:

Current Hours of Liquor Service:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Open	10:00 AM	10:00 AM	10:00 AM	10:00 AM	11:00 AM	11:00 AM	10:00 AM
Closed	12:00 AM	12:00 AM	12:00 AM	12:00 AM	1:00 AM	1:00 AM	12:00 AM

Proposed Hours of Liquor Service:

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Open	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM
Closed	12:00 AM	12:00 AM	12:00 AM	12:00 AM	1:00 AM	1:00 AM	12:00 AM

Note: When relocating a Food-Primary establishment: An endorsement for hours of liquor service after midnight cannot transfer location without local government/First Nations comment and LCLB approval. Use this form to reapply for the endorsement but do not pay the application fee(s).

Are you submitting an application to transfer the location of a Food Primary licence with this application? ☐ Yes ☒ No

Also complete Parts 8 and 9

R6

Part 6. Request for Catering Endorsement (Food Primary and Liquor Primary licences only)

Food primary and liquor primary licensees (excluding liquor primary club licensees) may apply for a catering endorsement if they wish to be licensed to transport and sell liquor at catered events where they have been hired to provide food service. The catered events must be hosted by other people and must take place outside the `red-lined area' (the area where liquor is sold, served and consumed) and generally away from the establishment. The caterer must be present for the duration of a catered event. Licences with a catering endorsement are subject to an annual licensing fee of $100 in addition to the annual renewal fees.

Fee: $330 per licence x [ ] licences = $ [ ]

To qualify for an endorsement the applicant must demonstrate at the time of inspection:

- Catering service is focused on the preparation and serving of food.
- The applicant has the personnel and infrastructure necessary to prepare and serve food at events hosted by others. This includes a requirement to have a full commercial kitchen at the applicant's existing licensed establishment.

Note: If a licence is approved with a catering endorsement, the licensee must notify LCLB of all catered events (except in private residences) using OneStop (www.bcbusinessregistry.ca). Some events may require approval from LCLB before the catered event can take place. Further information about how to notify LCLB will be provided by your local liquor inspector when they complete their final inspection.

LCLB will review your application and if approved you will be required to arrange a final inspection. If the liquor inspector is not satisfied with your kitchen equipment, food selection, advertising and staffing, you may be required to make changes and schedule a second (2nd) inspection to confirm you meet the requirements of a catering endorsement. A fee of $200 will be charged if a second (2nd) inspection is required.

Also complete Parts 8 and 9

Part 7. Temporary Off-Site Sale Endorsement (Licensee Retail Store & Wine Store licences only)

Licensee retail store (LRS) licensees and wine store (WS) licensees may apply for a temporary off-site sale endorsement to permit the sale of packaged liquor in conjunction with a Special Event Permit (SEP) event that has a focus on food and/or beverage tasting (e.g., a wine festival).

A temporary off-site store can only operate during the festival days and hours but liquor sales cannot take place before 9am or after 11pm. The LRS or WS licensee must have an agreement with the SEP licensee and confirm with the SEP licensee that Local Government /First Nations permits the sale of packaged liquor products for off site consumption at the SEP event. Wine store licensees can only sell the range of products permitted by their store licence.

N/A

No Fee

Note: If a licence is approved with a temporary off-site sale endorsement, the licensee must notify LCLB for each temporary off-site store they will be operating by submitting a complete Temporary Off-site Sale Authorization form (LCLB091) by fax or email 14 calendar days prior to the SEP event. A copy of LCLB091 form can be found on our website. An event specific authorization will be issued.

Also complete Parts 8 and 9

Part 8: Declaration

Section 57(1)(c) of the *Liquor Control and Licensing Act* states: "A person commits an offence if the person (c) provides false or misleading information in the following circumstances: (i) when making an application referred to in section 12; (ii) when making a report or when required and as specified by the general manager under section 59".

As the licensee or authorized signatory of the licensee, I understand and affirm that all of the information provided is true and complete.

Signature: _____
Authorized signatory of the licensee

Name: KRAL, DAVID ADAM KENNETH (last / first / middle)

Position: C.M-Shareholder (if not an individual)

Date: 02/09/2017 (Day/Month/Year)

Note: An agent, lawyer or third party operator may not sign the declaration on behalf of the licensee.

This form should be signed by an individual with the authority to bind the applicant. The Branch relies on the licensee to ensure that the individual who signs this form is authorized to do so. Typically, an appropriate individual will be as follows:

- If the licensee is an individual or sole proprietor, the individual himself/herself
- If the licensee is a corporation, a duly authorized signatory who will usually be an officer or, in some cases, a director
- If the licensee is a general partnership, one of the partners
- If the licensee is a limited partnership, the general partner of the partnership
- If the licensee is a society, then a director or a senior manager (as defined in the *Societies Act*)

If an authorized signatory has completed the *Add, Change or Remove Licensee Representative* form (LCLB101) and they have specifically permitted a licensee representative to sign this form on the licensee's behalf, the branch will accept the licensee representative's signature.

R6

Part 9: Application Fees

Total Fee Submitted: $ _____

In accordance with Payment Card Industry Standards, the branch is no longer able to accept credit card information via email.

Payment is by (check (☑) one):

- ◯ Cheque, payable to Minister of Finance (if cheque is returned as non-sufficient funds, a $30 fee will be charged)
- ◯ Money order, payable to Minister of Finance
- ◯ Credit card: ◯ VISA ◯ MasterCard ◯ AMEX
  - ◯ I am submitting my application by email and I will call with my credit card information. I will call Victoria Head Office at 250-952-5787 or 1-866-209-2111 and understand that no action can proceed with my application until the application fee is paid in full.
  - ◯ I am submitting my application by fax or mail and have given my credit information in the space provided at the bottom of the page.

Part 10: Local Government/First Nation Resolutions: (Information for the Applicant)

For the following changes a resolution from your local government or First Nation, commenting on the application is required:

- Part 2: Food-primary patron participation entertainment endorsement, and
- Parts 5(A) and (B): Change to hours of sale
- Part 3: Change to event driven term and condition

Licensee responsibilities:

- Fill out appropriate change application sections in this form.
- Request your local government/First Nation to sign and date Part 11 of this form.
- Provide a photocopy of this form to the local government/First Nation and request that a resolution be provided within 90 days and sent directly to the Liquor Control and Licensing Branch, Victoria Head Office.
- Send the original form and application fees to the branch.
- The Liquor Control and Licensing Branch will follow up with the local government/First Nation if a resolution has not been received by the Branch within 90 days of the local government's receipt of your request.

Your local government/First Nation may decide that it does not wish to provide comment on your change request. If they indicate on the form that they opt out of providing comment, submit your application to LCLB.

Credit Card Information (To be submitted by fax or mail only)

Name of cardholder (as it appears on card): _____

Credit card number: _____ Expiry date: ____ / ____ (Month) (Year)

Signature: _____

Part 11: Local Government/First Nation Confirmation of Receipt of Application

This application serves as notice from the Liquor Control and Licensing Branch (LCLB) that an application for one or more of the following changes to a liquor licence has been made within your community:

- Hours of liquor service past midnight for a food primary licence.
- Change to hours of liquor service for a liquor primary, liquor primary club, manufacturer lounge or special event endorsement
- Addition of patron participation entertainment endorsement for a food primary licence.
- Change to event driven term and condition.

Local government/First Nation (name): _____

Name of Official: _____ Title/Position: _____

(last / first / middle)

Email: _____ Phone: _____

Date Received: _____

(Day/Month/Year)

Signature of Official: _____

Check here if LG/FN will not be providing comment: ☐ Yes, opting out of comment

Note: The LG/FN cannot provide comment for their own application.

Is this establishment on Treaty First Nation land? ☐ Yes ☐ No

Instructions for Local Government/First Nation (LG/FN)

The Branch requests that you consider this application (application form and floor plan) and provide the Branch with a resolution within 90 days of the above received date. Alternatively, LG/FN can delegate staff with the authority to provide comment.

- The applicant will bring their completed application form to LG/FN.
- If there are any major issues (e.g. bylaws), LG/FN may hold off signing the application until the issues are resolved or they have a plan to deal with the issues.
- When LG/FN is comfortable with the application proceeding, LG/FN staff will sign above and return it to the applicant. LG/FN will keep a copy of the signed application form and all supporting documents.
- The applicant will submit the signed application package (with all required documents) to the Branch.
- Branch staff and LG/FN staff will advise each other if there are any concerns with the proposed application.

To provide a resolution or comment:

- Gather public input for the community in the immediate vicinity of the proposed endorsement service area(s).
- Consider these factors which must be taken into account when providing resolution/comment:
  - The location of the establishment.
  - The person capacity and hours of liquor service of the establishment.
- Provide a resolution/comment with comments on:
  - The impact of noise on nearby residents.
  - The impact on the community if the application is approved.
  - If the application is to amend a Food Primary licence, whether the amendment will result in the service area being operated in a matter that is contrary to primary purpose
  - The view of residents and a description of the method used to gather views.
  - The LG/FN recommendations (including whether or not the application be approved) and the reasons on which they are based.
- Provide any reports that are referenced in, or used to determine, the resolution/comment.
- If more than 90 days is required, provide a written request for extension to the Branch.
- If LG/FN opts out, or is the applicant, the Branch will gather public input and contact LG/FN staff for information to assist the Branch in considering the regulatory criteria.

If you have any questions, or the establishment is located on Treaty First Nation land, please call the Branch toll-free at 1-866-209-2111.

From: Dave Kral
To: Nino Morano
Subject: Cobblestone Hours Of Liquor Service Application
Date: Wednesday, August 02, 2017 12:38:40 PM
Attachments: August 2017 Hrs Changing.pdf

Hello There,

I am submitting an application to change our hours of operation for liquor service. We have had a lot of requests to open up for breakfast at 9am.

If we do not change the hours of operation on our liquor license to 9am, the Liquor Control Board requests that we lock our beer taps and take all of our liquor off the shelves. We would basically have to renovate to accommodate this and it is un-necessary as we are not looking to, or interested in liquor sales at that time of day, we are simply trying to accommodate breakfast.

I understand you have a board meeting today. It might be too late to submit this application this time around but the liquor control board requests your approval on this matter before they will consider the application.

Just to clarify, we are not extending our hours at the end of the day, we are considering closing early at night if the breakfast drive is super successful.

Thanks, please respond with questions or call me to clarify anything that is unclear.

Thank You,

Dave Kral
250-732-4202

From: Kathy Stark
Sent: Wednesday, August 2, 2017 10:38 AM
To: Dave Kral
Subject: Application CVRD

From:	Kylie Madge
To:	Kylie Madge
Subject:	Email from Dave Williams Cpl
Date:	Tuesday, August 08, 2017 10:26:47 AM

From: David WILLIAMS [mailto:d.m.williams@rcmp-grc.gc.ca]
Sent: August-03-17 11:07 AM
To: Stephen, Scott <scott.stephen@rcmp-grc.gc.ca>; Nino Morano <nmorano@cvrd.bc.ca>
Cc: BRISSARD, NANCY <nancy.brissard@rcmp-grc.gc.ca>
Subject: Re: Fwd: FW: Cobblestone Hours Of Liquor Service Application

Hello Nino,

The vast majority of bar issues we encounter are in the evenings and generally more often than not near closing time. I don't foresee opening an hour earlier impacting the RCMP in a negative fashion. If you have any further questions please feel free to contact me.

Dave

Dave WILLIAMS, Cpl
Shawnigan Lake RCMP
(250)743-5514
>>> NANCY BRISSARD 2017/08/03 10:20 AM >>>
Hi Dave - Could you please review Nino's email below and respond to him?
Thanks,
Nancy

STAFF REPORT TO COMMITTEE

DATE OF REPORT	August 4, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Recycling & Waste Management Division Engineering Services Department
SUBJECT:	Curbside Recycling – Contamination Audit Results
FILE:	0540-20-EAS/02

PURPOSE/INTRODUCTION

The purpose of this report is to provide information related to the Recycling & Waste Management Division's curbside audit program between May 29, 2017 and August 04, 2017.

RECOMMENDED RESOLUTION

For information.

BACKGROUND

In 2014, the Cowichan Valley Regional District (CVRD) entered into a five year contract with Recycle BC formerly known as Multi-Material British Columbia (MMBC). Recycle BC receives the materials collected through the CVRD curbside recycling program as part of BC's product stewardship system. Recycle BC also conducts periodic audits of curbside recycling and provides the CVRD with a scorecard that summarizes the percentage of non-program items found in curbside recycling. These items are referred to as contamination.

In November 2015, the CVRD received a scorecard indicating the contamination rate from CVRD Electoral Areas was 8.5%. The regional average ranged from 5.5% to 8%. Recycle BC has stated a contamination rate of 3% or less is acceptable, but any region with a rate higher than 3% may be subject to financial penalties. Recycle BC representatives have also indicated that though these fines have not been enforced to date, it is important that local governments show their commitment to reducing contamination to avoid future penalties. The CVRD has engaged in several educational measures to educate the public on what is part of the curbside program Including: applying a "no film plastic " sticker on all recycling totes, decaling trucks, bill board space, print and radio advertisements, including information on the annual recycling calendars.

The most common contaminants found in curbside recycling are film plastics (including plastic grocery bags, bread bags, water softener salt bags, and garbage bags), food scraps and clothing/textiles. In addition, 4.23% of the CVRD's contamination was un-sortable materials. These are items that may otherwise be acceptable and recyclable, but because they have been contained in plastic bags or other containers they become a safety issue for staff and sorting facilities and end up going to the landfill.

To reduce the CVRD's rate of contamination to 3% or less and improve residents' understanding of the curbside recycling program, staff developed the Recycle 2.0: Recycle *Right* at the Curb campaign in 2016. The campaign focused on educational and operational strategies to tackle the issue. Curbside recycling audits have been a key component of the campaign and were started in 2016, with Electoral Area H and some of Area E being focused on that year. Feedback from the 2016 process improved the auditing strategy for 2017 by creating more efficient data collection sheets, including more notes, and collecting data on the number of residents audited and on contamination levels within totes. The audits have now been completed for all Electoral Areas.

ANALYSIS

Between May 29, 2017 and August 04, 2017, staff conducted roadside audits in Areas A, B, C, D, E, F, G and I. Audits were completed by staff opening the lid of totes and checking for contamination. If no contaminants were found, staff left a Gold Star sticker on the tote with a 'Way to Recycle!' message on it.

If contamination was found, staff informed residents that the tote contained contaminants by leaving an 'Oops' sticker and specifying on the sticker which items were identified. The sticker also directed residents to educational resources (i.e. the Recycling Hotline and the CVRD webpage).

If totes contain excessive amounts of contamination and had already received an "Oops" sticker, they won't be collected, and a sticker will be placed on it indicating that the tote will not be picked up because of contamination was left on the bin.

Additionally, staff recorded data for analysis during audits. Data collected included addresses of contaminated totes, contaminants found in the tote, and a severity of the contamination (i.e a rating of 1 to 5 with 1 meaning minimal contamination, and 5 meaning extremely contaminated). This process will allow the ability to target residents who may require more education on what is part of the curbside recycling program.

The CVRD curbside audits have allowed staff to analyse the data and determine the effectiveness of audits and the Recycle 2.0 campaign so far. Results of the 2017 audits show that on average, there is a 10% decrease in the number of contaminated totes the second time residents are audited. The audits have also provided a comprehensive list of the most common contaminants found, allowing the CVRD to improve future public education materials.

FINANCIAL CONSIDERATIONS

The CVRD receives an annual education top-up from Recycle BC to fund education related to the collection of materials for the curbside program. Expenses for this campaign came from this funding, located in Curbside budget 515.

COMMUNICATION CONSIDERATIONS

The auditing campaign was initially launched at a media event at Bings Creek Recycling Centre on June 15, 2016.

Information related to contaminants in the curbside recycling has been provided to residents via mail-outs of the curbside calendar. Mail-outs specify which items are accepted in curbside totes, and which are not. Additionally, there is on-going social media and radio ad communication about the curbside audits, and Recycling *Right* at the Curb. These communications focus heavily on film plastic contamination.

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

This campaign supports the Strategic Focus Area 5, Engaging Our Communities.

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☒ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☐ Land Use Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*

☐ Strategic Services

Prepared by:

Fatima Ansari
Environmental Resources Assistant

Reviewed by:

Jason Adair
A/Manager

Hamid Hatami, P. Eng.
General Manager

ATTACHMENTS: N/A

STAFF REPORT TO COMMITTEE

DATE OF REPORT	June 5, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Water Management Division Engineering Services Department
SUBJECT:	Statutory Right of Way for Honeymoon Bay, groundwater well discharge piping and hydro power service over proposed land
FILE:	0540-20-EAS/05

PURPOSE/INTRODUCTION

The purpose of this report is to obtain authorization to register a Statutory Right of Way (SROW) in favor of the Cowichan Valley Regional District (CVRD) and infrastructure for community groundwater well discharge piping and hydro power servicing over Honeymoon Bay R.V. Park Inc. land to be dedicated as part of the Honeymoon Bay Water System in Electoral Area F (Honeymoon Bay).

RECOMMENDED RESOLUTION

That is be recommended to the Board that a Statutory Right of Way be registered over Honeymoon Bay R.V. Park Inc. land (Lot 9, Section 34, Renfrew District) for the purpose of installing discharge piping and hydro service infrastructure for the Honeymoon Bay Water System.

BACKGROUND

The CVRD recently completed a successful well drilling program for the Honeymoon Bay Water System, located in Electoral Area F, Cowichan Lake South/Skutz Falls.

Prior to 2008, the Honeymoon Bay Water System was fed from two surface sources; one directly from Lake Cowichan and one from a dam/weir structure located in Ashburnham Creek approximately 2 km upstream of the creek outfall into the lake. Due to the high cost of dual barrier treatment requirements from surface sources now required by the Island Health Authority, the surface sources were eliminated in 2008 by the CVRD and replaced with one groundwater well source.

Currently the Honeymoon Bay Water System relies on one production well located near the new water treatment building. This primary source of potable water supply has seasonal capacity and has had trouble meeting demand during the summer months when the population of Honeymoon Bay increases due to seasonal residents and visitors to the area.

The intent of the well drilling program was to find another groundwater source that could be added to the system to alleviate severe water restrictions in the summer months, as well as to allow future development and population growth in the area. Three six-inch steel cased wells were drilled on CVRD parks lands; the third test well at Lily Park proving to have the best potential for use as a high yield production well for the community.

In April of 2015 a preliminary design report delivered an alignment option for the conveyance piping to go through Lily Park for the connection of the Well to the treatment works building (Attachment A), with the potential for impact to the parks naturescape. Alignment efforts have begun with Honeymoon Bay R.V. Park Inc. in negotiating a Statutory Right of Way (SROW)

through a side access road on said property (Attachment B).

ANALYSIS

It is requested that a SROW be registered in favor of the CVRD over the location in the proposed land, to receive the water discharge piping, and hydro service. Specifically, the CVRD will require a SROW for the conveyancing of the groundwater from the proposed well at the end of access road and proposed SROW to allow ongoing maintenance. The proposed SROW will be 7.5 metres in width to accommodate the require clearances between the water supply line and the hydro electrical service to the well, and in keeping parallel with park boundary to exercise an explanatory plan for Land Titles registration, instead of a formal survey (Attachment C). The Statutory Right of Way will assist in furthering the CVRD to secure the construction permit from Island Health for the development and tie-in of the well at Lily Park, and provide the community benefit of providing resource, and preserving the naturescape of the park.

FINANCIAL CONSIDERATIONS (consult with Finance Division)

All costs incurred to prepare and register the Statutory Right of way documents will be borne by the CVRD this would include minor costs for legal review of these documents.

COMMUNICATION CONSIDERATIONS (consult with Strategic Services)

N/A

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

Protection of Environmental Eco Sensitive Areas and Water Resources: The access provided by the Right-of-Way will preserve the adjacent parkland of Lilly Park and protecting the Eco sensitivity of Ashburnham Creek and its riparian setbacks.

Financial Benefit: In relation to capital cost that would be incurred by the related studies, and approvals associated with the alternative construction through the parklands and the works themselves.

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☒ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology)*
- ☐ Engineering Services *(Environmental Services, Capital Projects, Water Management, Recycling & Waste Management)*
- ☐ Planning & Development Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

Prepared by:

David Parker, Ctech.
Environmental Technologist III

Reviewed by:

Brian Dennison, P. Eng.
Manager

Hamid Hatami, P. Eng.
General Manager

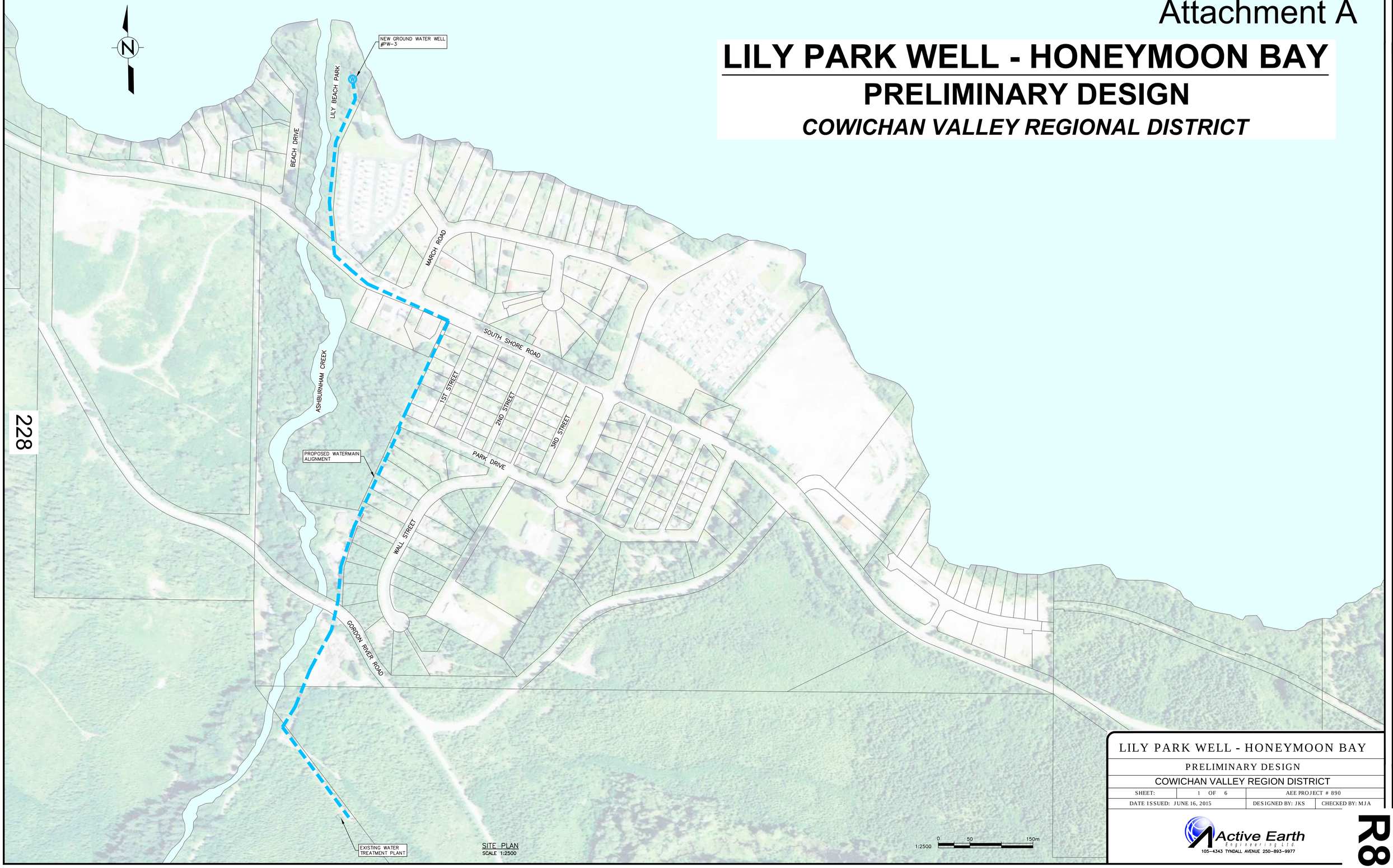
ATTACHMENTS:
Attachment A – Preliminary Design
Attachment B – Proposed Alignment
Attachment C – Draft Explanatory Plan and Standard Charge of Terms

Attachment A

LILY PARK WELL - HONEYMOON BAY

PRELIMINARY DESIGN

COWICHAN VALLEY REGIONAL DISTRICT



SITE PLAN
SCALE 1:2500

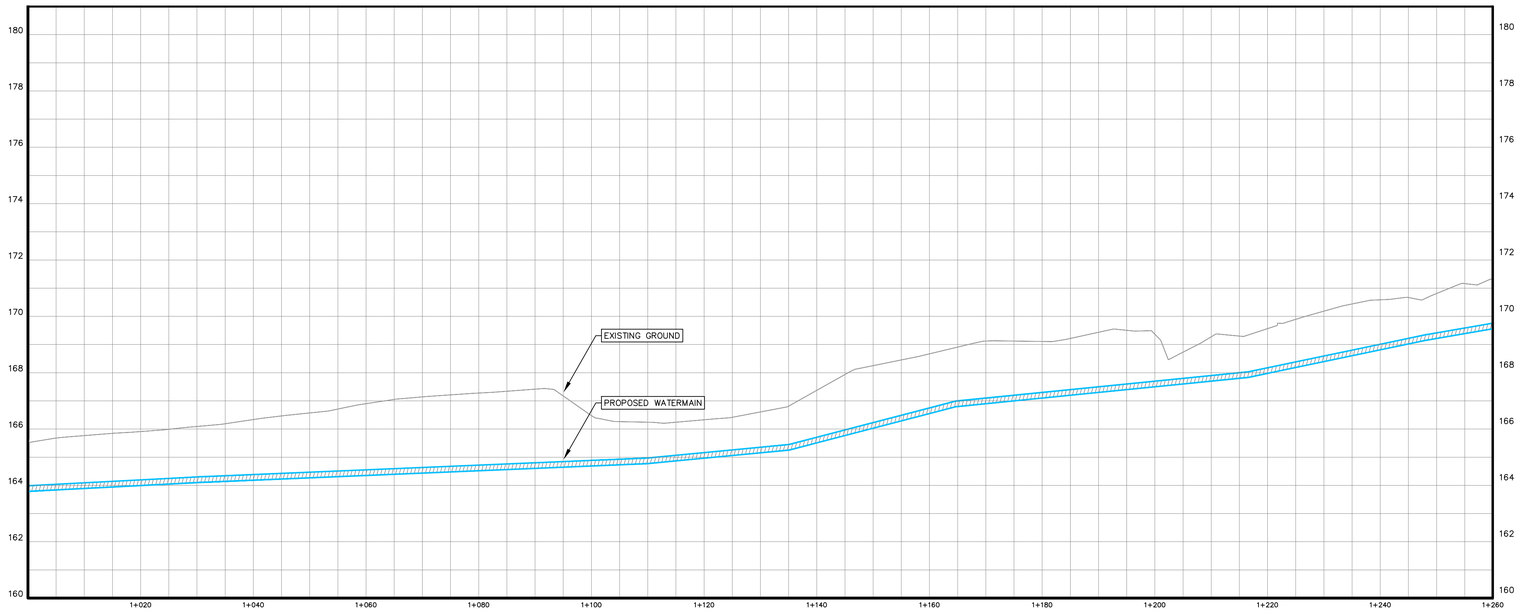
1:2500 0 50 150m

228

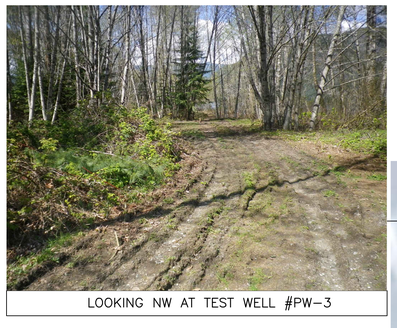
LILY PARK WELL - HONEYMOON BAY			
PRELIMINARY DESIGN			
COWICHAN VALLEY REGION DISTRICT			
SHEET:	1 OF 6	AEE PROJECT # 890	
DATE ISSUED: JUNE 16, 2015		DESIGNED BY: JKS	CHECKED BY: MJA

Active Earth Engineering Ltd.
105–4343 TYNDALL AVENUE 250–893–9977

R8



PROFILE
SCALE 1:500 HOR 1:100 VERT



LOOKING NW AT TEST WELL #PW-3

LOOKING SOUTH ALONG GRAVEL ROAD

PLAN
SCALE 1:500

1:500 0 10 30m
1:100 0 2 6m

LILY PARK WELL - HONEYMOON BAY

PRELIMINARY DESIGN

COWICHAN VALLEY REGION DISTRICT

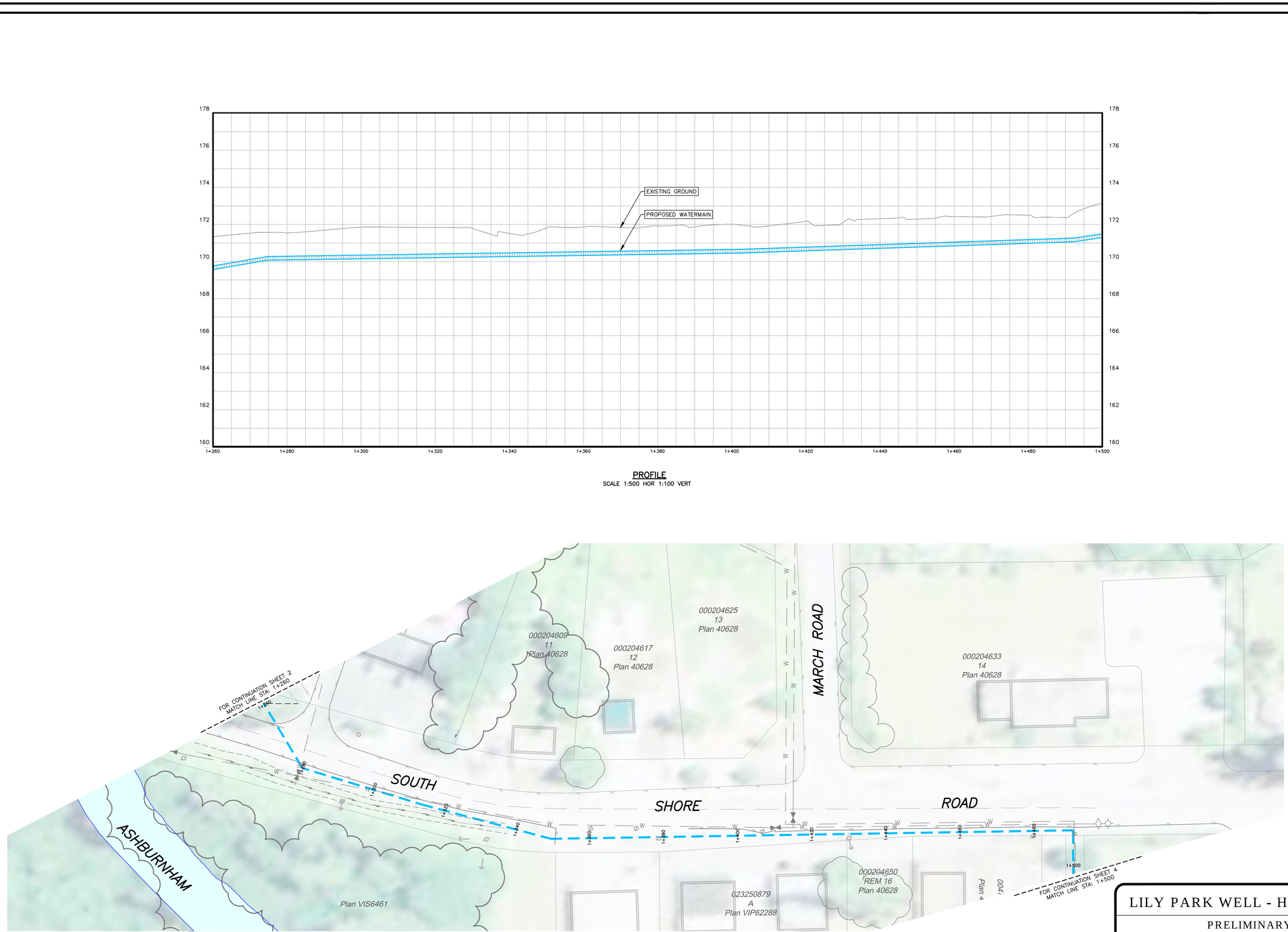
SHEET:	2 OF 6	AEE PROJECT # 890
DATE ISSUED: JUNE 16, 2015	DESIGNED BY: JKS	CHECKED BY: MJA

Active Earth Engineering Ltd.
105-4343 TYNDALL AVENUE 250-893-9977

R8

229

PROFILE
SCALE 1:500 HOR 1:100 VERT



PLAN
SCALE 1:500

1:500 0 10 30m
1:100 0 2 6m

LILY PARK WELL - HONEYMOON BAY

PRELIMINARY DESIGN

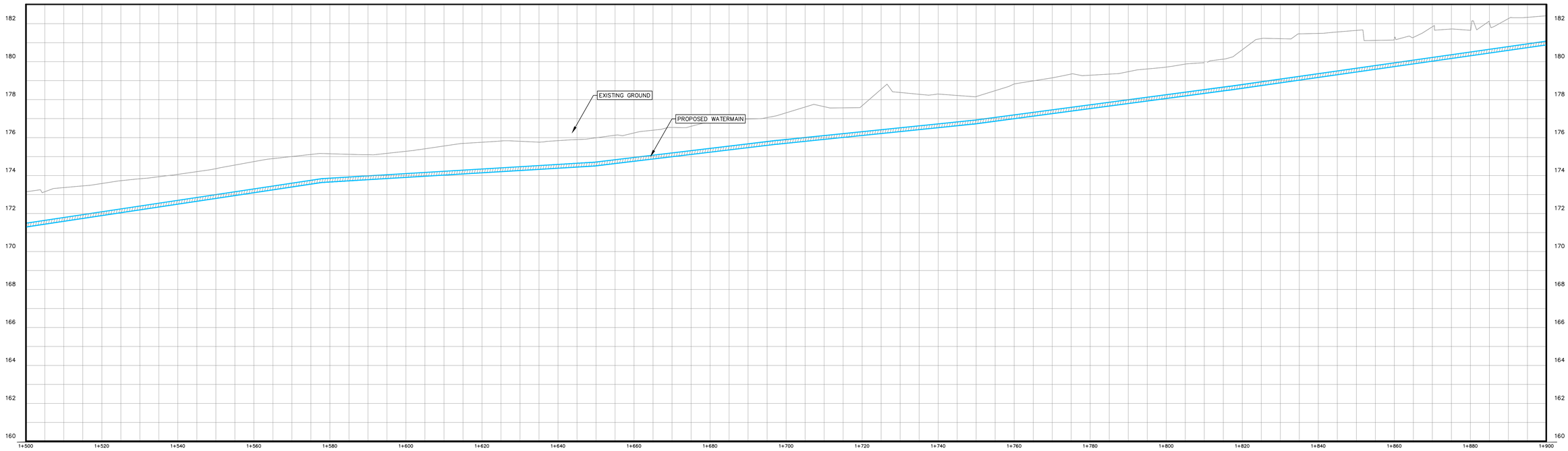
COWICHAN VALLEY REGION DISTRICT

SHEET:	3 OF 6	AEE PROJECT # 890
DATE ISSUED: JUNE 16, 2015		DESIGNED BY: JKS / CHECKED BY: MJA

Active Earth Engineering Ltd.
105–4343 TYNDALL AVENUE 250–893–9977

R8

230



PROFILE
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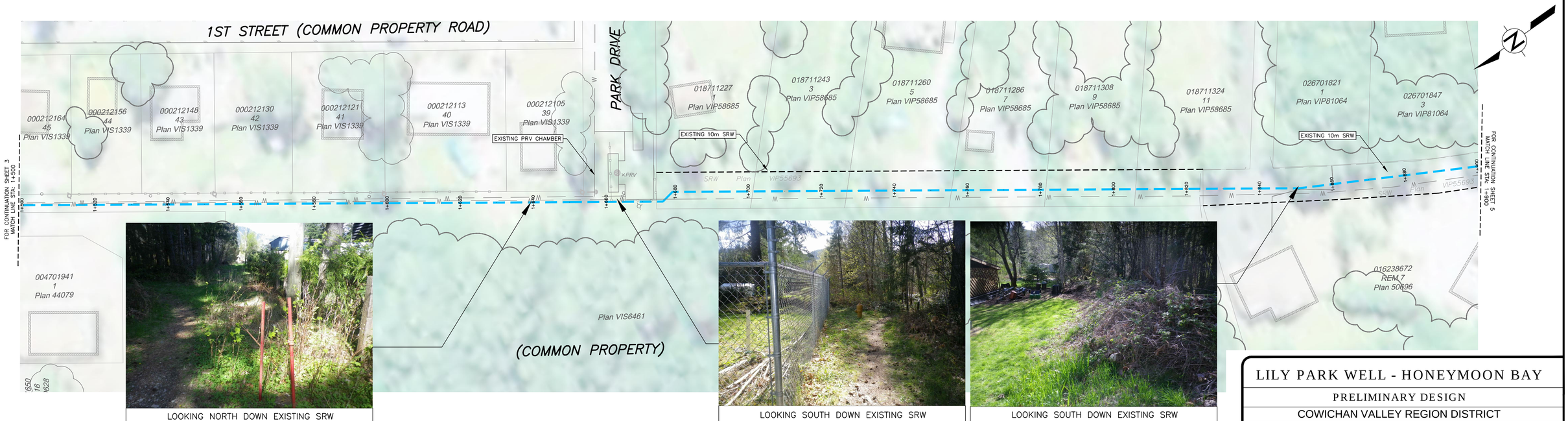


LOOKING NORTH DOWN EXISTING SRW

LOOKING SOUTH DOWN EXISTING SRW

LOOKING SOUTH DOWN EXISTING SRW

PLAN
SCALE 1:500

1:500 0 10 30m
1:100 0 2 6m

LILY PARK WELL - HONEYMOON BAY

PRELIMINARY DESIGN

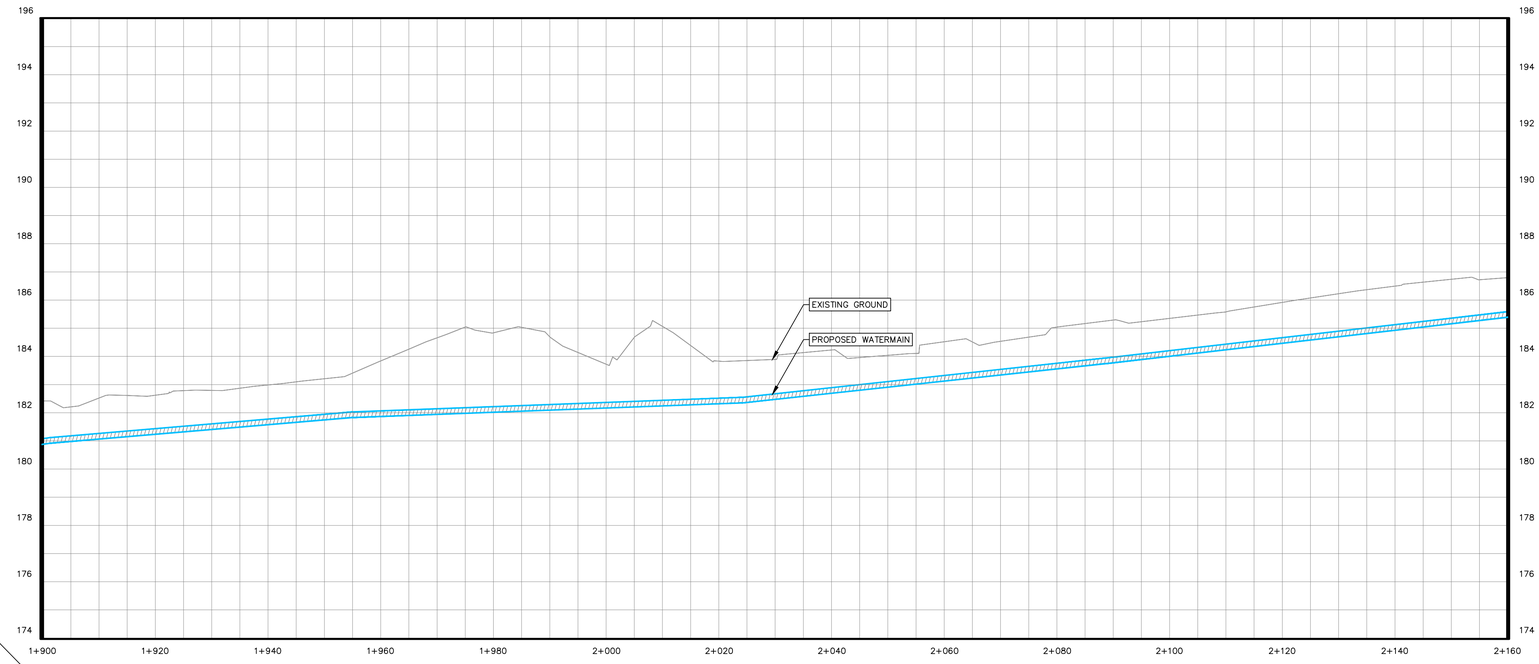
COWICHAN VALLEY REGION DISTRICT

SHEET:	4 OF 6	AEE PROJECT # 890
DATE ISSUED: JUNE 16, 2015	DESIGNED BY: JKS	CHECKED BY: MJA

Active Earth Engineering Ltd.
105–4343 TYNDALL AVENUE 250–893–9977

231

R8



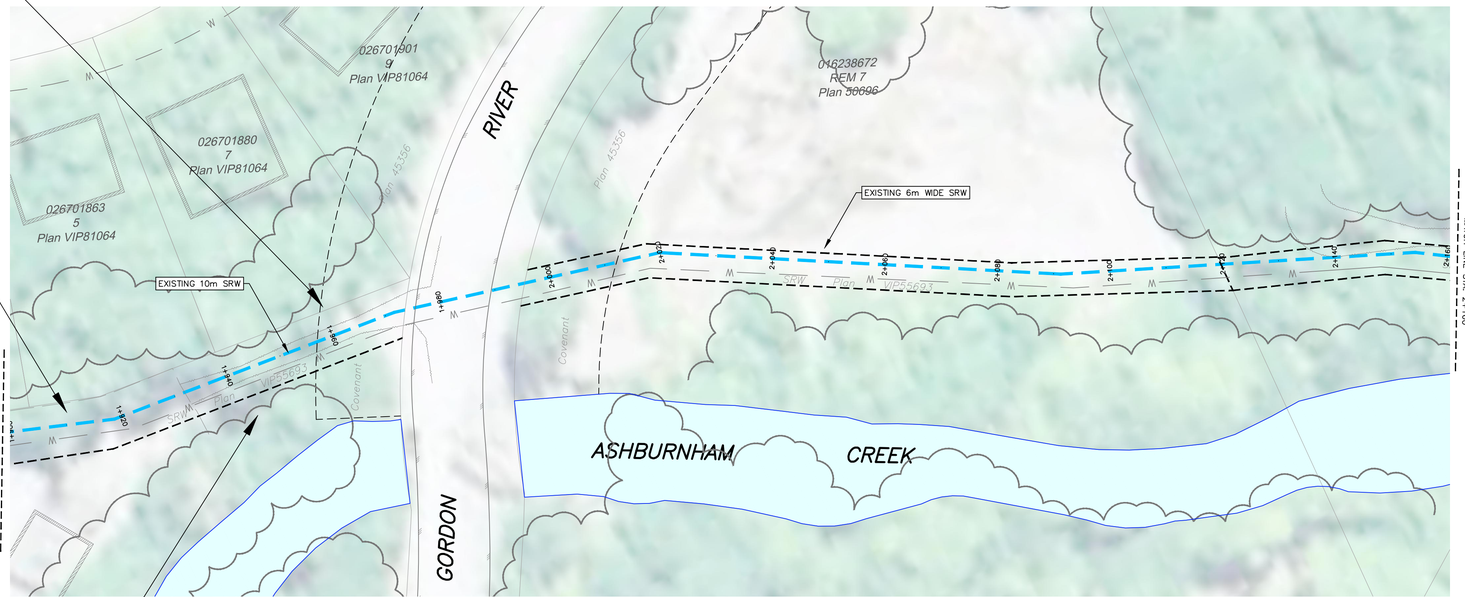
PROFILE
SCALE 1:500 HOR 1:100 VERT

LOOKING NORTH THRU "LOT 7" ALONG EXISTING SRW

232

LOOKING SOUTH DOWN EXISTING SRW

LOOKING SOUTH TO "LOGGING ROAD"



PLAN
SCALE 1:500

1:500 0 10 30m
1:100 0 2 6m

LILY PARK WELL - HONEYMOON BAY

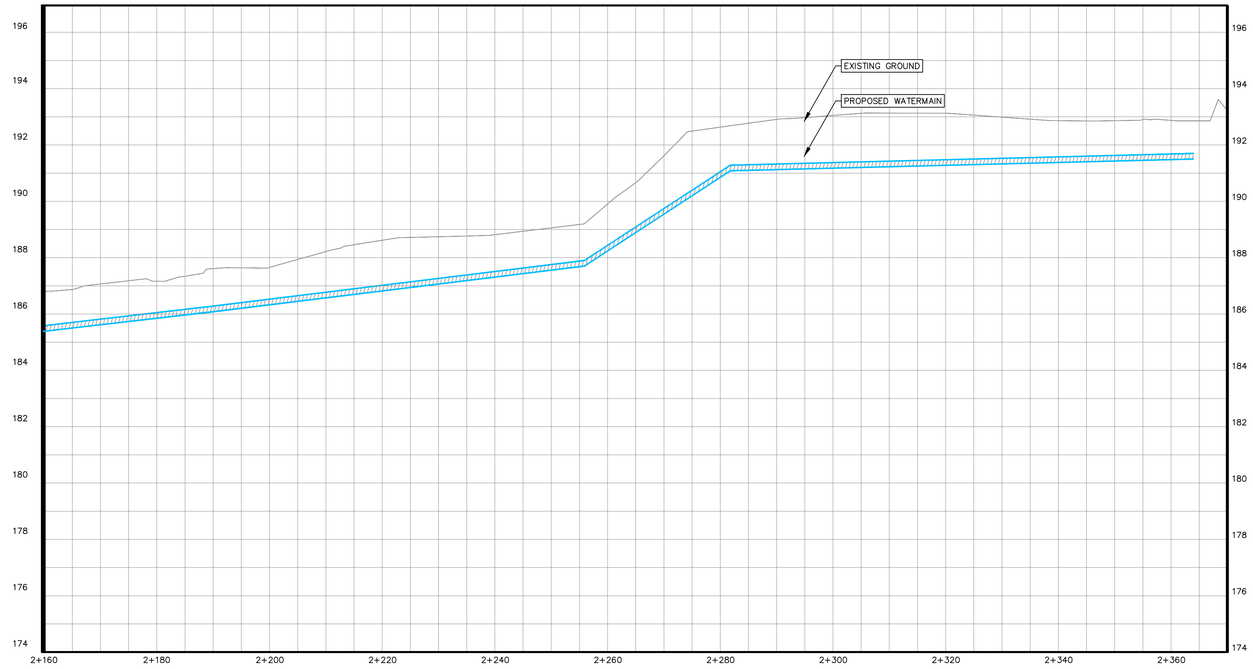
PRELIMINARY DESIGN

COWICHAN VALLEY REGION DISTRICT

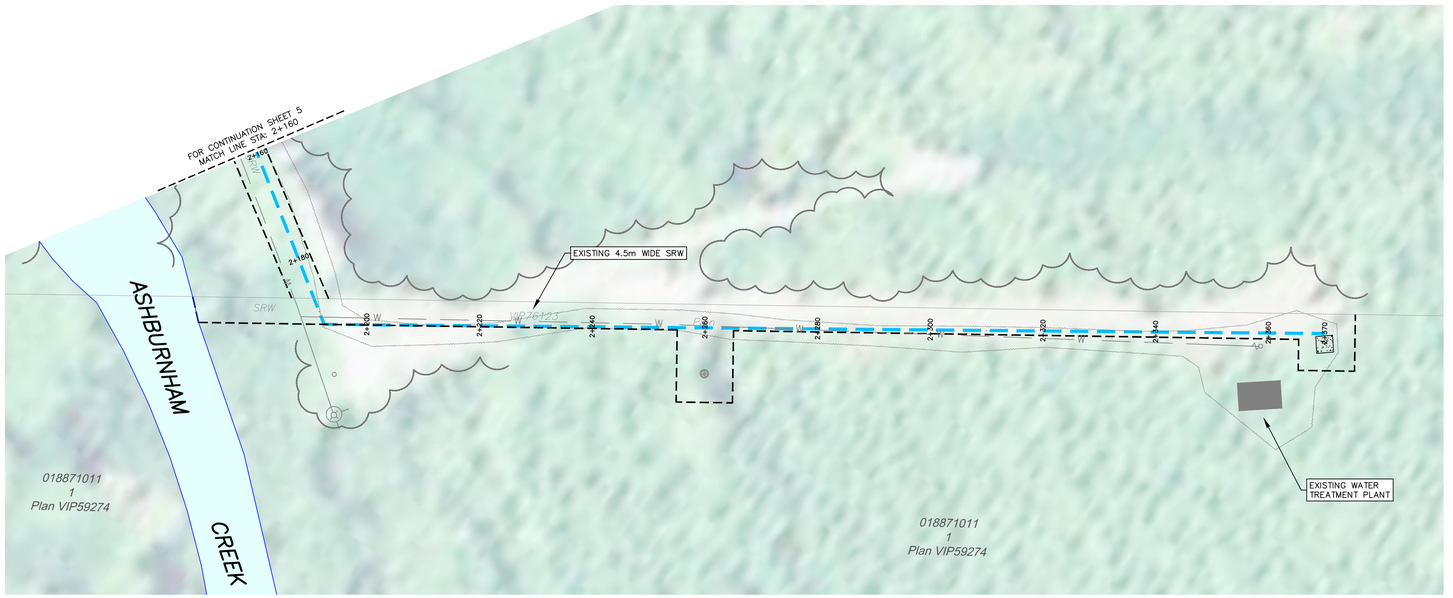
SHEET:	5 OF 6	AEE PROJECT # 890	
DATE ISSUED: JUNE 16, 2015		DESIGNED BY: JKS	CHECKED BY: MJA

Active Earth Engineering Ltd.
105–4343 TYNDALL AVENUE 250–893–9977

R8



PROFILE
SCALE 1:500 HOR 1:100 VERT



PLAN
SCALE 1:500

1:500 0 10 30m
1:100 0 2 6m

LILY PARK WELL - HONEYMOON BAY

PRELIMINARY DESIGN

COWICHAN VALLEY REGION DISTRICT

SHEET:	6 OF 6	AEE PROJECT # 890
DATE ISSUED: JUNE 16, 2015	DESIGNED BY: JKS	CHECKED BY: MJA

Active Earth Engineering Ltd.
105–4343 TYNDALL AVENUE 250–893–9977

R8

233

Attachment B

Bay

Proposed Community Well

413,622, 5,408,109

Proposed 4.5m ROW

BEACH

DRIVE

HONEYMOON BAY RD.

234

PAUL'S ROAD

MARCH ROAD

SOUTH

6918
6908
10117
10119
10123
10125
10133
10143
10163
6902
10115
10109
6881
10043
10039
10035
10029
10027
6876
10075
10069
10063
10055
10042
10038
10034
10032
6855
10045
10041
10060
10058
10054
10052
6845
6840

This map is compiled from various sources for internal use and is designed for reference purposes only.

The Regional District does not warrant the accuracy.

All persons making use of this compilation are advised that amendments have been consolidated for convenience purposes only and that boundaries are representational.

The original Bylaws should be consulted for all purposes of interpretation and applicaton of the Bylaws.

Printed: May 18, 2017

N
W
S

Scale: 1:2,1

R8

EXPLANATORY PLAN OF PART OF LOT 8, SECTION 34, RENFREW DISTRICT, (SITUATE IN COWICHAN LAKE DISTRICT), PLAN 40628, EXCEPT THAT PART IN PLAN 42592

PURSUANT TO SECTION 99(1)(e) OF THE LAND TITLE ACT.

PLAN EPP_____

Attachment C

BCGS 92C.090

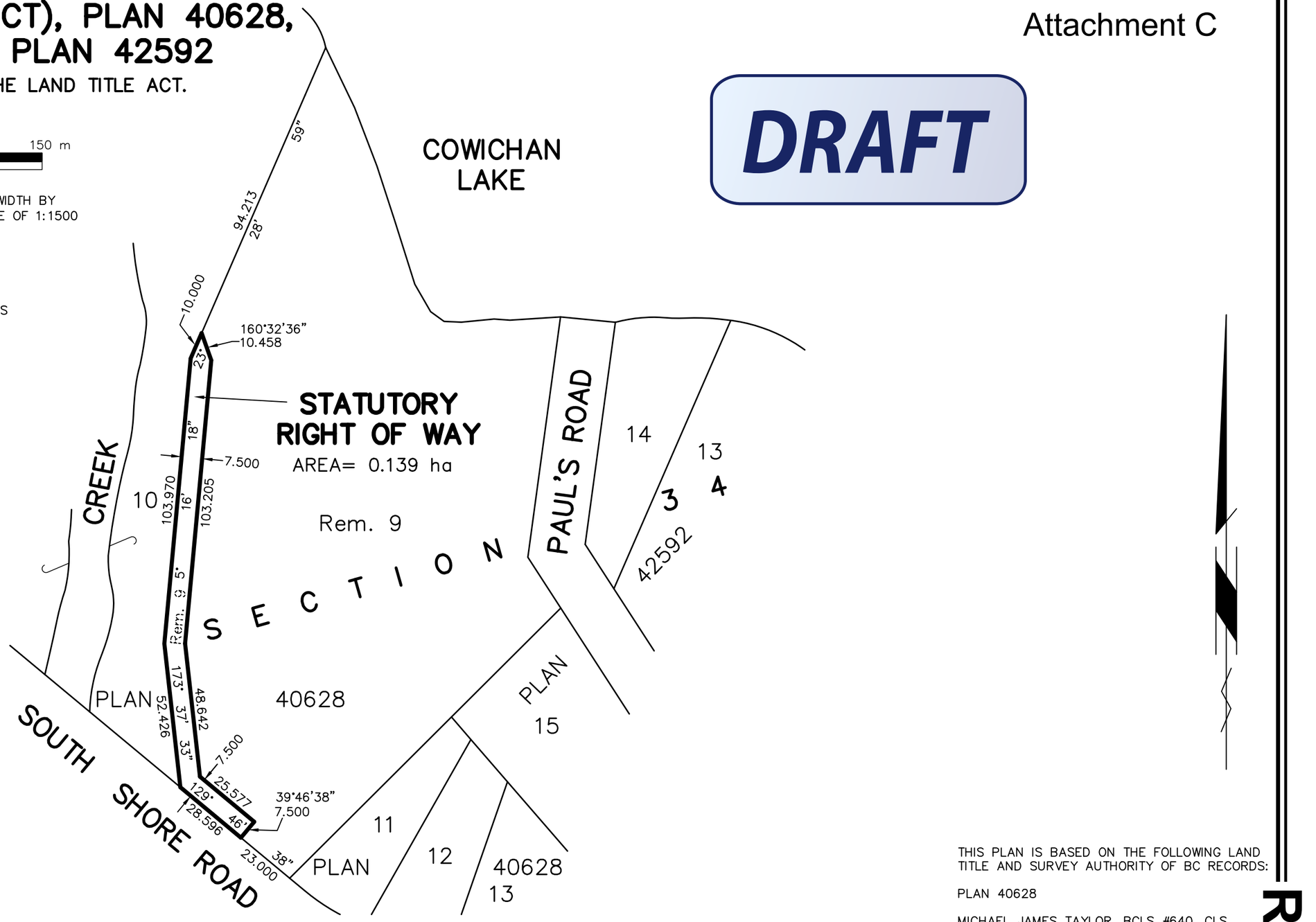
0 50 100 150 m

ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF
THE INTENDED PLOT SIZE OF THIS PLAN IS 432 mm IN WIDTH BY 280 mm IN HEIGHT (B–SIZE) WHEN PLOTTED AT A SCALE OF 1:1500

NOTE:

BEARINGS ARE ASTRONOMIC DERIVED FROM PLAN 40628

THIS PLAN SHOWS HORIZONTAL GROUND–LEVEL DISTANCES UNLESS OTHERWISE SPECIFIED



THIS PLAN LIES WITHIN THE COWICHAN VALLEY REGIONAL DISTRICT

McELHANNEY ASSOCIATES
LAND SURVEYING LTD.
Suite 202
5855 York Road
Duncan BC
Canada V9L 3S3
Tel 250–748–3335

OUR FILE NO. 2232–00340–01
OUR DRAWING NO. 00340–1–V–1 EX.dwg

THIS PLAN IS BASED ON THE FOLLOWING LAND TITLE AND SURVEY AUTHORITY OF BC RECORDS:

PLAN 40628

MICHAEL JAMES TAYLOR, BCLS #640, CLS
(day) DAY OF (month), 2015

235

R8

LAND TITLE ACT
FORM C (Section 233) CHARGE
GENERAL INSTRUMENT - PART 1 Province of British Columbia PAGE OF PAGES

R8

Your electronic signature is a representation that you are a subscriber as defined by the Land Title Act, RSBC 1996 c.250, and that you have applied your electronic signature in accordance with Section 168.3, and a true copy, or a copy of that true copy, is in your possession.

1. APPLICATION: (Name, address, phone number of applicant, applicant's solicitor or agent)

Deduct LTSA Fees? Yes

2. PARCEL IDENTIFIER AND LEGAL DESCRIPTION OF LAND:
[PID] [LEGAL DESCRIPTION]

STC? YES

3. NATURE OF INTEREST CHARGE NO. ADDITIONAL INFORMATION

4. TERMS: Part 2 of this instrument consists of (select one only)
(a) Filed Standard Charge Terms D.F. No. (b) Express Charge Terms Annexed as Part 2
A selection of (a) includes any additional or modified terms referred to in Item 7 or in a schedule annexed to this instrument.

5. TRANSFEROR(S):

6. TRANSFEREE(S): (including postal address(es) and postal code(s))

7. ADDITIONAL OR MODIFIED TERMS:

8. EXECUTION(S): This instrument creates, assigns, modifies, enlarges, discharges or governs the priority of the interest(s) described in Item 3 and the Transferor(s) and every other signatory agree to be bound by this instrument, and acknowledge(s) receipt of a true copy of the filed standard charge terms, if any.

Officer Signature(s)	**Execution Date**			Transferor(s) Signature(s)
	Y	**M**	**D**	

OFFICER CERTIFICATION:
Your signature constitutes a representation that you are a solicitor, notary public or other person authorized by the *Evidence Act*, R.S.B.C. 1996, c.124, to take affidavits for use in British Columbia and certifies the matters set out in Part 5 of the *Land Title Act* as they pertain to the execution of this instrument.

Officer Signature(s)	Execution Date			Transferor / Borrower / Party Signature(s)
	Y	**M**	**D**	

OFFICER CERTIFICATION:
Your signature constitutes a representation that you are a solicitor, notary public or other person authorized by the *Evidence Act*, R.S.B.C. 1996, c.124, to take affidavits for use in British Columbia and certifies the matters set out in Part 5 of the *Land Title Act* as they pertain to the execution of this instrument.

TERMS OF INSTRUMENT - PART 2

W H E R E A S:

A. The Transferor is the registered owner in fee simple of the following land in the Province of British Columbia:

PID 000-204-587
Lot 9, Section 34, Renfrew District, (situate in Cowichan Lake District), Plan 40628, Except that Part in Plan 42592

(the "**Lands**")

B. The Transferee is the Cowichan Valley Regional District;

C. This Right of Way is necessary for the operation and maintenance of the Transferee's undertaking as described in Recital D;

D. To facilitate the installation of a system of waterworks, including all related hydro-electric works, pipes, valves, fittings, conduits, casings, lines, meters, appliances, attachments, devices, facilities, equipment, and appurtenances (the "**Works**"), the Transferor has agreed to permit the construction by the Transferee of the Works on a portion of the Lands and to grant for that purpose the Right of Way in Section 1.1 of this agreement (the **"Agreement"**).

NOW THEREFORE, in consideration of the sum of One ($1.00) Dollar of lawful money of Canada, now paid by the Transferee to the Transferor (the receipt and sufficiency of which is now acknowledged by the Transferor), and in consideration of the covenants and conditions agreed to be observed and performed by the parties and for other valuable consideration:

1.0 THE TRANSFEROR:

1.1 grants, conveys, confirms and transfers, in perpetuity, to the Transferee the full, free and uninterrupted right, license, liberty, privilege, easement, permission and right of way to lay down, install, erect, construct, entrench, operate, maintain, repair, inspect, alter, remove, replace, bury, cleanse, string, and otherwise establish one or more systems of Works upon, over, under and across that part of the Lands outlined in heavy bold outline on Explanatory Plan EPP_____, a reduced copy of which is attached hereto as Schedule “A” (the "**Right of Way**");

1.2 covenants and agrees to and with the Transferee that the Transferee shall:

(a) for itself and its agents, workers, contractors and all other licensees of the Transferee;

(b) together with machinery, vehicles, equipment, and materials;

(c) upon, over, under and across the Right of Way;

(d) as may be necessary, useful, or convenient for the purposes in section 1.1; and

(e) in connection with the operations of the Transferee in relation to the Works or other works of the Transferee on adjacent land;

be entitled at all times to enter, use, pass and repass, labour, construct, erect, install, dig, carry away soil or other surface or subsurface materials, and clear of all trees, growth, buildings or obstructions now or hereafter in existence upon, over, under and across the Right of Way;

1.3 grants, conveys, confirms and transfers unto the Transferee for itself, and its employees, agents, workers, contractors and all other licensees of the Transferee together with machinery, vehicles, equipment and materials, the right at all times to enter upon and to pass and repass over such of the Lands as may reasonably be required for the purpose of ingress to and egress from the Right of Way;

1.4 transfers, assigns and conveys to the Transferee all right, title and interest in and to any Works that the Transferee, or the Transferor have prior to this Agreement established or constructed or maintained or operated within the Right of Way or in relation to any similar Works previously constructed by any party whatsoever within the Right of Way;

1.5 grants unto the Transferee the license, permission, easement and Right of Way to lay down, install, erect, construct, operate, maintain, repair, inspect, alter, remove, replace, cleanse, string, and otherwise establish one or more temporary systems of works upon the Lands, in the event of a breakdown or malfunction of the Works;

2.0 THE TRANSFEROR COVENANTS:

2.1 not, and not to permit any other person, to erect, place, install or maintain any building, structure, addition to a building or structure, mobile home, paved driveway or patio, pipe, wire or other conduit on, over or under any portion of the Right of Way within 3 metres of the Works;

2.2 not to do anything that in any way interferes with or damages or prevents access to or is likely to cause harm to the Works installed in or upon the Right of Way;

2.3 not to do or knowingly permit to be done any act or thing which will interfere with or injure the Works and in particular, without limitation, will not carry out any blasting on the Right of Way without the consent in writing of the Transferee, and consent shall not be unreasonably withheld;

2.4 not to substantially add to or diminish the soil cover over any of the Works installed in the Right of Way and in particular, without limitation, will not construct open drains or ditches along or across any of the Works installed in the Right of Way without the consent of the Transferee, and consent shall not be unreasonably withheld;

2.5 from time to time and at all times at the reasonable request and at the cost of the

Transferee to do and execute or cause to be made, done or executed any further and other lawful acts, deeds, things, devices, conveyances and assurances in law required to ensure the Transferee of its rights under this Agreement;

3.0 THE TRANSFEREE COVENANTS:

3.1 not to bury any debris or rubbish of any kind in excavations or backfill on the Right of Way, and to remove shoring and similar temporary structures as backfilling proceeds;

3.2 to thoroughly clean all lands to which it has had access under this Agreement of all rubbish and construction debris created or placed on the Right of Way by the Transferee and to leave such lands in a neat and clean condition;

3.3 as soon as weather and soil conditions permit, and as often as it may exercise this right of entry to the Right of Way, to replace the surface soil as nearly as may be reasonably possible to the same condition as it was prior to the entry, in order to restore the natural drainage to the Lands. This does not require the Transferee to restore any trees or other surface growth, but the Transferee shall leave the Lands in a condition which will not inhibit natural regeneration of that growth;

3.4 as far as reasonably possible, to carry out all work in a proper and workmanlike manner so as to do as little injury to the Lands as possible;

3.5 to make good at its own expense damage or disturbance which may be caused to the Lands in the exercise by the Transferee of its rights under this Agreement except as permitted under this Agreement;

3.6 as far as reasonably possible, to restore any fences, lawns or flower beds, at its cost as nearly as may be reasonably possible to the same condition that they were in prior to any entry by the Transferee upon the Lands;

4.0 THE PARTIES COVENANT TO AND AGREE WITH EACH OTHER, as follows:

4.1 In spite of any rule of law or equity to the contrary, the Works brought on to, set, constructed, laid, erected in, upon or under the Right of Way by the Transferee will at all times remain the property of the Transferee, even if the Works are annexed or affixed to the freehold, and the Works will at any time and from time to time be removable in whole or in part by the Transferee;

4.2 In the event that the Transferee abandons the Works or any part of them, the Transferee may, if it so elects, leave the whole or any part of the Works in place and if so abandoned the Works, or part thereof, will become the property of the Transferor;

4.3 No part of the title in fee simple to the Lands will pass to or be vested in the Transferee under or by virtue of this Agreement, and the Transferor may fully use and enjoy all of the Lands subject only to the rights and restrictions in this Agreement;

4.4 The Transferor acknowledges that (a) these Covenants are enforceable against the Transferor and its successors in title, but (b) the Transferor is not personally liable for

breach of these Covenants after the Transferor has ceased to be the owner of the Lands;

4.5 If at the date hereof the Transferor is not the sole registered owner of the Lands, this Agreement will nevertheless bind the Transferor to the full extent of its interest therein, and if it acquires a greater or the entire interest in fee simple, this Agreement will likewise extend to such after-acquired interests;

4.6 Where the expression "Transferor" includes more than one person, all covenants made by the Transferor will be construed as being several as well as joint with respect to all persons constituting the Transferor;

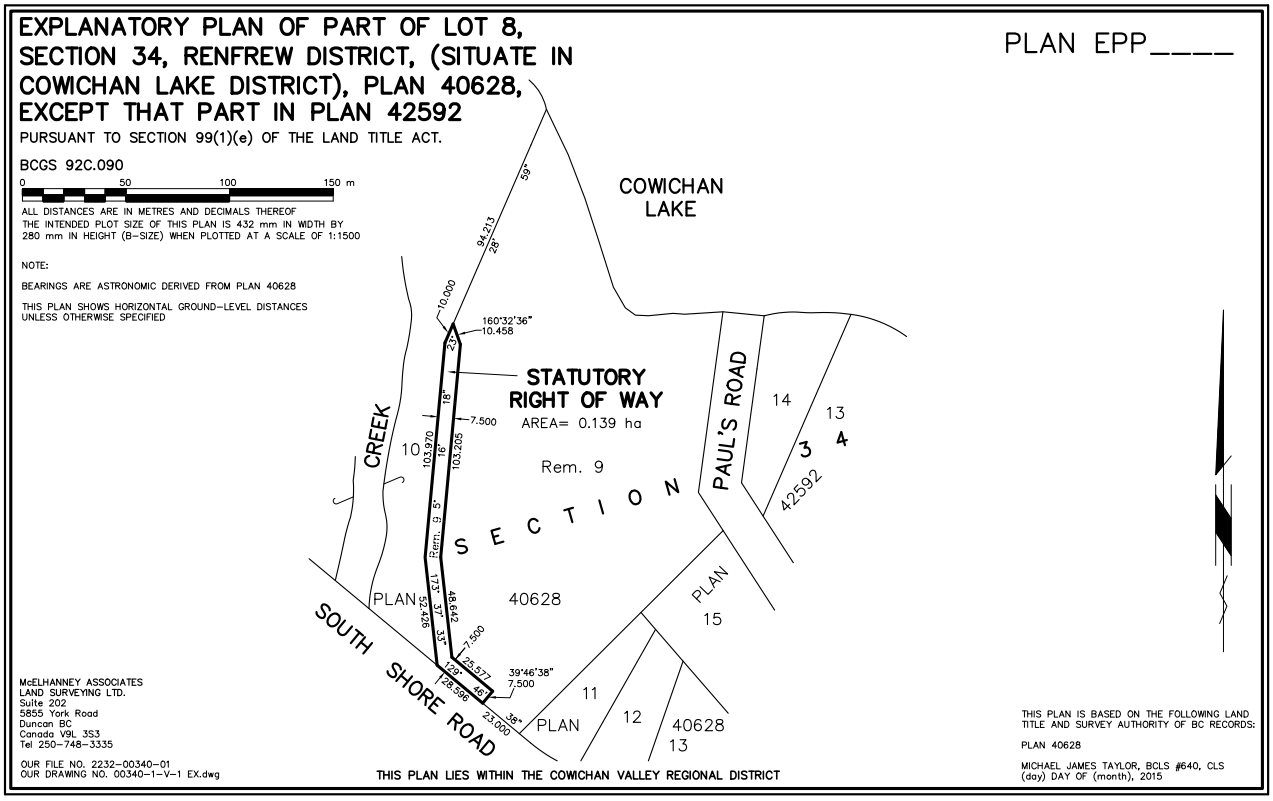
4.7 This Agreement will continue to benefit and be binding upon the Transferor and Transferee, and their respective heirs, administrators, executors, successors and permitted assigns, as the case may be;

4.8 Gender specific terms include both genders and corporations, and the singular and plural forms are interchangeable, according to the context;

4.9 This Agreement may be executed in counterpart with the same effect as if all parties had signed the same document. Each counterpart will be deemed to be an original. All counterparts will be construed together and will constitute one and the same Agreement. This Agreement may be delivered by electronic means.

The Transferor and Transferee acknowledge that this Agreement has been duly executed and delivered by the parties executing Forms C and D (pages 1 and 2) attached hereto.

SCHEDULE "A"


EXPLANATORY PLAN OF PART OF LOT 8, SECTION 34, RENFREW DISTRICT, (SITUATE IN COWICHAN LAKE DISTRICT), PLAN 40628, EXCEPT THAT PART IN PLAN 42592
PURSUANT TO SECTION 99(1)(e) OF THE LAND TITLE ACT.
PLAN EPP____
BCGS 92C.090
0 50 100 150 m
ALL DISTANCES ARE IN METRES AND DECIMALS THEREOF
THE INTENDED PLOT SIZE OF THIS PLAN IS 432 mm IN WIDTH BY 280 mm IN HEIGHT (B-SIZE) WHEN PLOTTED AT A SCALE OF 1:1500
NOTE:
BEARINGS ARE ASTRONOMIC DERIVED FROM PLAN 40628
THIS PLAN SHOWS HORIZONTAL GROUND-LEVEL DISTANCES UNLESS OTHERWISE SPECIFIED
COWICHAN LAKE
STATUTORY RIGHT OF WAY
AREA= 0.139 ha
Rem. 9
SECTION 34
RENFREW DISTRICT
PLAN 40628
PLAN 42592
PAUL'S ROAD
CREEK
SOUTH SHORE ROAD
PLAN 15
PLAN 40628 13
PLAN 11 12
10
14
13
3
4
59°
94.213
28°
10.000
160°32'36"
10.458
18°
7.500
16°
103.970
103.205
Rem. 9
5°
49.642
33°
25.377
39°46'38"
7.500
46°
128.598
23.000
36°
McELHANNEY ASSOCIATES
LAND SURVEYING LTD.
Suite 202
5855 York Road
Duncan BC
Canada V9L 3S3
Tel 250-748-3335
OUR FILE NO. 2232-00340-01
OUR DRAWING NO. 00340-1-V-1 EX.dwg
THIS PLAN LIES WITHIN THE COWICHAN VALLEY REGIONAL DISTRICT
THIS PLAN IS BASED ON THE FOLLOWING LAND TITLE AND SURVEY AUTHORITY OF BC RECORDS:
PLAN 40628
MICHAEL JAMES TAYLOR, BCLS #640, CLS
(day) DAY OF (month), 2015

STAFF REPORT TO COMMITTEE

DATE OF REPORT	July 25, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Water Management Division Engineering Services Department
SUBJECT:	Saltair Water System, Statutory Right-of-Way, 10335 Chemainus Road
FILE:	0540-20-EAS/05

PURPOSE/INTRODUCTION

The purpose of this report is to obtain authorization of a Statutory Right-of-Way for a watermain installation and maintenance over 10335 Chemainus Road, PID 005-835-003 located within Saltair Water System.

RECOMMENDED RESOLUTION

That it be recommended to the Board that a Statutory Right of Way be registered through 10335 Chemainus Road (PID: 005-835-003) for the purpose of installing a watermain and future maintenance of the Saltair Water System.

BACKGROUND

A section of watermain, currently located in an easement behind a number of homes on Chemoy Road, has experienced watermain breaks in the past. To avoid future breaks and potential damage to homes, the watermain will be re-routed along the private property of 10335 Chemainus Road and will join with the existing watermain on Chemoy Road. A Right-of-Way is required from the property owner of 10335 Chemainus Road, Fredrick Williamson, to allow access for installation and long-term maintenance of the watermain

ANALYSIS

Negotiations with the property owner of 10335 Chemainus Road have been ongoing and Mr. Williamson is in agreeance with the terms of the Right-of-Way. The attached Right-of-Way documents are now with Mr. Williamson's lawyer for review and execution by Mr. Williamson and subsequently the Cowichan Valley Regional District.

FINANCIAL CONSIDERATIONS

To compensate for the Right-of-Way, $7400 will be paid to Mr. Williamson pending final registration on title. Further, up to $1000 will be paid to compensate for Mr. Williamson's legal fees. Funding for the compensation will be from the 2017 Saltair Water System capital budget.

COMMUNICATION CONSIDERATIONS

N/A

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

The Corporate Strategic Plan includes an objective to achieve compact, mixed communities. Coordination of water, sewer, and other infrastructure is the strategic action identified to promote compact, mixed-use communities. The recommended resolution provides a reliable essential service.

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☒ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☐ Land Use Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

Prepared by:

Lisa Daugenet, AScT.
Engineering Technologist III

Reviewed by:

Brian Dennison, P. Eng.
Manager

Hamid Hatami, P. Eng.
General Manager

ATTACHMENTS:
Attachment A – Right-of-Way Documents

LAND TITLE ACT
FORM C (Section 233) CHARGE
GENERAL INSTRUMENT - PART 1 Province of British Columbia PAGE OF PAGES

Your electronic signature is a representation that you are a subscriber as defined by the Land Title Act, RSBC 1996 c.250, and that you have applied your electronic signature in accordance with Section 168.3, and a true copy, or a copy of that true copy, is in your possession.

1. APPLICATION: (Name, address, phone number of applicant, applicant's solicitor or agent)

Deduct LTSA Fees? Yes

2. PARCEL IDENTIFIER AND LEGAL DESCRIPTION OF LAND:
[PID] [LEGAL DESCRIPTION]

STC? YES

3. NATURE OF INTEREST CHARGE NO. ADDITIONAL INFORMATION

4. TERMS: Part 2 of this instrument consists of (select one only)
(a) Filed Standard Charge Terms D.F. No. (b) Express Charge Terms Annexed as Part 2
A selection of (a) includes any additional or modified terms referred to in Item 7 or in a schedule annexed to this instrument.

5. TRANSFEROR(S):

6. TRANSFEREE(S): (including postal address(es) and postal code(s))

7. ADDITIONAL OR MODIFIED TERMS:

8. EXECUTION(S): This instrument creates, assigns, modifies, enlarges, discharges or governs the priority of the interest(s) described in Item 3 and the Transferor(s) and every other signatory agree to be bound by this instrument, and acknowledge(s) receipt of a true copy of the filed standard charge terms, if any.

Officer Signature(s) **Execution Date** Transferor(s) Signature(s)

Y	M	D

OFFICER CERTIFICATION:
Your signature constitutes a representation that you are a solicitor, notary public or other person authorized by the *Evidence Act*, R.S.B.C. 1996, c.124, to take affidavits for use in British Columbia and certifies the matters set out in Part 5 of the *Land Title Act* as they pertain to the execution of this instrument.

Officer Signature(s)	Execution Date			Transferor / Borrower / Party Signature(s)
	Y	**M**	**D**	

OFFICER CERTIFICATION:
Your signature constitutes a representation that you are a solicitor, notary public or other person authorized by the *Evidence Act*, R.S.B.C. 1996, c.124, to take affidavits for use in British Columbia and certifies the matters set out in Part 5 of the *Land Title Act* as they pertain to the execution of this instrument.

NATURE OF INTEREST	CHARGE NO.	ADDITIONAL INFORMATION
NATURE OF INTEREST	CHARGE NO.	ADDITIONAL INFORMATION
NATURE OF INTEREST	CHARGE NO.	ADDITIONAL INFORMATION
NATURE OF INTEREST	CHARGE NO.	ADDITIONAL INFORMATION
NATURE OF INTEREST	CHARGE NO.	ADDITIONAL INFORMATION
NATURE OF INTEREST	CHARGE NO.	ADDITIONAL INFORMATION

ENTER THE REQUIRED INFORMATION IN THE SAME ORDER AS THE INFORMATION MUST APPEAR ON THE FREEHOLD TRANSFER FORM, MORTGAGE FORM, OR GENERAL INSTRUMENT FORM.

ENTER THE REQUIRED INFORMATION IN THE SAME ORDER AS THE INFORMATION MUST APPEAR ON THE FREEHOLD TRANSFER FORM, MORTGAGE FORM, OR GENERAL INSTRUMENT FORM.

Schedule “A”
Statutory Right of Way Plan
(Attached)

R9

EXPLANATORY PLAN OVER PART OF: LOT 1, DISTRICT LOT 1, CHEMAINUS DISTRICT, PLAN 6284.

Plan EPP68511

Pursuant to Section 99(1)(e) of the Land Title Act.

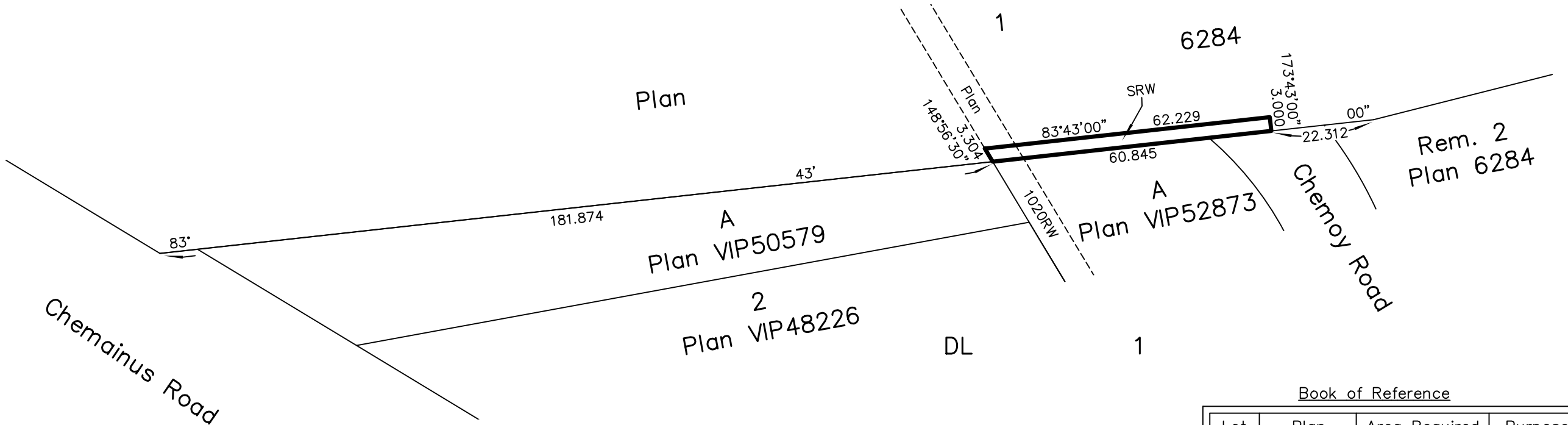
For Statutory Right of Way Purposes

BCGS 92B 092

0 20 40 80

The intended plot size of this plan is 280mm in height by 432mm in width (B Size) when plotted at a scale of 1:1000.

Astronomic bearings are derived from Plan 6284.



Book of Reference

Lot	Plan	Area Required	Purpose
1	6284	184.6 m^2	SRW

This plan is based on the following
Land Title and Survey Authority of BC records:
Plan 6284, Plan 1020RW, Plan 48226, Plan VIP50579
Matthew D. Schnurch, BCLS 956.
10th day of April, 2017

This plan lies within the
Cowichan Valley Regional District.

Turner Land Surveying Inc.
605 Comox Road
Nanaimo, B.C.
V9R 3J4
250-753-9778
File: 17-048

251

STAFF REPORT TO COMMITTEE

DATE OF REPORT	July 25, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Water Management Division Engineering Services Department
SUBJECT:	Cowichan Bay Sewer Inclusion Request – 1500 Cowichan Bay Road
FILE:	0540-20-EAS/05

PURPOSE/INTRODUCTION

The purpose of this report is to advise of a request for inclusion into the Cowichan Bay Sewer System service area.

RECOMMENDED RESOLUTION

That it be recommended to the Board:

1. That the Certificate of Sufficiency confirming that a sufficient petition requesting inclusion into the Cowichan Bay Sewer System Service Area be received.

2. That CVRD Bylaw No. 2128 – Cowichan Bay Sewer System Service Establishment Bylaw, 2000, be amended to include the property described as PID 005-490-227.

BACKGROUND

In the attached email, the owners of the above-noted property located at 1500 Cowichan Bay Road have requested inclusion in the Cowichan Bay Sewer System. The property is described as PID 005-490-227, Lot 1, Section 2 & 3, Range 5, Cowichan Land District, Plan VIP8931 Except Part in Plan EPP62069.

ANALYSIS

In the Cowichan Bay Community Sewer Servicing Policy**,** sewer capacity was to be allocated in the following order:

a. first, to properties located within the existing Cowichan Bay Community Sewer Service Area;

b. second, to properties located within the Cowichan Bay Village Containment boundary and identified as having sewer service potential after June 1, 2016;

c. third, to properties located within the Rural Village Containment boundary and identified as having sewer service potential after June 1, 2017;

d. fourth, to properties located outside Village and Rural Village Containment boundaries and identified as having sewer service potential after June 1, 2018; and

e. last, to properties located outside Village and Rural Village Containment boundaries not identified as having sewer service potential (in this case, an Official Community Plan amendment will be required to adjust Schedule C-4) after June 1, 2019.

The Planning Department advises that this property is in "Rural Village Containment" area and is identified as having "sewer service potential" in the Area D OCP. It therefore qualifies under section 1(c) of the Cowichan Bay Community Sewer Servicing Policy, after June 1, 2017.

There are capacity units available in the Cowichan Bay Sewer System for this inclusion and potential modest development and the infrastructure extends across Cowichan Bay Road for servicing this property.

FINANCIAL CONSIDERATIONS

For properties located outside of the water service area, the Cowichan Valley Regional District has the discretion to charge any appropriate connection fee as there are no bylaws in place to dictate them. For Cowichan Bay, staff is suggesting a Capital Connection Fee of $5,600 for each lot.

Each new user brought into the water service area will generate annual user fees in the amount of $302 parcel tax and $260 in user fees per year.

COMMUNICATION CONSIDERATIONS

The amendment bylaw requires the approval of the service area voters before it can be adopted. In cases where a sufficient petition for service has been received, voter approval may be obtained by the Electoral Area Director consenting, in writing, to the adoption of the bylaw. The Engineering Services Department is responsible for the operation and administration of this service. A valid and sufficient Petition for Service has been received. The Certificate of Sufficiency and a site plan are attached for consideration.

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

The Corporate Strategic Plan includes an objective to achieve compact, mixed communities. Coordination of water, sewer, and other infrastructure is the strategic action identified to promote compact, mixed-use communities. The recommended resolution provides a reliable essential service.

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☒ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☒ Planning & Development Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

Prepared by:

Louise Knodel-Joy
Senior Engineering Technologist

Reviewed by:

Brian Dennison, P. Eng.
Manager

Hamid Hatami, P. Eng.
General Manager

ATTACHMENTS:
Attachment A – Request and Site Plan
Attachment B – Certificate of Sufficiency

Sonia and Walter Van Hell
4522 Lambourn Drive,
Cowichan Bay, BC V0R 1N2

May 6th, 2017

Cowichan Valley Regional District
Engineering Department
175 Ingram Street
Duncan, BC V9L1N8

Re: 1500 Cowichan Bay Road, Cowichan Bay, BC – Area D

Dear Sir or Madam,

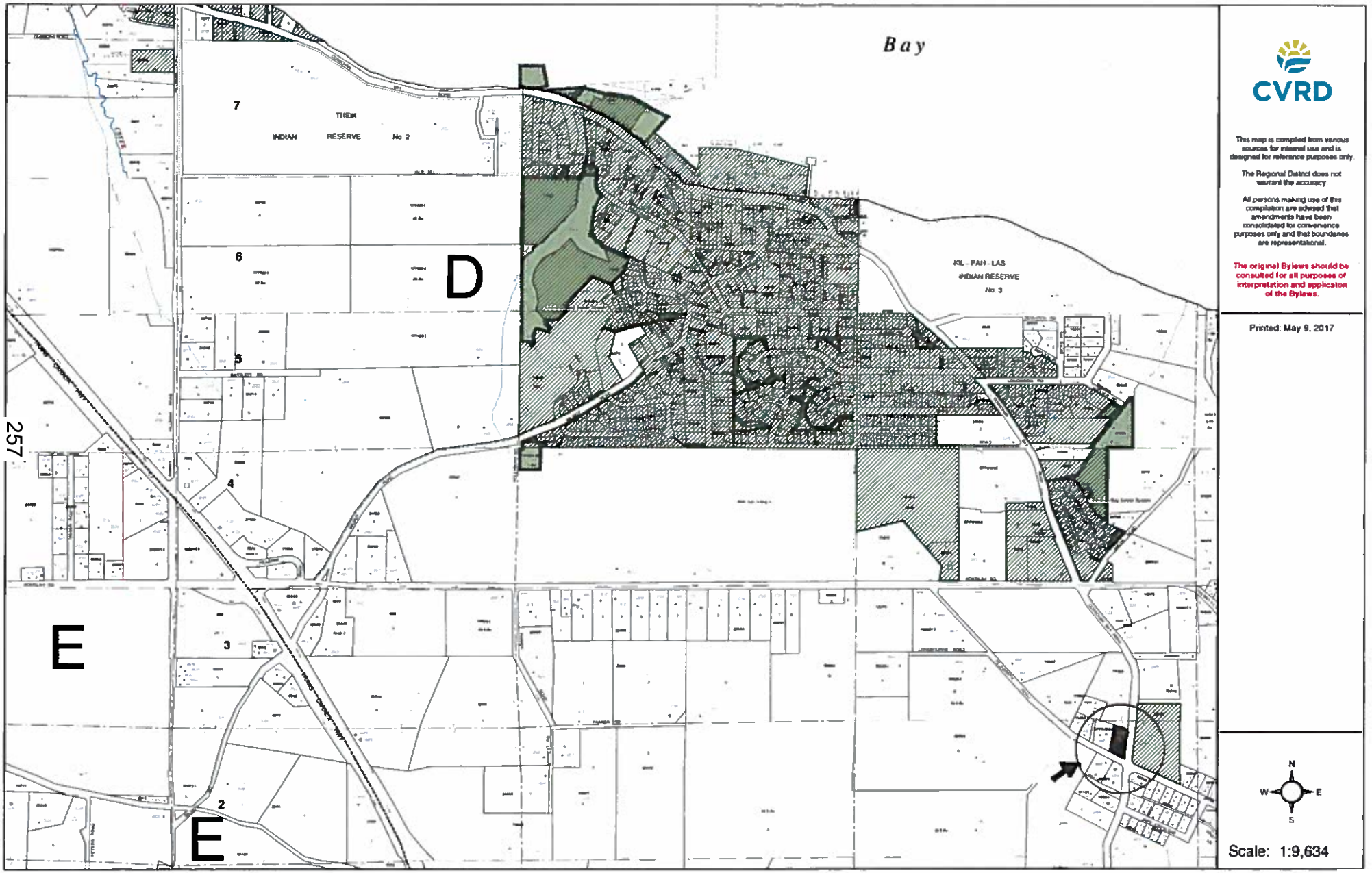
Further to our recent meetings, we are writing to petition for inclusion in the Cowichan Bay Sewer Service Area. You will recall that we are located across from Bench Elementary School, where sewers lines current exist.

We understand that capacity is now available and that a connection fee of $5600 per lot will be levied. It is also understood that we would bear all actual costs of construction, such as boring under existing roads.

We look forward to hearing from you,

Sonia Van Hell
Walter Van Hell

250-748-0198(H)
250-715-5081 (C)
thevanhells@gmail.com



CVRD

This map is compiled from various sources for internal use and is designed for reference purposes only.

The Regional District does not warrant the accuracy.

All persons making use of this compilation are advised that amendments have been consolidated for convenience purposes only and that boundaries are representational.

The original Bylaws should be consulted for all purposes of interpretation and application of the Bylaws.

Printed: May 9, 2017

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Scale: 1:9,634

R10

CVRD

CERTIFICATE OF SUFFICIENCY

I hereby certify that the petition for inclusion in the *Cowichan Bay Sewer System Service Area* within a portion of Electoral Area D – Cowichan Bay is sufficient, pursuant to section 797.4 of the *Local Government Act*.

DATED at Duncan, British Columbia)
this 20th day of July, 2017)
)
)

Kathleen Harrison, Deputy Corporate Secretary

Cowichan Bay Sewer System Service Area

Total Number of Parcels requesting inclusion in Service Area:	1
Net Taxable Value of All Land and Improvements of Parcels requesting inclusion in the Service Area: (PID 005-490-227)	$326,000
Number of Petitions received:	1
Net Taxable Value of Petitions received (Land and Improvements):	$326,000

STAFF REPORT TO COMMITTEE

DATE OF REPORT	July 25, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Water Management Division Engineering Services Department
SUBJECT:	Arbutus Ridge Sewer Loan Authorization Bylaw
FILE:	0540-20-EAS/05

PURPOSE/INTRODUCTION

The purpose of this report is to provide the Certificate of Sufficiency and authorize establishment of a Loan Authorization related to upgrades to the Arbutus Ridge Sewer System.

RECOMMENDED RESOLUTION

That it be recommended to the Board:

1. That the Certificate of Sufficiency, confirming that sufficient petitions authorizing the borrowing of up to $2,475,000.00, be received.

2. That a Loan Authorization bylaw be established for the purpose of borrowing for the Arbutus Ridge Sewer System Service Area and forwarded to the Board for consideration of three readings and, following provincial approval, adoption.

BACKGROUND

The Arbutus Ridge Wastewater Treatment facility is 30 years old and in need of upgrade/replacement. The disposal fields in particular have chronic failures which results in effluent pooling on the surface.

Sewage from the community is treated at the treatment facility (located in the RV storage complex) and sent to the disposal fields (located on Fairways 2 and 3) for disposal into the ground. Properly operating disposal fields absorb the treated sewage into the surrounding ground but the disposal fields at Arbutus Ridge have failed and are no longer absorbing the liquid as they should. In some areas, the ground is so slow at absorbing the liquid that pools of treated sewage form on the surface of the ground. This creates not only an environmental and human health concern but it also puts the system out of compliance with its operating permit with the Ministry of Environment. A further concern is the lack of a reserve field, as required by the operating permit.

To address this issue, the CVRD has worked since 2013 with an engineering consultant, the Arbutus Ridge Civil Works Committee, the General Manager of Arbutus Ridge Golf Club and the Ministry of Environment to determine the best long-term solution to the failing fields. Public consultation with the Arbutus Ridge community was also part of the process. The wastewater upgrade project is a $2,475,000 project that includes:

- Replacement of the existing treatment plant with new technology capable of producing high quality treated sewage (Class A effluent);
- Replacement of one of the existing disposal fields with a new dispersal system;
- Allocating the other existing disposal field for a reserve field, as required by the Ministry of Environment; and

- Providing the option of using the treated sewage for use as irrigation water on the golf course.

Arbutus Ridge has provided approval for the borrowing of the necessary funds through the petition process described below.

ANALYSIS

Sufficiency results: A total of 517 Valid petitions were received for the approval of the Arbutus Ridge Sewer Loan Authorization Bylaw of up to $2,475,000. Pursuant to Section 797.4 of the *Local Government Act*, a petition is deemed sufficient if at least 50% of the owners of parcels sign it, and the total value of their parcels represents at least 50% of the net taxable value of all land and improvements within the proposed service area. In this case, the petitions received equal 79.91% of the property owners holding 81.52% of the net taxable value of all land and improvements within the proposed service area. Therefore the petitions are deemed sufficient and the CVRD has the authority to proceed with borrowing up to $2,475,000 to complete the capital sewer upgrade work (see attached Certificate of Sufficiency).

FINANCIAL CONSIDERATIONS

It is estimated that $2,475,000 is required to repair the sewer system. Long term borrowing of up to $2,475,000 has been approved. $175,000 of Community Works Gas Tax Funding, $146,000 in capital reserve funds are also available for design and in case of cost overruns.

The petition represented elector consent to increase the Arbutus Ridge Sewer System user fees by up to **$252/year** for the capital upgrade. An additional **$72/year** is anticipated in additional operation cost resulting in a cost of approximately **$723/year**.

COMMUNICATION CONSIDERATIONS

Liaise with Legislative Services and Finance Departments to create Loan Authorization Bylaws.

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

Provides a reliable essential service.

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☒ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☐ Land Use Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

Prepared by:

Louise Knodel-Joy
Senior Engineering Technologist

Reviewed by:

Brian Dennison, P. Eng.
Manager

Hamid Hatami, P. Eng.
General Manager

ATTACHMENTS:
Attachment A – Certificate of Sufficiency

CVRD

CERTIFICATE OF SUFFICIENCY

I hereby certify that the petition to borrow up to $2,475,000 to complete the capital work necessary for wastewater treatment plant and disposal field upgrades to the *Arbutus Ridge Sewer System* within a portion of Electoral Area C – Cobble Hill, for a maximum term of debentures of 25-years, is sufficient pursuant to section 337.3 of the *Local Government Act*.

DATED at Duncan, British Columbia)
this 26th day of July, 2017)
)
)

Kathleen Harrison, Deputy Corporate Secretary

Arbutus Ridge Sewer System Service Area

Total Number of Parcels within the Sewer System Service Area:	647
Net Taxable Value of All Land and Improvements of Parcels Within the Sewer System Service Area:	$313,369,600
Number of Petitions received as Valid: (125 not returned + 5 not valid = 130 or 79.91%)	517
Net Taxable Value of Petitions received (Land and Improvements): (81.55%)	$255,554,000

CVRD

MEMORANDUM

DATE: **August 10, 2017**

TO: **Ross Blackwell, General Manager, Land Use Services Department**

FROM: **Ian MacDonald, RBO, A/Chief Building Inspector, Inspections & Enforcement Division**

SUBJECT: **BUILDING REPORT FOR THE MONTH OF JULY, 2017**

There were 39 Building Permits and 3 Demolition Permit(s) issued during the month of July with a total value of $5,811,048

Electoral Area	Commercial	Institutional	Industrial	New SFD	Residential	Agricultural	Permits this Month	Permits this Year	Value this Month	Value this Year
"A"	350,000		756,000	1,956,173	204,140		13	54	3,266,313	26,899,028
"B"		150,000		518,690	237,120	64,800	8	68	970,610	8,415,715
"C"					74,880		1	27	74,880	1,883,990
"D"				253,330	12,900	10,000	5	32	276,230	5,226,025
"E"				729,610	110,360	28,275	8	34	868,245	4,362,565
"F"				299,010	7,000		3	15	306,010	1,500,350
"G"					9,400		2	22	9,400	2,330,852
"H"							0	16	-	1,846,500
"I"	19,200				20,160		2	15	39,360	2,869,380
Total	**$ 369,200**	**$ 150,000**	**$ 756,000**	**3,756,813**	**675,960**	**103,075**	**42**	**283**	**5,811,048**	**55,334,405**

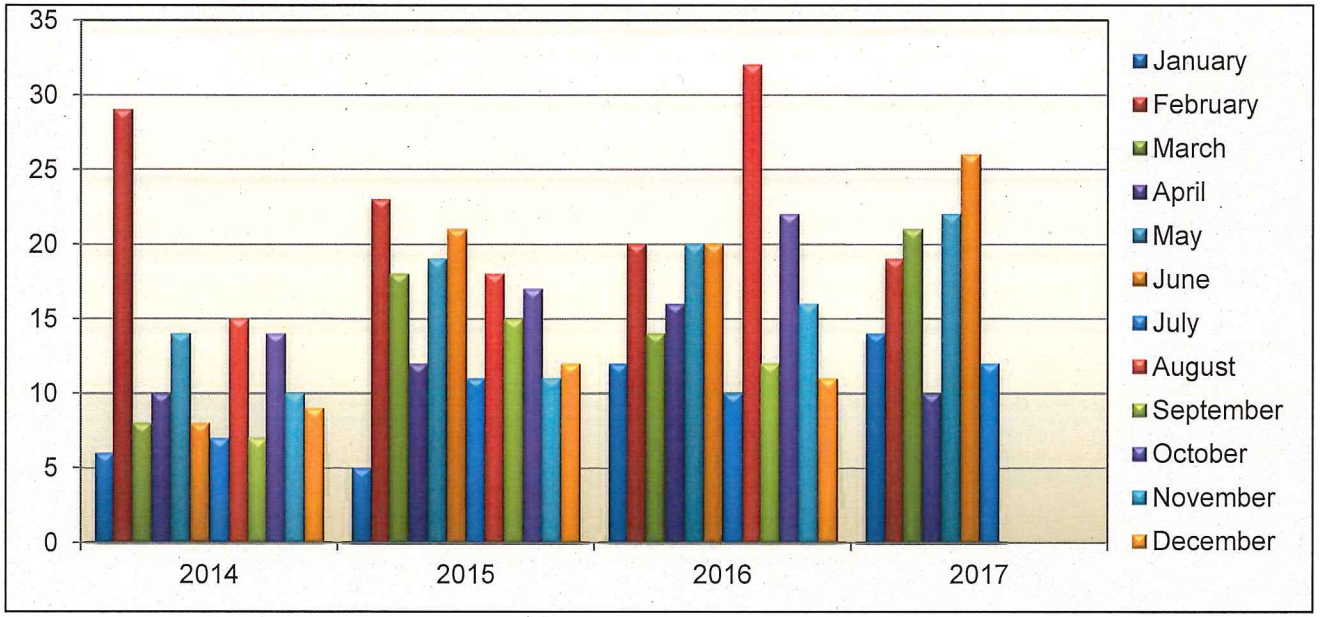
I. MacDonald, RBO
A/Chief Building Inspector, Inspections & Enforcement Division
Land Use Services Department
IM/lar

NOTE: For a comparison of New Housing Starts from 2014 to 2017, see page 2
For a comparison of Total Number of Building Permits from 2014 to 2017, see page 3

CVRD

TOTAL OF NEW HOUSING STARTS

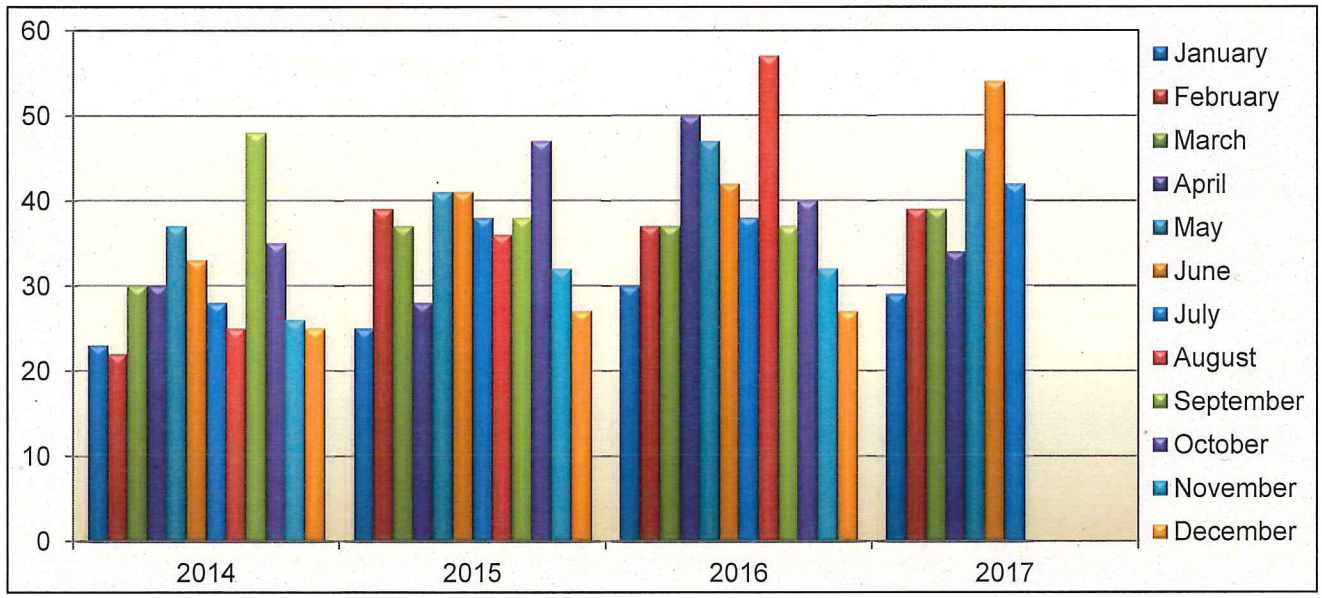
	2014	2015	2016	2017
January	6	5	12	14
February	29	23	20	19
March	8	18	14	21
April	10	12	16	10
May	14	19	20	22
June	8	21	20	26
July	7	11	10	12
August	15	18	32	
September	7	15	12	
October	14	17	22	
November	10	11	16	
December	9	12	11	
YTD Totals	**137**	**182**	**205**	**124**



CVRD

TOTAL BUILDING PERMITS ISSUED

	2014	2015	2016	2017
January	23	25	30	29
February	22	39	37	39
March	30	37	37	39
April	30	28	50	34
May	37	41	47	46
June	33	41	42	54
July	28	38	38	42
August	25	36	57	
September	48	38	37	
October	35	47	40	
November	26	32	32	
December	25	27	27	
YTD Totals	**362**	**429**	**474**	**283**



STAFF REPORT TO COMMITTEE

DATE OF REPORT	August 3, 2017
MEETING TYPE & DATE	Electoral Area Services Committee Meeting of August 16, 2017
FROM:	Office of the CAO
SUBJECT:	Electoral Area Strategic Focus Area Review – Budget Direction
FILE:	

PURPOSE/INTRODUCTION

The purpose of this report is to seek approval from the Committee with respect to expanded Electoral Area strategic priorities for consideration during preparation of the 2018-2022 five-year financial plan.

RECOMMENDED RESOLUTION

That the strategic actions identified in the August 3, 2017 Electoral Area Strategic Focus Area Review Budget Direction report be approved and that the associated budget requirements be prepared for consideration during the 2018 budget process.

BACKGROUND

The Electoral Area Services Committee held workshops on July 19 and August 2 to review and update the Electoral Area strategic focus areas and annual work plan.

ANALYSIS

As a result of the July 19 and August 2 workshops, the following recommendations are being presented for approval:

1. **Riparian Area Protection** – priority to be placed on education and enforcement.
   Action: Complete riparian area protection signage initiative for Cowichan and Shawnigan Lakes.
   Action: Organize a 'task force' made up of Provincial ministries and local government to address enforcement in a coordinated manner.
   Action: Brief Minister of Forest, Lands, Natural Resource Operations and Rural Development, and Minister of Environment and Climate Change Strategy, at the 2017 UBCM Convention, including soils dumping and aquifer protection.

2. **Volunteer Management** – require strategy, policy and resources to better manage and enhance volunteer opportunities within the CVRD.
   Action: Complete volunteer policy and guidelines.
   Action: Establish dedicated staff support for volunteers, possibly in conjunction with Electoral Area (EA) Director support and communications functions.

3. **Director Support** – identified the need for additional support for EA Directors in terms of communications initiatives and individual Director support.
   Action: As above, consider a full time staff position to assist with Commission liaison, volunteer management, communications and general EA Director support.

4. **Staffing** – desire to manage incremental staffing increases.
   Action: Provide a comprehensive corporate staffing plan prior to allocation budgets being considered and approved.

5. **Harmonize OCP and Zoning Bylaws –** desire to explore opportunities to harmonize Official Community Plans and Zoning Bylaws.
Action: Develop a strategic process to streamline and harmonize the CVRDs Official Community Plans and Zoning Bylaws.

FINANCIAL CONSIDERATIONS

Financial resources to support these actions will be considered during the 2018-2022 five-year financial plan process.

COMMUNICATION CONSIDERATIONS

N/A

STRATEGIC/BUSINESS PLAN CONSIDERATIONS

N/A

Referred to (upon completion):

- ☐ Community Services *(Island Savings Centre, Cowichan Lake Recreation, South Cowichan Recreation, Arts & Culture, Public Safety, Facilities & Transit)*
- ☒ Corporate Services *(Finance, Human Resources, Legislative Services, Information Technology, Procurement)*
- ☐ Engineering Services *(Environmental Services, Recycling & Waste Management, Water Management)*
- ☐ Land Use Services *(Community & Regional Planning, Development Services, Inspection & Enforcement, Economic Development, Parks & Trails)*
- ☐ Strategic Services

Prepared by:

Brian Carruthers
Chief Administrative Officer

Reviewed by:

Not Applicable
Not Applicable

Not Applicable
Not Applicable

ATTACHMENTS:
Attachment A – N/A
Attachment B – N/A