



Gabriola Island Local Trust Committee

Regular Meeting Agenda

Date: June 26, 2025
Time: 10:30 am
Location: Gabriola Arts & Heritage Centre
476 South Road, Gabriola Island, BC

Pages

1. **CALL TO ORDER** 10:30 AM - 10:35 AM
“Please note, the order of agenda items may be modified during the meeting. Times are provided for convenience only and are subject to change.”
2. **TERRITORIAL ACKNOWLEDGEMENT**
3. **APPROVAL OF AGENDA**
4. **REPORTS** 10:35 AM - 11:00 AM
 - 4.1 Trustee Reports
 - 4.2 Chair's Report
 - 4.3 Electoral Area Director's Report
 - 4.4 First Nations Reports
 - 4.5 Islands Trust Conservancy Report
5. **PUBLIC COMMENTS** 11:00 AM - 11:15 AM
6. **MINUTES**
 - 6.1 Local Trust Committee Special Meeting Minutes dated February 27, 2025 - for adoption 4 - 7
 - 6.2 Local Trust Committee Special Meeting Minutes dated March 28, 2025 - for adoption 8 - 10
 - 6.3 Local Trust Committee Minutes dated April 17, 2025 – for adoption 11 - 21
 - 6.4 Local Trust Committee Special Meeting Minutes dated May 22, 2025 - for adoption 22 - 26
 - 6.5 Section 26 Resolutions-Without-Meeting Report dated June 19, 2025 27 - 27
 - 6.6 Advisory Planning Commission Minutes - none

7.	BUSINESS ARISING FROM MINUTES	11:15 AM - 11:30 AM	
7.1	Follow-up Action List dated June 19, 2025		28 - 30
8.	DELEGATIONS - none		
9.	APPLICATIONS AND REFERRALS	11:30 AM - 11:55 AM	
9.1	GB-DP-2021.1 (Centre Stage Holdings) - Staff Report		31 - 154
9.2	GB-RZ-2022.1 (Moen) - Staff Report		155 - 169
10.	LOCAL TRUST COMMITTEE PROJECTS	11:55 AM - 12:25 PM	
10.1	Major Project: Gabriola Island Comprehensive Official Community Plan and Land Use Bylaw Review - Engagement Process - Staff Report		170 - 172
~ BREAK 12:25 PM - 12:55 PM ~			
11.	CORRESPONDENCE - none		
	<i>(Correspondence received concerning current applications or projects is posted to the LTC webpage)</i>		
12.	NEW BUSINESS - none		
13.	STAFF REPORTS	12:55 PM - 1:25 PM	
13.1	Bylaw Enforcement Notification Bylaw Amendments - Staff Report		173 - 179
13.2	Consideration of Housing Advisory Planning Commission - Verbal Discussion		
13.3	Trust Conservancy - The Heron - Spring 2025 Edition		180 - 183
13.4	Applications Report dated June 17, 2025		184 - 189
13.5	Trustee and Local Expense Report dated April, 2025		190 - 190
13.6	Adopted Policies and Standing Resolutions		191 - 199
13.7	First Nations Relationship Building Update - none		
13.8	Climate Change Action Update - none		
13.9	Local Trust Committee Webpage		
14.	WORK PROGRAM	1:25 PM - 1:40 PM	
14.1	Active Projects Report dated June 19, 2025		200 - 200

15. UPCOMING MEETINGS

- 15.1 Next Regular Meeting Scheduled for Thursday, July 31, 2025 at 10:30 am at the Gabriola Arts and Heritage Centre

16. CLOSED MEETING

1:40 PM - 1:55 PM

- 16.1 Motion to Close the Meeting

That the meeting be closed to the public in accordance with the Community Charter, Part 4, Division 3, s.90(1)(f) sections] for the purpose of considering:

- (f) law enforcement, if the council considers that disclosure could reasonably be expected to harm the conduct of an investigation under or enforcement of an enactment;

and that the Recorder and Staff attend the meeting.

- 16.2 Recall to Order

- 16.3 Rise and Report

17. ADJOURNMENT

1:55 PM - 1:55 PM



Gabriola Island Local Trust Committee

Minutes of Special Meeting

Date: February 27, 2025
Location: Electronic Meeting

Members Present: Susan Yates, Chair
 Tobi Elliott, Trustee

Regrets: Peter Luckham, Trustee

Staff Present: William Shulba, Senior Freshwater Specialist (electronic)
 Landen Matechuk, GIS Consultant and Researcher (electronic)
 Emily Bryant, Planning Team Assistant (electronic)
 Narissa Chadwick, Island Planner
 Carly Bilney, Recorder (electronic)

Others Present: There was 1 member of the public in attendance.

1. CALL TO ORDER

Chair Yates called the meeting to order at 10:04 a.m.

2. TERRITORIAL ACKNOWLEDGEMENT

Chair Yates acknowledged that the meeting was being held on the traditional territory of the Coast Salish First Nations.

Landen Matechuk introduced himself as a GIS consultant and researcher who has worked with the Islands Trust for the past five years with a focus on ecosystem resilience and the Suitable Land Analysis.

3. APPROVAL OF AGENDA

By general consent the agenda was approved as presented.

4. BUSINESS ITEMS

4.1 Suitable Land Analysis Review Presentation

Senior Freshwater Specialist William Shulba introduced the project, and made the following comments:

- The Suitable Land Analysis aims to:
 - Balance the preserve and protect mandate of the Islands Trust;
 - Evaluate and prioritize areas across the Islands Trust for sustainable development while emphasizing environmental preservation;
 - Identify areas suitable for additional residential density; and,

- Integrate several themes – ecological sensitivity, freshwater sustainability, transportation and infrastructure and slope stability – to inform land use decisions and address opportunities for suitable development.
- The Suitable Land Analysis uses third-party information, as well as primary data created by the Islands Trust.
- The Suitable Land Analysis uses data that planners have already been using to integrate ecological, social and economic factors into planning, and align with official community plans and bylaws.

The following comments were made about the Suitable Land Analysis methodology:

- The analysis involved collating and processing datasets and using existing maps and spatial information.
- The tool looks at the values of freshwater and environment, and how they align with sustainable infrastructure to find areas suitable for potential increased density.
- The analysis uses ArcGIS Pro's Suitability Modeler Tool to weigh values using a multiple-criteria decision analysis for prioritization.
- The layers within each value include: Marine Shore Adjacency; Sensitive Ecosystems; At Risk Ecological Communities; Dominant Age of Forests; Groundwater Recharge; Groundwater Well Density; Watershed Resiliency; Saltwater Intrusion Risk; Road Access, and Steep Slopes and Geohazards.

At 10:47 a.m., it was noted that the meeting was not being live streamed due to technical difficulties. The presentation continued and Mr. Shulba described each layer of the map. The following comments were made:

The meeting resumed live streaming at 11:02 a.m. Discussion continued about how data sets are used in the Suitable Land Analysis. Comments were made about the particular challenges of the salt-water intrusion data and what might be done (e.g. modelling, seeking feedback on lived experience, etc.) to improve it.

Staff commented that further discussion will be held to determine how the information shared today will be presented to the community. Staff also commented that the Regional District of Nanaimo has been a huge help with the Freshwater Footprint project.

A break was held between 11:29 – 11:38 a.m.

4.2 Major Project: Gabriola Island Comprehensive Official Community Plan and Land Use Bylaw Review Housing Section Discussion – Staff Report

Planner Chadwick presented the Staff Report and compared suggested changes to the Official Community Plan, based on feedback received, to what currently exists. Discussion was held and the following comments were made:

- Results of a recently held meeting between Islands Trust staff and Snuneymuxw First Nation staff will be shared in a staff report.
- Comments were made about aligning definitions with provincial and federal definitions (e.g. “attainable” versus “affordable” housing) to assist grant applications.
- Reference to a density bank, which has never been used, has been removed.
- The focus group supported policies that encourage small, clustered housing developments; this could be addressed in a similar way to multi-unit housing.
- The focus group supported secondary suites or accessory dwelling units on smaller lots that were closer to the village.
- The Housing Advisory Planning Commission supported additional dwelling units on smaller lots that had adequate groundwater, but were not necessarily closer to the village; land that could be available for increased density may not be close to the already dense village.
- Water sufficiency and proximity to the village and bus route should be taken into account when assessing increased density on a lot.
- If the land use bylaw and the Official Community Plan are too prescriptive on dwelling type, then, the flexibility to live in a cooperative ownership model is reduced.
- Support was expressed for amenity zoning.

Trustees expressed support for flexibility in zoning, where different sizes of lots have the ability to have various numbers of units within a maximum floor area. They agreed that they would like staff to explore options for amenity policy options. Discussion continued and the following comments were made:

- Incorporating the Conservation Density Bonus/Homeplate Zoning Model, Ecovillage Zoning Model and Eco-Density Bonus outlined in the Housing Toolkit should be explored.
- A presentation by former Islands Trust Chief Administrative Officer Linda Adams was referred to in describing amenity zoning where a policy in the Official Community Plan describes, in broad terms, what kind of amenities the community would like (e.g. more conservation green space); this is important to include to show developers what is desired.
- This meeting is to provide staff with direction for an updated draft of proposed policies that will go through another public comment process.
- It would be good to include a requirement for staff housing – a general statement that can later be refined.
- The policy regarding strata conversion of existing buildings needs further consideration.
- A requirement for water catchment systems for all new builds has been added.
- Whatever is defined as a dwelling is a dwelling, and anything one can get a building permit for is fair game.
- We can include policies that require housing agreements for tiny home clusters.
- For environmental policies, staff has turned to the Green Bylaws Toolkit.

Planner Chadwick commented that all kinds of feedback is welcome as staff creates another iteration of the draft objectives and policies. Comments were made that there will be more opportunity for discussion.

GB-2025-013

It was Moved and Seconded,

that the Gabriola Island Local Trust Committee request staff draft policies as discussed at the Feb 27, 2025 meeting for the housing section of the Official Community Plan.

CARRIED

5. ADJOURNMENT

By general consent the meeting was adjourned at 12:34 p.m.

Susan Yates, Chair

Certified Correct:

Carly Bilney, Recorder



Gabriola Island Local Trust Committee

Minutes of Special Meeting

Date: March 28, 2025
Location: Electronic Meeting

Members Present: Laura Patrick, Chair
 Tobi Elliott, Trustee
 Susan Yates, Trustee

Staff Present: Narissa Chadwick, Island Planner
 Stephen Baugh, Island Planner
 Katherine Vogt, Recorder

1. CALL TO ORDER

Chair Patrick called the special meeting to order at 10:01 am. She announced that she had recently become the new Chair of the Gabriola Local Trust Committee (LTC), and introduced herself, trustees, staff, and recorder.

2. TERRITORIAL ACKNOWLEDGEMENT

Chair Patrick acknowledged that the meeting was held on the territory of the Coast Salish First Nations. She spoke on trustee commitment to long-term relationship building and reconciliation with First Nations.

3. APPROVAL OF AGENDA

By general consent the agenda was approved as presented.

4. BUSINESS ITEMS

4.1 Major Project: Gabriola Island Official Community Plan Review - Connectivity and Economy Discussion - Staff Report

Planner Chadwick presented the staff report, dated March 28, 2025, which reviews policy options regarding connectivity and economy for inclusion in the draft Official Community Plan (OCP), noting the following:

- Focused engagement groups of up to 12 invited participants have been held for the OCP topic areas of housing, connectivity, and economy.
- A survey on connectivity and economy is out right now, and its deadline has been extended to the middle of April to align with a recent invitation from the

Regional District of Nanaimo (RDN) to coordinate with their send out of information on water budget work.

- Senior RDN Parks Planner Elaine McCulloch, who is currently working on the RDN Parks and Trails Plan for Gabriola, joined the connectivity focus group and has advised on policy language for the OCP to support RDN receiving funding for parks projects on Gabriola.
- A highlight of the connectivity focus group was their support for more sports playing fields to enhance health and wellness.
- The Gabriola Transportation Society has been invited to outline a plan of the critical community needs they have identified for inclusion in the OCP.
- The economy focus group highlighted that housing affordability has significantly restricted business opportunities on Gabriola.
- Many responses have been received by the planner regarding unsafe road conditions for pedestrians and cyclists traveling between hubs.

Trustees responded to the staff report and the following questions and comments were noted:

- Recommendations are still coming in for participants for the next 3 focus groups.
- Two open houses, at which participants could discuss any OCP topic, have been held.
- The RDN will have a meeting on Monday April 7, 2025 to review their final first draft on a recreation and parks plan.
- There has been extensive discussion on housing being closer to services and amenities which aligns to discussions on where to put increased housing densities. Commercial nodes and community hub nodes such as the Community Hall could be identified through public engagement for increased housing density possibilities.
- The groundwater availability in the Village Core and Silva Bay is limited, whereas the Whalebone Area has a lot more water and is a good possibility for a smaller commercial node.
- A bridge of engagement is needed between the focus groups and the wider community between now and June. Trustees have received some feedback that the focus groups are too small and that some people have felt excluded.
- A cycle path around the island is a key topic for wider public engagement.
- Articles in the Sounder on each topic area written by trustees could provide broader public outreach and engagement.
- Areas of competing interests are where targeted surveys would be valuable for precise analysis.
- It would be valuable to turn the big ideas and issues that emerged from the visioning process, such as vacant lots, not able to be addressed by the LTC, into advocacy statements; and to have a place where these ideas could be gathered.
- Can commercial chain stores be restricted on Gabriola?
 - Planner Chadwick advised that the LTC has legal jurisdiction over commercial land use but not the user; and that drive-throughs, which are a particular kind of land use, are prohibited.

- Regarding Tourist Accommodation Item c) In no case shall the maximum density for a tourist accommodation use exceed 13 tourist accommodation units per hectare or a maximum 30 tourist accommodation units in the development; how were these numbers arrived at?
 - Planner Baugh noted that these numbers had come from an existing policy; and suggested that precise prescriptions for accommodations could be better placed in the land use bylaw.
- OCP drop-ins with trustees have been very valuable and trustees are happy to continue with these.

GB-2025-015

It was Moved and Seconded,

that the Gabriola Island Local Trust Committee request staff to prepare options for public engagement on the Official Community Plan Review for the Local Trust Committee meeting of April 17, 2025.

CARRIED

GB-2025-016

It was Moved and Seconded,

that the Gabriola Island Local Trust Committee request staff prepare draft policy, as discussed at the March 28, 2025 Local Trust Committee meeting, for broader public review for the connectivity and economy related content of the Official Community Plan.

CARRIED

GB-2025-017

It was Moved and Seconded,

that the Gabriola Island Local Trust Committee request staff to schedule a special meeting prior to the May Local Trust committee meeting to review policy language and the input of focus groups related to resource stewardship, freshwater, and environment.

CARRIED

There was some discussion on historical local rainwater records, and their being included in the upcoming water focus group.

5. ADJOURNMENT

By general consent the meeting was adjourned at 11:20 a.m.

Laura Patrick, Chair

Certified Correct:

Katherine Vogt, Recorder



Gabriola Island Local Trust Committee

Minutes of Regular Meeting

Date: April 17, 2025

Location: Gabriola Arts & Heritage Centre
476 South Road, Gabriola Island, BC

Members Present: Laura Patrick, Chair
Tobi Elliott, Trustee
Susan Yates, Trustee

Staff Present: Renée Jamurat, Regional Planning Manager (electronic)
Stephen Baugh, Island Planner
Marlis McCargar, Island Planner
Narissa Chadwick, Island Planner
Warren Dingman, Bylaw Compliance & Enforcement Manager
Lisa Millard, Meeting Administrator/Recorder

Others Present: There were approximately 8 members of the public in attendance.

1. CALL TO ORDER

“Please note, the order of agenda items may be modified during the meeting. Times are provided for convenience only and are subject to change.”

Chair Patrick called the meeting to order at 10:30 am.

2. TERRITORIAL ACKNOWLEDGEMENT

Chair Patrick acknowledged that the meeting was held on the territory of the Snuneymuxw and Coast Salish First Nations.

3. APPROVAL OF AGENDA

By general consent, the agenda was approved as presented.

4. DELEGATIONS

4.1 Gabriola Health Care Foundation regarding their Strategic Plan 2024 – 2029

Jeff Malmgren, President of the Gabriola Health Care Foundation, provided a presentation and highlighted the following:

- The community can not rely wholly on the external healthcare system to meet local needs due to pressure on the system, lack of understanding of rural health needs, and a medical approach that treats people when they get sick instead of considering overall health and well-being;
- The Foundation can advocate for overall wellness and provide support but can not be the holder of the system which needs to be built collectively;

- The Foundation will be undertaking an engagement process on their new strategic plan to provide the community an opportunity to understand what a well-designed system of collectively held health and well-being can look like;
- They ask the Local Trust Committee consider health and well-being in their mandate and embed the collective responsibility for such in the Official Community Plan; and
- There is an opportunity to partner with other organizations that have a strong desire to take responsibility.

The Trustees agreed, if there is a collective commitment for a system of health and wellbeing, the responsibility for delivering on it would be held by many agencies and noted there is a place within the Official Community Plan preamble to include statements about cooperating and collaborating with other agencies.

5. REPORTS

5.1 Trustee Reports

Trustee Elliott reported the following:

- Attended two special meetings to hear results of the Official Community Plan focus group discussions;
- Held two Trustee-facilitated open houses in March for discussion on the Official Community plan;
- The annual budget allocated \$50,000 for Reconciliation activities and the Islands Trust Senior Indigenous Relations Advisor is booking sessions for cultural safety training and Indigenous engagement sessions for Trustees and staff;
- Attended the Lasqueti Island screening of the film Dust n' Bones which was attended by Elders Kim Recalma-Clutesi and Bill White;
- Attended Nanaimo Awards in Culture to celebrate Snuneymuxw First Nation Tsatassaya White receiving the Honour in Culture award;
- Ongoing participation in Culturally Committed group;
- Attended Rural Economic Partnership Forum and Southern Gulf Islands Forum;
- Attended Association of Vancouver Island Coastal Communities conference and presented the results of the tiny house on wheels technical group recommendations for enablement in the Trust Area; and
- Noted appreciation for Islands Trust staff and their dedication to the mandate and work of the Trust.

Trustee Yates reported the following:

- The Local Trust Committee held two special meetings to hear summaries of feedback provided by Official Community Plan focus groups and will be holding more open houses and facilitating other engagement activities;
- Attended Regional District Parks and Recreation Master Plan meeting and the work is in the final stages;
- Attended Trust Programs Committee meetings to work on the draft Trust Policy Statement; and

- Travelled to Salt Spring, Pender, Mayne and Galiano Islands in the past week and spoke with a Mayne Island Trustee regarding their flexible housing zoning.

5.2 Chair's Report

Chair Patrick reported the following:

- Thanked Trustee Elliott for her work on the tiny homes on wheels project;
- Trust Council approved the annual budget and details can be found on the Islands Trust website; and
- Attended a cross-border meeting with San Juan County elected officials and the parties are working on having a joint forum focussing on marine issues.

5.3 Electoral Area Director's Report - none

5.4 First Nations Reports - none

6. PUBLIC COMMENTS

Three members of the public spoke to a decommissioned RMCP patrol vessel relocating to Degnan Bay and the following comments were made:

- There are ongoing problems with derelict vessels in the bay;
- The boat has no means of propulsion and will be moored on concrete blocks which have been placed in an area containing eelgrass;
- The Vancouver Maritime Museum held ownership title on the vessel and a previous Museum Director told them the boat was given away based on a statement of public benefit and the new owner indicated they plan to repower the catamaran and make it available for marine contract work, chartering contracts, and spill response;
- The community does not envision commercial operations as being desirable in Degnan Bay and Islands Trust bylaws indicate the use is a contravention;
- The concrete blocks represent a harmful alteration and destruction of fish habitat and they will be pursuing this with the Department of Fisheries and Oceans; and
- Asked the Local Trust Committee to take an advocacy position and make a statement that the bay should not be used for commercial or industrial purposes.

7. MINUTES

7.1 Local Trust Committee Minutes dated February 20, 2025 – for adoption

By general consent, the Local Trust Committee meeting minutes of February 20, 2025 were adopted.

7.2 Section 26 Resolutions-Without-Meeting Report - none

7.3 Advisory Planning Commission Minutes dated February 12, 2025 - for receipt Received for information.

7.4 Housing Advisory Planning Commission Minutes dated March 19, 2025 - for receipt Received for information.

8. BUSINESS ARISING FROM MINUTES

8.1 Follow-up Action List dated April 9, 2025

Received for information.

9. APPLICATIONS AND REFERRALS

9.1 PL-RZ-2024-0091 (Mid-Island Co-op) - Staff Report

The Planner summarized the staff report and highlighted the following:

- The rezoning application seeks to amend the Gabriola Official Community Plan and Land Use Bylaw to permit propane storage as a use at 793 Lockinvar Lane;
- The subject property is adjacent to the Mid Island Co-op Gas Station and residential properties;
- The applicant is requesting that the existing permitted uses be maintained; and
- An environmental Emergency Plan specific to the proposed propane storage facility has been provided.

The applicant was in attendance and stated Tech Safety BC is the governing body that regulates storage tanks and the current tank no longer meets requirements based on its location. They stated if no approved storage location is in place by the end of the year the business will no longer be able to provide the essential service of propane delivery to Gabriola users.

Discussion ensued and Trustees had no questions for the Planner or applicant.

GB-2025-018

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee request staff to prepare draft amendments to the Gabriola Island Official Community Plan that will include Lot 42, Section 20, Gabriola Island, Nanaimo District, Plan 22723 (793 Lockinvar Lane, Gabriola Island PID 002-623-463) in the 'Village Commercial' land use designation and 'Village Centre' Development Permit Area No. 7.

CARRIED

GB-2025-019

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee request staff to draft amendments to the Gabriola Island Land Use Bylaw to rezone Lot 42, Section 20, Gabriola Island, Nanaimo District, Plan 22723 (793 Lockinvar Lane, Gabriola Island PID 002-623-463) to a site-specific Village Commercial zone which maintains the existing uses; expands principle commercial uses consistent with the bylaw amendment application; and regulates buildings and structures, height, siting requirements including setbacks, lot coverage, parking, and subdivision.

CARRIED

GB-2025-020

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee request staff to provide notification to Snuneymuxw First Nation of application PLRZ20240091

describing the scope of proposed changes to the Gabriola Official Community Plan and Land Use Bylaw.

CARRIED

9.2 PL-TUP-2024-0310 (McNally) - Staff Report

The Planner summarized the staff report and highlighted the following:

- The Local Trust Committee first approved a Temporary Use Permit for the operation of a commercial vacation rental in an accessory dwelling unit in 2022;
- The applicant has applied for a three-year renewal of the permit;
- There have been no formal concerns raised during the operation to date;
- The applicant confirmed the property is their full-time residence;
- The operation has complied with all relevant zoning and land use regulations.

The applicant was in attendance.

Trustees had no questions for the applicant or Planner and requested that the applicant update the information provided to guests about First Nations by directing them to the Snuneymuxw First Nation website.

GB-2025-021

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee approve issuance of PL-TUP-2024-0310, a renewal of GB-TUP-2022.2, for a period of three years.

CARRIED

9.3 PL-DP-2025-0069 (Rutgers) - Staff Report

The Planner summarized the staff reported and highlighted the following:

- The application seeks a development permit for the proposed removal of a single tree located within Development Permit Area 6 Escarpment Areas due to slope sensitivity;
- A Geotechnical Field Review identifies no negative impacts to the stability of the slope by removal of the tree;
- The application meets all of the guidelines for Development Permit Area 6; and
- Staff are recommending a broader review of guidelines for the Development Permit Area.

Discussion ensued and the following comments were noted:

- The Planner noted Development Permit Area mapping is out of date, model guidelines are in place, and there is opportunity to use those guidelines with existing mapping as part of the Official Community Plan review process; however, if new mapping is required, then, the project length of time will need to be considered;
- There are opportunities to bring the mapping component to the attention of the Regional Planning Committee; and
- There is a decision-making point within the Official Community Plan process regarding how each Development Permit Area is going to be managed.

The applicant confirmed many trees remain on the slope and noted previously, while doing tree removal on non-sloped area of the property, they had a tree on the slope topped. They had not been aware of the Development Permit Area requirements for the sloped area the tree topping resulted in a violation.

GB-2025-022

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee approve issuance of Development Permit PL-DP-2025-0069.

CARRIED

10. LOCAL TRUST COMMITTEE PROJECTS

10.1 Major Project: Gabriola Island Comprehensive Official Community Plan and Land Use Planning Review - Options for Community Engagement Next Steps - Staff Report

The Planner summarized the staff report and highlighted the following:

- The Project Charter has been revised to reflect updated timelines based on the implementation of the next steps of community engagement;
- The fall/winter engagement process extended into the spring and included social media and website posts, a public survey, and focus group meetings;
- Input from the focus groups and the public pointed to interest in an extended period of time to review draft policy language;
- The intention is to review all feedback and summarize it for next steps of engagement;
- Goals and objectives within each topic area will be revised and brought back to the Local Trust Committee for input and direction;
- The upcoming Freshwater Footprint webinars and information meetings are parallel to the Official Community Plan review work.

Discussion ensued and the following comments were recorded:

- The Community Information Profile is a compilation of discussion guides and a companion to the Official Community Plan and it can be updated independent of the Official Community Plan;
- Community members have indicated they would like to see proposed language to facilitate discussion; however, additional focus group meetings for general feedback are not necessary;
- Pre-draft bylaw language identifying goals, objectives, and policies can be developed for community input;
- There are opposing views about housing and growth and Trustees would like a facilitated meeting to discuss issues of growth management and housing and bring community members on each end of the spectrum together in conversation;
- The community conversation can explore what responsible sustainable growth management strategies look like on particular lots with owners that are interested in developing housing in an environmental co-ownership model as well as other uses that might be allowed in different types of residential zones;

- It is necessary to have conversation to hear community concerns and address them; and
- Staff can explore resources available for engagement including the addition of a focused meeting on housing options and growth management.

GB-2025-023

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee direct staff to schedule a Community Information Meeting to share the outcomes of the Gabriola Freshwater Footprint project.

CARRIED

GB-2025-024

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee direct staff to proceed with “Option 1: Community Review Existing Draft Policies” as the next step in the community engagement process for the Official Community Plan (OCP) with the addition of a community meeting on Housing Options and Growth Management.

CARRIED

GB-2025-025

It was MOVED and SECONDED,

that the Gabriola Local Trust Committee request staff to develop options for a community meeting focused on Housing Options and Growth Management as part of summer engagement.

CARRIED

GB-2025-026

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee endorse the revised Project Charter for the Gabriola Island Official Community Plan (OCP) and Land Use Bylaw (LUB) Review Project (Phase 2).

CARRIED

The meeting was recessed for a break at 12:53 p.m. and reconvened at 1:30 p.m.

11. CORRESPONDENCE

(Correspondence received concerning current applications or projects is posted to the LTC webpage)

11.1 Letter dated February 10, 2025 from Elizabeth May, Member of Parliament regarding Southern Gulf Islands Forum

Received for information.

11.2 Email dated March 10, 2025 from K & M Bombois regarding Request to Review Non-Enforcement Policy

Consideration of the email will be undertaken during discussion at Item 13.2.

11.3 Email dated March 17, 2025 from A Hodson Deggan regarding Water Budget Study Gabriola

It was clarified that the information contained within the Water Budget Study would be considered as part of the Official Community Plan review.

11.4 Email dated April 2, 2025 from B Nixon regarding Proposed Commercial/Industrial Use of Degnen Bay

11.5 Email dated April 1, 2025 from G. Coford regarding Transfer of Catamaran PV Nadon to Degnen Bay, Gabriola

Discussion ensued regarding correspondence Items 11.4 and 11.5 and the Bylaw Compliance and Enforcement Manager made the following comments:

- The Vancouver Maritime Museum has provided Bylaw Compliance and Enforcement contact information to the new owner of the vessel;
- The vessel was de-registered by the museum and the new owner has not registered the vessel yet;
- Once an owner is identified, they can address potential bylaw issues;
- The use of blocks to anchor the vessel is permitted if the vessel owner is a resident of Gabriola;
- Commercial and industrial uses would not be permitted; and
- Residents should contact the Department of Fisheries and Oceans directly if there are concerns about eelgrass or fish habitat.

12. NEW BUSINESS - none

13. STAFF REPORTS

13.1 Gabriola Housing Advisory Planning Commission Terms Expiring April 25, 2025 - Staff Report

GB-2025-027

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee request staff to send letters to members of the Housing Advisory Planning Commission whose terms will expire on May 11, 2025, thanking them for their participation and inviting their expressions of interest for reappointment for another two-year term; and advertise for public expressions of interest for new members.

CARRIED

13.2 Bylaw Compliance & Enforcement Policy Review - Staff Report

The Bylaw Compliance and Enforcement Manager summarized the staff report and noted the following:

- The report speaks to current compliance and enforcement policies, standing resolutions, and specific policies regarding non compliant dwellings;
- There are 23 total files for non-compliant dwellings which include 39 dwellings on 24 properties;

- Two files have been opened since the policy to not enforce on non-compliant dwellings was put in place;
- Several of the properties have multiple non-compliant dwellings which are typically travel trailers; and
- The Local Trust Committee can rescind standing resolutions that have been replaced with a policy document.

Discussion ensued and the following comments were recorded:

- Trustees can request a report regarding non-compliant dwellings and then determine if they wish to continue to defer enforcement on a case-by-case basis or direct that compliance and enforcement be commenced;
- A Trustee noted, if a property owner is planning on building a home, there should not be a need for more than one non-compliant dwelling;
- It is difficult to determine if there is true housing need or if someone is living in a travel trailer because they don't want to get a permit to build a home;
- The lack of housing and economic reality creates the need for housing;
- Residents are concerned that there are situations where someone has purchased property with no intention to build a compliant dwelling;
- One can prove intent to build a house by applying for a building permit;
- In a neighbourhood where a concern was identified, two of the property owners have a building permit, one has applied for a permit, and another is questionable;
- Enforcement continues to be deferred because the conditions remain that result in people struggling to find legitimate housing due to minimal housing stock; and
- If there is a demonstrated issue of neighbourhood impacts, illegal activity, or other legitimate concerns, the Local Trust Committee would look at these situations on a case-by-case basis.

GB-2025-028

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee rescind the following three Standing Resolutions: GB-LTC-2022-089 – Standing Resolution on Enforcement of Non-Compliant Dwellings; GB-LTC-2020-053 – Standing Resolution authorizing proactive enforcement on unlawful short-term vacation rentals; and GB-LTC-2019-038 – Standing Resolution deferring enforcement for limited public markets operating indoors.

CARRIED

A Trustee noted for the record that the above resolution removes duplicate standing resolutions and there is still policy in place regarding non-enforcement on non-compliant dwellings.

GB-2025-029

It was MOVED and SECONDED,

that the Gabriola Island Local Trust Committee request staff report back for an in-camera discussion with a report on all bylaw enforcement files that have two or more non-compliant dwellings or travel trailers on a property.

CARRIED

GB-2025-030

It was MOVED and SECONDED

that the Gabriola Island Local Trust Committee adopt the following amendment to the Gabriola Island Bylaw Compliance & Enforcement Policy with the following: Replace the current section 4.2 with the following: Enforcement on non-compliant dwellings will be deferred unless there are contraventions in development permit areas; or other environmentally sensitive areas; or if there are concerns about health and safety; or the lack of approved sewage disposal systems; or if it is determined that there is contamination of wells or other drinking sources; or if there is more than one non-compliant dwelling or travel trailer used as residences on a property.

DEFEATED

Discussion continued regarding the Local Trust Committee's ability to consider issues on a case-by-case basis rather than providing broad scale direction. The Bylaw Compliance and Enforcement Manager qualified that the Local Trust Committee establishes the policies on how Bylaw Officers undertake enforcement and compliance and these policies are not bylaws.

GB-2025-031

It was MOVED and SECONDED

that the Gabriola Island Local Trust Committee request staff to prepare amendments to the "Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 263, 2011" for consideration.

CARRIED

13.3 Trust Conservancy Highlights of January 21, 2025 Board Meeting

Received for information.

13.4 Applications Report dated April 10, 2025

Received for information.

13.5 Trustee and Local Expense Report dated February, 2025

Received for information.

13.6 Adopted Policies and Standing Resolutions

Received for information.

13.7 First Nations Relationship Building Update – none

13.8 Climate Change Action Update - none

13.9 Local Trust Committee Webpage

No updates required at this time.

14. WORK PROGRAM

14.1 Active Projects Report dated April 9, 2025

Received for information.

14.2 Future Projects Report dated April 9, 2025

Received for information.

15. UPCOMING MEETINGS

15.1 Next Regular Meeting Scheduled for Thursday, June 26, 2025 at 10:30 am at the Gabriola Arts and Heritage Centre

16. ADJOURNMENT

By general consent, the meeting was adjourned at 2:30 p.m.

Laura Patrick, Chair

Certified Correct:

Lisa Millard, Meeting Administrator/Recorder



Gabriola Island Local Trust Committee

Minutes of Special Meeting

Date: May 22, 2025
Location: Electronic Meeting

Members Present: Laura Patrick, Chair
Tobi Elliott, Trustee
Susan Yates, Trustee

Staff Present: Stephen Baugh, Island Planner
Narissa Chadwick, Island Planner
Warren Dingman, Bylaw Enforcement
Lisa Millard, Meeting Administrator
Carly Bilney, Recorder

Others Present: The meeting was open to the public via livestream.

1. CALL TO ORDER

Chair Patrick called the meeting to order at 9:30 a.m.

2. TERRITORIAL ACKNOWLEDGEMENT

Chair Patrick acknowledged that the meeting was being held on the territory of the Coast Salish First Nations.

3. APPROVAL OF AGENDA

The following addition to the agenda was presented for consideration:

- Add in-camera session regarding bylaw enforcement on Mudge Island

By general consent the agenda was approved as amended.

4. BUSINESS ITEMS

4.1 2024/25 Annual Report – Approval of Gabriola Island Local Trust Committee Section - Request for Decision

GB-2025-032

It was Moved and Seconded

that the Gabriola Island Local Trust Committee approves the attached text on page 4 of this agenda for inclusion in the 2024/25 Annual Report for approval by Trust Council and submission to the Minister of Housing and Municipal Affairs.

4.2 Major Project: Gabriola Island Comprehensive Official Community Plan and Land Use Bylaw Review - Resource Stewardship, Freshwater and Environmental Discussion and Options for Community Engagement – Staff Report

The Planner reviewed the report and made the following comments:

- Staff is working to integrate key feedback from focus groups and the survey
- This meeting is intended to seek additional feedback from Trustees
- From now until mid-June there is opportunity for staff to integrate additional input before seeking endorsement of policies
- Further community engagement will occur over the summer

Discussion ensued about policies related to resource stewardship and the following comments were made:

- A desire to develop small commercial nodes apart from the main village has been expressed for years, and including it in the Official Community Plan may make it happen
- Appreciation was expressed for the high level of engagement and knowledge from participants in the focus groups
- The section on agriculture is scarce and more research is needed in this area
- Staff could assemble a group to specifically address agriculture-related policy; the Gabriola Agricultural (Agi) Co-op and Gabriola Island Land Stewards Society (GILSS) should be specifically invited to share ideas
- The Official Community Plan could link to ancillary plans (e.g. Transportation Network Plan, Wildfire Resiliency Plan and Forestry Management Plan)
- Advocacy policies need specific wording about who might take on tasks that are outside the jurisdiction of the Islands Trust
- There are a number of valuable reports developed by the community that need to be acknowledged; the Official Community Plan can acknowledge the existence of and support for these plans
- The fire department suggested the Wildfire Hazard Development Permit Area (DPA) be highly educational so that those who are not within the DPA can still utilize the information
- Consideration of how policies integrate or overlap (e.g. local food production and freshwater protection) is work that will be done later in the process

Discussion ensued about freshwater policies and the following comments were made:

- Concerned interest has been expressed about addressing the interrelationship between liquid waste management and groundwater; the policy includes language that identifies the importance of exploring potential adverse affects

DRAFT

- Staff from Islands Trust and Snuneymuxw First Nation will work together to develop the Official Community Plan policies including a Cultural Heritage section
- Policy language is vague about what constitutes a “large amount” of groundwater and should be given further consideration
- Support was expressed for addressing climate change in each section of the Official Community Plan as it relates to each topic
- With climate change and sea level rise, the setback to the sea aspect of septic systems and drain fields should be considered
- Trustees decided the density bank tool is not a useful mechanism because it does not create affordable housing densities
- There is need for focused discussion and community engagement about land-use designations including multi-use zoning
- The Official Community Plan provides opportunity to create enabling policy and could include a vision of collaborative land-use
- Multi-use zoning should be in the Official Community Plan

Discussion about environment-related policies ensued. Desire was expressed to have updated Development Permit Areas and accompanying Development Approval Information Areas. The process for creating a Development Permit Area was outlined including data gathering and analysis, considering options based on the analysis, and determining boundaries. The following comments were made:

- If the Official Community Plan is to be completed by the end of this term, there will be capacity to finalize only one or two Development Permit Areas
- In the absence of a Development Permit Area, there could be regulations that relate to environmental concerns in the Land Use Bylaw
- Consideration needs to be given to how to prioritize Development Permit Areas (e.g. which topics have the most existing data)
- Support was expressed for prioritizing the creation of Development Permit Areas for the shoreline, critical groundwater aquifers and wildfire hazard areas
- The Official Community Plan should have strong shoreline protection language and not allow hardshore armouring
- Subdivision requirements in the Official Community Plan should maximize environmental protection

GB-2025-033 It was Moved and Seconded

that the Gabriola Island Local Trust Committee direct staff to provide an assessment of Development Permit Area potential related to the Official Community Plan project.

CARRIED

Discussion continued and the following comments were made:

- There is need for consistency in the policy language between sensitive ecosystems and sensitive areas

DRAFT

- Consideration should be given to including definitions (for nearshore environment, for example)

GB-2025-034

It was Moved and Seconded

that the Gabriola Island Local Trust Committee request staff prepare draft policy language related to resources stewardship, freshwater and the environment, as discussed at the May 22, 2025 Local Trust Committee Special Meeting, for broader public review.

CARRIED

The Planner reviewed the proposed next steps for engagement. Discussion followed and the following comments were made:

- Many residents had not seen the survey suggesting communication efforts are not working
- It may be difficult to garner participation from community members over the summer
- Contacts should be leveraged through the community groups that contributed to the visioning process
- Strong support was expressed to seek input from the Agi Co-op and the Gabriola Island Land Stewards Society at a joint meeting
- The website needs to be the clearest avenue for seeking input from community members

GB-2025-035

It was Moved and Seconded

that the Gabriola Island Local Trust Committee endorse the Official Community Plan project summer 2025 engagement plan as presented in the staff report dated May 22, 2025.

CARRIED

GB-2025-036

It was Moved and Seconded

that the Gabriola Island Local Trust Committee request staff explore options for stronger web presence related to the Official Community Plan project and direct resources as appropriate.

CARRIED

5. CLOSED MEETING

5.1 Motion to Close the Meeting

GB-2025-037

It was Moved and Seconded

DRAFT

that the meeting be closed to the public in accordance with the Community Charter, Part 4, Division 3, s.90(1)(f) for the purpose of considering:

- (f) law enforcement, if the council considers that disclosure could reasonably be expected to harm the conduct of an investigation under or enforcement of an enactment; and that the Recorder and Staff attend the meeting.

CARRIED

The regular meeting was closed to the public at 11:10 a.m.

5.2 Recall to Order

The meeting was recalled to order at 12:01 p.m.

5.3 Rise and Report

Chair Patrick rose and reported that open Mudge Island bylaw enforcement files were put into abeyance until the Bylaw Enforcement Review project is completed at Trust Council. She noted this does not preclude any new complaints from being submitted and files can still be opened.

6. ADJOURNMENT

By general consent the meeting was adjourned at 12:03 p.m.

Laura Patrick, Chair

Certified Correct:

Carly Bilney, Recorder



Resolutions Without Meetings Log

Gabriola Island

Resolution Number	Action	Date
2025-001 Cancel June 5, 2025 Special Meeting That Gabriola Island Local Trust Committee request Staff to cancel the special meeting on June 5, 2025.	Carried	23-May-2025

Follow Up Action Report

Gabriola Island

23-May-2024

Progress	Activity	Responsibility	Dates	Status
75%	1 GB-DP-2021.1 (Centre Stage) deferred until a response is received from the PAO regarding the subdivision referral. Include deferral motion in subdivision referral response. <i>*June 19 note: motion included in subdivision referral response sent out June 17, 2024.</i> DP is on June 26, 2025 agenda for final LTC consideration.	Renee Jamurat Sonja Zupanec		Completed

17-Apr-2025

Progress	Activity	Responsibility	Dates	Status
0%	1 PL-RZ-2024-0091 (Mid-Island Co-op) - Draft OCP and LUB amendment bylaw, and send early notification to Snuneymuxw First Nation.	Ian Cox		In Progress
0%	2 PL-TUP-2024-0310 (McNally) - Issue permit for a period of three years and close file.	Chloe Straw Marlis McCargar Nadine Mourao		Completed
0%	3 PL-DP-2025-0069 (Rutgers) - Issue permit and close file.	Chloe Straw Marlis McCargar Nadine Mourao		Completed
100%	4 OCP Review Project - Schedule community information meeting for purpose of sharing outcomes of Freshwater Footprint Project.	Lisa Millard Narissa Chadwick		Completed
0%	5 OCP Review Project - Proceed with Option 1 from staff report as next step in community engagement process with the addition of a community meeting focused on Housing Options and Growth Management.	Narissa Chadwick		In Progress

Follow Up Action Report

Gabriola Island

17-Apr-2025

Progress	Activity	Responsibility	Dates	Status
0%	6 OCP Review Project - Develop options for a community meeting focused on Housing Options and Growth Management as part of summer engagement.	Narissa Chadwick		In Progress
0%	7 OCP Review Project - Upload revised project charter to project webpage.	Narissa Chadwick		Completed
0%	8 HAPC - send letters to members of HAPC and advertise to invite expressions of interest.	Chloe Straw		Completed
100%	9 Bylaw Enforcement - Standing resolutions GB-LTC-2022-089, GB-LTC-2020-053, and GB-LTC-2019-038 are rescinded; update standing resolutions log.	Nadine Mourao		Completed
91%	10 Bylaw Enforcement - Report back for an in-camera discussion on all bylaw enforcement files that have 2 or more non-compliant dwellings or travel trailers on a property.	Warren Dingman		In Progress
90%	11 Bylaw Enforcement - Prepare amendments to the BEN Bylaw for consideration.	Warren Dingman		In Progress

Follow Up Action Report

Gabriola Island

22-May-2025

Progress	Activity		Responsibility	Dates	Status
0%	1	OCP Review Project - Provide an assessment of possible Development Permit Areas to update or draft as part of the OCP review.	Narissa Chadwick		In Progress
0%	2	OCP Review Project - prepare draft policy language related to resources stewardship, freshwater and the environment, as discussed at the May 22, 2025 LTC Special Meeting, for broader public review.	Narissa Chadwick		In Progress
0%	3	OCP Review Project - Explore options for stronger web presence related to the Official Community Plan project and direct resources as appropriate.	Narissa Chadwick		In Progress

File No.: GB-DP-2021.1 (Centre Stage Holdings)

DATE OF MEETING: For LTC Re-consideration June 26, 2025 (Originally Presented October 2023 and November 2024)

TO: Gabriola Island Local Trust Committee

FROM: Sonja Zupanec, Island Planner
Northern Team

SUBJECT: **Development Permit Application**
Applicant: Centre Stage Holdings
Location: PID: 003-134-806 NORTH EAST 1/4 OF SECTION 3 GABRIOLA ISLAND
NANAIMO DISTRICT EXCEPT PARCEL A (DD 77326I) AND EXCEPT PLANS
EPP19453 AND EPP66666

RECOMMENDATION

1. That the Gabriola Island Local Trust Committee approve issuance of Development Permit GB-DP-2021.1.

REPORT SUMMARY

This report is to re-introduce a Development Permit (DP) application for consideration by the Gabriola Island Local Trust Committee (LTC). The purpose of the DP application is for proposed tree removal within **Development Permit Area No. 6 – Steep Slopes (DP-6)** as the owners have an active application with the Ministry of Transportation and Infrastructure (MOTI) to subdivide the lot.

BACKGROUND

The subject property is 45 hectares (110 acres) in size as shown in Figure 1. The DP-6 (Steep Slopes) areas on the property includes two locations where the steep slopes exceed 80% grade. The applicant is proposing select tree removal within the areas of DP-6 to prepare the parcel for subdivision. The applicant has an open application with the Ministry of Transportation and Infrastructure (MOTI) to subdivide the subject property into 13 lots and the provincial approving officer has issued a 'Preliminary Layout Review' (PLR) with various conditions of subdivision. The LTC has reviewed the PLR and is aware of the extent of conditions from MOTI. One condition is issuance of this DP. Further information about the subject property is contained within the 'Site Context' and 'Mapping' documents (Attachments 1 and 2). A Forest Stand Assessment (Attachment 5) identifies up to 1900 trees to be removed on the subject property. A Geotechnical Hazard Assessment was prepared by Stantec in 2021 and is attached in full to this report as 'Attachment 6'. An updated memo from the geotechnical engineer was prepared by Lewkowich Engineering on July 10, 2023 (Attachment 7) and identifies low to very low risk to slope stability with the removal of up to 1900 trees.

Pursuant to Section F.2.2 of the [Gabriola Island Land Use Bylaw No. 177](#) (LUB), a DP is required to be issued by the LTC prior to development activities occurring within DPA 6. Copies of the DPA Guideline Checklist and proposed DP are Attachments 3.

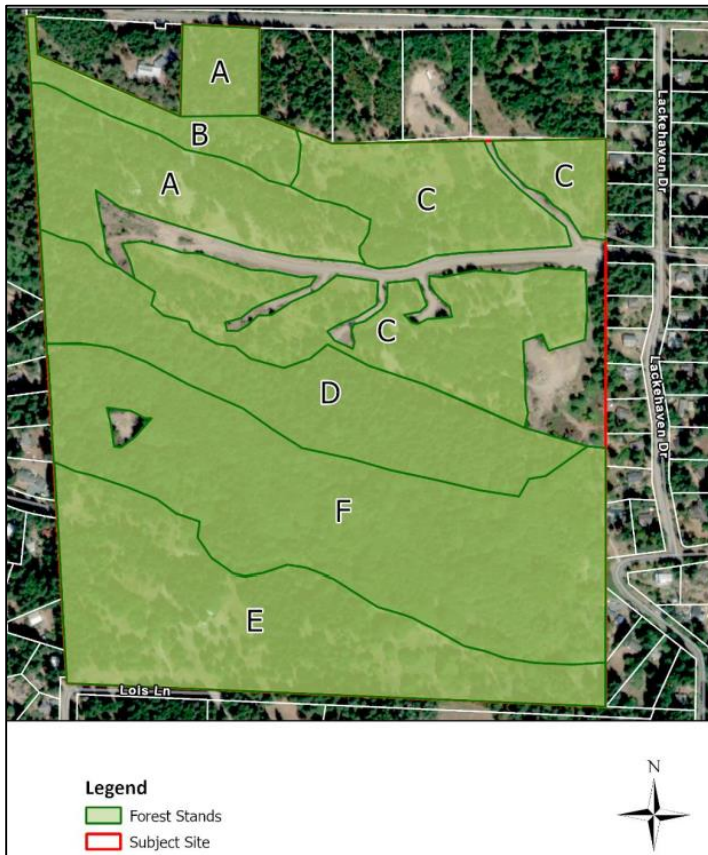


Figure 2 –Proposed Tree Removal Areas B and D

ANALYSIS

Policy/Regulatory

Islands Trust Policy Statement

The following Islands Trust Policy Statement (ITPS) directive policies are relevant to this application and are addressed through DPA 6 – Steep Slopes:

- 3.1.3 *Local trust committees and island municipalities shall, in their official community plans and regulatory bylaws, address the identification and protection of the environmentally sensitive areas and significant natural sites, features and landforms in their planning area.*
- 5.2.6 *Local Trust Committees and Island Municipalities shall, in their official community plans and regulatory bylaws, address the identification of areas hazardous to development, including areas subject to flooding, erosion or slope instability, and strategies to direct development away from such hazards.*

This application is compliant with the ITPS.

Official Community Plan

The subject property is designated **Resource (R)** in the [Gabriola Island Official Community Plan \(OCP\) Bylaw No. 166](#), and is located within **DP-6 – Steep Slopes**.

The objective of DPA 6 is:

To protect development from natural hazards, including terrain instability, erosion, land slippage, rock falls, subsidence, debris flows and flooding or changes to stormwater runoff due to development on or in proximity to lands with excessive slope conditions.

As reviewed the proposed development complies with the objectives and policies of the OCP.

Land Use Bylaw

The subject property is zoned as **Rural Residential 1 (RR1)** in the [Gabriola Island Land Use Bylaw \(LUB\) No. 177](#).

The guidelines for DPA 6 are contained within Section F.6.3 of the LUB, and the proposed development complies with applicable development permit area guidelines as analysed in Attachment 3.

Issues and Opportunities

Forest Stand Assessment Report

The report prepared by Diamon Head, May 26, 2023 (Attachment 5) contains a detailed description of the proposed tree removal within the steep slope areas. Up to one thousand nine hundred (1900) trees greater than 15cm diameter at breast height, are being considered for removal within forest stand areas B and D (Figure 2) in preparation for subdivision of the subject property into 14 lots.

Geotechnical Hazard Assessment Report

The applicant submitted an assessment report prepared by Stantec in 2021 as part of their application for subdivision. The author reported there was low to no risk of slope instability due to tree removal in those areas. Staff requested the applicant submit updated correspondence from a geotechnical engineer that confirmed the tree removal referenced in the 2023 forest stand assessment, is consistent with the 2021 geotechnical report findings. The applicant has submitted this confirmation which is included as a schedule in the draft development permit.

DP Guidelines

LUB Guideline F.6.3.2 states that there shall be no removal of trees or vegetation unless a geotechnical engineer recommends that such removal may occur without subjecting land in the escarpment area to increased slope instability. The geotech assessment has concluded there is low to no risk to the slope stability with the proposed tree removal. The draft DP (Attachment 4) is presented with the Forest Stand Assessment included as a schedule to the DP. This development permit area does not contain any guidelines to protect steep slope ecosystems (trees and understory vegetation) which are some of the rarest terrestrial habitats in the Trust Area.

Consultation

There is no public or agency consultation regularly associated with a DP application. In addition, there is no statutory notification required.

First Nations

The Islands Trust reviews all applications to ensure the preservation and protection of cultural heritage, archaeological sites, and ancestral places. The applicant is, through the subdivision application process, able to work directly with the province to ensure strict compliance with the Heritage Conservation Act (HCA) and to address numerous conditions of subdivision related to the interest of First Nations. Tree removal within any archaeological sites may be subject to a site alteration permit under the HCA and the applicant has confirmed that no tree removal is intended to occur within the boundaries of the archaeological sites.

Rationale for Recommendation

Staff consider that the objectives and specific guidelines of the DPA have been met. The LTC cannot refuse to issue a DP for any other reason if it is deemed to be consistent with the guidelines as stated in the LUB.

ALTERNATIVES

The LTC may consider the following alternatives to the staff recommendations on page 1:

1. Request further information

The LTC may request further information prior to making a decision. Recommended wording for the resolution is as follows:

That the Gabriola Island Local Trust Committee request that the applicant GB-DP-2021.1 submit to the Islands Trust _____.

NEXT STEPS

If the LTC resolves to issue the Development Permit, the applicant may commence with the tree removal subject to any requirements from the Archaeology Branch.

Submitted By:	Sonja Zupanec, RPP, MCIP, Island Planner	June 9, 2025
Concurrence:	Robert Kojima, Regional Planning Manager	June 10, 2025

ATTACHMENTS

1. Site Context
2. Mapping
3. Development Permit Area Guidelines Checklist
4. Draft Development Permit
5. Forest Stand Assessment Report, May 2023 (Diamond Head)
6. Geotechnical Hazard Assessment Report, May 2021 (Stantec)
7. Geotechnical Assessment Memo, July 2023

ATTACHMENT #1 – SITE CONTEXT GB-DP-2021.1 (CENTRE STAGE HOLDINGS)

LOCATION

Legal Description	NORTH EAST 1/4 OF SECTION 3 GABRIOLA ISLAND NANAIMO DISTRICT EXCEPT PARCEL A (DD 77326I) AND EXCEPT PLANS EPP19453 AND EPP66666
PID	PID: 003-134-806
Civic Address	n/a

LAND USE

Current Land Use	Vacant
Surrounding Land Use	North: Residential East: Residential South: Residential West: Residential

HISTORICAL ACTIVITY

File No.	Purpose
GB-DP-2001.2	To allow subdiv
GB-DP-2002.2	To amend GB-DP-
GB-DP-2021.1	PID: 003-134-80
GB-DVP-2005.1	Variance of lot
GB-RZ-2004.4	Transfer densit
GB-RZ-2005.3	The Donor land
GB-SUB-2001.1	To create 49 lo
GB-SUB-2012.1	Stokes, Carrier
GB-SUB-2013.2	Subdivision to
GB-SUB-2020.3	PID: 003-134-80

POLICY/REGULATORY

Gabriola Island Official Community Plan No. 166 Designations	Land Use Designation: R Development Permit Area: DP-6 Steep Slopes
Gabriola Island Land Use Bylaw No. 177	Zoning: RR1
Other Regulations	<i>Heritage Protection Act</i> – may require site alteration permit for vegetation removal or tree falling.
Covenants	- CA1193134 – statutory building scheme - CA1193140 – Restrictive Covenant for Lots 15, 16, 17, 18, 19, 21

	- CA2885907 – Restrictive covenant with the Gabriola Island Local Trust Committee to prevent subdivision of Lot 20 (VIP82759) if the maximum number of lots (49) in the site specific RR1 zone, is achieved through subdivision of the other associated parcels. MOTI File 2020-02192/GB-SUB-2020.2 proposes 3 lots. This subdivision file is for 17 lots, adding 20 more to the RR1 zone. There are 29 subdivided lots already in the RR1 zone. - DF43111 - EX113595 – Restrictive Covenant with the Gabriola Island Local Trust Committee to limit maximum number of lots to 49 in RR1 zone; maintain vegetation buffers; public access and protection of archaeological resources. - FB161960 – statutory building scheme - FB226277 – statutory right of way BC Hydro - FB226278 – statutory right of way Telus R12283 – undersurface rights
Bylaw Enforcement	GB-BE-2007.3 – Development Permit violation

SITE INFLUENCES

Islands Trust Conservancy	There are no ITC covenants or properties in the direct area. Referral to ITC is not required.
Regional Conservation Plan	Appendix II of the Regional Conservation Plan 2018-2027 estimated importance of habitat composition in the area of the subject property is MEDIUM .
Species at Risk	Islands Trust mapping indicates a recorded rookery on the subject property. An assessment by a registered professional biologist to determine the extent of the rookery and establish the necessary protective buffer to meet or exceed the requirements in the Gabriola Land Use Bylaw is required prior to any tree removal. The Great Blue Heron is a federally listed species at risk and protected under the <i>Migratory Birds Convention Act</i> and <i>BC Wildlife Act</i> and protected year round.
Sensitive Ecosystems	Islands Trust mapping indicates Coastal herbaceous ecosystems.
Hazard Areas	Schedule C of the Gabriola Island Official Community Plan indicates hazardous conditions on the property:  DP-6 ESCARPMENT, Slope > 80% Islands Trust mapping indicates areas of moderate risk steep slopes on the subject property (orange).

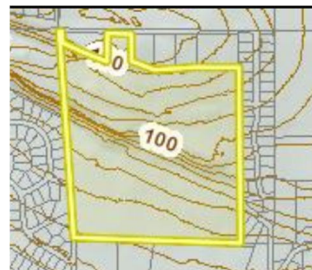
		
	Please see Attachment 6 for more information.	
Archaeological Sites	Remote Access to Archaeological Data (RAAD) indicates registered archaeological sites within the property or within 100 metres. Archaeological material is protected under the <i>Heritage Conservation Act</i> . A <i>Heritage Conservation Act</i> permit may be needed before tree removal can be undertaken. This may involve the need to hire a qualified archaeologist to monitor the work.	
Climate Change Adaptation and Mitigation	GHG emissions are expected as ~1900 trees are proposed to be removed.	
Shoreline Classification	Not applicable	
Shoreline Data in TAPIS	Not applicable	

ATTACHMENT 2 – MAPS

2.1 ZONING



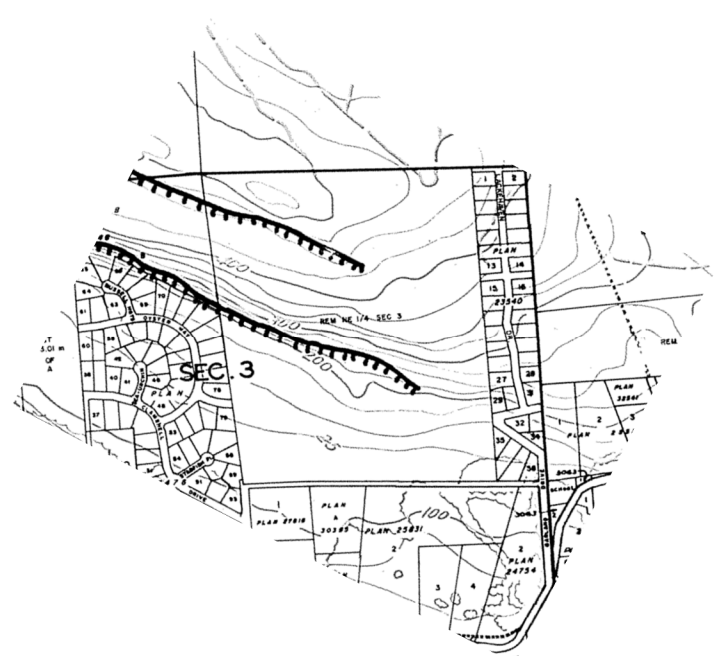
2.2 TEN METRE CONTOURS



2.3 ORTHOPHOTO



2.4 DEVELOPMENT PERMIT AREA 6 – STEEP SLOPES



ATTACHMENT #3 – DEVELOPMENT PERMIT AREA GUIDELINES

GB-DP-2021.1 (Centre Stage Holdings)

DEVELOPMENT PERMIT AREA NO. 6 (DP-6 ESCARPMENT AREAS)

Development Permit Area 6 (Schedule C of the OCP) is designated according to Section 919.1(1)(b) of the Local Government Act. Escarpment areas are areas where a land slope of greater than 80 per cent exists. The British Columbia Soil Survey (1990) identified numerous areas of escarpment on Gabriola where the slope is greater than 80 per cent. These escarpment areas may not be suitable for development as they may be subject to erosion, land slip, rock falls or subsidence, or other hazards. The objective of this DPA is to protect development from natural hazards, including terrain instability, erosion, land slippage, rock falls, subsidence, debris flows and flooding or changes to stormwater runoff due to development on or in proximity to lands with excessive slope conditions.

Guideline	Complies	Planner Comments
F.6.3.1 There shall be no construction of buildings, septic tanks, drainage and deposit fields, irrigation or water systems unless a geotechnical engineer recommends that such construction may occur without subjecting land in the escarpment area to increased slope instability.	NA	The applicant is not proposing any construction, excavation or development of the parcel at this time.
F.6.3.2 There shall be no removal of trees or vegetation unless a geotechnical engineer recommends that such removal may occur without subjecting land in the escarpment area to increased slope instability.	YES	The applicant has provided a detailed tree assessment inventory and geotechnical engineer statement that low to very low risk to slope stability would be present with the removal of ~1900 trees.



Islands Trust

**GABRIOLA ISLAND LOCAL TRUST COMMITTEE
DEVELOPMENT PERMIT
GB-DP-2021.1**

To: Centre Stage Holdings

1. This Development Permit (the "Permit") applies to the land described below:

PID: 003-134-806 NORTH EAST 1/4 OF SECTION 3 GABRIOLA ISLAND NANAIMO DISTRICT EXCEPT PARCEL A (DD 77326I) AND EXCEPT PLANS EPP19453 AND EPP66666

2. This Development Permit GB-DP-2021.1 authorizes the removal of select trees within Development Permit Area 6 (DPA 6) – Steep Slopes, subject to the following requirements and conditions:
- a) The timing of tree removal must be outside of the migratory bird nesting season if possible; or must avoid the peak season. If clearing must occur during the migratory bird nesting season for the area (March 15th to August 15th), a pre-clearing bird nest survey must be completed by a Qualified Environmental Professional prior to clearing to ensure no active nests are disturbed or damaged.
 - b) Tree removal shall be limited to maintain slope stability and be consistent with the trees identified for removal in the Forest Stand Assessment report prepared by Diamond Head dated May 26, 2023 and attached to this permit as 'Schedule A'.
3. The development shall be consistent with:
- Schedule 'A' – Forest Stand Assessment – Diamond Head (May 26, 2023)
 - Schedule 'B' – Geotechnical Assessment Memo – Lewkowich Engineering July 2023
 - Schedule 'C' – Geotechnical Hazard Assessment Report – Stantec Consulting Ltd. (May 20, 2021)

which are attached to and form part of this permit.

4. Any further development within designated Development Permit Area will require a new Development Permit, or a Development Permit Amendment.
5. This permit does not relieve the applicant from complying with the provisions of the Gabriola Island Land Use Bylaw.

This permit is not a building permit and does not remove any obligation on the part of the permittee to comply with all other requirements of Gabriola Island Land Use Bylaw No. 177, 1999 and to obtain other approvals necessary for completion of the proposed development.

AUTHORIZING RESOLUTION PASSED BY THE GABRIOLA ISLAND LOCAL TRUST COMMITTEE THIS ##th DAY OF MONTH, YEAR.

Deputy Secretary, Islands Trust

Date of Issuance

IF THE DEVELOPMENT DESCRIBED HEREIN IS NOT COMMENCED BY THE ##th DAY OF MONTH, YEAR , THIS PERMIT AUTOMATICALLY LAPSES.

GABRIOLA ISLAND LOCAL TRUST COMMITTEE
GB-DP-2021.1

SCHEDULE 'A' Forest Stand Assessment Report

GABRIOLA ISLAND LOCAL TRUST COMMITTEE
GB-DP-2021.1

SCHEDULE 'B' Geotechnical Assessment Memo

GABRIOLA ISLAND LOCAL TRUST COMMITTEE
GB-DP-2021.1

SCHEDULE 'C' Geotechnical Hazard Assessment Report

Forest Stand Assessment

For:

Centre Stage Gabriola Subdivision Phase 2
Gabriola Island, BC



Submitted to:

Centre Stage Holdings Ltd
c/o Glenna Borsuk
Glenna.borsuk@gmail.com
Date: May 26, 2023

Submitted by:



The following Diamond Head Consulting staff conducted the on-site tree inventory and prepared or reviewed the report.

All general and professional liability insurance and staff accreditations are provided below for reference.

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Errors and Omissions: Lloyds Underwriters – Policy #1010615D, \$1,000,000

Scope of Assignment:

Diamond Head Consulting Ltd. (DHC) was retained to complete an assessment to supplement the development permit application by Centre Stage Holdings related to those of its lands located within escarpment areas having slopes greater than 80% in accordance with the Gabriola Island Land Use bylaw and the Gabriola Island Official Community Plan. This report provides stand descriptions of the on-site trees and speaks generally to the retention suitability and value of on-site trees. No other tree inventory or count has been undertaken. This report is produced with the following primary limitations, detailed limitations specified in Appendix 3:

- 1) Our investigation is based solely on visual inspection of the trees during our last site visit. This inspection is conducted from ground level. We do not conduct aerial inspections, soil tests or below grade root examinations to assess the condition of tree root systems unless specifically contracted to do so.
- 2) The scope of work is primarily determined by site boundaries and local bylaws. Only trees specified in the scope of work (escarpment areas and adjacent steep and moderately steep slopes >80%) were assessed.
- 3) Beyond two years from the date of this report, the client must contact DHC to confirm its validity because site base plans and tree conditions may change beyond the original report's scope. Additional site visits and report revisions may be required after this point to ensure report accuracy for the development application process.

The client is responsible for:

- Reviewing this report to understand tree value on the site.
- Understanding that we did not assess trees off the subject property and therefore cannot be held liable for actions you or your contractors may undertake in developing this property which may affect the trees on neighboring properties.
- Obtaining a timber mark if logs are being transported offsite.
- Ensuring the project is compliant with the development permit conditions.

DRAFT

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1.0 Introduction

1.1 Site Overview

The development site is one parcel of land, totaling approximately 45 hectares, located near the southern coast of Gabriola Island. The site is bounded on the east by Lackehaven Drive, the west by Oyster Way and on the south by Lois Lane.

The subject site was historically harvested, at varying intensities and timeframes, evidenced by the presence of old forest roads, old skid trails, and old growth and second growth stumps. Trees on the site are recovering from that harvesting, in various states of regeneration. The site slopes to the south, bisected in the lower section by a 20m high rock bluff with steep to moderately steep colluvial slopes. Most of these colluvial slopes have slope gradients of <80%. Numerous small bedrock outcrops occur throughout the colluvial slopes. There is an additional distinct slope area in the NW portion of the site. An access road network runs through the northern and southern part of the property that partitions the continuous forest cover. The dominant canopy trees on site are estimated to be approximately 70 years old, with the exception of some older trees. The maximum height of the trees on site is 30 metres. Figure 1 shows the site and surrounding area.



Figure 1. Development site on Carrier Road and adjacent land uses.

1.2 Report Purpose

The proposed development consists of preparing the site for a new subdivision and road network. In support of these activities, selective tree removal is proposed in escarpment areas of the site. As per the geological hazard review for the site, some of the treed areas identified for removal are on rock bluffs which meet the escarpment criteria (slopes greater than 80%) documented in the Gabriola Island Land Use bylaw and the Gabriola Island Official Community Plan. As such, the Islands Trust has requested additional information including a qualified professionals report addressing the effects of the selective tree removal within the DP area. The purpose of this Forest Stand Assessment is to provide information on trees proposed for removal, including species, height, diameter, location, and an estimate of quantity of trees for removal.

In preparing this report, we reviewed the following information:

- Site Plan for Northeast ¼ of section 3, except parcel A (DD 773261), J.D Anderson and Associates., January 11, 2023.
- Geological Hazard Review. Centre Stage Gabriola Subdivision Phase 2 - Gabriola, BC. Stantec Consulting Ltd. May 20, 2021.

2.0 Process and Methods

Mitch Davis, ISA Cert. Arborist, and Riley Spear, ISA Cert. Arborist, of DHC visited the site on March 29th and 30th, 2023. Conor Corbett, ISA Cert. Arborist and Registered Professional Forester, provided oversight and data analysis. The following methods and standards are used throughout this report.

2.1 Tree Stand Identification

Prior to the site visit, satellite imagery of the on-site forest cover was reviewed to map preliminary tree stands. The site was walked, and each stand identified during desktop review was visited. Based on differences in forest cover and composition six different stand types were delineated. In each stand data was collected including species composition by height, diameter at breast height (DBH) and stand density. The general health and structural integrity of stands was assessed visually and assigned to one of five categories: *excellent*; *good*; *moderate*; *poor*; or *dying/dead*. Descriptions of the health and structure rating criteria are given in Appendix 2. Health and structure rating criteria follow the Guide for Plant Appraisal, 10th edition, published by the International Society of Arboriculture

3.0 Findings: Land Cover and Tree Stands

3.1 Tree Stands

Most of the site is occupied by forest cover, most of which is estimated to be at most 70-80 years of age, with scattered large diameter trees retained from previous generations observed in the central portion of the property surrounding the bluff. Most trees were measured to be 18 and 25 metres in height with the maximum observed tree height at 30 metres. Most trees were found to be between 15 and 35cm DBH. Stand density varies between 630 and 960 stems per hectare, slightly higher than mature forests in the region which typically have densities of less than 600 stems per hectare. The tree characteristics are typical of coastal Douglas-fir forests composed of a mix of native coniferous and deciduous trees, mostly Douglas-fir (*Pseudotsuga menziesii*), Arbutus (*Arbutus menziesii*), bigleaf maple (*Acer macrophyllum*) and red alder (*Alnus rubra*), with paper birch (*Betula papyrifera*) and grand fir (*Abies grandis*) also scattered throughout.

Stands in the forest were stratified into distinct stand types. These stand types are forests with similar characteristics. Six stand types were identified on the site and are discussed in the following sections individually. Stand types are mapped in Figure 2.



Figure 2. Stand types within forested areas.

Stand Type A – Semi-mature, previously thinned mixedwood stand

This stand type occupies the northwestern quarter of the development site. This area has very little structural development as a result of previous thinning operations. The overstory is typical of young, second/third growth, coastal Douglas fir forests with moderate stem density. These stands typically have a single story of Douglas-fir dominated overstory. Arbutus typically grow in canopy gaps between the fir trees and deciduous plants such as Oregon grape and salal prevail in the shrub layer. The dominant species found in Stand Type A is Douglas fir (*Pseudotsuga menziesii*) with patches of arbutus (*Arbutus menziesii*) distributed throughout. An overall moderate health and structure rating was exhibited in stands of this type. Minimal signs of decay or health issues were observed, however, overstory trees were identified as having relatively poor stem height to width ratio, likely due to density. Stands with these characteristics can be more susceptible to windthrow if new forest edges are created during clearing operations. If left undisturbed, this stand type will likely reach a similar species and structural composition as Stand Type D.

Table 1. Attributes of Stand Type A

Stand Type A	Semi-mature, thinned mixedwood stand
Species (%)	Douglas fir (63%), Arbutus (37%)
Structure description	Single-storied uniform stands indicative of being cleared in the past. Little to no understory and a sparse shrub layer of Oregon grape and salal.
DBH (range)	7-100 cm
Overstorey height (range)	15-30 m
Overstory density	960 stems per hectare
Crown Closure (%)	20-40%
Health and structure rating	Moderate



Photo 1. Typical stand conditions and structure for Stand Type A.

Stand Type B – Multistoried deciduous stand

This stand type occupies the least amount of forest area throughout the site. It is represented by the small strip of forest area on rock bluff and steep colluvial slopes as well as gentle to level slopes at the base of the bluff which separates the two Type A stands. This has allowed the stand to develop multiple overstory layers. There is a higher deciduous component in this forest, and its composition is typical of coastal deciduous forests. Exclusion of less advantageous and suppressed stems has resulted in multiple canopy layers and a lower stem density than surrounding stand types. Besides the natural exclusion of mature trees reaching the end of their life expectancy, no other health or structural issues were observed. A dense shrub layer exists in this stand type of oregon grape (*Mahonia aquifolium*) and salal (*Gaultheria shallon*).

Table 2. Attributes of Stand Type B

Stand Type B	Multistoried, deciduous stand at the base of slope in NW corner
Species (%)	Arbutus (42%), Red alder (26%), Douglas fir (16%) Bigleaf maple (11%), Paper birch (5%)
Structure description	Multistoried deciduous stand at the base of slope. Overstory dominated by pioneer deciduous species with a dense shrub layer of Oregon grape and salal.
DBH (range)	16-100cm
Overstory height (range)	8-30 m
Overstory density	630 stems per hectare
Crown Closure (%)	20-40%
Health and structure rating	Moderate

Stand Type C –Semi-mature mixedwood stand

This stand occupies the northeastern quarter of the site. This stand type is characterized by a two-layer mixedwood overstory that favors pioneer deciduous species, predominately arbutus (*Arbutus menziesii*). Douglas fir (*Pseudotsuga menziesii*) is also a large component of the upper most canopy layer. A dense mixedwood understory layer comprised of a 50% Douglas fir and 50% arbutus exists at a density of 1050 stems per hectare. A patchy shrub layer of Oregon grape, salal and spurge laurel (*Daphne laureola*) is present. This stand exhibits above average stem density due to its more recent disturbance and semi-maturity. This has caused poor taper in some of the overstory trees and exclusion of suppressed trees has begun. No other health issues were observed in this stand type.

Table 3. Attributes of Stand Type C

Stand Type C	Semi-mature mixedwood stand
Species (%)	Arbutus (51%), Douglas fir (30%), Red alder (11%), Bigleaf maple (8%)
Structure description	A two-storied mixedwood stand dominated by pioneer deciduous with a dense mixedwood understory of Douglas fir and arbutus at 1050 stems/ha and a moderately dense shrub layer with Oregon grape, salal, and splurge laurel.
DBH (range)	14-44cm
Overstorey height (range)	14-30m
Overstory density	925 stems/ha
Crown Closure	20-40%
Health and structure rating	Moderate



Photo 3. Typical stand conditions and structure for Stand Type C.

Stand Type D – Mature, more mature coniferous stand

This stand represents the second growth forest area running along steep to moderately steep slopes including some areas, primarily the rock bluffs, that equal or exceed 80% slope gradient that meet escarpment criteria under the relevant Gabriola Bylaw. Due to the steep grade of this area, minimal disturbance has occurred and allowed this stand type to grow naturally. Forest structure and composition is typical of coastal Douglas fir forests recovering from logging. This stand is characterized by a multistoried overstory, dominated by mature second growth Douglas fir. Patches of mature arbutus grow in canopy gaps and exist in the upper canopy layers. An understory composed exclusively of Douglas fir was recorded at a density of 600 stems per hectare. This stand type constitutes some of the oldest second growth forests found onsite and exhibits and overall moderate health and structure rating.

Table 4. Attributes of Stand Type D

Stand Type D	Mature, second growth coniferous stand
Species (%)	Douglas fir (81%) Arbutus (19%)
Structure description	Mature coniferous stand with multiple stories, a Douglas fir understory at 600 stems/ha exists with a minimal shrub layer.
DBH (range)	14-100cm
Overstorey height (range)	12-30m
Overstory density	800 stems/ha
Crown Closure (%)	40-60%
Health and structure rating	Moderate



Photo 4. Typical stand conditions and structure for Stand Type D.

Stand Type E – two-storied, semi-mature, thinned, coniferous stand

This stand occupies the southernmost portion of the site. It is characterized by a relatively young, two-layered overstory of 90% Douglas fir and grand fir, with individual bigleaf maple and arbutus growing in canopy gaps. This stand type has a very sparse understory of approximately 50 stems per hectare of grand fir. An overstory density of 675 stems per hectare is comparatively lower than similar stand types on this site. Skidder trails and access roads suggest the forest in this stand type was at one point harvested for timber or thinned. Other than natural exclusion of suppressed trees, no other forest health issues were observed in this stand type and the forest health and structure rating throughout this stand type is moderate.

Table 5. Attributes of Stand Type E

Stand Type E	Two-storied, semi-mature, thinned, coniferous stand
Species (%)	Douglas fir (78%), Grand fir (11%), Bigleaf maple (7%), Arbutus (4%)
Structure description	Two-storied semi-mature coniferous stands with very little understory (approx. 50 grand fir stems/ha) and sparse patches of a deciduous shrub layer.
DBH (range)	13-60cm
Overstorey height (range)	15-30m
Overstory density	675 stems/ha
Crown Closure	20-40%
Health and structure rating	Moderate

Stand Type F – Single storied, thinned, mature deciduous stand

This stand occupies the central forested area below the bluff and constitutes the majority of the onsite forest. This stand type is characterized by a single layer of mature pioneer deciduous species dominated by mature bigleaf maple, patches of red alder, and scattered arbutus, all at a low density of 425 stems per hectare. Understory in this stand type is exclusively bigleaf maple, also at a low density of approximately 75 stems per hectare. Like Stand Type E, skidder trails and access roads within this stand type, along with the low density of overstory and minimal understory suggest this stand type was historically harvested. Active woodpecker feeding cavities were observed in large mature maple stems, indicative of decay. However, this decay is likely due to mature trees reaching the end of their life expectancy and not from other health related issues. The overall health and structure rating throughout this stand type is moderate. Patchy splurge laurel, sword fern (*Polystichum munitum*) and blackberry (*Rubus bifrons*) grow on the surface to create a shrub layer.

Table 6. Attributes of Stand Type F

Stand Type F	Single storied, thinned, mature deciduous stand
Species (%)	Bigleaf maple (65), Red alder (24), Arbutus (12)
Structure description	Single storied, mature pioneer deciduous species with a sparse deciduous understory and a patchy deciduous shrub layer.
DBH (range)	17-250 (multitemmed) cm
Overstorey height (range)	10-30m
Overstory density	425 stems/ha
Crown Closure	<20%
Health and structure rating	Moderate



Photo 6. Typical stand conditions and structure for Stand Type F

4.0 Steep Slope Tree Removals

There is a total of approximately 8.5 hectares of forest located on steep to moderately steep colluvial slopes within which there are areas meeting escarpment criteria. (as per the May 20, 2021 Stantec Geological Hazard Review) throughout the property. Selective tree removal will occur on these steep slopes as part of this development. The total quantities are to be determined, but will not exceed 50% of the total stems >15 cm where those tree removals overlap with escarpment areas, which comprises a small portion of the overall 8.5 ha area. 50% has been used as an upper limit calculation, although in some areas this exceeds the likely actual removals.

There are two rock bluffs onsite that constitute the steep slope areas (refer to the Geological Hazard Review for locations). The lower and more significant rock bluff and associated colluvial slopes runs through most of Stand Type D. The smaller upper rock bluff and colluvial slopes run across the northwest corner of the site and encompasses most of Stand Type B.

Selective tree removal will occur in Stand Type B and D and consists largely of Douglas-fir. The remainder of the removals will consist of a mix of deciduous species arbutus, bigleaf maple, red alder, and paper birch. A total of approximately 1937 stems >15 cm DBH will be removed. Appendix 1 shows a full breakdown of removals by species, size class, and stand type.

Table 7. Total area and removals, by species and stand type, across the steep slope areas.

Stand Type	Steep Slope Overlap (ha)	Stand Type	Total Removals >15cm DBH (stems/ha)
B	0.9	B	175
D	4.3	D	1762

5.0 Discussion

5.1 Forest cover

In general, the forest cover on this site is typical of second/third growth coastal Douglas fir forests. Stand Type D is the most well-developed stand type within the site. It consists of multiple layers of undisturbed conifer overstory and conifer understory. Stand Types A and C are both semi mature mixedwood stands that are dominated by Douglas fir and arbutus. However, Stand Type C has more structural development in the form of a well-developed understory. Stand Type B and F are both mature pioneer deciduous stand types but differ in their structural complexity and density. Stand type F has less than half the overstory density Stand Type B does and much larger, open grown trees. Stand Type E is relatively immature, conifer dominant, and contains the only grand fir found on site.

5.2 Steep Slope Removals

Selective tree removal occurring around escarpment areas will take place within the rock bluffs and associated colluvial slopes in Stand Type B and D. Approximately 1937 stems >15 cm DBH will be removed using a guideline of 50% removal where these stands overlap with the escarpment areas. Only a portion of the removals will occur where forest cover is on steep slopes, likely substantially less than the 50% threshold used in this report.

Most of the removed trees will be Douglas-fir, followed by a mix of native deciduous species arbutus, bigleaf maple, red alder, and paper birch. Size classes range up to 75+ cm DBH. However, a large majority of tree removals by numbers will be in the smaller size classes, with only a small amount of larger trees to be removed. Detailed tree counts can be found in the tree removal estimates in Appendix 1.

Appendix 1 Steep Slope Removal Estimates

Table 8. Stems removed on steep slopes in Stand Type B by species and size class if 50% removed.

	DBH Class (cm)	total stems	Stems/plot	Stems/ha	Removal (stems/ha)	Removal in steep slopes
Arbutus	10	4	1	133.3	67	63
	15	3	1	100.0	50	47
	20+	1	0	33.3	17	16
					Total	127
Bigleaf Maple	15	1	0	33.3	17	16
	30	1	0	33.3	17	16
					Total	32
Douglas Fir	15	2	1	66.7	33	32
	20	1	0	33.3	17	16
					Total	47
Paper Birch	20	1	0	33.3	17	16
					Total	16
Red Alder	10	4	1	133.3	67	63
	20	1	0	33.3	17	16
					Total	79
					Grand Total >15 cm DBH	175

Table 9. Stems removed on steep slopes in Stand Type D by species and size class if 50% removed.

	DBH Class (cm)	total stems	Stems/plot	Stems/ha	Removal (stems/ha)	Removal in steep slopes
Arbutus	15	1	0.25	25	13	53
	25	3	0.75	75	38	160
	35+	3	0.75	75	38	160
					Total	374
Douglas Fir	10	2	0.5	50	25	107
	15	3	0.75	75	38	160
	20	3	0.75	75	38	160
	25	6	1.5	150	75	321
	30	3	0.75	75	38	160
	35	2	0.5	50	25	107
	40	4	1	100	50	214
	45+	5	1.25	125	63	267
					Total	1496
					Grand Total >15 cm DBH	1762

Appendix 2 Tree Health and Structure Rating Criteria

The tree health and structure ratings used by Diamond Head Consulting summarize each tree based on both positive and negative attributes using five stratified categories. These ratings indicate health and structural conditions that influence a tree's ability to withstand local site disturbance during the construction process (assuming appropriate tree protection) and benefit a future urban landscape.

Excellent: Tree of possible specimen quality, unique species or size with no discernible defects.

Good: Tree has no significant structural defects or health concerns, considering its growing environment and species.

Moderate: Tree has noted health and/or minor to moderate structural defects. This tree can be retained, but may need mitigation (e.g., pruning or bracing) and monitoring post-development. A moderate tree may be suitable for retention within a stand or group, but not suitable on its own.

Poor: Tree is in serious decline from previous growth habit or stature, has multiple defined health or structural weaknesses. It is unlikely to acclimate to future site use change. This tree is not suitable for retention within striking distance of most targets.

Dying/Dead: Tree is in severe decline, has severe defects or was found to be dead.

Appendix 3 Report Assumptions and Limiting Conditions

- 1) Unless expressly set out in this report or these Assumptions and Limiting Conditions, Diamond Head Consulting Ltd. ("Diamond Head") makes no guarantee, representation, or warranty (express or implied) regarding this report, its findings, conclusions, or recommendations contained herein, or the work referred to herein.
- 2) The work undertaken in connection with this report and preparation of this report have been conducted by Diamond Head for the "Client" as stated in the report above. It is intended for the sole and exclusive use by the Client for the purpose(s) set out in this report. Any use of reliance on or decisions made based on this report by any person other than the Client, or by the Client for any purpose other than the purpose(s) set out in this report, is the sole responsibility of, and at the sole risk of, such other person or the Client, as the case may be. Diamond Head accepts no liability or responsibility whatsoever for any losses, expenses, damages, fines, penalties, or other harm (including without limitation financial or consequential effects on transactions or property values, and economic loss) that may be suffered or incurred by any person as a result of the use of or reliance on this report or the work referred to herein. The copying, distribution, or publication of this report (except for the internal use of the Client) without the express written permission of Diamond Head (which consent may be withheld in Diamond Head's sole discretion) is prohibited. Diamond Head retains ownership of this report and all documents related thereto both generally and as instruments of professional service.
- 3) The findings, conclusions and recommendations made in this report reflect Diamond Head's best professional judgment given the information available at the time of preparation. This report has been prepared in a manner consistent with the level of care and skill normally exercised by arborists currently practicing under similar conditions in a similar geographic area and for specific application to the trees subject to this report on the date of this report. Except as expressly stated in this report, the findings, conclusions, and recommendations it sets out are valid for the day on which the assessment leading to such findings, conclusions and recommendations was conducted. If generally accepted assessment techniques or prevailing professional standards and best practices change at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification if generally accepted assessment techniques and prevailing professional standards and best practices change.
- 4) Conditions affecting the trees subject to this report (the "Conditions", include without limitation, structural defects, scars, decay, fungal fruiting bodies, evidence of insect attack, discolored foliage, condition of root structures, the degree and direction of lean, the general condition of the tree(s) and the surrounding site, and the proximity of property and people) other than those expressly addressed in this report may exist. Unless otherwise stated, information contained in this report

covers only those Conditions and trees at the time of inspection. The inspection is limited to visual examination of such Conditions and trees without dissection, excavation, probing or coring. While every effort has been made to ensure that any trees recommended for retention are both healthy and safe, no guarantees, representations or warranties are made (express or implied) that those trees will not be subject to structural failure or decline. The Client acknowledges that it is both professionally and practically impossible to predict with absolute certainty the behavior of any single tree, or groups of trees, in all given circumstances. Inevitably, a standing tree will always pose some risk. Most trees have the potential for failure and this risk can only be eliminated if the risk is removed. If Conditions change or if additional information becomes available at a future date, modifications to the findings, conclusions, and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification of Conditions change or additional information becomes available.

- 5) Nothing in this report is intended to constitute or provide a legal opinion and Diamond Head expressly disclaims any responsibility for matters legal in nature (including, without limitation, matters relating to title and ownership of real or personal property and matters relating to cultural and heritage values). Diamond Head makes no guarantee, representation, or warranty (express or implied) as to the requirements of or compliance with applicable laws, rules, regulations, or policies established by federal, provincial, local government or First Nations bodies (collectively, "Government Bodies") or as to the availability of licenses, permits or authorizations of any Government Body. Revisions to any regulatory standards (including bylaws, policies, guidelines and any similar directions of a Government Bodies in effect from time to time) referred to in this report may be expected over time. As a result, modifications to the findings, conclusions and recommendations in this report may be necessary. Diamond Head expressly excludes any duty to provide any such modification if any such regulatory standard is revised.
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- 7) In preparing this report, Diamond Head has relied in good faith on information provided by certain persons, Government Bodies, government registries and agents and representatives of each of the foregoing, and Diamond Head assumes that such information is true, correct, and accurate in all material respects. Diamond Head accepts no responsibility for any deficiency, misinterpretations, or fraudulent acts of or information provided by such persons, bodies, registries, agents, and representatives.
- 8) Sketches, diagrams, graphs, and photographs in this report, being intended as visual aids, are not necessarily to scale and should not be construed as engineering or architectural reports or surveys.
- 9) Loss or alteration of any part of this report invalidates the entire report.



Geological Hazard Review

Centre Stage Gabriola Subdivision
Phase 2 - Gabriola, BC

May 20, 2021

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GEOLOGICAL HAZARD REVIEW

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Abbreviations

APEGBC	Association of Professional Engineers and Geoscientists of British Columbia
BC	British Columbia
EGBC	Engineers and Geoscientists of British Columbia
ha	hectare
JEA	J. E. Anderson & Associates
masl	metres above sea level
MOTI	Ministry of Transportation and Infrastructure
PLA	preliminary layout approval
SL	strata lots



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1.0 INTRODUCTION

As requested by Centre Stage Holdings Ltd. (Centre Stage), Stantec Consulting Ltd. (Stantec) has carried out a geological hazard review and assessment of Phase 2 of a proposed rural subdivision on Gabriola Island for the purpose of a development permit and subdivision applications by Centre Stage. The legal description of the property is: The North East $\frac{1}{4}$ of Section 3, Gabriola Island, Nanaimo District, except Parcel A (DD 773261) and except Part in Plans EPP 19453 and EPP6666. The PID number is PID 003 134 806. A preliminary layout approval (PLA) was issued for 24 lots in Phase 2, but with a different lot layout than the current application. Five lots along the northern side of Phase 2 were subdivided and sold, so the footprint of the current proposal is smaller than the original. A geological hazard assessment was carried out for the original Phase 2 subdivision proposal by Golder Associates Ltd. (Golder 2010). The author of this Stantec report was the author of the original Golder report and was asked by Centre Stage to provide an updated report. At the request of Ministry of Transportation and Infrastructure (MOTI), the original Golder report is included in Appendix C. Similarly, a technical memo requested by Centre Stage (Stantec 2020), which addressed the question of change or lack of change in the geological conditions and hazards on the subdivision site between 2010 and 2020 is also included as in Appendix C. The Golder, May 19, 2010, report was registered with the Victoria Land Title Office as a covenant in favour of MOTI under document number CA2923794 on December 19, 2012.

1.1 PROJECT UNDERSTANDING

It is Stantec's understanding, based on discussions with Centre Stage, that the current report should focus on information relating to the proposed subdivision and development permit application.

Under the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC now EGBC) Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in British Columbia (APEGBC 2010) the legislation requires that a Professional Engineer or Professional Geoscientist indicate whether the residential development will be "safe" from the effects of landslides. As outlined in the APEGBC guidelines, the Approving Authority, in this case MOTI, is responsible for rural subdivisions, defines an annual probability of 1/10,000 for catastrophic or life-threatening landslide as its level of safety and an annual probability of occurrence of 1/475 years (10% probability in 50 years) for individual landslide hazards (damaging events). The report addresses the relevant geological hazard criteria outlined in the MOTI 2015 document "Subdivision Preliminary Layout Review – Natural Hazard Risk" (Anon 2015).



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2.0 PHYSICAL SETTING AND SITE DESCRIPTION

2.1 PHYSICAL SETTING

The proposed 19 lot subdivision occupies south to southwest facing slopes on the southwest side of Gabriola Island. The upper slopes of the property are accessed from Bonnie View Road; the mid slopes from the west end of Carrier Road; and the lower slopes from Lois Lane. All these roads are accessed from South Road (see J.E. Anderson & Associates drawing in Appendix B).

The hillside occupied by the proposed subdivision is generally forested, but there has been some local clearing and road building, including old logging trails and roads. The area has been logged in the past; the current forest cover is a mix of second and third growth timber with some areas of thick brush and/or blackberry patches. A shallow borrow pit is located on the mid slope, downslope and approximately south-southeast of the west end of Carrier Road.

Elevations on the property range from about 30 m above sea level (asl) to about 160 metres above sea level (masl). Rock bluffs and moderately steep to steeply sloping colluvial (talus) slopes occur as two distinct elongate bands on the upper slope and lower mid slope of the property. These rock bluffs and the colluvial (talus) slopes below them are subject to periodic rockfall, which comprises the geological hazard on the property. The rock bluffs trend west-northwest and generally range from about 5 m to 20 m high. The southeast end of the lower mid slope is primarily a colluvial slope interspersed with small, discontinuous bedrock outcrops.

The proposed subdivision plans (Appendix B) show a single lot above the upper rock bluff. There are strata lots on the gently to moderately sloping area between the upper bluff and the lower mid slope rock bluff and fee simple lots on the gently sloping lower slopes downslope of the lower mid slope rock bluff and colluvial slope.

2.2 GEOLOGICAL SETTING

Gabriola Island like all of British Columbia was glaciated during the last glaciation. The land surface was significantly depressed due to the weight of the overlying glacial ice. Following glacial retreat sea level in the area was likely in the range of 120–140 metres above current sea level¹. Over time the land surface rebounded to its current elevation. Consequently, as well as typical glacial and post-glacial materials (e.g., morainal material (till), glaciofluvial sediments and colluvium), there are local areas of glaciomarine materials and/or marine sediments. Morainal material is present on gently and moderately sloping areas on the upper, mid, and lower slopes of the proposed subdivision, glaciofluvial and/or glaciomarine gravels are present on the mid slopes and some lower slopes and fine-textured glaciomarine or marine sediments

¹ Clague, 1981, Figure 5 shows a maximum post-glacial sea level elevations of 150 m asl near Courtney, 140 masl near Parksville, 75 m asl near Victoria, and 180 masl near or on the Sechelt peninsula. Clague (1981) states that "Emergence of the isostatically depressed coastal lowlands of Vancouver Island and mainland British Columbia was rapid" and cites Mathews et al., 1970, that present sea level may have been attained between 10,000 and 11,000 years ago on eastern Vancouver Island. The highest elevation on this property where we have identified surficial materials that are potentially marine or glaciomarine sands and gravels is about 125 m asl; however, these materials could also be glaciofluvial in origin.



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may occur locally on the lower slopes of the subdivision. Rock bluffs and colluvial (talus) slopes below the bluffs form the steeper slopes on the hillside.

The steep rock bluffs on the upper and lower mid slopes of the proposed subdivision comprise sandstones and conglomerates of the Geoffrey Formation, while the gently sloping lower slopes are underlain by shales, siltstones and minor sandstones of the Northumberland Formation. These two formations are part of the Cretaceous Nanaimo Group (Muller and Jeletzky, 1970, Packard Jr., 1972).



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3.0 GEOLOGICAL HAZARD ASSESSMENT

3.1 INTRODUCTION

The scope of work for this project comprised a desktop review of the relevant Golder report for the original subdivision layout, some confirming field work for the new lot layout, and composition of a geological hazard report which address the new lot layout and meets the criteria in APEGBC *Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC* (APEGBC, 2010). The scope of work includes reviewing the geological hazard zones within and around the property that may pose a hazard to the proposed subdivision and displaying them on the subdivision drawing. Also, as appropriate to propose mitigation to reduce those hazards.

3.2 METHODS

Stantec's geological hazard review and assessment included a desktop review of the original Golder geological hazard report for the property and field work to confirm the geological hazards present on the property. As noted in Section 1.0, Stantec also conducted a field review of the site to determine if there were apparent changes in the geological hazards and geologic conditions on the property since the 2010 Golder report was written (Appendix C). The field work involved a series of walking traverses that comprised:

- Traverses along the crest of the sandstone and conglomerate bluffs and the steep colluvial slopes.
- Traverses along the interface between the base of the rock bluffs and the top of the steep colluvial slopes below the rock bluffs.
- Traverses across the mid slopes of the steep colluvial slopes and along the base of these colluvial slopes, including the rockfall shadow areas beyond the toe of the colluvial slopes. As part of this set of traverses Stantec confirmed the apparent rockfall shadow angles documented in the 2010 Golder report using the same methods documented in the 2010 Golder report (see Appendix C and below).
- Traverses through the areas where residential development (construction) is likely. That is areas outside the identified steep slopes and geological hazard zones.

Figure 1 shows the GPS waypoints taken during field traverses in 2020 and 2021; these waypoints give a general sense of the areas through which Stantec carried out traverses and where the time on the ground was focused. However, not all areas traversed are represented by waypoints.



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A detailed topographic map of a forested landscape. The map features numerous contour lines indicating elevation changes. A central, winding path or stream bed is visible, surrounded by dense vegetation. Overlaid on the map are 100 numbered points, ranging from 120 to 219. These points are distributed across the terrain, often following the path or stream bed, and are marked with small circles. The map is oriented with North at the top.



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The rockfall shadow angle noted above, defines the furthest distance that visible rockfall fragments are found out from the toe of a colluvial slope. The minimum slope angle from the furthest out rock fragments from the toe of the colluvial slope to the crest of the colluvial slope is measured and recorded (i.e., the base of the rock bluff where the colluvial slope begins is the crest of the colluvial slope). Within the proposed Phase 2 subdivision and in the Phase 1 subdivision to the northwest the rockfall shadow angle is about 22 degrees. The rockfall shadow angle is then used to define a maximum rockfall shadow line along the base of the colluvial slope, including areas where rockfall is either not present or is not at the maximum distance from the toe of the colluvial slope. This method (Evans and Hungr 1993) provides a conservative estimate of how far rockfall fragments may travel from the toe of a colluvial slope. This approach is typically applied where the ground at the base of the colluvial slope is relatively level. Where the ground beyond the toe of the colluvial slope was not level then an extensive search was made to identify and locate probable rockfall fragments and those fragments furthest from the toe of the colluvial slope were then used to define the rockfall shadow line. In the absence of rockfall fragments this line is based primarily on the minimum hillslope angle where the suspect rockfall fragments were found, which in this area is a slope angle of about 20 percent (11 degrees). Note that a conservative approach to identifying rockfall fragments on these sloping areas was used. Some weathered sandstone rockfall fragments are subangular with rounded edges and some subangular sandstone fragments may also be glacial erratics; however, these were assumed to be rockfall out of an abundance of caution.

This second approach was used for the rockfall shadow line below the lower rock bluff as most slopes were inclined rather than level. Occasional rocks (derived from glacial and post-glacial deposits) that were not sandstone or conglomerate were not considered rockfall. Previous human activity on the hillside, notably logging (e.g., during yarding activity), may have displaced some rockfall fragments. In sloping areas this displacement would most likely have been downslope rather than upslope creating a more conservative interpretation of rockfall travel distance. The rockfall fragments from the upper rock bluff are sandstone, those from the lower mid slope rock bluff are a mix of sandstone and conglomerate fragments with sandstone predominating. The rockfall fragments generally range in size from about 0.05 to 5 m along the long axis of the fragments.



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3.3 RESULTS

3.3.1 Steep Slope – Geological Hazard Descriptions

Two areas of rockfall hazard are present within the proposed subdivision. These rockfall areas comprise the two rock bluffs² and associated colluvial slopes, one on the upper slopes of the proposed subdivision and one on the lower mid slopes of the proposed subdivision. The dashed top of slope and dashed (red) rockfall shadow lines on the J. E. Anderson & Associates (JEA) drawing in Appendix B define the top of the often near-vertical rock bluffs and/or associated moderately steep to steep³ colluvial slopes, respectively. The rockfall shadow lines are generally located a short distance downslope of the toe of the steep colluvial slopes.

Within the bounds of the top of slope lines and the rockfall shadow lines at the base of the two rock bluffs and associated colluvial slopes the probability of damaging rockfall likely exceeds the MOTI 1 in 475 year (10% probability in 50 years) for individual landslide hazards (a damaging event). Two instances of recent rockfall are recorded in the 2010 Golder report. One of these rockfall fragments was a tabular piece of sandstone greater than or equal to 1+ m long and approximately 0.5 m wide, leaning against a second growth conifer (T. Rollerson, personal observation). Both these fragments stopped part way down a colluvial slope and did not reach the rockfall shadow zone or the rockfall shadow angle line.

The distribution of rockfall fragments on these slopes suggests that rockfall occurs both as small events comprising one to several rock fragments and as larger events that include numerous individual rock fragments. In either case, there may be fragmentation of individual rocks as they travel downslope.

Weathering processes (e.g., freeze thaw action) and seismic activity can result in rockfall. Seismic events of less magnitude than the 475-year seismic event can generate rockfall. Dislodged rock fragments are often observed in areas of windthrown trees on steep slopes following strong winds.

The lower mid slope rock bluff is much longer west to east than the upper bluff. Both bluffs and associated colluvial slopes trend roughly WNW-ESE; this orientation being controlled by a distinctive, near-vertical joint surface that trends (strikes) at approximately 300 degrees.

Both rock bluffs and the colluvial slopes below are subject to rockfall. There is a larger rockfall accumulation below the 20 m high rock bluff on the lower east side of strata Lot 7 (SL7) that may have moved as a small rock avalanche for a slope distance of about 90 m; stopping on the gentle slopes at the base of the colluvial slope and within the rockfall shadow zone (i.e., about 25 m out from the toe of the colluvial slope and greater than or equal to 20 m upslope of the rockfall shadow line). There are old growth Douglas Fir stumps on this feature and the soil development is comparable to that on the colluvial slopes to the west, suggesting that the feature is quite old. This feature is also immediately east of known First Nations burial sites located within accumulations of large, rockfall blocks at the toe of the colluvial slope.

² These rock bluffs and limited portions of the associated colluvial slopes would meet the escarpment criteria (slopes greater than 80%) documented in the Gabriola Island Land Use bylaw and the Gabriola Island Official Community Plan.

³ The terminology for slope angles follows the usage in the Terrain Classification System for British Columbia (TCSBC), Howes and Kenk (1997), as follows: plain (or level) 0-5%, gentle 6-26%, moderate 27-49%, moderately steep 50-70% and steep >70%. The surficial material terminology used in this report also follows that in and as defined by the TCSBC.



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The visible weathering and disintegration of the rock fragments within these rockfall accumulations is similar to or perhaps not as advanced as that on the suspect rock avalanche. Radiocarbon dates from the burial sites nearest to the suspect rock avalanche range in age from 2170 ± 70 to 3240 ± 50 years before present (the first date is from Skinner 1991 as cited in Curtin 2002 and the second date is Curtin 2002). These dates suggest a minimum age for the suspect rock avalanche of about 3300 years, since the rockfall accumulations would have been in place for some time before the first burials occurred.

3.3.2 Residential Lot Descriptions

There are three generally gently to locally moderately sloping areas proposed for residential development. These are described below. Some of the lots as laid out do extend down the rock bluffs and steep colluvial slopes. These steeper areas are described as appropriate for individual lots. In the interest of brevity, where terrain and geomorphic conditions are comparable, we have combined descriptions for two or more lots.

3.3.2.1 Area Above the Upper Bluff

The first area is located mainly above the upper bluff and comprises a single lot, Part A upper, with a surface area of 1.04 ha (lot A is split into two portions, a small one on the upper slope, and a larger one on the lower slope of the proposed subdivision).

Part A upper includes a portion of the eastern end of the upper sandstone bluff (see JEA drawing in Appendix A). The portion of the lot above the upper bluff is proposed for siting a residence. The sandstone bluff is not suitable for residential construction. To provide a safe building site there should be a minimum setback, above the top of slope (rock bluff) line, of 15 m upslope or north of the top of slope line (the rock bluff in this area ranges from about 10 m to 15 m high). The upper portion of the lot is generally mantled with shallow veneers⁵ of weathered bedrock⁶ and morainal material. The morainal materials may be deeper locally. There are also a few small areas of gently sloping or weakly ridged, weathered, and fractured sandstone exposed at the surface. Slope angles on the short south-facing slope immediately above the upper bluff range from 20–40%, while the slopes on the longer north-facing slope that runs down to Bonnie View Road average about 10%.

The portion of Part A upper above the recommended 15 m setback is considered safe for residential construction.

⁴ This is a conventional C-14 age corrected with reference to the measured C13/C12 ratio.

⁵ The term veneer is used to indicate material (soil) depths generally less than 1 m deep above bedrock unless otherwise noted. The term blanket infers surficial material depths greater than a metre.

⁶ Weathered bedrock is surficial material (or residual soil) formed of decomposed or disintegrated bedrock in situ by processes of chemical and/or mechanical weathering (Howes and Kenk 1997). In this area these materials generally consist of angular rock fragments in a matrix of sand, silt, and possibly minor clay.



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3.3.2.2 Area Between the Two Bluffs and Above the Strata Road Extension to Carrier Road

The second area considered comprises strata lots (SL) SL1 to SL5 that are located above the strata road extension to Carrier Road. These lots range from 1.01 to 3.07 ha in size (Appendix B).

Strata Lots SL1, SL2, and SL3

Strata lots SL1, SL2 and SL3 are located primarily on gently sloping (10–20%), well to imperfectly drained, morainal materials. Along the top edge of SL3 slope angles range from 15–30%. A small, near-level area of glaciofluvial or glaciomarine gravels is present in the southwest corner of SL 3.

Strata lots SL1, SL2 and SL3 are considered safe for residential construction.

Strata Lot SL4

Strata lot SL4 is mainly located on gently sloping (10–20%), well drained morainal materials. A small, near-level terrace composed of glaciofluvial and/or glaciomarine gravels is present along the lower boundary of the lot at the extension to Carrier Road. The upper slopes of SL4 comprise a small area of morainal materials sloping at 30 to 50% and the extreme eastern end of the upper sandstone bluff and associated rubbly blocky colluvial slope. The bluff is near-vertical and ranges from 1–5 m high; the colluvial slope has slope angles of 50–60%.

The bluff and colluvial slopes in the NW corner of the lot are considered unsafe for residential development.

A 10 m setback towards the SSW and SE from the rockfall shadow line in the NW corner of SL4 is recommended. The remainder of SL4 is considered safe for residential development, although the 30–50% morainal slopes and old road fill slopes in the upper part of the lot are unlikely to be suitable for residential development.

Strata Lot SL5

Strata lot SL5 extends from strata lot SL4 to the western boundary of the proposed subdivision. The upper WNW trending slope of SL5 begins at the base of the upper rock bluff and comprises a blocky colluvial slope extending downslope from the base of the rock bluff and out to the rockfall shadow boundary. Slope angles on the colluvial slope generally range from 60-70%, but locally there are slopes as gentle as 50% and as steep as 80%. The bluff above the colluvial slope effectively ends about 50 m from the western property boundary; but persists as a few low (1–2 m high), discontinuous, steep, sandstone outcrops. This western portion of the slope is primarily colluvial; occasional 1–2 m diameter rockfall fragments are present on the colluvial slope, below the discontinuous sandstone outcrops. Consequently, the rockfall shadow line extends along the base of this slope to the western property boundary.



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South-southwest for about 80 m from the toe of the colluvial slope the surface of SL5 comprises a low, weakly ridged to undulating bedrock surface mantled with a complex of morainal materials and shallow veneers of weathered bedrock. Slope angles in this area generally range from 0–20%. A very small, WNW trending wetland is present in the west-central part of this area. A small, undulating area of glaciofluvial and/or glaciomarine sands and gravels⁷ occurs in the SE corner of the lot.

From the west end of the Carrier Road extension, the SL5-SL6 boundary runs WNW along the top of a low, discontinuous rock scarp and colluvial slope (approximately 3–6 m high) for about 140 m. The SL5-SL6 boundary then descends slightly and continues WNW near and along the base of a gently to moderately sloping, 3–5 m high slope composed of well drained, weathered bedrock with occasional small sandstone outcrops for about 75 m to the western property boundary.

Stantec recommends a minimum setback 10 m SW of the rockfall shadow line along the upper slopes of SL5 to ensure that the potential residential building site within this lot is safe from rockfall. South of the 10 m setback from the rockfall shadow line SL5 is considered safe for residential development.

3.3.2.3 Character of the Strata Lots SL6–SL13 Below the Carrier Road Extension

Strata lots SL6 to SL13 extend downslope from the Carrier Road extension to the top of slope line and then down the lower mid slope bluff and colluvial (talus) slope to a greater or lesser degree. The following paragraphs describe the nature of these strata lots, upslope of the top of slope line. These lots, range in area from 1.01 to 2.04 ha. A subsequent section describes their character below the top of slope line.

Strata Lot SL6

Trending WNW along and immediately below the upper boundary of SL6 with SL5 is a low (3–6 m high), discontinuous bedrock scarp and colluvial slope that runs WNW about 140 m from the west end of Carrier Road. There is an accumulation of apparent rockfall fragments at the base of this slope. However, a review of site photographs taken 20 December 2006, indicates that most or all, of these rock fragments result from preliminary subgrade construction near the west end of the extension of Carrier Road and associated land clearing activities. This slope extends further WNW to the western property/lot boundary as a gently to moderately sloping, 3–5 m high slope of weathered bedrock with occasional very small sandstone outcrops. From this WNW trending bedrock and colluvial slope south and southwest to the top of slope line SL6 consists of near level to gently sloping surfaces mantled with shallow veneers of well drained weathered bedrock, and blankets and veneers of well drained morainal materials. These gentle slopes are interrupted midway to the top of slope line by a short (approximately 100 m long), WNW trending, mixed colluvial and weathered bedrock surface ranging from 1–10 m high, having a slope gradient of 40–50%.

⁷ The surface of some of the apparent glaciofluvial deposits may have been re-worked by wave action during higher sea-levels at the end of the last (Fraser) glaciation. Some of these deposits may actually be glaciomarine beaches rather than glaciofluvial deposits.



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Between the top of slope line and the recommended setback (20 m) for SL6, there are several low, discontinuous, (0.5 to 3 m high) bedrock-controlled scarps. Between the scarps are near-level, to gently sloping steps or terraces, mantled with shallow soil veneers comprised variously of weathered bedrock, morainal materials and glaciofluvial or glaciomarine sands and gravels.

The top of the low, discontinuous bedrock scarp described above at the top of SL6 is composed of weathered and fractured sandstone that is being excavated and crushed for local use, so the height of parts of this scarp will decrease with time. This work (and the work to create the turnaround at the end of the Carrier Road extension) is being done with an excavator mounted hydraulic rock hammer and an excavator mounted bucket crusher, not explosives⁸.

The portion of SL6 upslope of the 20 m setback from the top of slope line at the top of the lower mid slope rock bluff is considered safe for residential development and has reasonable building sites within the lot setback lines.

Strata Lots SL7, SL8, SL9, SL10 and SL11

From the recommended setback lines to within a short distance of Carrier Road, strata lots SL7, SL8, SL9, SL10 and SL11 are located on gently sloping, glaciofluvial and/or glaciomarine sands and gravels. There may also be local areas of morainal materials, the surface of which may have been washed by marine wave action (e.g., SL7). In some areas these materials comprise shallow veneers overlying an irregular to glacially smoothed and gently ridged bedrock surface. Locally small areas of rubbly, weathered bedrock may replace the glaciofluvial and/or glaciomarine surface.

The relatively short (20–50 m long) upper slopes of strata lots SL7, SL8, SL9, SL10 and S11, immediately below the Carrier Road extension, comprise a complex of gently to moderately (10–35%) sloping, well drained, glaciofluvial or glaciomarine sands and gravels and moderately sloping (30–40%), well to rapidly drained, rubbly weathered bedrock slopes that abut the fill slopes of the recently constructed Carrier Road extension. Occasional sandstone fragments and small isolated bedrock outcrops are present along these slopes and small areas of morainal materials may also occur locally (e.g., SL11). Some of the rock fragments may have rolled naturally, been pushed, or dragged short distances by earlier logging activities, and some result from the upslope road construction. Some of the rock fragments will have been exposed by natural processes such as tree mortality and windthrow. Some of these slopes may not be suitable for residential construction due to slope angle constraints, the presence of near surface bedrock, and proximity to Carrier Road.

Between the top of slope line along the top of the lower mid slope bluff and the recommended setback lines for SL7 east to and including SL11, there can be low (0.5 to 2 m high), discontinuous, bedrock scarps. Between the scarps there are near-level to gently sloping steps or terraces, mantled with shallow soil veneers comprised variously of weathered bedrock, morainal materials and glaciofluvial or glaciomarine sands and gravels.

⁸ The equipment in use is a Van Ed Equipment V25 rock hammer mounted on a Caterpillar 311, 13-ton excavator and a MB 70 bucket crusher attached to a 25-ton excavator.



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Strata lots SL7 to SL11 upslope of the top of slope line setbacks are considered safe for residential development and have suitable building sites within the lot setback lines. SL 7 and SL 8 have recommended setbacks of 20 m from the top of slope line and SL 9 to SL11 have recommended setbacks of 10 m from the top of slope line. The bedrock bluff, colluvial slopes and mixed colluvial and bedrock slopes below the top of slope line (see below) are subject to periodic rockfall and are considered unsafe for residential construction.

Strata Lots SL12 and SL13

The upper slopes of strata lots SL12 and SL13 immediately below the Carrier Road extension are mantled with well to imperfectly drained morainal blankets and veneers. Slope angles on these slopes range from 10-15%. The mid and lower portions of these two lots above the top of slope line generally comprise near-level to gently sloping, well drained, glaciofluvial or glaciomarine sands and gravels. In the case of strata lot SL13, a shallow borrow pit has been excavated into the sands and gravels for local use.

Strata lots SL12 and SL13 above the top of slope line setbacks are considered safe for residential construction and have reasonable building sites within the lot setback lines.

Recommended upslope setback distances from the top of slope line to provide safe building sites 10 m for strata lots SL12 and SL13. The bedrock bluff, colluvial slopes and mixed colluvial and bedrock slopes below the top of slope line (described below) are subject to periodic rockfall and are considered unsafe for residential construction.

3.3.2.4 Character of the Strata Lots SL6 to SL13 Below the Lower Mid Slope Bluff Top of Slope Line

Strata lot SL6 extends downslope over the rock bluff and onto the colluvial slope below the bluff. The western end of the lower boundary of strata lot SL6 begins at the toe of the colluvial slope and ascends east across the colluvial slope. The eastern end of the lower boundary of SL6 is about 10 m below (south of) the toe of the sandstone and conglomerate bluff. The bluff is near-vertical and averages about 20 m high across the entire width of strata lot SL6. The blocky rubbly colluvial slopes below the bluff average 70–80% at and below the base of the bluff; but decrease further downslope to 60–70% near the base of the slope. The bluff and the colluvial slope are subject to periodic rockfall. The rock fragments forming the colluvial slope here and along the slope further east (SL7 and SL8), range in size from sand particles to large sandstone and conglomerate blocks several meters across.

Strata lots SL7 and SL8 also extend down and past the base of the 20 m high conglomerate and sandstone bluff and onto the top of the steep (approximately 70–80%) colluvial slopes. The lower boundaries of strata lots SL7 and SL8 are approximately 10 m and 5 m below the base of the bluff, respectively. The base of the bluff retreats upslope, at the SL8–SL9 boundary. The bluff is subject to periodic rockfall.

From the SL8–SL9 boundary the lower boundary of SL9 gradually ascends then descends a rubbly colluvial slope along the base of an approximately 10 m high, dominantly conglomerate bluff from west to east to the SL9–SL10 boundary. The bluff is subject to periodic rockfall.



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The lower slopes of SL10 extend from 60 m to 40 m south and downslope of the top of slope line. The slope below the top of slope line formed of a mix of well to rapidly drained, rubbly colluvium and discontinuous bedrock outcrops. Average slope angles range from 50–60% in much of this area; but may increase to 70–80% locally and approach 90 degrees on some bedrock scarps. These mixed colluvial and bedrock slopes are subject to periodic rockfall.

The lower slopes of strata lot SL11 extend about 17 m south and downslope from the top of slope line at the SL10–SL11 property boundary, from that point the lower property boundary ascends to about 2 m south and downslope of the top of slope line at the SL11–SL12 property boundary. In this area the slopes below the top of slope line comprise a mix of rubbly colluvium and discontinuous bedrock outcrops. Average slope angles range from 70–80% in much of this area; but may increase to 90% locally and can approach 90 degrees on some small bedrock scarps. These slopes are subject to periodic rockfall.

The lower slopes of strata lot SL12 extend from about 2 to 20 m downslope from the top of slope line on slopes composed of a mix of discontinuous, steeply sloping bedrock outcrops and rubbly colluvial materials. Slope angles on this slope generally average 70–80%. The slope is subject to periodic rockfall.

The lower slopes of strata lot SL13 extends 20 to 50 m downslope of the top of slope line at the west and east ends of the lot, respectively. The top of slope line ends about 55 m east of the SL12–SL13 property line. Immediately below the top of slope line there is a sandstone bluff ranging from about 3 to 10 m high, and below that a slope composed of rubbly colluvium and discontinuous bedrock outcrops, which has slopes averaging 70% immediately below the bluff and 50% further downslope. These slopes are subject to periodic rockfall. The slope east of the end of the top of slope line is underlain by well drained morainal materials. The slope gradient on these morainal slopes averages about 20%. These morainal slopes extend a short distance into the rockfall zone below the east end of the bluff.

The portions of strata lots SL6 to SL13 below the lower mid slope bluff top of slope line are subject to periodic rockfall; consequently, these areas are considered unsafe for residential development.

3.3.2.5 Character of the Lots Below the Lower Mid Slope Rock Bluff

Lots B to F range from 1.01 to 1.10 ha in area, while Part A lower (Part AL) has an area of 16.71 hectares (ha).

Part A Lower

The eastern and central parts of Part AL on and below the lower bluff, comprise a mix of colluvial, morainal, glaciofluvial, and glaciomarine slopes. Slope angles vary considerably within Part AL. At the eastern end of Part AL slope angles range from 5% at the southern (lower) property boundary and 20% to 25% below the lower boundary of strata lot SL13 and are 10–15% in the narrow portion of Part AL along the eastern boundary of SL13. The eastern end of Part AL below strata lot SL13 is mantled with well to moderately-well drained morainal materials, while the lower slopes on the eastern portion of the lot are primarily level to gently sloping glaciofluvial gravels and sands, likely reworked by wave action during the higher stand of sea level at the end of the last glaciation.



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The lower slopes along the central portion of Part A_L are primarily composed of near-level to gently sloping (5–15%) glaciofluvial or glaciomarine sands and gravels, possibly with minor areas of morainal material; locally, there are small areas covered with a cobble lag⁹, suggestive of wave action. Conversely, the mid and upper slopes in the central portion of the lot are primarily colluvial with some discontinuous bedrock outcrops and average slope angles ranging from 60–80% although immediately below SL9 the slope angles on the colluvial slopes range from 30–50%. The colluvial slopes below the conglomerate bluff at the base of strata lot SL9 have slope angles ranging from 30–40%; but increase to 50–60% near the SL9–SL10 property boundary.

The upper west side of Part A_L comprises a gently sloping glaciofluvial terrace that abuts the toe of the steep blocky colluvial slope. The surface of the terrace may have been reworked by wave action. Slope angles range from 5% to 10% on the gently sloping terrace tread and are moderately sloping (30–40%) along a short (5–10 m long), downslope terrace scarp. The lower portion of Part A_L along the western property boundary (upslope of Lots E and F) is a gently sloping, morainal surface similar to Lots B to F, described below, with slope angles ranging from 5% to 10%.

The northern part of the western slopes of Part A_L that lie along the base of the colluvial slope are within the mapped rockfall shadow zone. Similarly, the upper and mid slopes of the central and most of the eastern portion of Part A_L are also within the rockfall and rockfall shadow zone; however, the extensive lower slopes of the western, central, and eastern portions of the lot lie downslope of the rockfall shadow line. The last roughly 50 m wide section of the eastern portion of Part A_L lies east of the rockfall shadow line.

The colluvial and mixed bedrock and colluvial slopes within Part A_L are subject to periodic rockfall and are considered unsafe for residential construction.

The gently sloping to near-level areas in the mid and lower slopes of Part A_L, downslope of a 20 m downslope setback from the rockfall shadow line are considered safe for residential development.

Lots B, C, D, E, F

Lots B to F are located on the gently sloping, lower slopes of the proposed subdivision. Slope angles within Lots B to F generally range from 5% to 10%. The area is mantled with well to moderately well drained, veneers and blankets of morainal materials, there may be local areas of imperfectly drained soils. In some areas the surface of the morainal materials may have been modified by wave action. Sandy gravelly or gravelly sandy glaciomarine sediments may occur locally along the upper slopes of some of these lots. The area is underlain by shales, siltstones, and minor sandstones of the Northumberland Formation. Small exposures of these rocks may occur locally in areas where the overlying soils are shallow.

These lots are well downslope of the areas of rockfall hazard below the lower mid slope bluff, so are considered safe for residential development.

⁹ Lag – as in a gravel lag; a residual accumulation of rock fragments; produced by the removal of finer particles, by wind, stream, or wave action (modified from Thomas and Goudie 2000).



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3.3.3 Existing Developments

There are a number of features or installations present within the proposed subdivision, both recent and historical. These include:

A gravel surfaced strata road extension of Carrier Road including two turnarounds. Preliminary gravel, crushed rock, or native material surfaced driveways to access individual lots. Old logging roads and trails. Two septic tank and septic field installations, one in SL 5 and one in lot E. A borrow pit developed in glaciofluvial (possible glaciomarine) sands and gravels on the mid slopes of SL13 and some hydraulic hammer and excavator removal of sandstone bedrock for crushing along the top of SL6. A number of wells have also been drilled and there are a numerous old, shallow tests pits that were excavated to evaluate soil condition suitability for septic fields.

Except for the old logging roads and trails and a few, old septic field test pits none of these features or installations are located on the steep slopes or within the rockfall shadow zones. There are short sections of old logging roads or trails within the rockfall shadow zones below both the upper rock bluff and colluvial slope and the lower rock bluff and colluvial slope. There are a few, old, septic field test pits along an old logging road or trail on the gentle slopes below the lower bluff that are within the lower rockfall shadow zone.



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4.0 DISCUSSION AND RECOMMENDATIONS

Setbacks from the top of slope lines of equivalent distances to bluff heights at affected lots from top of slope lines are recommended in the 2010 Golder report ensure that residences are safely back from potential top of slope rock fragment detachments. We generally concur with these setbacks; but have made some adjustments as the new lot outlines vary from those in the original Golder report, all 5 m setbacks have been changed to 10 m setback recommendations. To mitigate rockfall hazard, a 10 m setback for residential construction from the rockfall shadow lines below the upper slope bluff and 20 m below the lower mid slope bluff are recommended to provide an extra measure of safety. The rockfall shadow line below the lower mid slope bluff was defined primarily by the hillslope angle and a ground search for the locations of the furthest downslope identifiable rockfall fragments¹⁰. Consequently, since this may be a less certain approach for identifying a rockfall shadow line than the rockfall shadow angle method described in Section 3.2 we recommend a setback distance of 20 m downslope of the rockfall shadow line on the hillside below the lower mid slope bluff, to provide a reasonable measure of protection for residential construction.

Only rarely do rockfall fragments reach the rockfall shadow lines, most rockfall fragments stop on the colluvial slopes above the toe of the colluvial slope and only limited numbers occur within the rockfall shadow zones.

If a future lot owner wishes to build a residence closer to the top of slope lines or to the rockfall shadow lines than the setbacks outlined in this report recommend, then Stantec recommends a detailed lot-specific geotechnical hazard assessment be carried out by a qualified professional engineer or geoscientist (APEGBC 2010) to establish a safe building envelope and if necessary, design protective works to mitigate the hazard. Similarly, if an owner wishes to use blasting to develop a site for a residence then Stantec recommends the owner engage a geotechnical engineer to ensure that no adverse effects will result from blasting; especially with respect to the sandstone and conglomerate bluffs and associated colluvial (talus) slopes in the area.

The slopes within the proposed subdivision have been logged, primarily by clearcutting, one or more times. Old growth stumps are visible in various areas including on the steep colluvial slopes, below the rock bluffs. June 5, 1991, BC government air photos show recent second growth, clearcut harvesting on the moderate and gently sloping areas of the property, but not on the steeper slopes. Some of the old growth Douglas Fir stumps on the colluvial slopes below the lower mid slope bluff show evidence of either wildfire or prescribed burning, while the second growth¹¹ on these slopes does not show evidence of fire. Inspection of the steeper slopes on the property, comprising bedrock, mixed bedrock and colluvium, and

¹⁰ This was partly because much of the land at the base of the lower mid slope bluff continues moderately- to gently-sloping. In areas where the ground is level or almost level, the forest is dense, so it is very difficult to see through the forest to identify the top of the colluvial (talus) slope with certainty. Consequently, it was not possible to use the rockfall shadow angle to locate a rockfall shadow line. So even where the ground was level it was necessary carry out a search for probable rockfall fragments to define the rockfall shadow line.

¹¹ Stantec cored several second growth Douglas Fir trees on the colluvial slope below the lower mid slope bluff and found a maximum tree age of about 70 years, so it was likely in the late 1940s or early 1950s that the original logging occurred on these steep slopes.



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colluvial materials alone, shows no visible evidence of post-logging landslide activity¹². Consequently, it is Stantec's professional opinion that there is a low to very low likelihood that selective removal of trees on these steeper slopes would adversely affect slope stability.

4.1 RECOMMENDED SETBACKS SUMMARY

Table 1 on the following page summarizes the recommended lot setbacks above the top of slope and below the rockfall shadow lines to create safe building sites. In all relevant cases the slope area between the setbacks for top of slope line and setbacks for the rockfall shadow line for both the upper bluff and colluvial slope and the lower mid slope bluff and colluvial slope are considered unsafe for residential construction.

4.2 LIFE-THREATENING OR CATASTROPHIC EVENTS

We found no physical evidence of life-threatening or catastrophic¹³ events having a probability of 1 in 10,000 years (i.e., occurring since the end of the last glaciation) that reached the proposed lot areas beyond the setback lines or the lots considered safe as summarized in Table 1 below. As noted above in Section 3.3.1 (para 2), the two rock bluffs (upper slope bluff and lower mid slope bluff) and associated colluvial slopes which are subject to rockfall are considered unsafe for residential development and would certainly fall within the 1/10,000 annual probability and very likely within an annual probability of occurrence of 1 in 475 years (10% probability in 50 years) for a damaging event. The recent rockfall fragments described above and many of the rockfall fragments present on the colluvial slopes and in the rockfall shadow zone are large enough to damage a residence or threaten life under the right circumstances.

¹² This is a common finding, along the BC Coast, typically in areas with wetter climates than Gabriola. Post-logging landslide frequencies on mixed bedrock and colluvial slopes and on colluvial slopes in these areas tend to be low or very low and negligible on bedrock slopes (Rollerson et.al., 2000, Millard, et al, 2002, Rollerson, et.al., 2002, Rollerson et.al., 2005).

¹³ The large rockfall event or small rock avalanche that Stantec found, and described above, would not, in Stantec's professional opinion, be considered a catastrophic event as it traveled only a short distance, about 25 m, beyond the toe of the talus slope, remaining within the mapped rockfall shadow zone (or ~230 m upslope of lots E and F). The distance from the top of the likely rockfall detachment zone on the rock bluff to the toe of the colluvial slope was about 60 m. The Ministry of Environment and Climate Change Strategy, Preliminary Strategic Climate Risk Assessment for British Columbia in Table 2, p 18 of that report, describes a consequence rating of catastrophic, as resulting in a loss of life of 100+ people or >25% of a single community; morbidity, disease, or hospitalization and 1000+ people affected or >25% of a single community, and months long disruption of daily life, among other factors.



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Table 1 Recommended Setback Summary

Lot	Top of Slope (ToS) Setback	Rockfall Shadow (RFS) Setback	Comment ¹
Part A upper	15 m	10 m	Area above ToS setback considered safe
SL1	N/A	N/A	Lot is considered safe
SL2	N/A	N/A	Lot is considered safe
SL3	N/A	N/A	Lot is considered safe
SL4	N/A ²	10 m	Area below RFS setback considered safe, the narrow sliver above the TOS is not.
SL5	N/A	10 m	Area below RFS setback considered safe
SL6	20 m	N/A	Area above ToS setback considered safe
SL7	20 m	N/A	Area above ToS setback considered safe
SL8	20 m	N/A	Area above ToS setback considered safe
SL9	10 m	N/A	Area above ToS setback considered safe
SL10	10 m	N/A	Area above ToS setback considered safe
SL11	10 m	N/A	Area above ToS setback considered safe
SL12	10 m	N/A	Area above ToS setback considered safe
SL13	10 m	N/A	Area above ToS setback considered safe
Part A lower	N/A	20 m	Area below RFS setback considered safe
B	N/A	N/A	Lot is considered safe
C	N/A	N/A	Lot is considered safe
D	N/A	N/A	Lot is considered safe
E	N/A	N/A	Lot is considered safe
F	N/A	N/A	Lot is considered safe
NOTES: ¹ The lot areas considered safe in this tabulation have suitable building sites within the lot setback lines. Note that the recommended setbacks are not included in the mapped Top of Slope and Rockfall Shadow lines, but are located above or below these lines respectively at appropriate distances. ² This setback is listed as N/A as the upper lot boundary at this location is only a metre or two above the top of slope line. RFS = Rockfall Shadow ToS = Top of Slope			



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5.0 LIMITATIONS

The approaches with respect to rockfall travel distances and delineation of rockfall shadow hazard lines are described above in Section 3.2.

The descriptions of the spatial extent of various surficial material types and deposits on the property are not exact. Thick brush in some areas, time in the field, and relatively widely spaced ground traverses across the slopes on the property limit the exact delineation of the extent and location of these materials. The identification or separation of colluvial materials from morainal materials from glaciofluvial materials is reasonably straightforward; however, separation of gravelly sandy glaciofluvial deposits from gravelly sandy glaciomarine or marine deposits is not realistic at this level of investigation. Both glaciofluvial and glaciomarine deposits are typically heterogenous and can vary dramatically within short distances. For example, in the case of two test pits excavated some time ago on the lower slopes of the property and less than 10 m apart, one was dominantly sand and the other dominantly gravel.

The recorded slope angles are general averages determined with a hand-held clinometer, not surveying instruments, and do not account for local variations in slope angle over short distances. Distances given in the report are horizontal distances, not slope distances, derived from measurements of a KML version of the subdivision plan using the distance measuring tool in Global Mapper v21.0. Lot areas given in the report are taken from the subdivision drawing in Appendix B.



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6.0 CLOSURE

This report was prepared for the exclusive use of Centre Stage Holdings Ltd. and their agents for specific application to the Centre Stage Gabriola Subdivision Phase 2. Any use of this report or the material contained herein by third parties, or for other than the intended purpose, should first be approved in writing by Stantec.

Use of this report is subject to the Statement of General Conditions included in Appendix A. It is the responsibility of Centre Stage Holdings Ltd., who is identified as “the Client” within the Statement of General Conditions, and their agents to review the conditions and notify Stantec should any of them not be satisfied. The Statement of General Conditions addresses the following:

- Use of the report
- Basis of the report
- Standard of care
- Interpretation of site conditions
- Varying or unexpected site conditions
- Planning, design, or construction

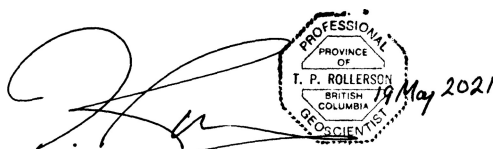
Landslide Assessment Assurance Statements can be found in Appendix D.

We trust that this report meets your present requirements. If you have questions or require additional information, please contact the undersigned.

Regards,

Stantec Consulting Ltd.

Reviewed by:



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7.0 REFERENCES

- Anon. 2015. Subdivision Preliminary Layout Review – Natural Hazard Risk. Ministry of Transportation and Infrastructure, British Columbia.
- Association of Professional Engineers and Geoscientists of British Columbia (APEGBC). 2020. Guidelines for Legislated Landslide Assessments for Proposed Residential Developments in BC. Revised May 2010.
- Clague, J.J., 1981. Late Quaternary Geology and Geochronology of British Columbia. Part 2: Summary and discussion of radiocarbon dated Quaternary history. Geological Survey of Canada, Paper 80-35.
- Curtin, A. J. 2002. Prehistoric Mortuary Variability On Gabriola Island, British Columbia. Publication No. 29 Archaeology Press Department of Archaeology Simon Fraser University Burnaby, BC.
- Evans, S.G., and Hungr, O., 1993. The Assessment of Rockfall Hazard at the Base of Talus Slopes. Geological Survey of Canada Contribution #42290.
- Gabriola Island Official Community Plan. Bylaw No. 166. 1997. Consolidated Version: September 2, 2019. Islands Trust - Northern Office, 700 North Road, Gabriola Island, BC V0R 1X3
- Golder Associates. 2010. *Geological Hazard Assessment, Centre Stage Phase 2*. A report prepared for Center Stage Holdings Limited. May 19, 2010
- Howes D.E., and E. Kenk. 1997. Terrain Classification System for British Columbia, Version 2. Ministry of Environment, Ministry of Crown Lands, Victoria, BC.
- Mathews, W.H., Fyles, J.G., Nasmith, H.W., 1970. Postglacial Crustal Movements in Southwestern British Columbia and Adjacent Washington State. Canadian Journal of Earth Sciences 7, 690–702.
- Millard, T., T.P. Rollerson and B. Thomson. 2002. Post-logging landslide rates in the Cascade Mountains, southwestern British Columbia. Research. Sec., Van. For. Reg., B.C. Min. For., Nanaimo, B.C. Tec. Rep. TR-023/2002.
- Ministry of Environment and Climate Change Strategy. 2019. Preliminary Strategic Climate Risk Assessment for British Columbia. Report prepared for the Government of British Columbia. Victoria.
- Muller, J. E. and J. A. Jeletzky. 1970. Geology of the Upper Cretaceous Nanaimo Group, Vancouver Island and Gulf Islands, British Columbia. Geological Survey of Canada Paper 69-25.
- Packard Jr., J.A. 1972. Paleoenvironments of the Cretaceous Rocks, Gabriola Island, British Columbia. MSc. Thesis. Oregon State University.



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References

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- Rollerson, T., D. Maynard, S. Higman, E. Ortmayr. 2005. Phillips River landslide hazard mapping project. In: Landslide Risk Management – Hungr, Fell, Couture & Eberhardt (eds). Taylor&Francis Group, London. UK. A.A. Balkema Publishers.
- Rollerson, T., T. Millard, and B. Thomson. 2002. Using terrain attributes to predict post-logging landslide likelihood on southwestern Vancouver Island. Research. Sec., Van. For. Reg., BC Min. For., Nanaimo, BC. Tec. Rep. TR-015/2002.
- Rollerson, T., T. Millard, C. Jones, K. Trainor, and B. Thomson. 2000. Predicting Post-Logging Landslide Activity Using Terrain Attributes: Coast Mountains, British Columbia. Technical Report TR-011 March 2000. Research. Sec., Van. For. Reg., B.C. Min. For., Nanaimo, B.C.
- Skinner, Mark. 1991. Osseous treponematoses of the Americas: a review with new evidence from Gabriola Island (DgRw 199), B.C., Canada. Permit report 1988-1, submitted to the Heritage Conservation Branch, Victoria, B.C.
- Stantec Consulting Ltd. (Stantec). 2020. *Centre Stage Gabriola Subdivision Phase 2 – Geological Hazard Review*. A technical memorandum prepared for Centre Stage Holdings Limited. June 5, 2020.
- Thomas, D. S. G. and A. Goudie, editors. 2000. The Dictionary of Physical Geography – Third Edition. Blackwell Publishing Ltd.



APPENDIX A

Statement of General Conditions

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Appendix A Statement of General Conditions
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Appendix A STATEMENT OF GENERAL CONDITIONS

USE OF THIS REPORT: This report has been prepared for the sole benefit of the Client or its agent and may not be used by any third party without the express written consent of Stantec and the Client. Any use which a third party makes of this report is the responsibility of such third party.

BASIS OF THE REPORT: The information, opinions, and/or recommendations made in this report are in accordance with Stantec's present understanding of the site-specific project as described by the Client. The applicability of these is restricted to the site conditions encountered at the time of the investigation or study. If the proposed site-specific project differs or is modified from what is described in this report or if the site conditions are altered, this report is no longer valid unless Stantec is requested by the Client to review and revise the report to reflect the differing or modified project specifics and/or the altered site conditions.

STANDARD OF CARE: Preparation of this report, and all associated work, was carried out in accordance with the normally accepted standard of care in the state or province of execution for the specific professional service provided to the Client. No other warranty is made.

INTERPRETATION OF SITE CONDITIONS: Soil, rock, or other surficial material descriptions, and statements regarding their condition, made in this report are based on review of available literature, geologic and soils maps, third-party borehole records, and through interpretation of both aerial photography and LiDAR data. Classifications and statements of condition have been made in accordance with normally accepted practices which are judgmental in nature; no specific description should be considered exact, but rather reflective of the anticipated behaviour of materials or geomorphic processes. Extrapolation of in situ conditions can only be made to some limited extent beyond the existing borehole locations. The extent depends on variability of the soil, surficial materials, bedrock, soil moisture and groundwater conditions as influenced by geological processes, construction activity, and land use.

VARYING OR UNEXPECTED CONDITIONS: Should any site or subsurface conditions be encountered that are different from those described in this report, Stantec must be notified immediately to assess if the varying or unexpected conditions are substantial and if reassessments of the report conclusions or recommendations are required. Stantec will not be responsible to any party for damages incurred as a result of failing to notify Stantec that differing site or sub-surface conditions are present upon becoming aware of such conditions.

PLANNING, DESIGN, OR CONSTRUCTION: Development or design plans and specifications should be reviewed by Stantec, sufficiently ahead of initiating the next project stage (property acquisition, tender, construction, etc.), to confirm that this report completely addresses the elaborated project specifics and that the contents of this report have been properly interpreted. Specialty quality assurance services (field observations and testing) during construction are a necessary part of the evaluation of sub-surface conditions and site preparation works. Site work relating to the recommendations included in this report should only be carried out in the presence of a qualified geotechnical engineer or geoscientist; Stantec cannot be responsible for site work carried out without being present.



APPENDIX B

Subdivision Drawing

[illegible]

APPENDIX C

Reference Reports

To:	Glenna Borsuk, Don Gatley. Centre Stage Holdings Ltd 601 – 22 Mt Benson Str., Nanaimo, BC	From:	Terry Rollerson, P.Geo. 500 - 4730 Kingsway Burnaby, BC
File:	123314922	Date:	June 5, 2020

Reference: Centre Stage Gabriola Subdivision Phase 2 – Geological Hazard Review

At your request Stantec Consulting Ltd. (Stantec) has completed a review of a Golder Associates Ltd. (Golder) 2010 geological hazard report¹ and carried out a site reconnaissance of Centre Stage Holdings Ltd.'s Gabriola Subdivision Phase 2² to confirm or not that the geological conditions and hazards on site have not changed substantively since the Golder 2010 report was completed. The reason for the review is that the subdivision plan has been completely revised (i.e., size, location and number of lots) since the Golder 2010 report and so a new subdivision plan will be submitted for approval to the BC Ministry of Transportation and Infrastructure.

The geological hazard review comprised the following:

- A desktop review of the Golder May 19, 2010 report.
- A field reconnaissance of the hazard zones mapped by Golder for the original Phase 2 subdivision (Figure 1).
- A desktop visual inspection of the selectively logged steep slope area on the nearby Centre Stage Phase 1 Gabriola subdivision using a 2016 Google Earth image to see if there was any satellite visible post-logging landslide activity on those slopes. This slope was logged circa 2005.
- A brief field inspection of a selectively logged steep slope hazard zone in the Phase 1 subdivision to see if there was any ground visible, post-logging landslide activity that occurred between 2016 and 2020. This steep slope is located about 600 m west-northwest of the northwest corner of the proposed Phase 2 subdivision.

FIELD METHODS

There are two hazard zones mapped by Golder on the 2010 Phase 2 subdivision plan (Figure 1), one on the upper slope of the proposed Phase 2 subdivision (upper slope hazard zone) and one on the lower mid-slope of the proposed Phase 2 subdivision (mid slope hazard zone). Both the upper slope and mid slope hazard zones comprise a bedrock bluff and a steep to moderately steep colluvial slope below the bluff. The primary geological hazard on these slopes is rockfall.

Field reviews of these areas were carried out on May 22, 27 and 30, 2020. Figure 3 shows our traverse routes and waypoints (wp) for the May 27 and May 30 field reviews, we did not collect GPS data for a traverse on May 22, 2020.

¹ Geological Hazard Assessment Centre Stage Phase 2. May 19, 2010. Golder Associates Ltd. Provided by Centre Stage Holdings Ltd.

² See drawing by J.E. Anderson & Associates Dated June 3, 2020 (Figure 2).

June 5, 2020

Glenna Borsuk, Don Gatley.

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Reference: Centre Stage Gabriola Subdivision Phase 2 – Geological Hazard Review

During a pre-project site visit for the revised Phase 2 subdivision plan (Figure 2) on May 22, 2020 to discuss the scope of work, Terry Rollerson (Stantec) and Don Gatley (Centre Stage) walked the approximate location of the Top of Slope line of the mid slope hazard zone from east to west to see if there were any geological changes visible immediately below or above the Top of Slope line.

On May 27, 2020 Terry Rollerson and Don Gatley walked downhill from the west end of Carrier Road (Figures 2 and 3) to the east end of Top of Slope line of the mid slope hazard zone and then down to the base of the mixed sandstone and conglomerate bluff that forms the upper portion of the mid slope hazard zone (wp 03). We walked west-northwest along the base of the bluff for the full extent of the proposed Phase 2 subdivision (i.e., wp 03 to wp 11). We then turned and walked downslope and east-southeast along the lower portion of the colluvial slope and rockfall shadow that forms the lower portion of the mid slope hazard zone and then northeast to our starting point just east of the end of the Top of Slope line (i.e., wp 11 through 12, 13 and 03). This east to west and west to east return traverse allowed us to see both the face of the bluff and the colluvial slopes and blocky rockfall accumulations below the bluff.

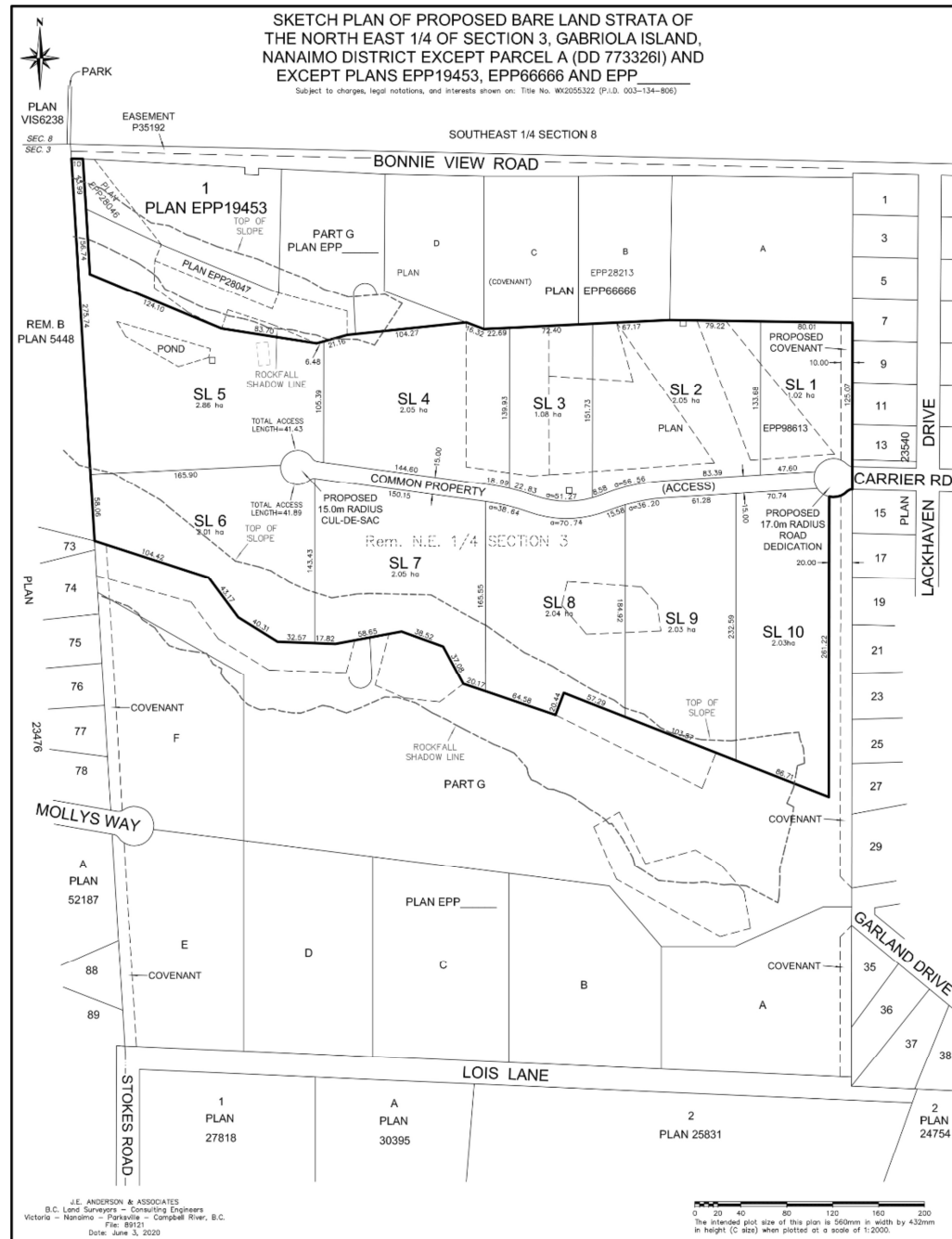
To access the upper slope hazard zone, we walked west-northwest from the end of Carrier Road and then northwest through the mid slopes of the proposed subdivision to a point (wp 17) near the western end of the proposed subdivision at the base of the lower slopes of the upper slope hazard zone. From this point we walked east along the base of the blocky colluvial slope that forms the lower slopes of the upper slope hazard zone to the east end of the hazard zone. We then walked up and generally west along the Top of Slope line of the upper slope hazard zone from the east end of the line to the west end of the line (wp 14) within the currently proposed subdivision and then back to the east end of the line. From the east end of the hazard zone Terry Rollerson then traversed west along the base of the sandstone bluff that forms the upper slope of the upper slope hazard zone about half way to the west end of the hazard zone (wp 16) and then walked downslope and southeast through the colluvial slope to the base of the upper slope hazard zone at wp 17. A third short loop traverse was carried out by Terry Rollerson on May 30, 2020 to complete the base of bluff and rock fall shadow line traverses (i.e., wp 17 through 21). These two traverses allowed us to visually inspect the slope at and above the Top of Slope line as well as the sandstone bluff and the colluvial slopes and rockfall accumulations below the bluff.

A field inspection of the selectively logged Phase 1 subdivision steep slope hazard zone was carried out by Terry Rollerson on the afternoon of May 28, 2020, by walking from east to west and back along the private road that begins at the east end of Seymour Road and runs downslope through and along the base of the steep slope to access the strata lots within the Phase 1 subdivision. Most of the steep slope is visible from this private road. The east end of this steep, selectively logged slope is visible on Figure 3 west-northwest of wp 18.

Quest. N Vaccine 2009: 476:09 : 476 5026 Centre Stage Geographical Subdivision: Synonym: pdfFigure1.pdf
 Quest. N Vaccine 2009: 476:09 : 476 5026 Centre Stage Geographical Subdivision: Synonym: pdfFigure1.pdf

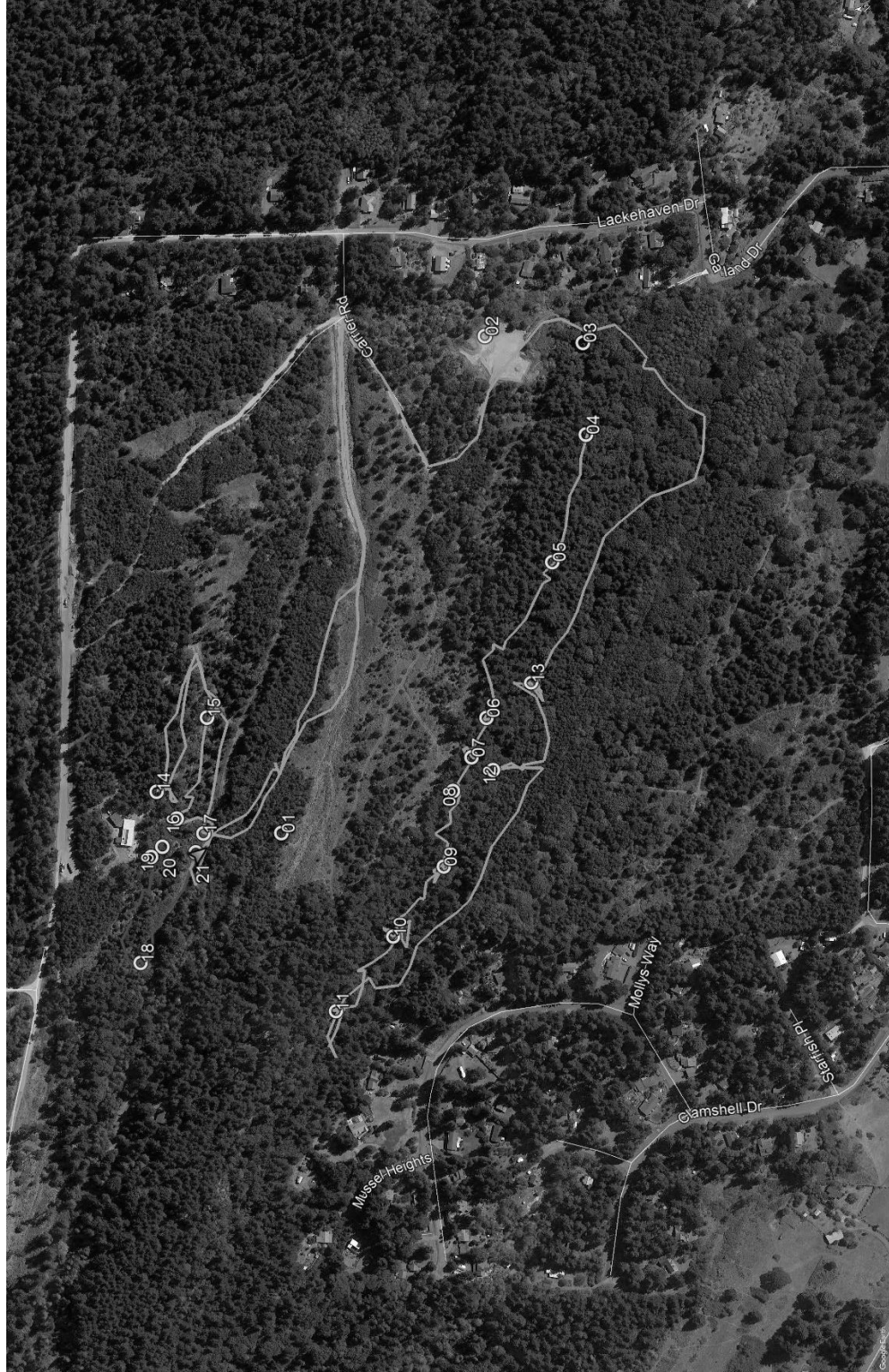


Figure 2 Proposed new subdivision layout with upper and mid slope hazard zones.



Drawing provided by Centre Stage Holdings Ltd.

Figure 3 Field Traverse GPS Tracks and waypoints - May 27 and 30, 2020



Notes:
 May 27 tracks – blue
 May 30 track – red
 North is towards the top of the figure.

RESULTS

Our traverses through the upper slope and mid slope hazard zones within the proposed Phase 2 subdivision revealed no visible changes in the geologic conditions and geologic hazards on site. That is we saw no freshly opened joints or ground cracks at or immediately north of the Top of Slope lines nor any evidence of fresh rockfall scars on the bluff faces or fresh rockfall fragments or freshly scarred trees on the colluvial slopes below the bluffs. We did not see any evidence of post-logging landslide activity on these slopes as a result of previous logging activity³.

Similarly, we did not see any evidence of post-logging landslide activity on the selectively logged steep slope in the Phase 1 subdivision either on the 2016 Google Earth satellite image or in the field on May 28, 2020.

CONCLUSIONS

Based on our desktop review and reconnaissance field observations, it is Stantec's opinion that the interpretations and conclusions reached by Golder in their 2010 geological hazard report with respect to hazard zones, setbacks, safe areas and the low likelihood of landslide activity following any selective logging that may occur on the steep slopes forming the hazard zones are still valid.

³ The Golder May 19, 2010 report documents that the hillslopes within the proposed Phase 2 subdivision have been logged one or more times in the past.

June 5, 2020

Glenna Borsuk, Don Gatley.

Page 7 of 9

Reference: Centre Stage Gabriola Subdivision Phase 2 – Geological Hazard Review

CLOSURE

This technical memorandum was prepared for the exclusive use of Centre Stage Holdings Ltd. Any use of this report or the material contained herein by third parties, or for other than the intended purpose, should first be approved in writing by Stantec.

Use of this memorandum is subject to the Statement of General Conditions provided in **Appendix A**. It is the responsibility of Centre Stage Holdings Ltd., who is identified as “the Client” within the Statement of General Conditions, and its agents to review the conditions and to notify Stantec should any of them not be satisfied.

The memo was prepared by Mr. Terry Rollerson, P.Geol. and reviewed by Mr. Sid Tsang, P.Geol. We trust that this memorandum meets your present requirements. If you have any questions or require additional information, please contact the author.

Stantec Consulting Ltd.



Terry Rollerson, M.Sc., P.Geol.
Senior Terrain Scientist

Phone: 250-327-4187
terry.rollerson@stantec.com

Reviewed by:



Sidney Tsang, P.Geol.
Senior Associate, Geohazards and Geomorphology

Phone: 604-235-1873
sid.tsang@stantec.com

APPENDIX A Statement of General Conditions

June 5, 2020

Glenna Borsuk, Don Gatley.

Page 9 of 9

Reference: Centre Stage Gabriola Subdivision Phase 2 – Geological Hazard Review

USE OF THIS REPORT: This report has been prepared for the sole benefit of the Client or its agent and may not be used by any third party without the express written consent of Stantec and the Client. Any use which a third party makes of this report is the responsibility of such third party.

BASIS OF THE REPORT: The information, opinions, and/or recommendations made in this report are in accordance with Stantec's present understanding of the project as described by the Client. The applicability of these is restricted to the site conditions encountered at the time of the investigation or study. If the proposed project differs or is modified from what is described in this report or if the site conditions are altered, this report is no longer valid unless Stantec is requested by the Client to review and revise the report to reflect the differing or modified project specifics and/or the altered site conditions.

STANDARD OF CARE: Preparation of this report, and all associated work, was carried out in accordance with the normally accepted standard of care in the state or province of execution for the specific professional service provided to the Client. No other warranty is made.

INTERPRETATION OF SITE CONDITIONS: Soil, rock, or other surficial material descriptions, and statements regarding their condition, made in this report are based on review of available literature, geologic and soils maps, third-party borehole records, and through interpretation of both aerial photography and LiDAR data. Classifications and statements of condition have been made in accordance with normally accepted practices which are judgmental in nature; no specific description should be considered exact, but rather reflective of the anticipated behaviour of materials or geomorphic processes. Extrapolation of in situ conditions can only be made to some limited extent beyond the existing borehole locations. The extent depends on variability of the soil, surficial materials, bedrock, soil moisture and groundwater conditions as influenced by geological processes, construction activity, and land use.

VARYING OR UNEXPECTED CONDITIONS: Should any site or subsurface conditions be encountered that are different from those described in this report, Stantec must be notified immediately to assess if the varying or unexpected conditions are substantial and if reassessments of the report conclusions or recommendations are required. Stantec will not be responsible to any party for damages incurred as a result of failing to notify Stantec that differing site or sub-surface conditions are present upon becoming aware of such conditions.

PLANNING, DESIGN, OR CONSTRUCTION: Development or design plans and specifications should be reviewed by Stantec, sufficiently ahead of initiating the next project stage (property acquisition, tender, construction, etc.), to confirm that this report completely addresses the elaborated project specifics and that the contents of this report have been properly interpreted. Specialty quality assurance services (field observations and testing) during construction are a necessary part of the evaluation of sub-subsurface conditions and site preparation works. Site work relating to the recommendations included in this report should only be carried out in the presence of a qualified geotechnical engineer or geoscientist; Stantec cannot be responsible for site work carried out without being present.

VICTORIA LAND TITLE OFFICE

DECLARATION(S) ATTACHED
CA2923794 CA2923796

LAND TITLE ACT
FORM C (Section 233) CHARGE
GENERAL INSTRUMENT - PART 1

Dec-19-2012 12:28:22.001

Province of British Columbia

PAGE 1 OF 38 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.

Ronald Leonard
Morin UNYLGW

Digitally signed by Ronald Leonard
Morin UNYLGW
DN: o=CA, cn=Ronald Leonard Morin
UNYLGW, o=Lawyer, ou=Verify ID at
www.justice.com/LKUP.cfm?
id=UNYLGW
Date: 2012.12.19 12:26:44 -08'00'

1. APPLICATION: (Name, address, phone number of applicant, applicant's solicitor or agent)

Morin Law Corporation
Barristers and Solicitors
15245 18 Avenue
Surrey BC V4A 1W9
Document Fees: \$217.50

Telephone: (604) 538-9887
LTO Client Number: 12023
File Number: Centre Stage R12694

Deduct LTSA Fees? Yes ☒

2. PARCEL IDENTIFIER AND LEGAL DESCRIPTION OF LAND:
[PID] [LEGAL DESCRIPTION]

**003-134-806 NORTH EAST QUARTER SECTION 3 GABRIOLA ISLAND NANAIMO DISTRICT
EXCEPT PARCEL A(DD77326I)**

STC? YES ☐

3. NATURE OF INTEREST CHARGE NO. ADDITIONAL INFORMATION
SEE SCHEDULE

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):

CENTRE STAGE HOLDINGS LTD. (INC. NO. 204577)

6. TRANSFEREE(S): (including postal address(es) and postal code(s))

SEE SCHEDULE

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)

Ron Morin
Barrister & Solicitor
Notary Public
15245-18th Avenue
Surrey, BC, V4A 1W9
604-538-9887

Execution Date

Y	M	D
12	10	03

Transferor(s) Signature(s)

CENTRE STAGE HOLDINGS LTD.
by it Authorized Signatory
GLENN BORSUK

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.

**LAND TITLE ACT
FORM D**

EXECUTIONS CONTINUED

PAGE 2 of 38 pages

Officer Signature(s)

Execution Date

Transferor / Borrower / Party Signature(s)

DEBBY FISHER

Commissioner for Taking Affidavits in BC

ISLAND Savings Credit Union
300-499 Canada Avenue
Duncan, BC, V9L 1T7

Y	M	D
12	10	11
12	11	27

ISLAND SAVINGS CREDIT UNION, by
its Authorized Signatory(ies)

Print Name: LISA VERWOLF

Print Name: JOY CISSOLD

GRACE MORIN

Barrister & Solicitor

Notary Public
15245-18th Avenue
Surrey, BC, V4A 1W9
604-538-9887

R.G.R. Legacy Holdings Ltd.
By its authorized Signatory

Ron Morin

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.

**LAND TITLE ACT
FORM D**

EXECUTIONS CONTINUED

PAGE 3 of 38 pages

Officer Signature(s)

Execution Date

Transferor / Borrower / Party Signature(s)

STUART JOHNSON

Commissioner for Taking Affidavits in BC

2100 Labieux Road, Nanaimo, BC

V9T 6E9

Y	M	D
12	12	19

HER MAJESTY THE QUEEN IN THE
RIGHT OF THE PROVINCE OF
BRITISH COLUMBIA, as represented
by the Minister of Transportation and
Infrastructure, by its authorized signatory
(ies)

Print Name: BOB WYLIE

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.

**LAND TITLE ACT
FORM E**

SCHEDULE

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NATURE OF INTEREST
Covenant

CHARGE NO.

ADDITIONAL INFORMATION
Section 219

NATURE OF INTEREST
Priority Agreement

CHARGE NO.

ADDITIONAL INFORMATION
granting Section 219 Covenant with one registration number less than this priority agreement priority over Mortgage CA1806610 and Assignment of Rents CA1806611. Part 2 Page 10 of 38 pages

NATURE OF INTEREST
Priority Agreement

CHARGE NO.

ADDITIONAL INFORMATION
granting Section 219 Covenant with two registration numbers less than this priority agreement priority over Mortgage CA2841957. Part 2 Page 11 of 38 pages

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

NATURE OF INTEREST

CHARGE NO.

ADDITIONAL INFORMATION

**LAND TITLE ACT
FORM E**

SCHEDULE

PAGE 5 OF 38 PAGES

ENTER THE REQUIRED INFORMATION IN THE SAME ORDER AS THE INFORMATION MUST APPEAR ON THE FREEHOLD TRANSFER FORM, MORTGAGE FORM, OR GENERAL INSTRUMENT FORM.

Part 8 Transferees

HER MAJESTY THE QUEEN IN THE RIGHT OF THE PROVINCE OF BRITISH COLUMBIA, as represented by the Ministry of Transportation and Infrastructure, having its offices at 2100 Labieux Road, Nanaimo, British Columbia

ISLAND SAVINGS CREDIT UNION, Incorporation number FI-29 having its head office at 499 Canada Avenue, Duncan B.C., V9L 1T7

R.G.R. LEGACY HOLDINGS LTD. Incorporation No. BC0775435 having a registered and records office at 15245-18th Avenue, Surrey, BC, V4A 1W9

TERMS OF INSTRUMENT—PART 2

SECTION 219 COVENANT – SAFE BUILDING SITE APPROVAL

THIS AGREEMENT dated for reference June, 2012, is

BETWEEN:

CENTRE STAGE HOLDINGS LTD.,
a British Columbia company with offices at
2761 McBride Avenue, Surrey, BC V4A 3G3

(the "**Owner**")

AND:

**HER MAJESTY THE QUEEN IN THE RIGHT
OF THE PROVINCE OF BRITISH COLUMBIA,**
as represented by the Ministry of Transportation and
Infrastructure, 2100 Labieux Road, Nanaimo. B.C.
V9T 6E9

(the "**Province**")

GIVEN THAT:

- A. The Owner is the registered owner in fee simple of the Lot in the Gabriola Island Local Trust Area, British Columbia, legally described as follows:

PID: 003 134 806

North East Quarter, Section 3, Gabriola Island, Nanaimo District, Except Parcel A (DD77326I)

(the "**Lands**");

- B. The Owner wishes to subdivide the Lands into lots (the "Lots")
- C. Section 219 of the Land Title Act provides that a covenant in respect of the use of land or a building or that land is or is not to be built on in favour of the Crown or a municipality may be registered as a charge against title to the land; and

Page 7 of 38 Pages

D. As a condition to the Province consenting to the subdivision of the Lands, the Province requires the owner to enter into this Section 219 covenant (the "**Agreement**").

THIS AGREEMENT is evidence that in consideration of payment of \$1.00 by the Province to the Owner (the receipt of which is acknowledged by the Owner), and in consideration of the promises exchanged below, the Owner covenants and agrees with the Province in accordance with Section 219 of the Land Title Act as follows:

1. No Build Covenant

The owner will not nor will it permit any party to develop, build or construct or place on the Lands or any Lot or Lots, any building, structure or dwelling until safe building sites have been identified by a qualified Geo Technical Engineer and approved by the Provincial Approving Officer as per the recommendations of the Golder Associates Report on Geological Hazard Assessment (dated May 19, 2010) a copy of which attached hereto as Schedule "A".

2. Acknowledgment of Covenant Purpose

The Owner acknowledges and agrees that the Lands and Lots require identification of safe building sites before the construction of any building, structure or dwelling on the Lands or Lots is commenced.

3. Obligations

The parties agree that this Agreement creates only contractual obligations and obligations arising out of the nature of this document as a covenant under seal. The parties agree that no tort obligations or liabilities of any kind exist between the parties in connection with the performance of, or any default under or in respect of, this Agreement. The intent of this section is to exclude tort liability of any kind and to limit the parties to their rights and remedies under the law of contract and under the law pertaining to covenants under seal.

4. Indemnity

The Owner releases, and must indemnify and save harmless, the Province, and its' respective elected and appointed officials and employees, from and against all liability, actions, causes of action, claims, damages, expenses, costs, debts, demands or losses suffered or incurred by the Owner, or anyone else, arising from the granting or existence of this Agreement, from the performance by the Owner of this Agreement, or any default of the Owner under or in respect of this Agreement.

5. No Public Law Duty

Where Province is required or permitted by this Agreement to form an opinion, exercise a discretion, express satisfaction, make a determination or give its consent, the Owner agrees that the Province is under no public law duty of fairness or natural justice in that regard and agrees that the Province may do any of those things in the same manner as if it were a private party and not a public body.

6. No Effect on Laws or Powers

This Agreement does not affect or limit the discretion, rights or powers of the Province under any enactment (as defined in the Interpretation Act, R.S.B.C. 1996, c. 238, on the reference date of this Agreement) or at common law, including in relation to the use or subdivision of the Lots.

7. Covenants Run with the Lots

Every obligation and covenant of the Owner in this Agreement constitutes both a contractual obligation and a covenant granted under Section 219 of the Land Title Act in respect of the Lots and this Agreement burdens the Lands and Lots and runs with them and binds the successors in title to the Lots. This Agreement burdens and charges all of the Lands and Lots and any parcel into which it is subdivided by any means and any parcel into which the Lots are consolidated. The Owner is only liable for breaches of this Agreement that occur in respect of the Lands or Lots while the Owner is the registered owner of that Land or Lot.

8. Waiver

An alleged waiver of any breach of this Agreement is effective only if it is an express waiver in writing of the breach. A waiver of a breach of this Agreement does not operate as a waiver of any other breach of this Agreement.

9. Severance

If any part of this Agreement is held to be invalid, illegal or unenforceable by a court having the jurisdiction to do so, that part is to be considered to have been severed from the rest of this Agreement and the rest of this Agreement remains in force unaffected by that holding or by the severance of that part.

**Page 9 of 38
Pages**

10. Entire Agreement

This Agreement is the entire agreement between the parties regarding its subject.

11. Enurement

This Agreement binds the parties to it and their respective successors, heirs, executors and administrators.

12. Deed and Contract

By executing and delivering this Agreement each of the parties intends to create both a contract and a deed executed and delivered under seal.

13. Registration in Land Title Office

The Owner agrees to do everything reasonably necessary, at the Owner's expense, to ensure that this Agreement is registered against title to the Lots with priority over all financial charges, liens and encumbrances registered, or the registration of which is pending, at the time of application for registration of this Agreement.

14. Further Assurances

The Owner must do everything reasonably necessary to given effect to the intent of this Agreement, including execution of further instruments.

As evidence of their agreement to be bound by the above terms, the parties each have executed and delivered this Agreement under seal by executing Part 1 of the Land Title Act Form C or Form D's to which this Agreement is attached and which form part of this Agreement.

CONSENT AND PRIORITY AGREEMENT**OF****ISLANDS SAVINGS CREDIT UNION**

Islands Savings Credit Union, (the "**Chargeholder**") is the holder of a mortgage and assignment of rents registered against the Land legally described in item 2 of the Form E to which this Agreement is attached, which mortgage and assignment of rents are registered in the Victoria Land Title Office under instrument numbers CA 1806610 and CA 1806611 respectively (collectively, the "**Charge**").

In connection with the Section 219 Covenant (the "**Covenant**") granted herein by Centre Stage Holdings Ltd. Her Majesty The Queen In The Right of the Province of British Columbia, as represented by the Minister responsible for the Ministry of Transportation (the "**Transferee**"), the Transferee requires the Chargeholder to grant the Covenant priority over the Charge.

This Consent and Priority Agreement is evidence that in consideration of payment to the Chargeholder of \$1.00 by the Transferee, the Chargeholder agrees with the Transferee as follows:

1. The Chargeholder consents to the granting and registration of the Covenant and the Chargeholder agrees that the Covenant binds its interest in and to the Land.
2. The Chargeholder grants to the Transferee priority for the Covenant over the Chargeholder's right, title and interest in and to the Lots and the Chargeholder postpones the Charge, and all of its right, title and interest thereunder, to the Covenant as if the Covenant had been executed, delivered and registered prior to the execution, delivery and registration of the Charge.

As evidence of its agreement with the Transferee to be bound by this Consent and Priority Agreement, as a contract and as a deed executed and delivered under seal, the Chargeholder has executed and delivered this Agreement by executing the Land Title Act Form D to which this Agreement is attached and which forms part of this Agreement.

Page 11 of 38 Pages

CONSENT AND PRIORITY AGREEMENT
OF
R.G.R. LEGACY HOLDINGS LTD

R.G.R. Legacy Holdings Ltd. (the "**Chargeholder**") is the holder of a registered against the Land legally described in item 2 of the Form E to which this Agreement is attached, which mortgage is registered in the Victoria Land Title Office under instrument numbers CA 2841957 (the "**Charge**").

In connection with the Section 219 Covenant (the "**Covenant**") granted herein by Centre Stage Holdings Ltd. Her Majesty The Queen In The Right of the Province of British Columbia, as represented by the Minister responsible for the Ministry of Transportation (the "**Transferee**"), the Transferee requires the Chargeholder to grant the Covenant priority over the Charge.

This Consent and Priority Agreement is evidence that in consideration of payment to the Chargeholder of \$1.00 by the Transferee, the Chargeholder agrees with the Transferee as follows:

1. The Chargeholder consents to the granting and registration of the Covenant and the Chargeholder agrees that the Covenant binds its interest in and to the Land.
2. The Chargeholder grants to the Transferee priority for the Covenant over the Chargeholder's right, title and interest in and to the Lots and the Chargeholder postpones the Charge, and all of its right, title and interest thereunder, to the Covenant as if the Covenant had been executed, delivered and registered prior to the execution, delivery and registration of the Charge.

As evidence of its agreement with the Transferee to be bound by this Consent and Priority Agreement, as a contract and as a deed executed and delivered under seal, the Chargeholder has executed and delivered this Agreement by executing the Land Title Act Form D to which this Agreement is attached and which forms part of this Agreement.

SCHEDULE A

May 19, 2010



GEOLOGICAL HAZARD ASSESSMENT

Centre Stage Phase 2

Submitted to:
Centre Stage Holdings
2761 McBride Avenue
Surrey, BC
V4A 3G3

Report Number: 09-1476-5026/3000

Distribution:

2 Copies - Centre Stage Holdings
2 Copies - Golder Associates Ltd.

world
capabilities
locally



GEOLOGICAL HAZARD ASSESSMENT CENTRE STAGE PHASE 2

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FIGURES

Figure 1: Steep Slope and Rockfall Hazard Zones

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GEOLOGICAL HAZARD ASSESSMENT CENTRE STAGE PHASE 2

1.0 INTRODUCTION

As requested, Golder Associates Ltd. (Golder) carried out a geotechnical hazard assessment for Phase 2 of a proposed rural subdivision application on the Northeast ¼ of Section 3 except Parcel A (DD773261) of the Gabriola Island Nanaimo District. Phase 1 of the development is located on the Southwest ¼ section of Section 8. The purpose of the assessment was to determine the potential presence of geotechnical hazards on and/or immediately adjacent to the site and determine if safe building envelopes exist for residential development on the various lots proposed for the site.

We base the assessment on information obtained from historical air photos, review of the subdivision map and field observations within and adjacent to the proposed subdivision. This report provides a preliminary assessment (zoning) of potential landslide hazards on the subject property, in this case rockfall from a series of sandstone and conglomerate bluffs and associated colluvial (talus) slopes. The report identifies areas where safe building envelope setbacks should be designated along the tops of the main bluffs and along the tops of longer mixed bedrock and colluvial slopes, or below designated rockfall hazard zones. Detailed geotechnical assessments are recommended if residential construction is proposed within recommended safe building envelope setbacks.

The report does not specifically address geotechnical conditions or construction issues associated with localized bedrock bluffs or scarps generally less than 5 metres high or short colluvial slopes associated with those smaller outcrops. The report does not address geotechnical conditions or construction issues related to foundation design.

This report follows an earlier evaluation of the possible effects of logging on slope stability on the steeper slopes within the property and recommendations related to forest harvesting practices that was carried out by Golder (see Golder, 18 January, 2006) and draws on some of the information in that earlier report.

The scope of work is limited to geomorphologic, geological and geotechnical issues associated with rural subdivision development. The work undertaken was limited to review of readily available site information, air photo interpretation, visual inspection of the site and examination of exposed soil and bedrock conditions. Subsurface geotechnical investigations were not carried out for this project. This assessment does not include any investigation, testing, or assessment of the potential presence or effect of soil or groundwater contamination at the site or the provision of bioscience services.

This report shall be read in conjunction with the limitations and considerations set out in 'Important Information and Limitations of this Report', which appears following the text. The reader's attention is specifically drawn to this information as it is essential that it is followed for the proper use and interpretation of this report. Section 3.3 (Methods) outlines additional limitations.

2.0 LOCATION

The proposed subdivision is located on a generally south-facing slope on the southwest side of Gabriola Island above False Narrows. The area is accessible from Carrier Road at the east end of the property and from Stokes Road on the south side of the property. We have attached a not-to-scale copy of an original 1:3000 scale subdivision map (dated 26 September 2006) showing the proposed subdivision produced by J.E. Anderson and Associates to this report (Figure 1).

GEOLOGICAL HAZARD ASSESSMENT CENTRE STAGE PHASE 2

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OF 38

3.0 WORK CARRIED OUT

The assessment included a desk review of background materials, foot and vehicle traverses and observations within the proposed subdivision, qualitative analysis of the field observations and report preparation.

3.1 Desk Review

The desk review included inspection of the preliminary subdivision plans, the topographical, geological and soils maps for the area. A series of historical air photos dating from the early 1960's were reviewed to check for the presence of air photo visible landslides or other landforms and terrain features that might indicate the presence of unstable or potentially unstable slopes.

The preparation of this report involved review of the following information:

- J.E. Anderson & Associates (REA) subdivision maps, scale 1:3000. File 85443 dated 21 December, 2005 and 31 August 2006.
- Soils map for Gabriola Island, scale 1:20,000, from Soil Survey Report 43. Soils of the Gulf Islands of British Columbia. Volume 4 Soils of Gabriola Island and lesser islands. 1990. British Columbia Soil Survey. Research Branch, Agriculture Canada. Authors: E.A. Kenney, L.J.P. van Vliet, and A.J. Green.
- A recent (circa 2005) colour orthophoto plotted at an approximate scale of 1:10,000, source unknown, provided by Centre Stage Holdings Ltd.
- Geological Survey of Canada Open File 463 Geology of Vancouver Island, J.E. Muller, 1977.
- Terrain Stability Assessment, Proposed Subdivision Gabriola Island, report by Golder Associates Ltd., 18 January 2006.
- The air photos reviewed are listed in Table 1.

Table 1: Air Photo Review

Year/Date	Flight line	Frame numbers
pre-1960	BC1437	24-26
pre-1960	BC1499	5-6
15 June 1962	BC5046	24-25
1967	15BC5261	90-92
30 June 1972	BC7407	47-49
30 June 1972	BC7409	134-136
22 July 1975	BC7754	290-293
July 1980	BCC249	204-205
1991	BCB91021	129-132, 68-66

GEOLOGICAL HAZARD ASSESSMENT CENTRE STAGE PHASE 2

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3.2 Site Reconnaissance

As part of Golder's original terrain stability assessment work, Mr. Terry Rollerson P. Geo (Golder) made a preliminary site visit lasting about 2 hours, on 06 December 2005 in company with Mr. Vanstone and Mr. Don Gatley of Centre Stage Holdings Ltd. A second visit to inspect the steeper slopes within the subdivision area for about 7 hours was made on 29 December 2005 with Mr. David Vanstone of Centre Stage Holdings Ltd. These traverses are described in Golder (18 January 2006).

As part of the current scope of work, additional site visits by Mr. Rollerson were made in July 2006. These site visits occurred on July 11, 12, 13, and on July 15 – 27, 2006. Mr. Jeff Fillipone, P. Geo., (Golder) and Mr. Thor Simrose (Thor Simrose Contracting) accompanied Mr. Rollerson on July 12, 2006. Mr. Fillipone, Mr. Rollerson and Mr. Gatley also visited the property to inspect specific steep slope sites on 02 August 2006. The total cumulative field time for these visits amounted to about 40 hours including visits to both the Northeast ¼ of Section 3 except Parcel A (DD773261) and the Southwest ¼ section of Section 8 which was proposed for development earlier. Because of the time elapsed since the original fieldwork and the completion of the report Mr. Rollerson carried out additional site visits on the Northeast ¼ of Section 3 in February and March 2010.

The foot traverses within the subdivision concentrated on the steeper sections of the property including a series of steep sandstone and conglomerate bluffs, moderately to steeply sloping colluvial slopes intermixed with the bluffs and colluvial (talus) aprons formed at the base of the bluffs. These traverses ran roughly east southeast to east along the tops and bases of each of the main bedrock bluffs and along the bases of the dominant talus slopes. Limited foot and vehicle traverses occurred on the gently and moderately sloping portions of the property.

3.3 General Assessment Methods

The geological hazard assessment in large part follows the methodology outlined in the "Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia" (Association of British Columbia Professional Engineers and Geoscientists [APEGBC], 2006 as revised May 2008), but also takes direction from the "Guidelines for Terrain Stability Assessments in the Forest Sector" (APEGBC, 2003).

The field reconnaissance included a visual assessment of terrain features including surficial material and bedrock conditions, surface water conditions, vegetation, slope gradients and geomorphic processes encountered during our traverses through the property. Our assessment of the surficial material and bedrock conditions was based on visual examination of natural bedrock outcrops, natural surficial material and soil exposures and exposures along existing roads within the property. Our field observations reference lot numbers and topographic features. Much of the terminology used in this report to describe surficial materials (soils), slope processes and slope gradients follows Howes and Kenk, 1997. The terms blanket and veneer refer to surficial material mantles that are generally greater than one metre and less than one metre deep respectively. Basic measurements were made using clinometer, steel tape or hip chain, hand held laser rangefinder and geologic compass. In the assessment of geological hazards for Phase 2 no detailed slope stability analyses or subsurface investigations have been carried out.

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**GEOLOGICAL HAZARD ASSESSMENT
CENTRE STAGE PHASE 2**

Considering the lack of a comprehensive, long-term record of geological hazards in the area, hazard occurrences cannot be predicted by formal statistical analysis. Hence, a subjective assessment based on the opinion and judgement of knowledgeable professionals was used to rate the probability of occurrence, type and magnitude of significant geological hazards capable of affecting the site.

3.4 Fragmental Rock Fall Hazard Assessment Methodology

Fragmental rock fall¹ is characterized by the detachment of individual rock fragments from a steep rock slope and their gravitational downhill transport. There is evidence of previous fragmental rockfall from the steep sandstone and conglomerate bluffs on the property. Boulders of sandstone and conglomerate, 1 to 20 cubic metres in size, that appear to be derived from fragmental rockfall are located on the talus slopes and for a short distances out onto level or gently sloping areas beyond the lower edges of the talus aprons. On most bluffs there are potentially unstable blocks or slabs of sandstone or conglomerate. These blocks range in size from about 0.5 to 20+ cubic metres. Ongoing physical/chemical weathering process will continue to loosen and detach these blocks from the bluffs. Similarly, ground shaking during seismic events may result in future rockfall. Consequently, rockfall will continue to occur on these slopes and occasional blocks will likely travel downslope beyond the lower edges of the existing talus slopes.

Estimates of potential future rockfall runout distances are based on assessment of the distribution and extent of existing rockfall debris. There are at least two empirical methods that can be used to estimate rockfall runout distances and define rockfall hazard zones.

The rockfall runout method used for this study is described in Evans and Hungr (1993). Their study focused on 15 rockfall sites located in mountainous terrain in the southern interior of BC and coastal BC. The method relies on the determination of a "minimum rockfall shadow angle" defined as the angle between the top of a talus slope and the maximum limit of the rockfall shadow. The "rockfall shadow" is an area of scattered boulders located on level to gently sloping ground that extends beyond the lower edge of the talus slope. These boulders likely bounce and/or roll across the slopes beyond the lower edge of the main talus slope. Evans and Hungr found a minimum rockfall shadow angle of 27.5 degrees to be a reasonable first approximation of rockfall shadow limits. The method provides a maximum probable runout distance, which has not been exceeded at any of the 15 rockfall sites studied by Evans and Hungr and which does not require the determination of individual rockfall initiation and termination points.

A second empirical method, "rockfall fahrboschung" for estimating rockfall runout is dependent on the determination of the initiation and terminal points for individual rockfall events (see the description of a study by Onofri and Candian, 1971, in Evans and Hungr). The rockfall fahrboschung is the angle between the highest point on a rockfall source scar and the stopping point of the longest runout boulder for that particular rockfall. Onofri and Candian found this relationship to range from 28.4 to 40.7 degrees. Correlation of rockfall source scars with associated rockfall fragments, however, is not viable unless both the rockfall and the source scars are distinct and fresh (there are very few sites like this on Gabriola). Consequently, this approach was not suitable for the current study.

¹ The term landslides encompasses the term rockfall, but in the context of this report rockfall is considered separate from other types of landslides and the term landslide should be interpreted as referring to debris slides, debris avalanches and similar events and not rockfall.

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Measurements of minimum rockfall shadow angles were made at a number of locations on the Gabriola site to confirm the Evans and Hungr 27.5 degrees minimum rockfall shadow angle. In the case of the subject property (and possibly elsewhere on Gabriola) the minimum rockfall shadow angles measured were consistently about 22 degrees. Consequently, a "Gabriola specific" minimum rockfall shadow angle of 22 degrees was adopted and applied to all determinations of rockfall shadow (hazard) zones where the slopes at the toe of the talus were relatively level. Minimum rockfall shadow angle lines were located (flagged) in the field by Golder and then ground surveyed by REA. The minimum rockfall shadow angle lines are identified on the subdivision map (lines E-E' and G-G'). The line H-H' defines the apparent eastern extent of bedrock outcrops and rock fall visible on the ground on the lower slopes of the property.

We did observe local areas where the hillsides on the lower portion of the property were gently to moderately sloping rather than level at the toe of a talus slope (or mixed colluvial and bedrock outcrop slope). In these cases rockfall runout distances did not necessarily conform to the local 22 degree minimum rockfall shadow angle relationship. Some individual rockfall fragments on these slopes appear to have traveled well beyond the point defined by the 22 degree, minimum rockfall shadow angle. In these cases, we carried out an extensive search of the slopes below the bluffs/talus to identify possible rockfall fragments with which to define a maximum rockfall shadow (runout) limit. These sites were restricted to the lower eastern slopes of the northeast ¼ of Section 3. In this area the observed rockfall appeared to stop on slopes ranging from 20 to 30 percent (11 to 17 degrees), consequently a 20 percent slope angle limit was adopted to define the likely limit of maximum rockfall runout on these specific hillsides.

The rockfall shadow hazard line should define an approximate 1:10,000 probability of an individual rockfall carrying beyond the defined rockfall shadow line within a single year. This probability is based on the assumption that it is at least 10,000 years since glacial ice left the area, the visible talus and individual rockfall fragments will have accumulated since that time. We suggest that the probability may be somewhat greater than 1:10,000 as the toe of the talus slope has likely extended out from the base of the slope some nominal distance so the rock fall fragments visible beyond the toe of the talus may well represent a period of accumulation less than 10,000 years.

In the case of both methods used to determine the rockfall shadow hazard line on the Gabriola site we recommend a 10-metre setback beyond the rockfall hazard line to define a "safe" building envelope boundary. If a property owner wishes relaxation of the rockfall shadow hazard line or of the building envelope setback distance so that they can build closer to the toe of a rockfall prone slope then a detailed geotechnical evaluation of potential rockfall runout distances and/or protective (mitigative) measures should be undertaken.

Limitations of the approach:

Preliminary clearing and road construction and previous logging activity may have altered the location of occasional rockfall fragments so that in some cases the location of specific fragments may not represent original rockfall runout locations. Similarly, some slopes below bluffs and talus slopes are composed of till containing some moderately large rock fragments consisting of a variety of rock types. Some of these fragments are sandstone. Due to the rounded nature of the edges of some local sandstone outcrops/bluffs and some of the rockfall fragments from these bluffs it is not always possible to distinguish individual rockfall fragments from rocks derived from the till. In cases where it was not possible to distinguish culturally moved rocks or rocks derived from till from rockfall fragments we assumed that the fragments were rockfall. This approach may have lead to overly conservative estimates of rockfall runout distances in a limited number of cases.

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On the lower slopes of the northeast ¼ of section 3, below the lower bluffs (i.e., lots 43 and 44), there are locally extensive areas of high, thick brush. In these areas it was difficult to establish minimum rockfall shadow angle limits or to search for and find rockfall fragments. We recommend further work to refine the current rockfall shadow limits when brush clearing takes place in these areas. For the interim period, we recommend that the building envelope setback from the minimum rockfall shadow line (G-G') be set at 20 metres in areas of heavy brush below the lower set of bluffs.

3.5 Bluff Top and Steep Slope Assessment Methodology

The second part of the geotechnical hazards assessment involved evaluation of stability conditions along the tops of the higher sandstone bluffs and longer mixed colluvial and bedrock slopes that border proposed building sites.

Most bluffs/scarps less than about 5 metres high and mixed colluvial and bedrock slopes steeper than about 30 degrees and 5 to 20 metres in downslope extent that occur locally within the subdivision are not specifically included in this assessment. It is unlikely that these slopes pose a significant landslide hazard. It is our understanding that any recommendations for geotechnical assessments for residential foundations are the responsibility of the building inspector. There are localized, short blocky colluvial (talus) slopes associated with some of these smaller bedrock bluffs/scarps indicating that fragmental rockfall has occasionally occurred along these slopes. The runout distances for this type of rockfall appear to be limited to a few metres.

The tops of bedrock bluffs generally higher than 5 metres and the tops of mixed colluvial and bedrock outcrop slopes equal to or steeper than about 30 degrees and with an downslope extent generally greater than 20 metres and that occur in proximity to the more significant bedrock bluffs were traversed and flagged. These flag lines were then ground surveyed by REA and are identified on the subdivision map (lines D-D' and F-F'). The "top of bluff" line was defined as the top of a clearly defined vertical or near vertical bedrock (bluff) surface or the first visible, prominent or open bedrock discontinuity (e.g., joint surface) back from the top edge of the bluff if there was no clearly defined bluff edge. The top of bluff line was placed behind (upslope of) any obviously detached blocks or indentations along the top of the bluff. In a few cases, a significant joint trace running parallel or sub-parallel to the main bluff surface, which was visibly associated with detached slabs or blocks on the bluff face was projected across soil slopes behind the main bluff face where there was no visible surface expression of the joint surface and flagged as the bluff top line. In these cases the "bluff top line" may be located several metres back from (upslope of) the apparent bluff top.

In the case of colluvial or mixed colluvial and rock outcrop slopes the "top of steep slope" line was placed along the most obvious break or change in slope at the top of the 30 degree (58 percent) or steeper than 30 degree slope. In most cases this change in slope is obvious, but in some cases it is indeterminate. In these indeterminate cases, a conservative judgment defines the "top of steep slope" line.

The dominant bedrock joint orientations (strike direction and dip angle), and characteristics along the bedrock bluffs were measured and recorded. Approximate bluff heights were determined with a hand held laser rangefinder.

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Horizontal setback distances from the bluff and colluvial "top of slope" lines to define preliminary "safe" building envelopes for individual lots within the subdivision were developed for each significant bluff, colluvial or mixed colluvial and bedrock slope type. If a property owner wishes relaxation of the top of bluff setback distance so that they can build closer to the top edge of a bluff or steep colluvial slope then a detailed geotechnical investigation should be undertaken. The setback distances from the top of each sandstone bluff are based on a 1:1 relationship to estimated bluff height, unless bedrock structure indicated that a greater or lesser distance was appropriate (e.g., for bluffs equal to or less than 5 metres high the horizontal setback distance was set at 5 metres and for bluffs between 5 and 10 metres high the horizontal setback distance was set at 10 metres). In the case of steep, mixed colluvial and bedrock slopes the horizontal setback distance was set at 5 metres based on field observations that bedrock occurs at shallow depths (i.e., 1 to 2 metres) on most of these slopes.

The top of bluff setback is set to minimize the chance that a building foundation could be affected by or trigger a fragmental rockfall event. The top of steep colluvial slope setback is set to minimize the chance that a building foundation or fill might surcharge the slope sufficiently to initiate failure of the slope.

Setbacks for slope stability and rockfall hazard are not specified for the less than 5-metre high bedrock outcrops and short, steep (greater than 30 degrees and less than 20 metres long) colluvial or talus slopes that occur locally within the subdivision. It is our understanding that most of these sites occur at locations where residential construction is unlikely. A site-specific geotechnical evaluation should occur if residential construction is proposed in such areas.

4.0 GENERAL SITE CONDITIONS AND BACKGROUND

4.1 Terrain and Soils

Colluvial veneers and blankets and long, linear sandstone and conglomerate bluffs form the steeper, southwest facing portions of the property.

Within the northeast ¼ of section 3, there is a 10 to 20 metre high sandstone bluff and talus slope that trends east southeast through the southern portions of lots 42, 22 and 23. There is also a 15 to 20 metre high sandstone and conglomerate bluff and talus slope that trends east southeast through the southern portions of lots 34 to 37 and a mixed colluvial and exposed bedrock slope with small 1 to 5 metre high bluffs that extends east southeast along the southern slopes of lots 38 and 41. Both bluffs have associated moderately steep to steep colluvial slopes. Morainal materials (till) are present on gently sloping areas on the northern and eastern portions of this ¼ section. Glaciofluvial or marine gravels and sands are present on the eastern slopes of the property above the lower conglomerate bluffs and are also present along the toe of the slope in some areas below the lower talus slope.

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The steeper slopes are dominated by Saturna soils and exposed bedrock. Saturna soils are well- to rapidly-drained forest soils developed in shallow till or weathered sandstones and/or conglomerates on gently to moderately sloping surfaces and in colluvial materials derived from the sandstone and conglomerate on steeper surfaces (BC Soil Survey, 1990). Qualicum soils developed in gravely to sandy glaciofluvial, fluvial or marine deposits and Baynes soils developed variously in sandy fluvial, marine or eolian deposits occur locally. The lower slopes of the property contain areas of Galiano soils, Fairbridge soils and Brigatine soils. Galiano soils are well-drained soils developed in weathered shales and in shallow glacial materials overlying shales or siltstones. The Fairbridge soils are imperfectly-drained soils developed in silty to clayey marine deposits. Brigatine soils are imperfectly drained soils developed in sandy marine or fluvial deposits, but in this area they more likely occur in marine sediments.

Gently dipping sandstones and limited areas of conglomerate bedrock of the Upper Cretaceous Gabriola Formation of the Nanaimo Group underlie most of the property. Where exposed in higher vertical outcrops these rocks exhibit localized vertical and moderately to steeply dipping, south-facing joint or exfoliation surfaces. The bedding planes in the sandstones vary from horizontal to surfaces that dip gently out of or into the slope. The conglomerates are generally massive, but can be weakly bedded or jointed locally. These joint and exfoliation surfaces appear to control the periodic but localized rockfall that is evident on the rock bluffs throughout the property. The lower, very gently sloping areas of the property are underlain by siltstones and shales of the Northumberland Formation.

There was no definitive evidence of natural or logging related shallow landslide (e.g., debris slide, debris avalanche) activity visible on any of the areas of the property visited in the field.

There is evidence of ongoing rock fall activity on the sandstone and conglomerate bluffs. During the course of our field investigations we observed two instances where recent rock fall had damaged trees on the talus slopes above and including the upper slopes of lot 44.

There was no apparent evidence of recent shallow landslides on the historical air photos reviewed as part of this assessment. Nor is there evidence of large-scale, deep-seated landslides on these slopes. Soil creep and/or rock creep are likely present on the steeper colluvial slopes and there is some evidence for this in the presence of locally curved stems of some conifers on these slopes.

4.2 Timber Removal

Some localized timber harvesting has taken place on the property in the form of small patch cuts and selective removal of individual trees. Future timber removal on the property will likely follow a similar pattern. The clearing of trees was done to create views and building sites. Ground-based yarding using skidder or hoe forwarding systems and hand felling predominated. There is no sign of instability or significant surface erosion resulting from this harvesting. The property has been harvested twice before and all or part of the property burned by wildfire in the late 1940's (D. Vanstone, pers. comm., December 2005) and there is no indication of landslide activity associated with those events. The last time the property was extensively harvested was in the late 1980's or in 1990. Most of the second growth timber on the steeper slopes was not harvested at that time.

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4.3 Seismicity

The proposed subdivision is located within Seismic Zone 4 (on a scale of 0 to 6) of the current British Columbia and National Building Codes (NBC). The spectral acceleration associated with a Cascadia Subduction Zone earthquake having a 2 percent probability of exceedence in 50 years, ranges between about 0.1 and 1.03 with a peak ground acceleration of 0.51g for firm ground conditions². The Cascadia Subduction Zone earthquakes are not reflected on NBC maps. A Cascadia Subduction Zone earthquake could result in Zone 6 velocities being exceeded on Southern Vancouver Island.

It should be noted that the National Building Code of Canada has been revised (NBBCC 2005) and it is recommend that buildings be designed to a 1:2,475 year seismic event (2 percent in 50 year probability of exceedence). The British Columbia Building Code has recently been revised to reflect this same standard.

We consider that the area of potential development is underlain mainly by upland sediments of glacial or immediate post-glacial origin and/or bedrock and the potential for liquefaction is generally low. There are some gravelly to sandy glaciofluvial or marine (beach) deposits in the area that if water tables are high could be subject to a low to moderate liquefaction hazard, however there is no visible evidence of such events in the past. We recommend that prior to construction for residential purposes, appropriate geotechnical input be provided with respect to foundation design, including seismic considerations as per the BC Building Code 2006. It should be noted that seismic events may increase the potential for rockfall on the sandstone and conglomerate bluffs within the development area.

5.0 GEOLOGICAL HAZARD ASSESSMENT

5.1 Terrain Descriptions and Geological Hazard Interpretations

The following descriptions are of slopes within the property traversed or inspected to evaluate geological hazards. The spatial distribution of the terrain types described below corresponds to the lots outlined in the Phase 2 area (northeast ¼ of Section 3) on the property map attached to this report.

Lots 42 and 22

The southern portion of these two lots is formed by a steep slope that trends east-southeast and is composed of a sandstone bluff and shallow, discontinuous, well-to-rapidly drained rubbly colluvial veneers. Slope angles range from 70% to 90 degrees. The slope morphology ranges from irregular to uniform. The bluff ranges from 5 to 20 metres high within lot 42 and the bluff is about 15 metres high at the lot 22 property boundary. The bluff height within lot 22 ranges from about 15 meters high at the lot 42 property line to less than 10 metres high about 10 to 20 metres west of the lot 23 property line. The south-facing colluvial slopes above the top of the bluff have slope gradients of 10 to 20 percent. The sandstone in this area is massive to weakly bedded. The bedding planes, though poorly exposed, vary from dipping gently into the slope to dipping gently out of the slope. There are at least two sets of near-vertical joints, the first orientated generally at right-angles to and the second sub-parallel to the main face of the bluff which strikes at 110 to 130 degrees (see Table 4.1). These joints result in a number of large detached blocks located along portions of the upper slope of the bluff.

² Values derived from the Natural Resources Canada Earth Sciences Sector web site which provides interpolated 2005 National Building Code of Canada seismic hazard values for specified sites: http://earthquakescanada.nrcan.gc.ca/hazard/interpolator/index_e.php

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A well- to rapidly-drained blocky rubbly colluvial apron runs along the base of the rock bluff. Slope angles on this talus apron range from 50 to 70 percent. There is no evidence of landslide activity following the earlier logging on this slope. Natural rockfall occurs periodically along this slope, but we saw no evidence of recent activity.

The north-facing portions of these lots are mantled with shallow, well-drained, rubbly, weathered bedrock veneers and blankets, morainal veneers may occur locally. Gently sloping bedrock surfaces are exposed locally. Slope angles range from 5 to 15 percent. The slope is generally uniform (smooth) and planar to slightly convex.

We recommend that the top of bluff setbacks in this area be set at 20 metres north of the top of bluff line D-D' in lot 42 and 15 metres north of the top of bluff line D-D' in lot 22 based on the approximate maximum bluff heights in these two lots. As the bluff height varies significantly along these lots relaxation of the setback distances may be feasible locally. For example, the top of slope line in the western portion of lot 42 runs along the top of a steep colluvial slope rather than a rock bluff, so relaxation of the setback distance in this area may be quite feasible.

We recommend a rockfall hazard zone setback distance of 10 metres south of the rockfall hazard line E-E' (the setback may actually occur along the gently sloping northern property boundaries of lots 31 and 32).

The gently sloping areas within these lots with the exception of the setback areas are considered safe for residential construction.

Table 2: Bedrock Joint Characteristics Upper Bluff

Joint #	Dip Direction (°)	Dip Angle (°)	Persistence	Shape	Roughness	Joint Spacing (m)
1	200	03	continuous	wavy	rough	0.5-2
2	315	05	continuous	wavy	rough	0.5-2
3	205-215	70-90	continuous	wavy	rough	1-5
4	200-215	40-50	continuous	wavy	rough	2-5
5	200-215	25-30	continuous	wavy	rough	2-5
6	250-275	60-80	continuous	wavy - irregular	rough	1-5
7	150-175	30-80	discontinuous	wavy	rough	uncommon

Lot 23

This lot is mantled with a complex of well-drained veneers and blankets of rubbly weathered bedrock and morainal materials. Relatively smooth, gently sloping bedrock surfaces occur locally. Slope angles range from 5 to 10 percent on both the north slope and most of the south facing slope of this lot. The lower southern edge of the lot is moderately to steeply sloping and includes a low, near-vertical sandstone scarp and small talus slope in the southwest corner of the lot. The slope morphology is generally uniform (smooth) and the lateral curvature planar to weakly convex. There is no visible evidence of past landslide activity on these slopes, but there has been some rockfall from the low sandstone scarp.

This gently sloping lot is considered safe for residential construction, except for the small area on the lower southwest side of the lot that comprises the low sandstone bluff and small talus slope.

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These lots are mantled with well-drained morainal blankets and veneers. Slope angles range from 5 to 10 percent on the upper portions of these southeast facing lots and 5 to 15 percent on the lower portions of the lots. The slope morphology is uniform to undulating and the lateral curvature varies from planar to slightly convex. There is no visible evidence of previous landslide activity on these slopes.

These lots are considered safe for residential development.

Lots 27, 39 and 40

These lots comprise well-drained morainal blankets and veneers. Slope angles range from 10 to 15 percent. The slope morphology is uniform and generally planar. These lots have a generally southerly aspect. There is no evidence of past natural or harvest related landside activity visible on these lots.

These lots are considered safe for residential development.

Lots 28 and 29

Well-drained morainal blankets and veneers mantle these south-facing slopes. Slope angles range from 10 to 20 percent on the upper portions of these lots and from 5 to 15 percent on the lower portions of these lots. The slope morphology is generally uniform and the lateral curvature planar.

These lots are considered safe for residential development.

Lots 30 and 31

Well-drained morainal blankets and veneers and lesser amounts of rubbly weathered bedrock veneers mantle these slopes. Minor deposits of sandy gravely glaciofluvial or marine deposits (e.g., beach ridges) may be present locally. Slope angles on these lots generally range from 5 to 15 percent but slopes of 20 percent may be present locally. These slopes are generally uniform and planar but may be slightly convex locally.

These lots are considered safe for residential development, with possible localized rockfall hazard as discussed below. The upper property boundary of lot 31 and a possibly a very small area within the northwest corner of lot 30 may fall within the rockfall hazard zone along the base of the upper rock bluff and talus slopes that form the southern edge of lot 22 and the southwest corner of lot 23. A setback of 10 metres is recommended along the lower boundary of the rockfall hazard line D-D' and this setback may intrude into limited areas of lots 31 and 30.

Lots 32 and 33

Well-drained morainal blankets and veneers mantle these slopes. Shallow veneers of weathered bedrock occur locally as do occasional, low (1-2 m high), discontinuous, moderately fractured, steep (70-90°), sandstone scarps. The slope morphology is generally uniform to undulating and the lateral slope curvature is planar. Slope angles range from 0 to 10 percent on the upper part of these lots and 5 to 15 percent on the mid and lower portions of the lots. The uppermost (northern) edges of these lots are within the rock fall shadow of the sandstone bluffs that bound the southwest edge of lot 42.

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With the exception of the narrow rock fall hazard zone along the upper (northeast) edge of these lots noted above, this area is considered safe for residential development due to the very gentle slopes and well-drained soils. As noted above, we recommend a rockfall hazard zone setback distance of 10 metres south of the rockfall hazard line E-E' in the northern portions of these lots.

Lots 34 to 36

The upper and mid slopes of these lots comprise a mix of well-drained morainal blankets and veneers and shallow veneers of weathered sandstone. Slope angles range from 10 to 30 percent on this portion of the hillside. The slope morphology is uniform to irregular and benchy. The lateral curvature is planar to slightly convex. The upper slopes of these lots are considered safe for residential development due to the well-drained character of the soils and the gentle to moderate slope gradients.

The steep southern portions of these lots include both a very steep conglomerate and sandstone bluff with very shallow localized colluvial veneers and a deep, blocky rubbly colluvial apron that runs along the base of the bluff.

The bluff is primarily of conglomerate but the top few metres of the bluff are sandstone. Sandstone beds occur locally at the base of the bluff. Further east the bluff is dominantly sandstone. The bluff in this area ranges from about 10 to 20 metres high. The slope angles on the exposed bedrock surfaces range from 70 to 90 degrees and there are small overhangs locally. Slope angles on the shallow colluvial veneers range from 60 to 90 percent. The aspect of the bluff ranges from 220 to 230 degrees. Some bedding or bedding plane joints in the sandstones appear horizontal, others dip gently to moderately out of the slope (i.e. they dip southwest) and some dip gently into the slope (i.e., north to northeast). The conglomerates are generally massive, but the bedding planes in the sandstones range from 0.1 to 3 metres apart and can be discontinuous. Near vertical joints striking roughly north-south occur in the sandstones and are spaced at variable distances (i.e., 1 to 5 metres apart). There are near-vertical joints in the sandstones and in the conglomerates that parallel the orientation of the main rock face (i.e., they strike roughly east southeast, 110 degrees and 130 degrees). Table 3 provides descriptions of the dominant joints. The bluff is subject to ongoing rockfall, and there is limited evidence of relatively fresh rockfall activity. There are a few trees growing on the vertical portions of the rock bluff, but on the less steeply sloping areas along the top of the bluff trees are frequent.

We recommend that the top of bluff setbacks in this area be set at 20 metres north of the top of bluff line F-F' in lots 35 and 36, except that the setback can be 10 metres for the eastern 50 metres of lot 36 where the bluff is less than or equal to 10 metres high. The setback should be set at 10 metres north of the top of bluff line from the west side of lot 34 to within 50 metres of lot 35, as the top of bluff line in this area is located conservatively. For the final 50 metres of lot 34 to lot 35 the setback line should run slightly south of east to meet the 20-metre setback line at the lot 34-35 property line.

The colluvial apron at the base of the bluff is dominated by well- to rapidly-drained blocky rubbly materials in the areas where the sandstones predominate. In areas where the conglomerates dominate the bluff above, there are fewer large blocks and the colluvial soils include large numbers of rounded, pebble and cobble sized rocks that have weathered out of the conglomerates. Slope angles generally range from 50 to 70 percent but locally can reach 80 percent.

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Table 3: Bedrock Joint Characteristics Lower Sandstone and Conglomerate Bluff

Joint #	Dip Direction (°)	Dip Angle (°)	Persistence	Shape	Roughness	Joint Spacing (m)
1	200	70-90	continuous	planar - wavy	rough	1 to 5+
2	150-160	80-90	continuous	wavy	rough	2 to 5+
3	110-120	80-90	continuous ³	planar - wavy	rough	rare
4	220-230	90	continuous	planar - wavy	rough	5+
5	130-135	≥65	continuous	wavy	rough	rare
6	015	-5 to +10	continuous	wavy	rough	bed thickness 1 to 3+

Lots 37 and 38

The upper and mid slopes of these lots are mantled with well- to moderately-well drained morainal blanket and veneers and locally with veneers of weathered bedrock. Well-drained glaciofluvial or marine gravels are present in portions of lot 38. Slope angles range from 5 to 30 percent.

The steeper slopes along the southern portions of these lots are dominated by well- to rapidly-drained, blocky rubbly colluvial materials, but a number of small, smooth to irregular sandstone and occasionally conglomerate outcrops and low bluffs also occur on the hillside. Slope angles on the lower portion of this slope generally range from 50 to 70 percent with localized benches and gently sloping areas with slope gradients in the range of 20 to 40 percent. Slope angles along the upper portions of the hillside generally range from 60 to 70 percent but are as steep as 90 degrees on some bedrock outcrops. The bedrock bluffs and outcrops are usually less than a metre in height but occasionally reach 5 to 6 metres high. These bedrock bluffs become higher towards the west. There is evidence of limited rockfall from some of the higher scarps. There is no evidence that past timber harvest has resulted in any landslide activity on this slope. A low sandstone bluff and/or moderately steep talus slope bounds the lower boundary of these lots. We recommend a setback of 5 metres from the top of bluff line on lot 37, but due to the irregular boundary along the top of the low bluff and the relatively weak character of the weathered sandstone and underlying conglomerate bedrock, foundation conditions should be evaluated by a geotechnical engineer at the time of construction if a house is located within 10 metres of the bluff. A 5-metre setback is recommended from the top of top of steep slope line on lot 38.

³ Where observed, this near vertical joint occurs in the sandstone beds below the conglomerate but does not penetrate up into the conglomerate.

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This lot is mantled with well-drained morainal materials on the gently sloping mid and upper slopes of the lot and glaciofluvial or marine gravels on the level to very gently sloping areas on the lower slopes of the lot. Slope angles range from 5 to 10 percent on the lower slopes and from 15 to 20 percent on the mid and upper slopes of the lot. These slopes are generally uniform and planar. These gentle slopes preclude any concern for landslide activity. A low sandstone and conglomerate bluff and colluvial slope bounds the lower boundary on the western side of this lot. We recommend a setback of 5 metres from the top of bluff line. East of the end of the low bluff tabular sandstone slabs exposed on the slope surface tilt slightly downslope (south), contrary to the normal gentle northerly dip of the bedding surfaces along the lower bluff. This contrary tilt suggests that the weak conglomerate beds underlying the upper sandstone beds have disintegrated⁴ or were eroded by wave action as the land surface rebounded at the end of the last glaciation. Portions of this area are currently included within or about the geological hazard zone, but no additional setback is recommended from the top of slope line. If construction is proposed within this area then the foundation conditions should be evaluated by a geotechnical engineer as the sandstone slabs may be loose.

Lot 43

This lot extends from the lower development boundary to the eastern edge of the lower bluff line. The bluff in this area is rarely higher than about 5 metres and extends about halfway across the upper boundary of the lot.

The slopes that form the upper one third of the lot are dominated by well- to moderately well-drained morainal and gravely marine materials. Slope angles in this area generally range from 25 to 35 percent. Locally the colluvial slopes below the low sandstone bluff reach slope angles of 50 to 60 percent. These slopes are uniform and generally planar. There is no evidence of previous landslide activity on these slopes. There is some rockfall hazard on the western portion of the slope downslope and slightly east of the end of the low sandstone bluff. The rockfall hazard zone extends east of the end of the bluff as rolling rocks tend to run at an angle rather than straight downhill. Lower on the slope there were some apparent rockfall fragments east of the eastern end of the bluff. Some of these rock fragments may result from wave erosion at the end of the last glaciation, not rock fall, so the rock fall hazard line in this area may be conservative.

The lower two thirds of the lot are dominated by well- to moderately well-drained, pebbly sandy to cobbly gravely marine sediments. Imperfectly-drained silty clayey to pebbly silty clayey marine sediments are present along the lower slopes of lot 43 immediately north of the southern property boundary. These materials are generally greater than a metre deep, but areas of shallow soil over shales and siltstones of the Northumberland Formation can be expected. Slope angles in this area generally range from 5 to 15 percent. These slopes tend to be uniform and planar.

We recommend an initial 20 metre building envelope setback downslope of the rockfall shadow line G-G' until such time as thinning of the tree and brush cover improves visibility sufficiently to allow a more accurate delineation of this line and a nominal 5 metre setback from line H-H'. The gentle to moderate slopes that comprise this lot outside the hazard lines and setbacks are considered safe for residential development.

⁴ At one or two location, further west along the top of the lower bluffs, we have observed tilted sandstone slabs overlying voids where most of the underlying conglomerate bed is gone, but small, residual columns of conglomerate still support the sandstone slab.

**GEOLOGICAL HAZARD ASSESSMENT
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Page 28
0838**Lot 44**

This lot occupies a gently sloping area on the lower slopes of the development, mantled with well- to moderately well-drained, pebbly to cobbly sandy marine deposits. Locally, these materials may comprise wave washed till or wave washed glaciofluvial deposits. These materials are generally more than a meter deep, but locally can be shallow over shales, siltstones and occasional sandstone beds of the Northumberland Formation. Locally these materials may overly till. Slope angles generally range from 5 to 10 percent, but locally slopes can reach 30 percent for short distances. These slopes are generally uniform and planar, but locally in the upper northwest corner of the lot these slopes are gently undulating. There is no evidence of landslide activity on or affecting these slopes. The upper portion of the lot may extend into the rockfall shadow (hazard zone) at the base of the talus slope that runs along the lower line of bluffs. As described above (Section 3.4) we recommend an initial 20 metre building envelope setback downslope of the rockfall shadow line until such time as thinning of the tree and brush cover improves visibility sufficiently to allow a more accurate delineation of this line. The gentle slopes that comprise this lot outside the hazard lines and setbacks are considered safe for residential development.

Lot 45

This lot occupies a gently sloping area on the lower slopes of the development, mantled with well- to moderately well-drained to locally imperfectly-drained, cobbly pebbly sandy to pebbly silty sandy marine deposits. Locally, these materials may comprise wave washed morainal deposits. Imperfectly-drained silty clayey to pebbly silty clayey marine sediments may occur along the lower slopes of lot 45 north of the southern property boundary. These materials are generally less than a meter deep and can be quite shallow over the shales, siltstones and occasional sandstone beds of the Northumberland Formation. Locally these materials may overly till. Slope angles generally range from 5 to 10 percent. These gentle slopes preclude concern for landslide activity. These slopes are considered safe for residential development.

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6.0 SUMMARY CONCLUSIONS AND RECOMMENDATIONS

The lack of evidence of large scale, deep-seated landslides on these slopes indicates that the probability of large-scale, deep-seated landslides appears to be very low under current (and previous post-glacial) climatic and physical conditions. The lack evidence of such activity since the end of the Fraser Glaciation in this area about 10,000 years ago suggests an annual probability of occurrence of such events of less than 1: 10,000.

Because of the often deeply weathered, and the moderately- to well-fractured or exfoliated character of the local sandstone and conglomerate bedrock, we recommend that prior to construction for residential purposes, additional geotechnical investigation be undertaken to determine the physical characteristics of the bedrock, where bedrock is at or near surface and to provide geotechnical input to the design of appropriate foundations. Similarly, setbacks for slope stability and rockfall hazard are not specified for the less than 5-metre high bedrock outcrops and short, steep (≥ 30 degrees) colluvial or talus slopes that occur locally within the subdivision. Golder recommends a site-specific geotechnical evaluation for these hazards as well as foundation conditions if residential construction is proposed in such areas.

A significant seismic event, such as that having a 2 percent probability of occurrence in 50 years (i.e., 1:2475-year event), could result in localized landslides on the steeper slopes within the subdivision. However considering that there have been many such events over the last approximately 10,000 years since deglaciation in this area, without obvious evidence of significant landslide activity, we consider the likelihood of a seismically induced landslide on these slopes to be low (i.e., less than 1:10,000 annually). With respect to rockfall there certainly exists a possibility that seismic activity has and could result in rockfall activity. It is our professional opinion that the rockfall runout hazard limits established for the property will suffice for rockfall generated by seismic activity as well as rockfall resulting from physical and chemical weathering.

A detailed, site specific assessment of geotechnical hazards and foundation conditions, including recommendations for suitable mitigation to protect residences from geotechnical hazards is recommended if residential construction is proposed within any of the building (geotechnical hazard) setback zones or on any of the moderately steep to steep bedrock or colluvial slopes within the subdivision area.

There were no apparent geotechnical hazards within the gently to moderately sloping terrain located outside the building envelope setback zones and designated geotechnical hazard zones.

Previous harvesting on the moderately sloping areas on this property has not resulted in any landslide activity so timber removal for building sites, or to develop views, should result in a low likelihood of landslide activity. Similarly the likelihood of natural landslide activity should be low. Occasional post-harvest landslide activity is not unknown on similar terrain on nearby Vancouver Island, although generally in wetter climates than found on Gabriola Island. Rollerson, et al. (2002), report post-harvest landslide probabilities from southwestern Vancouver Island of about 5 percent on terrain with slope angles between 20 and 30 degrees, so landslide activity resulting from timber removal cannot be entirely discounted. If the assumption is made that harvest related landslides on Vancouver Island recur each forest rotation (e.g. every 50 years) the post-harvest landslide rates noted above could equate to a landslide probability of 0.001 per year or 1:1000 annually on terrain with slopes between 20 and 30 degrees and less than 1:1000 on slopes less than 20 degrees. As the climate at the Gabriola site is drier, the natural or harvest-related landslide probabilities on similar slopes on the Gabriola site should be less than those suggested above.

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Avoid discharging concentrated drainage, such as from roof rainwater leaders, perimeter drains, or other sources onto the moderately steeply sloping to steeply sloping areas within the subdivision as this could lead to slope failure.

Do not raise grade, create fills or spoil waste materials on any moderately steep to steeply sloping terrain or within building envelope setback zones without the approval of a geotechnical engineer.

Should any signs of future slope instability such as landslides, tension cracks, or significant surface soil erosion be observed on any of the moderately sloping to steeply sloping terrain within individual lots or within the building envelope setback zones, the owner(s) should contact a qualified geotechnical/geological engineer or engineering geologist to assess the situation.

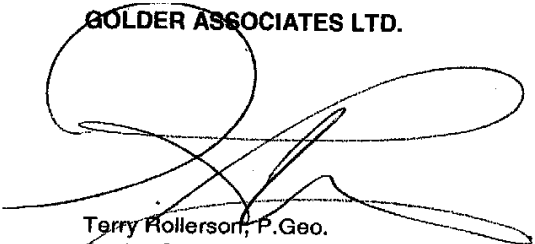
It is our professional opinion that the land outside the identified geotechnical hazard zones and setbacks may be used safely for the use intended (i.e. construction of permanent single family residences) and will not result in a net increase in geotechnical hazards within or immediately adjacent to the subject property, provided the recommendations provided herein are properly implemented.

7.0 CLOSURE

We trust that the information provided in this report is sufficient for your immediate needs. If you have any questions about this report, please contact us.

Yours truly,

GOLDER ASSOCIATES LTD.


Terry Rollerson, P.Geo.
Senior Geoscientist

Reviewed by:



Mark Goldbach, P.Eng.
Principal and Senior Geotechnical Engineer

TR/MGG/smh

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 21 May 2010

GEOLOGICAL HAZARD ASSESSMENT
CENTRE STAGE PHASE 2

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- Anon. 1999. Mapping and Assessing Terrain Stability Guidebook. Second Edition. B.C. Forest Practices Code. BC Ministry of Forests and BC Environment.
- Association of Professional Engineers and Geoscientists of British Columbia. 2003. Guidelines for Terrain Stability Assessments in the Forest Sector.
- Association of Professional Engineers and Geoscientists of British Columbia. 2006. Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia.
- Cruden, .., and D.J. Varnes. 1996. Landslide Types and Processes. In: Landslides Investigation and Mitigation. A.K. Turner and R.L. Schuster, editors. National Research Council, Transportation Research Board Special Report 247, National Academy Press, Washington, DC, p. 36-75.
- Evans, S.G., and Hungr, O., 1993. The Assessment of Rockfall Hazard at the Base of Talus Slopes. Geological Survey of Canada Contribution #42290.
- Holland, S.S. 1964. "Landforms of British Columbia A Physiographic Outline" Bulletin 48, British Columbia Mines and Petroleum Resources, Victoria, B.C., Canada.
- Howes, D.E. and Kenk, E. 1997. "Terrain Classification System For British Columbia" (Revised Edition) Ministry of Environment, Ministry of Crown Lands, Victoria, B.C., Canada.
- Hungr, O., S.G. Evans, M.J. Bovis, J.N. Hutchinson. 2001. A review of the classification of landslides of the flow type. Environmental & Engineering Geoscience, Vol VII, No. 3, pp. 221-238.
- Keaton, J.R. and J.V. DeGraff. 1996. Surface Observation and Geologic Mapping, In: Turner, A.K., and Schuster, R. L., (eds.) Landslides Investigation and Mitigation: National Research Council Transportation Research Board Special Paper 247, Washington, DC. p. 178-230.
- Onofri, R. and Candian, C. 1979. Indagine sui limiti di massima invasione dei blocchi rocciosi franati durante il sisma del Friuli del 1976. Considerazioni sulle opere di difesa. Reg. Aut. Friuli-Venezia Giulia, Cluet, Trieste. Cited in Evans and Hungr, 1993.
- Pacht, J.A., 1987. Sedimentology of the Upper Cretaceous Nanaimo Basin, British Columbia. Geological Society of America Centennial Field Guide.
- Rollerson, T., T. Millard, and B. Thomson. 2002. Using terrain attributes to predict post-logging landslide likelihood on Southwestern Vancouver Island Research Section, Vancouver Forest Region. B.C. Ministry of Forests, Nanaimo, BC. Forest Research Technical Report, TR-015/2002.

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SLOPE CLASS DEFINITIONS

Level or plain – slopes between 0 and 5 percent (0 and 3 degrees)

Gentle – slopes between 6 and 26 percent (4 and 15 degrees)

Moderate slope - slopes between 27 and 49 percent (16 and 26 degrees)

Moderately steep - slopes between 50 and 70 percent (27 and 35 degrees)

Steep – slopes steeper than 70 percent (35 degrees)

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**GEOLOGICAL HAZARD ASSESSMENT
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IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT

Standard of Care: Golder Associates Ltd. (Golder) has prepared this report in a manner consistent with that level of care and skill ordinarily exercised by members of the engineering and science professions currently practicing under similar conditions in the jurisdiction in which the services are provided, subject to the time limits and physical constraints applicable to this report. No other warranty, expressed or implied is made.

Basis and Use of the Report: This report has been prepared for the specific site, design objective, development and purpose described to Golder by the Client. The factual data, interpretations and recommendations pertain to a specific project as described in this report and are not applicable to any other project or site location. Any change of site conditions, purpose, development plans or if the project is not initiated within eighteen months of the date of the report may alter the validity of the report. Golder can not be responsible for use of this report, or portions thereof, unless Golder is requested to review and, if necessary, revise the report.

The information, recommendations and opinions expressed in this report are for the sole benefit of the Client. No other party may use or rely on this report or any portion thereof without Golder's express written consent. If the report was prepared to be included for a specific permit application process, then upon the reasonable request of the client, Golder may authorize in writing the use of this report by the regulatory agency as an Approved User for the specific and identified purpose of the applicable permit review process. Any other use of this report by others is prohibited and is without responsibility to Golder. The report, all plans, data, drawings and other documents as well as all electronic media prepared by Golder are considered its professional work product and shall remain the copyright property of Golder, who authorizes only the Client and Approved Users to make copies of the report, but only in such quantities as are reasonably necessary for the use of the report by those parties. The Client and Approved Users may not give, lend, sell, or otherwise make available the report or any portion thereof to any other party without the express written permission of Golder. The Client acknowledges that electronic media is susceptible to unauthorized modification, deterioration and incompatibility and therefore the Client can not rely upon the electronic media versions of Golder's report or other work products.

The report is of a summary nature and is not intended to stand alone without reference to the instructions given to Golder by the Client, communications between Golder and the Client, and to any other reports prepared by Golder for the Client relative to the specific site described in the report. In order to properly understand the suggestions, recommendations and opinions expressed in this report, reference must be made to the whole of the report. Golder can not be responsible for use of portions of the report without reference to the entire report.

Unless otherwise stated, the suggestions, recommendations and opinions given in this report are intended only for the guidance of the Client in the design of the specific project. The extent and detail of investigations, including the number of test holes, necessary to determine all of the relevant conditions which may affect construction costs would normally be greater than has been carried out for design purposes. Contractors bidding on, or undertaking the work, should rely on their own investigations, as well as their own interpretations of the factual data presented in the report, as to how subsurface conditions may affect their work, including but not limited to proposed construction techniques, schedule, safety and equipment capabilities.

**GEOLOGICAL HAZARD ASSESSMENT
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08 38**IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT (CON'T)**

Soil, Rock and Groundwater Conditions: Classification and identification of soils, rocks, and geologic units have been based on commonly accepted methods employed in the practice of geotechnical engineering and related disciplines. Classification and identification of the type and condition of these materials or units involves judgment, and boundaries between different soil, rock or geologic types or units may be transitional rather than abrupt. Accordingly, Golder does not warrant or guarantee the exactness of the descriptions.

Special risks occur whenever engineering or related disciplines are applied to identify subsurface conditions and even a comprehensive investigation, sampling and testing program may fail to detect all or certain subsurface conditions. The environmental, geologic, geotechnical, geochemical and hydrogeologic conditions that Golder interprets to exist between and beyond sampling points may differ from those that actually exist. In addition to soil variability, fill of variable physical and chemical composition can be present over portions of the site or on adjacent properties. The professional services retained for this project include only the geotechnical aspects of the subsurface conditions at the site, unless otherwise specifically stated and identified in the report. The presence or implication(s) of possible surface and/or subsurface contamination resulting from previous activities or uses of the site and/or resulting from the introduction onto the site of materials from off-site sources are outside the terms of reference for this project and have not been investigated or addressed.

Soil and groundwater conditions shown in the factual data and described in the report are the observed conditions at the time of their determination or measurement. Unless otherwise noted, those conditions form the basis of the recommendations in the report. Groundwater conditions may vary between and beyond reported locations and can be affected by annual, seasonal and meteorological conditions. The condition of the soil, rock and groundwater may be significantly altered by construction activities (traffic, excavation, groundwater level lowering, pile driving, blasting, etc.) on the site or on adjacent sites. Excavation may expose the soils to changes due to wetting, drying or frost. Unless otherwise indicated the soil must be protected from these changes during construction.

Sample Disposal: Golder will dispose of all uncontaminated soil and/or rock samples 90 days following issue of this report or, upon written request of the Client, will store uncontaminated samples and materials at the Client's expense. In the event that actual contaminated soils, fills or groundwater are encountered or are inferred to be present, all contaminated samples shall remain the property and responsibility of the Client for proper disposal.

Follow-Up and Construction Services: All details of the design were not known at the time of submission of Golder's report. Golder should be retained to review the final design, project plans and documents prior to construction, to confirm that they are consistent with the intent of Golder's report.

During construction, Golder should be retained to perform sufficient and timely observations of encountered conditions to confirm and document that the subsurface conditions do not materially differ from those interpreted conditions considered in the preparation of Golder's report and to confirm and document that construction activities do not adversely affect the suggestions, recommendations and opinions contained in Golder's report. Adequate field review, observation and testing during construction are necessary for Golder to be able to provide letters of assurance, in accordance with the requirements of many regulatory authorities. In cases where this recommendation is not followed, Golder's responsibility is limited to interpreting accurately the information encountered at the borehole locations, at the time of their initial determination or measurement during the preparation of the Report.

**GEOLOGICAL HAZARD ASSESSMENT
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08 38**IMPORTANT INFORMATION AND LIMITATIONS OF THIS REPORT (CON'T)**

Changed Conditions and Drainage: Where conditions encountered at the site differ significantly from those anticipated in this report, either due to natural variability of subsurface conditions or construction activities, it is a condition of this report that Golder be notified of any changes and be provided with an opportunity to review or revise the recommendations within this report. Recognition of changed soil and rock conditions requires experience and it is recommended that Golder be employed to visit the site with sufficient frequency to detect if conditions have changed significantly.

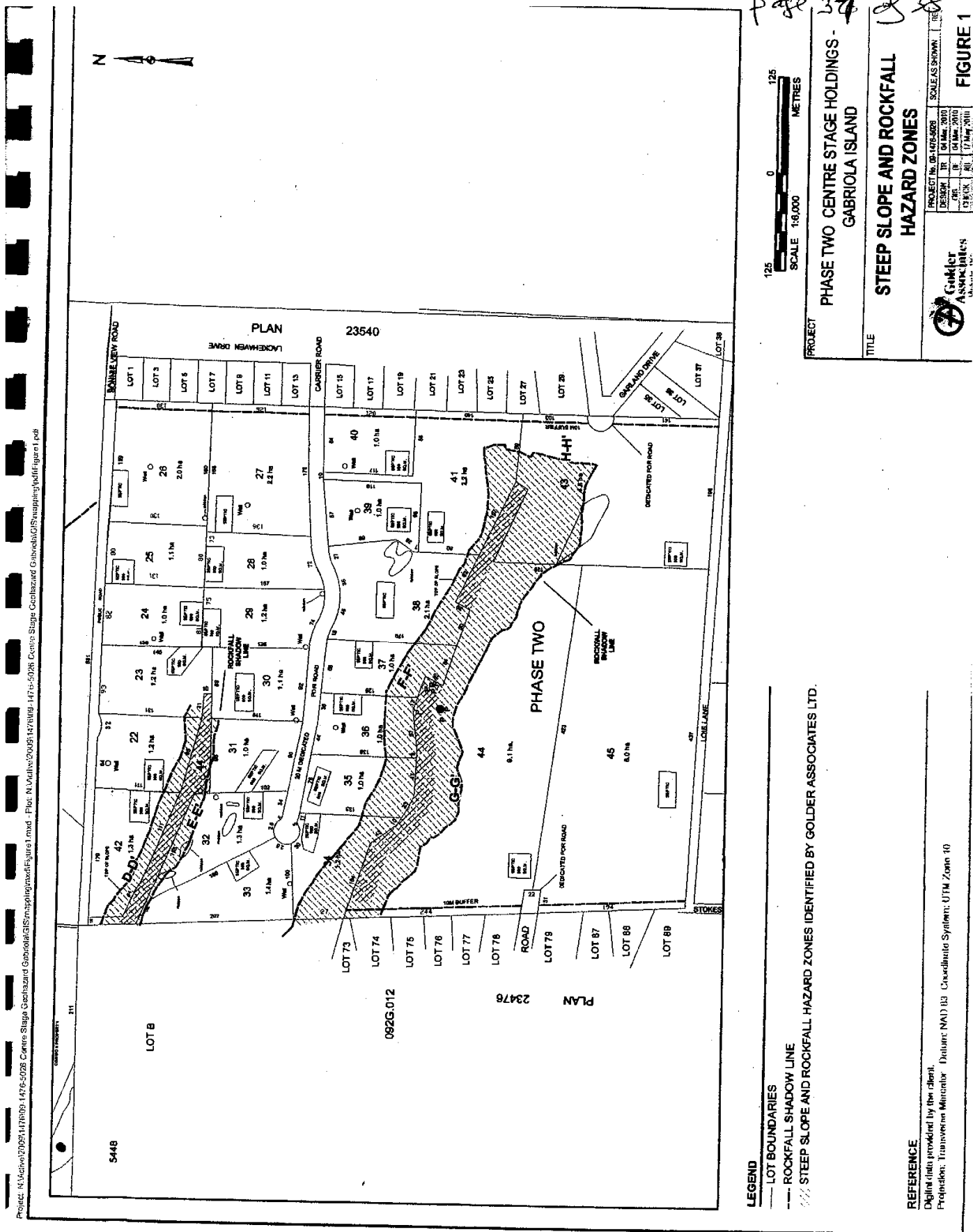
Drainage of subsurface water is commonly required either for temporary or permanent installations for the project. Improper design or construction of drainage or dewatering can have serious consequences. Golder takes no responsibility for the effects of drainage unless specifically involved in the detailed design and construction monitoring of the system.

**GEOLOGICAL HAZARD ASSESSMENT
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FIGURES



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At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1980, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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**LAND TITLE ACT
FORM DECLARATION**Related Document Number: **CA2923794**

PAGE 1 OF 1 PAGES

Your electronic signature is a representation that: you are a subscriber as defined by the Land Title Act, RSBC 1996, C.250, the original or where designated by the Director, a true copy of the supporting document is in your possession and that the summary of the material facts set out in this declaration accurately reflects the material facts set out in each supporting document and if a supporting document is evidenced by an imaged copy the material facts of the supporting document are set out in the imaged copy of it attached. Each term used in the representation and declaration set out above is to be given the meaning ascribed to it in Part 10.1 of the Land Title Act.

**Ronald
Leonard Morin
UNYLGW**

Digitally signed by Ronald Leonard Morin UNYLGW
DN: c=CA, cn=Ronald Leonard Morin UNYLGW, o=Lawyer, ou=Verify ID at www.juricert.com/LKUP:cm?id=UNYLGW
Date: 2012.12.20 09:36:59 -08'00'

I, RONALD L. MORIN, Barrister and Solicitor of 15245 - 18 Avenue, Surrey, B.C. V4A 1W9, Declare that due to a clerical error:

On the Form C Priority Agreement, Page 1, Section 5. (Transferor(s), the Grantors ISLAND SAVINGS CREDIT UNION (Inc. No. FI 29) and R.G.R. LEGACY HOLDINGS LTD. (Inc. No. 0775435) were inadvertently not joined in as Transferors.

Page 1, Section 5. (Transferor(s): of the Form C Priority Agreement should read as follows:

CENTRE STAGE HOLDINGS LTD. (Inc. No. 204577), ISLAND SAVINGS CREDIT UNION (Inc. No. FI 29) having its head office at 499 Canada Avenue, Duncan B.C., V9L 1T7 and R.G.R. LEGACY HOLDINGS LTD. (Inc. No. 0775435) having a registered and records office at 15245-18th Avenue, Surrey, BC, V4A 1W9

On the Form C, Page 1, Section 6 Transferees, the Grantors ISLAND SAVINGS CREDIT UNION (Inc. No. FI 29) and R.G.R. LEGACY HOLDINGS LTD. (Inc. No. 0775435) were inadvertently joined in as Transferees. The addition of ISLAND SAVINGS CREDIT UNION (Inc. No. FI 29) having its head office at 499 Canada Avenue, Duncan B.C., V9L 1T7 and R.G.R. LEGACY HOLDINGS LTD. (Inc. No. 0775435) having a registered and records office at 15245-18th Avenue, Surrey, BC, V4A 1W9 in this Section 6 should be deleted.

All Parties hereto agree to the Amendment.

I make this Declaration and know it to be true based on personal information.

RONALD L. MORIN
Barrister & Solicitor
15245 - 18 Avenue
Surrey, BC V4A 1W9

NOTE:

A Declaration cannot be used to submit a request to the Registrar for the withdrawal of a document.

Fee Collected for Document: \$0.00

APPENDIX D

Landslide Assessment Assurance Statements

APPENDIX D: LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Note: This Statement is to be read and completed in conjunction with the "APEGBC Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia", March 2006/Revised September 2008 ("APEGBC Guidelines") and the "2006 BC Building Code (BCBC 2006)" and is to be provided for *landslide assessments* (not floods or flood controls) for the purposes of the Land Title Act, Community Charter or the Local Government Act. Italicized words are defined in the APEGBC Guidelines.

To: The Approving Authority

Date:

19 May 2021

Islands Trust - Northern Office

700 North Road, Gabriola, BC, V0R 1X3

Jurisdiction and address

With reference to (check one):

- ☐ Land Title Act (Section 86) – Subdivision Approval
- ☒ Local Government Act (Sections 919.1 and 920) – Development Permit
- ☐ Community Charter (Section 56) – Building Permit
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Variance
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Exemption
- ☐ British Columbia Building Code 2006 sentences 4.1.8.16 (8) and 9.4 4.4.(2) (Refer to BC Building and Safety Policy Branch Information Bulletin B10-01 issued January 18, 2010)

For the Property:

North East 1/4 of Section 3, Gabriola Island, Nanaimo District, except Parcel A (DD773261) and except Part in Plans EPP19453 and EPP6666

Legal description and civic address of the Property

PID 003 134 806, 1905 Stokes Rd., V0R 1X2

The undersigned hereby gives assurance that he/she is a *Qualified Professional* and is a *Professional Engineer or Professional Geoscientist*.

I have signed, sealed and dated, and thereby certified, the attached *landslide assessment* report on the Property in accordance with the *APEGBC Guidelines*. That report must be read in conjunction with this Statement. In preparing that report I have:

Check to the left of applicable items

- ☒ 1. Collected and reviewed appropriate background information
- ☒ 2. Reviewed the proposed *residential development* on the Property
- ☒ 3. Conducted field work on and, if required, beyond the Property
- ☒ 4. Reported on the results of the field work on and, if required, beyond the Property
- ☒ 5. Considered any changed conditions on and, if required, beyond the Property
- 6. For a *landslide hazard analysis* or *landslide risk analysis* I have:
 - ☒ 6.1 reviewed and characterized, if appropriate, any *landslide* that may affect the Property
 - ☒ 6.2 estimated the *landslide hazard*
 - ☒ 6.3 identified existing and anticipated future *elements at risk* on and, if required, beyond the Property
 - ☒ 6.4 estimated the potential *consequences* to those *elements at risk*
- 7. Where the *Approving Authority* has adopted a *level of landslide safety* I have:
 - ☒ 7.1 compared the *level of landslide safety* adopted by the *Approving Authority* with the findings of my investigation
 - ☒ 7.2 made a finding on the *level of landslide safety* on the Property based on the comparison
 - ☒ 7.3 made recommendations to reduce *landslide hazards* and/or *landslide risks*

8. Where the *Approving Authority* has **not** adopted a *level of landslide safety* I have:

- ☒ 8.1 described the method of *landslide hazard analysis* or *landslide risk analysis* used
- ☒ 8.2 referred to an appropriate and identified provincial, national or international guideline for *level of landslide safety*
- ☒ 8.3 compared this guideline with the findings of my investigation
- ☒ 8.4 made a finding on the *level of landslide safety* on the Property based on the comparison
- ☒ 8.5 made recommendations to reduce *landslide hazards* and/or *landslide risks*
- ☒ 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections.

Based on my comparison between

Check one

- ☐ the findings from the investigation and the adopted *level of landslide safety* (item 7.2 above)
- ☒ the appropriate and identified provincial, national or international guideline for *level of landslide safety* (item 8.4 above)

I hereby give my assurance that, based on the conditions⁽¹⁾ contained in the attached *landslide assessment* report,

Check one

- ☐ for subdivision approval, as required by the Land Title Act (Section 86), "that the land may be used safely for the use intended"

Check one

- ☐ with one or more recommended registered covenants.
 - ☐ without any registered covenant.
 - ☒ for a development permit, as required by the Local Government Act (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit".
 - ☐ for a building permit, as required by the Community Charter (Section 56), "the land may be used safely for the use intended"
- Check one
- ☐ with one or more recommended registered covenants.
 - ☐ without any registered covenant.
 - ☐ for flood plain bylaw variance, as required by the "Flood Hazard Area Land Use Management Guidelines" associated with the Local Government Act (Section 910), "the development may occur safely".
 - ☐ for flood plain bylaw exemption, as required by the Local Government Act (Section 910), "the land may be used safely for the use intended".

Terry Rolleston, P. Geo., P. L. Eng.

Name (print)

19 May 2021

Date

Signature

⁽¹⁾ When seismic slope stability assessments are involved, *level of landslide safety* is considered to be a "life safety" criteria as described in the National Building Code of Canada (NBCC 2005), Commentary on Design for Seismic Effects in the User's Guide, Structural Commentaries, Part 4 of Division B. This states:

"The primary objective of seismic design is to provide an acceptable level of safety for building occupants and the general public as the building responds to strong ground motion; in other words, to minimize loss of life. This implies that, although there will likely be extensive structural and non-structural damage, during the DGM (design ground motion), there is a reasonable degree of confidence that the building will not collapse nor will its attachments break off and fall on people near the building. This performance level is termed 'extensive damage' because, although the structure may be heavily damaged and may have lost a substantial amount of its initial strength and stiffness, it retains some margin of resistance against collapse".

APPENDIX D: LANDSLIDE ASSESSMENT ASSURANCE STATEMENT

Note: This Statement is to be read and completed in conjunction with the "APEGBC Guidelines for Legislated Landslide Assessments for Proposed Residential Development in British Columbia", March 2006/Revised September 2008 ("APEGBC Guidelines") and the "2006 BC Building Code (BCBC 2006)" and is to be provided for *landslide assessments* (not floods or flood controls) for the purposes of the Land Title Act, Community Charter or the Local Government Act. Italicized words are defined in the APEGBC Guidelines.

To: The Approving Authority

Date:

19 May 2021

Ministry of Transportation and Infrastructure

Vancouver Island District, 2100 Labieux Rd. Nanaimo, BC. V9T 6E9

Jurisdiction and address

With reference to (check one):

- ☒ Land Title Act (Section 86) – Subdivision Approval
- ☐ Local Government Act (Sections 919.1 and 920) – Development Permit
- ☐ Community Charter (Section 56) – Building Permit
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Variance
- ☐ Local Government Act (Section 910) – Flood Plain Bylaw Exemption
- ☐ British Columbia Building Code 2006 sentences 4.1.8.16 (8) and 9.4.4.4.(2) (Refer to BC Building and Safety Policy Branch Information Bulletin B10-01 issued January 18, 2010)

For the Property:

NE 1/4 of Section 3, Gabriola Island, Nanaimo District, except Parcel A (DD773261) and except Part in Plans EPP19453 and EPP6666.

Legal description and civic address of the Property

PID003134806, 1905 Stokes Rd., VOR1X2

The undersigned hereby gives assurance that he/she is a *Qualified Professional* and is a *Professional Engineer or Professional Geoscientist*.

I have signed, sealed and dated, and thereby certified, the attached *landslide assessment* report on the Property in accordance with the *APEGBC Guidelines*. That report must be read in conjunction with this Statement. In preparing that report I have:

Check to the left of applicable items

- ☒ 1. Collected and reviewed appropriate background information
- ☒ 2. Reviewed the proposed *residential development* on the Property
- ☒ 3. Conducted field work on and, if required, beyond the Property
- ☒ 4. Reported on the results of the field work on and, if required, beyond the Property
- ☒ 5. Considered any changed conditions on and, if required, beyond the Property
- 6. For a *landslide hazard analysis* or *landslide risk analysis* I have:
 - ☒ 6.1 reviewed and characterized, if appropriate, any *landslide* that may affect the Property
 - ☒ 6.2 estimated the *landslide hazard*
 - ☒ 6.3 identified existing and anticipated future *elements at risk* on and, if required, beyond the Property
 - ☒ 6.4 estimated the potential *consequences* to those *elements at risk*
- 7. Where the Approving Authority has adopted a *level of landslide safety* I have:
 - ☒ 7.1 compared the *level of landslide safety* adopted by the Approving Authority with the findings of my investigation
 - ☒ 7.2 made a finding on the *level of landslide safety* on the Property based on the comparison
 - ☒ 7.3 made recommendations to reduce *landslide hazards* and/or *landslide risks*
- 8. Where the Approving Authority has **not** adopted a *level of landslide safety* I have:

- ☒ 8.1 described the method of *landslide hazard analysis* or *landslide risk analysis* used
- ☒ 8.2 referred to an appropriate and identified provincial, national or international guideline for *level of landslide safety*
- ☒ 8.3 compared this guideline with the findings of my investigation
- ☒ 8.4 made a finding on the *level of landslide safety* on the Property based on the comparison
- ☒ 8.5 made recommendations to reduce *landslide hazards* and/or *landslide risks*
- ☒ 9. Reported on the requirements for future inspections of the Property and recommended who should conduct those inspections.

Based on my comparison between

Check one

- ☐ the findings from the investigation and the adopted *level of landslide safety* (item 7.2 above)
- ☒ the appropriate and identified provincial, national or international guideline for *level of landslide safety* (item 8.4 above)

I hereby give my assurance that, based on the conditions⁽¹⁾ contained in the attached *landslide assessment report*,

Check one

- ☒ for subdivision approval, as required by the Land Title Act (Section 86), "that the land may be used safely for the use intended"

Check one

- ☐ with one or more recommended registered covenants.
- ☐ without any registered covenant.

- ☐ for a development permit, as required by the Local Government Act (Sections 919.1 and 920), my report will "assist the local government in determining what conditions or requirements under [Section 920] subsection (7.1) it will impose in the permit".
- ☐ for a building permit, as required by the Community Charter (Section 56), "the land may be used safely for the use intended"

Check one

- ☐ with one or more recommended registered covenants.
- ☐ without any registered covenant.

- ☐ for flood plain bylaw variance, as required by the "Flood Hazard Area Land Use Management Guidelines" associated with the Local Government Act (Section 910), "the development may occur safely".
- ☐ for flood plain bylaw exemption, as required by the Local Government Act (Section 910), "the land may be used safely for the use intended".

Terry Rolleston P.Eng., P.L. Eng.
Name (print)

19 May 2021
Date

[Signature]
Signature

⁽¹⁾ When seismic slope stability assessments are involved, *level of landslide safety* is considered to be a "life safety" criteria as described in the National Building Code of Canada (NBCC 2005), Commentary on Design for Seismic Effects in the User's Guide, Structural Commentaries, Part 4 of Division B. This states:

"The primary objective of seismic design is to provide an acceptable level of safety for building occupants and the general public as the building responds to strong ground motion; in other words, to minimize loss of life. This implies that, although there will likely be extensive structural and non-structural damage, during the DGM (design ground motion), there is a reasonable degree of confidence that the building will not collapse nor will its attachments break off and fall on people near the building. This performance level is termed 'extensive damage' because, although the structure may be heavily damaged and may have lost a substantial amount of its initial strength and stiffness, it retains some margin of resistance against collapse".



Lewkowich Engineering Associates Ltd.

geotechnical • environmental, health & safety • materials testing

GEOTECHNICAL MEMO

Islands Trust, Northern Office
700 North Road
Gabriola Island, BC. V0R 1X3

File: E2444.01
Date: July 10, 2023

ATTENTION: Sonja Zupanec, RRR, MCIP

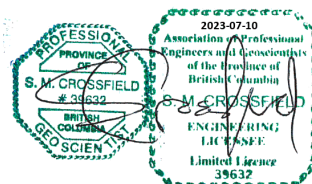
PROJECT: CENTRE STAGE GABRIOLA SUBDIVISION PHASE 2
GABRIOLA ISLAND, BC.
PID: 003-134-806

SUBJECT: TREE REMOVAL AND SLOPE STABILITY

1. As requested, Lewkowich Engineering Associates Ltd. (LEA) has reviewed the above referenced development being proposed by Centre Stage Holdings Ltd., the associated background reports, and undertook a site reconnaissance, to observe and comment on the effects of tree removal on slope stability, as per Development Permit DP-6 Escarpment Areas.
2. We understand the Islands Trust would like a follow-up confirmation by a geotechnical engineer that slope stability will not be impacted by tree removal as discussed in the report by Diamond Head Consulting Ltd. "Forest Stand Assessment for Centre Stage Gabriola Subdivision Phase 2" dated May 26, 2023. The report outlines selective tree removal around escarpment (steep slope) areas with an estimated 2,000 trees removed in total using a guideline of 50% removal ratio.
3. We have also reviewed Stantec Consulting Ltd. report titled "Geological Hazard Review of Centre Stage Gabriola Subdivision, Phase 2" dated May 20, 2021, which concludes a low to very low likelihood that selective removal of trees on steeper slopes would adversely affect slope stability.
4. LEA undertook a site reconnaissance of the property along the steep slopes on June 30, 2023 with Centre Stage Holdings and Stantec. LEA was able to become familiar with the site conditions, slope stability and setbacks, as they relate to the proposed development plans.
5. Based on the above It is the opinion of LEA that the approximately 2,000 trees estimated for removal does remain consistent with the terminology of "selective removal" and furthermore we concur that there remains a low to very low likelihood that the tree removal will adversely affect slope stability.
6. Lewkowich Engineering Associates Ltd. appreciates the opportunity to be of service on this project. If you have any comments, or if we can be of further assistance, please contact us at your convenience.

Respectfully Yours,
Lewkowich Engineering Associates Ltd.

Stuart Crossfield, P.Geo., P.L.Eng.
Engineering Geologist





DATE OF MEETING: June 26, 2025

TO: Gabriola Island Local Trust Committee

FROM: Stephen Baugh, Island Planner
Northern Team

SUBJECT: GB-RZ-2022.1 – Housing Agreement
Applicant: Kent Moen
Location: 750 Tin Can Alley, Gabriola Island
LOT B SECTION 19 GABRIOLA ISLAND NANAIMO DISTRICT
PLAN VIP60373 (PID 023-005-629)

RECOMMENDATION

1. That the Gabriola Island Local Trust Committee request the applicant for GB-RZ-2022.1 (Moen) enter into a cost recovery agreement with the Islands Trust for legal services to review a draft housing agreement and housing agreement bylaw and prepare a draft restrictive covenant for the subject property.
2. That the Gabriola Island Local Trust Committee amend Bylaw No. 318, cited as “Gabriola Official Community Plan (Gabriola) Bylaw No. 166, 1997, Amendment No. 1, 2024”, as follows:
 - a. Schedule 2, Section 1, Subsection 1.1 is amended by removing “Lot B, Plan VIP50373, Section 19, District 32” and replacing it with “LOT B SECTION 19 GABRIOLA ISLAND NANAIMO DISTRICT PLAN VIP60373”;
 - b. Schedule 3, Section 1, is amended by removing “Lot B, Plan VIP50373, Section 19, District 32” and replacing it with “LOT B SECTION 19 GABRIOLA ISLAND NANAIMO DISTRICT PLAN VIP60373”.
3. That the Gabriola Island Local Trust Committee Bylaw No. 318 cited as “Gabriola Official Community Plan (Gabriola) Bylaw No. 166, 1997, Amendment No. 1, 2024” be read a first time, as amended.
4. That the Gabriola Island Local Trust Committee amend Bylaw No. 319, cited as “Gabriola Island Land Use Bylaw, 1999, Amendment No. 1, 2024”, as follows:
 - a. Schedule 1, Section 2, Subsection 2.1 is amended by removing “Lot B, Plan VIP50373, Section 19, District 32” and replacing it with “LOT B SECTION 19 GABRIOLA ISLAND NANAIMO DISTRICT PLAN VIP60373”.
5. That the Gabriola Island Local Trust Committee Bylaw No. 319 cited as “Gabriola Island Land Use Bylaw, 1999, Amendment No. 1, 2024” be read a first time, as amended.

REPORT SUMMARY

At their meeting in January 2025, the Gabriola Local Trust Committee (LTC) gave First Reading to Bylaw No. 318 and No. 319 to permit a site-specific commercial zone at 750 Tin Can Alley and the Bylaws were referred to First Nations, Local Governments and agencies. The application also proposes two dwelling units at the subject property, one of which would be secured as affordable rental housing with a housing agreement with the LTC.

The purpose of this report is to present the referral responses received, recommend a minor amendment to the Bylaws and to seek direction from the LTC to enter into a cost recovery agreement with the applicant of bylaw amendment application GB-RZ-2022.1 (Moen) for the purposes of a legal review of a housing agreement and associated housing agreement bylaw.

BACKGROUND

Bylaw No. 318 would amend the Gabriola Official Community Plan to include 750 Tin Can Alley in the Village Commercial Land Use Designation, and in the Village Centre Development Permit Area. Bylaw No. 319 would amend the Gabriola Land Use Bylaw to create a new, site-specific Village Commercial Zone to allow a range of commercial uses in addition to the existing commercial uses on the property as well as two dwelling units. One of the dwelling units is proposed to be secured as affordable housing through a housing agreement with the LTC. A cost recovery agreement with the applicant would support a legal review of the housing agreement, housing agreement bylaw and accompanying restrictive covenant, prior to consideration by the LTC.

ANALYSIS

Referral Comments

Referrals were sent on February 21, to First Nations, Local Governments, and agencies. The following table summarizes the responses received to referrals.

Referral Recipient	Response	Staff Comments
Regional District of Nanaimo	No response received.	
Island Health Authority	Approval recommended subject to conditions: • A permit is required for construction and operation of a water supply system; • Water treatment may be required at this location due to water quality; • Onsite sewage disposal must be in compliance with the <i>Sewerage System Regulation</i>; • Permits are required for construction and operation of food premises or invasive personal services.	Applicant is advised of Island Health requirements
Ministry of Transportation and Transit	"The Ministry has no objections to the zoning text amendment."	

Ministry of Water, Land and Resource Stewardship	No response received.	
School District 68	"the district has no comment on the referral"	
Gabriola Volunteer Fire Department	"Access to the property for fire apparatus is good, and we have a suitable turnaround area at the end of Tin Can Alley. There is a water source within 2 km, and the fire hall is located within 1 km. Additionally, the property will receive the Fire Underwriters Survey, qualifying it for commercial status."	
Gabriola Advisory Planning Commission	That the Gabriola Island Advisory Planning Commission recommends that the Local Trust Committee approve the proposed Bylaw Nos. 318 and 319 (GB-RZ-2022.1 (Moen)) subject to water supply and storage being available to suit the proposed use.	Applicant has provided a report from a professional hydrogeologist and water storage requirements are included in the proposed bylaw.
Gabriola Housing Advisory Planning Commission	"The HAPC recommends that the proponent at 750 Tin Can Alley be allowed to build as many residential units, (at average size of 90 m2), to equal the area of new commercial development. We recognize that this is inconsistent with the current OCP, but it is consistent with the HAPC's 2024 recommendations for increased density in the Village area and the potential for equivalent area of housing as commercial in new developments."	The current Gabriola OCP does not support increasing density except for seniors, special needs or affordable housing. Additionally, professional reporting provided with this application does not contemplate residential density of this intensity at the subject property.
Cowichan Tribes	No response received.	
Halalt First Nation	No response received.	
Lyackson First Nation	No response received.	
Penelakut Tribe	No response received.	
Snuneymuxw First Nation	No response received.	Snuneymuxw First Nation staff have

		indicated that they are reviewing the referral.
Stz'uminus First Nation	No response received.	
Tsu'uubaa-asatx First Nation	"...at this time, we defer to any Nation(s) whose title and governing authorities are directly affected."	

A referral to Snuneymuxw First Nation was sent via email in February, however, it was not submitted through their 'Snuneymuxw Connect' Portal until May 20. The applicant has subsequently submitted a referral fee and staff at Snuneymuxw First Nation are reviewing the referral. SFN staff have been advised that referral responses can be received by the LTC up until the Public Hearing and that the LTC will receive an update with comments from Snuneymuxw First Nation when a response has been received.

Staff are not recommending amendments to the proposed bylaws as a result of the referral responses received to date. There is a typographical error in the OCP and LUB bylaw which staff are recommending be corrected as per recommendation number 2 and number 4 on page one of this report.

Housing Agreements

Section 483 of the *Local Government Act* authorizes LTC to enter into a housing agreement, which defines terms and conditions agreed to by the LTC and the property owner regarding the occupancy, rents and tenure of the housing units identified in the agreement. The primary purpose of a housing agreement is to ensure that a development provides an affordable rental in the long term.

There are three parts to a housing agreement:

1. **A bylaw.** Adopted by the LTC and authorizes LTC to enter into a housing agreement with another party.
2. **The housing agreement.** The housing agreement is attached to the bylaw, and is a contract between the parties to provide affordable housing.
3. **Covenant.** Once the bylaw is approved, notice of the housing agreement is registered on title. Housing agreements are registered to the land, even if the land is sold, the housing agreement is preserved.

Official Community Plan:

With regards to the housing agreement bylaw, the following OCP policy is relevant:

2.0(k) This Plan only supports the realization of additional residential density without subdivision when used for Affordable Housing for Special Needs residents, Seniors and multiple-dwelling affordable housing.

The applicant has proposed that one of the dwelling units be affordable housing. The only tool available to the LTC to secure affordable housing is a housing agreement. These facts have led to the necessity for a housing agreement in order to permit 2 dwellings on the subject property. Staff note that the proposed bylaws under consideration do not currently require any housing to be constructed and as such, there is no guarantee that an affordable housing unit will be constructed.

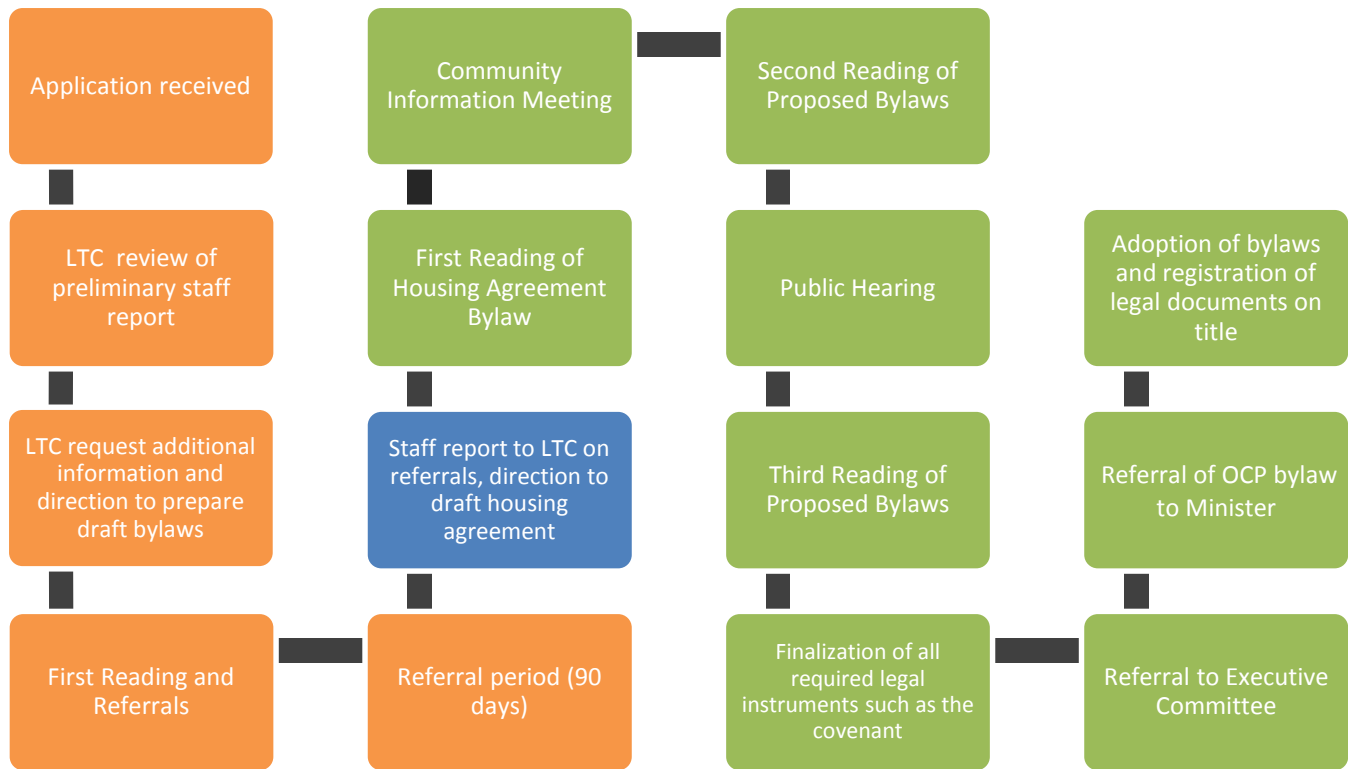
Staff can prepare a draft housing agreement and housing agreement bylaw for legal review and request legal to draft a restrictive covenant for LTC consideration prior to second reading. This will require the applicant to enter into a cost recovery agreement with the Islands Trust for the purposes of legal review services as per staff recommendation number 1 on page one of this report.

Rationale for Recommendation

The staff recommendations are supported by the following rationale:

- A housing agreement would require one of the two permitted dwelling units to be affordable housing;
- The cost recovery agreement will allow a legal review of the housing agreement to ensure it uses enforceable and clear language;
- The housing agreement is consistent with current OCP policy for affordable housing; and
- Amendments to the OCP and LUB will correct a typological error.

Application Timeline



ALTERNATIVES

The LTC may consider the following alternatives to the staff recommendation:

1. Defer amendments to Proposed Bylaws until 2nd Reading

The LTC may defer making any amendments to the bylaws until consideration of 2nd reading. There are no significant consequences of this. If this option is selected the LTC would simply forgo recommended resolutions numbered 2, 3, 4, and 5 on the first page of this report.

2. Proceed No Further

The LTC may proceed no further with this application. Recommended wording for the resolution is as follows:

That the Gabriola Island Local Trust Committee proceed no further with bylaw amendment application GB-RZ-2022.1.

NEXT STEPS

If the staff recommendations are chosen, staff will obtain a quote for legal services, complete the cost recovery agreement with the applicant, and work with the applicant to draft a housing agreement.

Submitted By:	Stephen Baugh, Island Planner	June 9, 2025
Concurrence:	Sonja Zupanec, RPP, MCIP, Acting Regional Planning Manager	June 9, 2025

ATTACHMENTS

1. Proposed OCP Bylaw No. 318
2. Proposed LUB Bylaw No. 319

PROPOSED

GABRIOLA ISLAND LOCAL TRUST COMMITTEE BYLAW NO. 318

A BYLAW TO AMEND GABRIOLA ISLAND OFFICIAL COMMUNITY PLAN, 1997

The Gabriola Island Local Trust Committee, being the Trust Committee having jurisdiction in respect of the Gabriola Island Local Trust Area under the *Islands Trust Act*, enacts as follows:

1. Citation

This bylaw may be cited for all purposes as “Gabriola Official Community Plan (Gabriola) Bylaw No. 166, 1997, Amendment No. 1, 2024”.

2. Gabriola Island Local Trust Committee Bylaw No. 166, cited as “Gabriola Island Official Community Plan (Gabriola) Bylaw No. 166, 1997”, is amended as per Schedule “1”, Schedule “2”, and Schedule “3” attached to and forming part of this bylaw

READ A FIRST TIME THIS 23RD DAY OF JANUARY , 2025

READ A SECOND TIME THIS _____ DAY OF _____ , 202x

PUBLIC HEARING HELD THIS _____ DAY OF _____ , 202x

READ A THIRD TIME THIS _____ DAY OF _____ , 202x

APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS

_____ DAY OF _____ , 202x

APPROVED BY THE MINISTER OF MUNICIPAL AFFAIRS AND HOUSING THIS

_____ DAY OF _____ , 202x

ADOPTED THIS _____ DAY OF _____ , 202x

Chair

Secretary

GABRIOLA ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 318
Schedule "1"

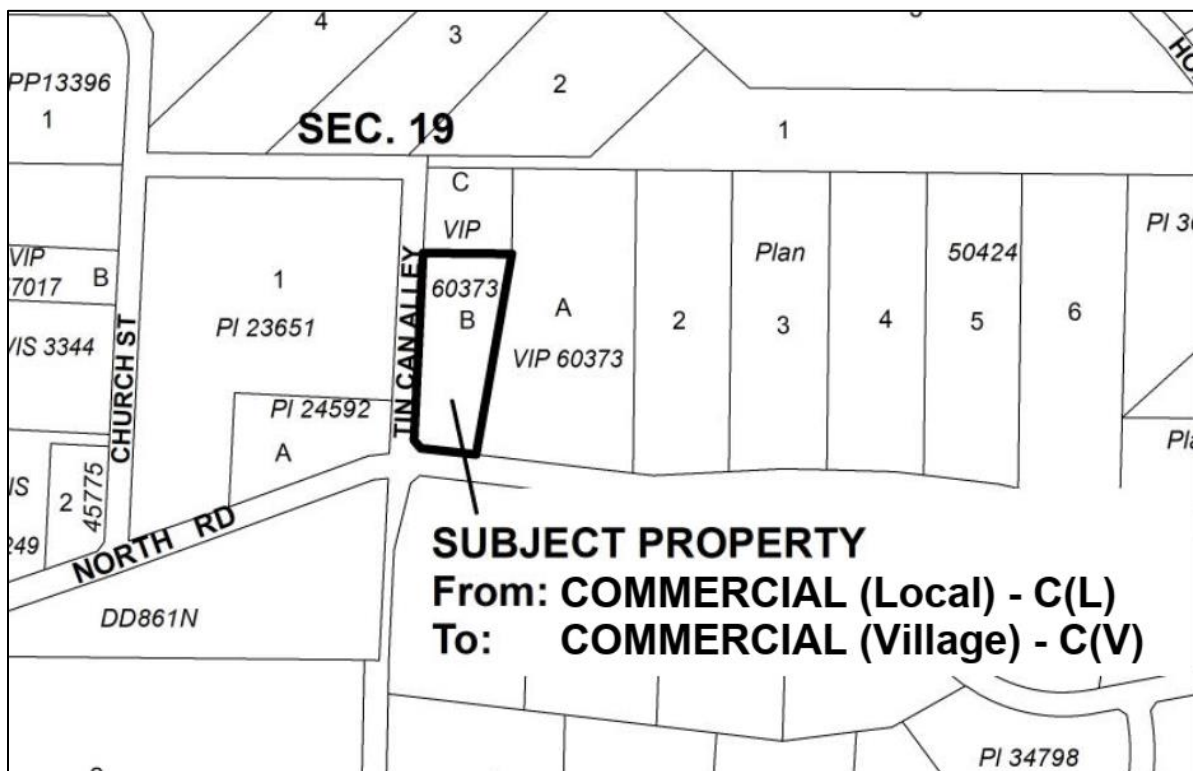
1. **Schedule "A"** of Gabriola Island Official Community Plan (Gabriola) Bylaw, 1997 is amended as follows:
 - 1.1. **Section 3 – Economic Activities**, Subsection **3.1 Commercial Activity, General Commercial Objectives** number 1 is amended by deleting the words "(Lockinvar Triangle area)".
 - 1.2. **Section 3 – Economic Activities**, Subsection **3.1 Commercial Activity, General Commercial Policies** is amended by adding a new clause after clause d) as follows: "e) Despite clause a) and d) a minimum and average parcel size of 1.0 hectare (2.47 acres) and up to 2 dwelling units per parcel may be permitted on the following parcel: LOT B SECTION 19 GABRIOLA ISLAND NANAIMO DISTRICT PLAN VIP60373."
 - 1.3. **Section 3 – Economic Activities**, Subsection **3.2 Village Commercial**, Clause 3.2.a) is amended by deleting the words "(the Lockinvar Triangle area)".
 - 1.4. **Section 3 – Economic Activities**, Subsection **3.4 Local Commercial**, Clause 3.4.a), is amended by deleting Item 3.4.a)ii in its entirety and by making such consequential numbering alterations to effect this change.

GABRIOLA ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 318
Schedule "2"

1. **Schedule "B"** of Gabriola Island Official Community Plan (Gabriola) Bylaw, 1997 is amended as follows:

- 1.1. **Schedule "B" – Land Use Designations – North Sheet**, is amended by changing the land use designation on the lands described as Lot B, Plan VIP50373, Section 19, District 32 (750 Tin Can Alley, Gabriola Island PID 023-005-629) from "Commercial (Local)" to "Village Commercial" as shown on Plan No. 1 attached to and forming part of this bylaw, and by making such alterations to Schedule "B" as are required to effect this change.

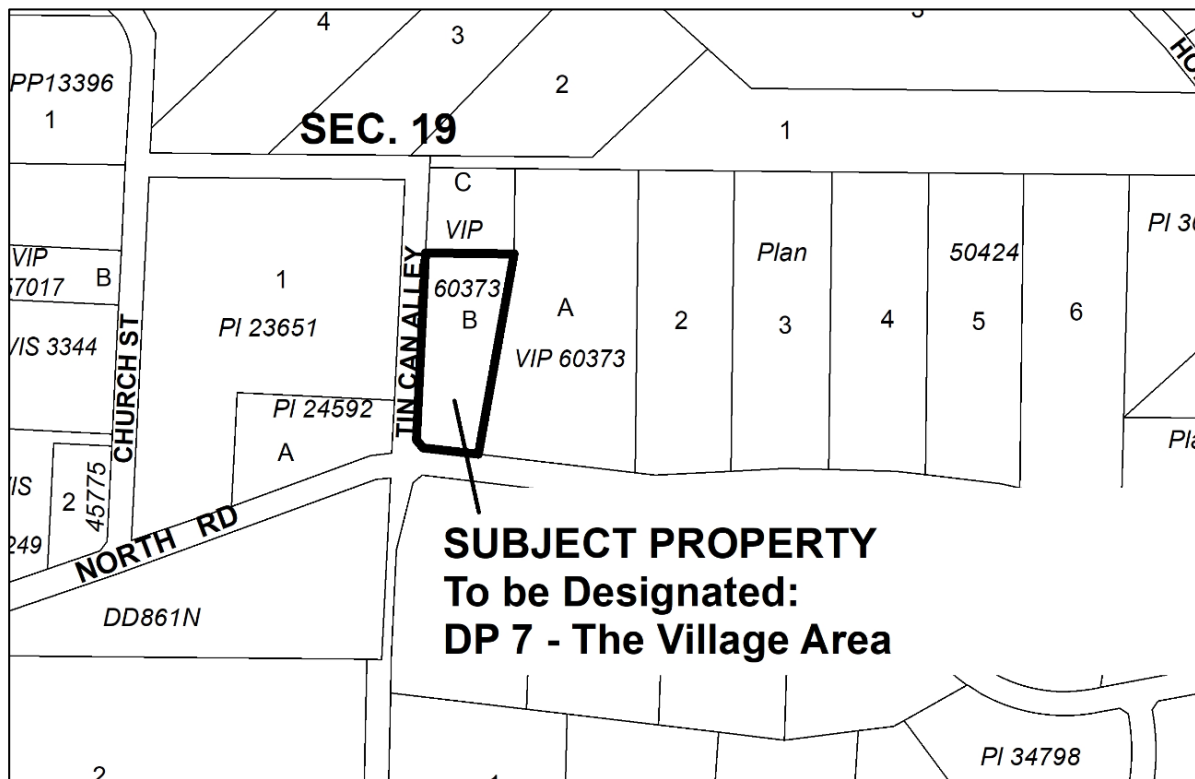
Plan No. 1



GABRIOLA ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 318
Schedule "3"

1. **Schedule "D" – Development Permit Areas - OCP B North Sheet**, is amended by including the lands described as Lot B, Plan VIP50373, Section 19, District 32 (750 Tin Can Alley, Gabriola Island PID 023-005-629) in the Schedule D map for DP 7 - The Village Centre as shown on Plan No. 2 attached to and forming part of this bylaw, and by making such alterations to Schedule "D" of Bylaw No. 166 as are required to effect this change.

Plan No. 2



PROPOSED

GABRIOLA ISLAND LOCAL TRUST COMMITTEE BYLAW NO. 319

A BYLAW TO AMEND GABRIOLA ISLAND LAND USE BYLAW, 1999

The Gabriola Island Local Trust Committee, being the Trust Committee having jurisdiction in respect of the Gabriola Island Local Trust Area under the *Islands Trust Act*, enacts as follows:

1. Citation

This bylaw may be cited for all purposes as “Gabriola Island Land Use Bylaw, 1999, Amendment No. 1, 2024”.

2. Gabriola Island Local Trust Committee Bylaw No. 177, cited as “Gabriola Island Land Use Bylaw, 1999” is amended as per Schedule “1” attached to and forming part of this bylaw.

READ A FIRST TIME THIS 23RD DAY OF JANUARY , 2025

READ A SECOND TIME THIS _____ DAY OF _____ , 202x

PUBLIC HEARING HELD THIS _____ DAY OF _____ , 202x

READ A THIRD TIME THIS _____ DAY OF _____ , 202x

APPROVED BY THE EXECUTIVE COMMITTEE OF THE ISLANDS TRUST THIS

_____ DAY OF _____ , 202x

ADOPTED THIS _____ DAY OF _____ , 202x

Chair

Secretary

**GABRIOLA ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 319**

Schedule “1”

1. **Schedule “A”** of Gabriola Island Land Use Bylaw, 1999 is amended as follows:

- 1.1 **Part B GENERAL REGULATIONS**, Section B.1 **USES, BUILDINGS AND STRUCTURES**, Subsection **B.1.1 Permitted in Any Zone**, Article **B.1.1.1 Uses**, Clause B.1.1.1.c. is amended by replacing “D.3.7. Ferry Parking, D.3.10” with “D.3.8. Ferry Parking, D.3.11”.
- 1.2 **Part B GENERAL REGULATIONS**, Section B.4 **SIGNS**, Subsection **B.4.1 Number and Total Sign Area**, Article **B.4.1.1**, Table 1 **Sign Regulations**, Column I is amended by adding “VC3,” after “VC2,”.
- 1.3 **Part B GENERAL REGULATIONS**, Section B.5 **PARKING**, Subsection **B.5.1 Minimum Number of Parking Spaces for Automobiles and Bicycles**, Article **B.5.1.1**, Table 2: **Parking Requirements**, is amended by adding a new row under the “Residential” heading as follows:

<i>dwelling unit</i> in the Village Commercial 3 zone	1 per <i>dwelling unit</i>	None required	None required
--	-------------------------------	------------------	------------------

- 1.4 **Part C ESTABLISHMENT OF ZONES**, Section C.1 **DIVISION INTO ZONES**, Subsection **C.1.1 Land Based Zones**, insert new zone “VC3 Village Commercial 3” after “Village Commercial 2 – Professional Centre” and before “DC1 District Commercial 1”.
- 1.5 **Part D ZONES**, Section D.3 **COMMERCIAL AND INDUSTRIAL ZONES**, insert new Subsection **D.3.3 Village Commercial 3 (VC3)** after Subsection **D.3.2 Village Commercial 2 – Professional Centre(VC2)** as shown in **Appendix 1** attached to and forming part of this bylaw; and renumber all subsequent subsections chronologically.
- 1.6 **Part D ZONES**, Section D.3 **COMMERCIAL AND INDUSTRIAL ZONES**, Subsection **D.3.3 District Commercial 1(DC1)**, Article D.3.3.3 **Regulations**, Clause D.3.3.3.b. **Buildings and Structures Siting Requirements**, Item D.3.3.3.b.iii. is amended by replacing “D.3.3.3.ii” with “D.3.4.3.ii”.
- 1.7 **Part D ZONES**, Section D.3 **COMMERCIAL AND INDUSTRIAL ZONES**, Subsection **D.3.6 Local Commercial 3 – Garden Centres(LC3)**, Article **D.3.6.1 Permitted Uses**, Clause **D.3.6.1.b. Permitted Accessory Uses**, Item **D.3.6.1.b.iii** is amended by deleting the words “except on lands shown on Schedule C, Map 12”.
- 1.8 **Part D ZONES**, Section D.3 **COMMERCIAL AND INDUSTRIAL ZONES**, Subsection **D.3.6 Local Commercial 3 – Garden Centres(LC3)**, Article **D.3.6.1 Permitted Uses**, Clause **D.3.6.1.b. Permitted Accessory Uses**, Item **D.3.6.1.b.iv** is deleted in its entirety.

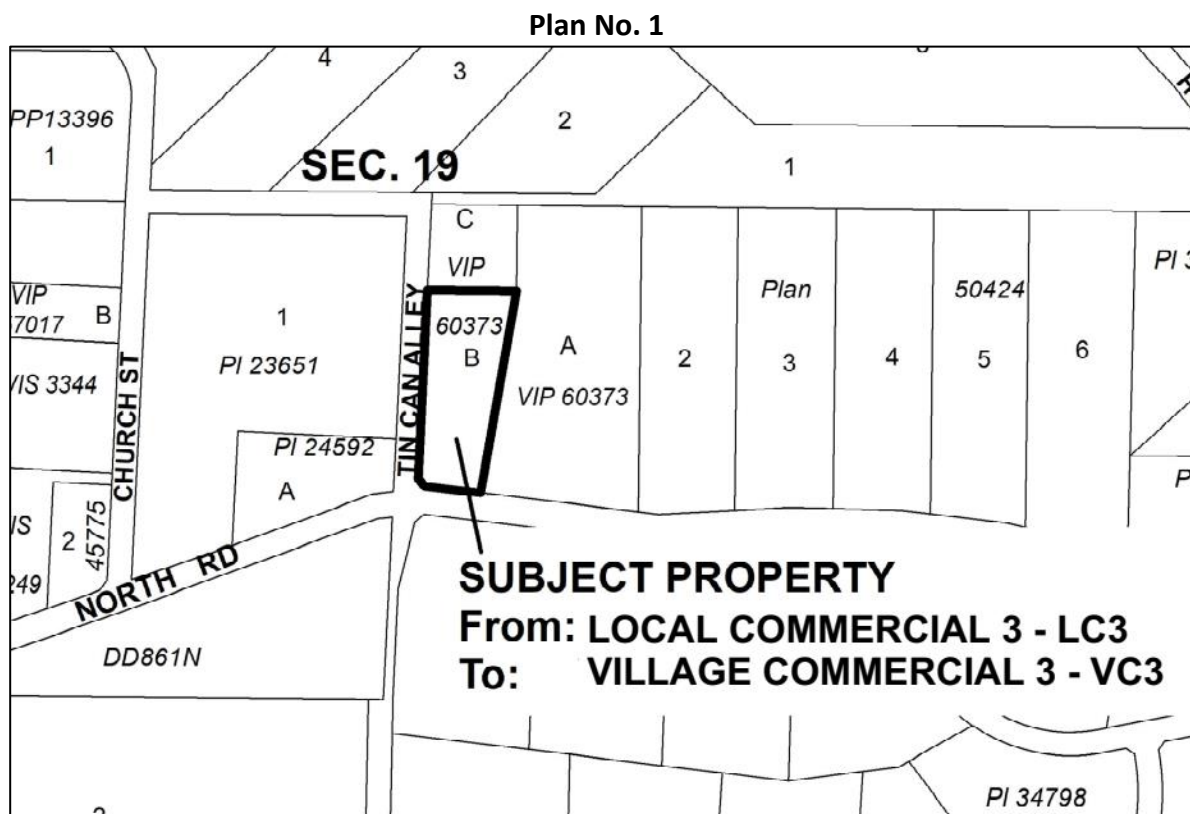
1.9 **Part D ZONES**, Section D.3 **COMMERCIAL AND INDUSTRIAL ZONES**, Subsection **D.3.6 Local Commercial 3 – Garden Centres(LC3)**, Article **D.3.6.2 Buildings and Structures**, Clause **D.3.6.2.a. Permitted Buildings and Structures**, Item **D.3.6.2.a.iv** is deleted in its entirety.

1.10 **Part G**, Section G.1 **DEFINITIONS**, is amended by deleting the following definition:

“farm supply centre a business for the retail sale of farm supplies, but excluding the sale of farm equipment;”

2. **Schedule “B”** of Gabriola Island Land Use Bylaw, 1999 is amended as follows:

2.1. Schedule “B” – North Sheet, is amended by changing the zoning classification of Lot B, Plan VIP50373, Section 19, District 32 (750 Tin Can Alley, Gabriola Island PID 023-005-629) from “Local Commercial 3” to “Village Commercial 3” as shown on Plan No. 1 attached to and forming part of this bylaw, and by making such alterations to Schedule “B” of Bylaw No. 177 as are required to effect this change.



3. **Schedule “C”** of Gabriola Island Land Use Bylaw, 1999 is amended as follows:

3.1. Schedule “C” – Map 10, is amended by replacing “Item d.3.8.1.a.vii” with “Item d.3.9.1.a.vii”.

3.2. Schedule “C” – Map 12, is deleted in its entirety.

- 3.3. Schedule “C” – Map 17, is amended by replacing “Items D.3.8.1.a.v and D.3.8.1.a.viii” with “Items D.3.9.1.a.v and D.3.9.1.a.viii”.

**GABRIOLA ISLAND LOCAL TRUST COMMITTEE
BYLAW NO. 319**

Appendix 1

D.3.3 Village Commercial 3 (VC3)

D.3.3.1 Permitted Uses

The uses permitted in Article B.1.1.1, plus the following uses and no others are permitted in the Village Commercial 3 (VC3) zone:

a. Permitted *Principal* Uses

- i *garden centre*
- ii retail sales and rentals
- iii *personal services*
- iv *restaurant*
- v bakeries
- vi offices
- vii *limited public market*, subject to Subsection B.6.2

b. Permitted *Accessory* Uses

- i *single family* residential
- ii *two family dwelling* residential
- iii mini-storage

D.3.3.2 Buildings and Structures

The *buildings* and *structures* permitted in Article B.1.1.2, plus the following *buildings* and *structures* and no others are permitted in the Village Commercial 3 (VC3) zone:

a. Permitted *Buildings* and *Structures*

- i *Buildings* and *structures* to accommodate *principal* uses set out in this zone which must be connected to a freshwater collection system with a minimum storage capacity of 22,500 litres (5,944 US gallons).
- ii Maximum of:
 - two *dwelling units* per lot; and
 - two *buildings* per lot that exclude a *pump/utility house* and woodshed, and that are *accessory* to a *dwelling unit*.
- iii The maximum permitted floor area of a *dwelling unit* is 90 square metres (968 square feet)
- iv Other *buildings* and *structures* to accommodate the permitted accessory uses set out in this zone.

D.3.3.3 Regulations

The general regulations in Part B, plus the following regulations apply in the Village Commercial 3 (VC3) zone:

a. Buildings and Structures Height Limitations

- i The maximum *height* of *buildings* and *structures* is 9.0 metres (29.5 feet).

b. Buildings and Structures Siting Requirements

- i The minimum *setback* for *buildings* or *structures* except for a sign, *fence*, or *pump/utility house* is:
 - 6.0 metres (19.7 feet) from the *front lot line*;
 - 6.0 metres (9.8 feet) from any *interior lot line*, except where the *interior lot line* abuts a commercial or industrial *zone* in which case there is no *setback* requirement from the *interior lot line*; and
 - 3.0 metres (9.8 feet) from another *building* sited on the same *lot*.
- ii There is no *setback* requirement from any *exterior side lot line*, except for mini-storage units in which case the minimum *setback* is 4.5 metres.
- iii *Dwelling units* must be located within the building envelope of a commercial building.

c. Lot Coverage Limitations

- i The maximum combined *lot coverage* by *buildings* and *structures* is 40 percent of the *lot* area.

d. Lot Area Requirements for Subdivision

- i The minimum average *lot* area and the minimum *lot* area is 1.0 hectare (2.47 acres).

e. Mini-Storage Limitations

- i The maximum *floor area* is 9.3 square metres (100 square feet) per mini-storage unit.
- ii Mini-storage units must be separated from a highway or from land with zoning permitting a *principal* residential use by a landscape screen, subject to subsection B.2.7, not less than 2.0 metres (6.6 feet) in *height*.

DATE OF MEETING: June 26, 2025

TO: Gabriola Island Local Trust Committee

FROM: Narissa Chadwick RPP MCIP, Islands Planner/ Stephen Baugh, Island Planner
Local Planning Services

COPY: Renee Jamurat, Regional Planning Manager

SUBJECT: Gabriola OCP Review – Engagement process

RECOMMENDATION

1. That the Gabriola Island Local Trust Committee endorse the revised approach to the next phase in community engagement for the Gabriola OCP Review project as presented in the June 26th staff report.

REPORT SUMMARY

This report introduces a revised approach to summer engagement related to the Gabriola OCP review which focusses on key questions related to housing options and growth management.

BACKGROUND

At their May 22nd, 2025 Local Trust Committee meeting, the Gabriola LTC requested staff prepare draft policy language related to resource stewardship, freshwater and environment for broader public review. This draft policy language would incorporate the feedback from the focus groups and the survey results. The LTC also endorsed an OCP project summer engagement plan.

ANALYSIS

As staff have begun to review and feedback and revise policy language there are two key considerations that have emerged.

First - This OCP review offers an opportunity to develop a model policy document that is integrated and focused. Given this, an approach to organizing the document that removes repetition and is easy to follow for the public, the LTC and for planners is recommended. Rather than gathering more input on key themes, staff would like to take the time to organize the policies in a way that is clear to understand and designed to be easily applied when land use changes are proposed through applications and projects. The content of the document in its intended format can then be used to engage the public once a draft is produced. In the meantime, there is an opportunity to seek feedback from the community on specific questions (identified below) related to key issues.

Second - Community feedback identifies that a key topic is related to providing affordable and attainable housing in ways that balance the preservation and protection of the environment. In particular, there are concerns about the cumulative impacts of introducing opportunities for multiple small dwellings on a property.

Leading up to the workshop in September, which will focus on housing options and growth management, staff are recommending community engagement that is focused on policy options that seek to balance support for attainable and affordable housing with preservation and protection of the natural environment. Ideas that would be presented for feedback include:

1. The removal of subdivision potential except for the purposes of line adjustment, lot consolidation, building strata and allowing the donation of land for affordable housing development for a public park, or a conservation area.
2. Supporting rezoning applications for several small homes—either attached or detached—to be grouped together on one lot without subdividing the land. A variation of this concept could include a maximum combined floor area for the dwellings. This approach addressed feedback we have heard to date as it provides an opportunity for shared land arrangements as well potentially facilitating more rental options. Additionally, rezoning applications provide opportunities for conservation covenants, housing agreements, and regulations specific to a site or proposal that could address concerns such as requiring dwellings to be clustered together or requiring screening to the road or neighbouring properties.
3. Supporting the LUB to pre-zone areas that are identified to be most suitable for multiple small dwelling units or other density increases. This analysis could be done using the suitable land analysis tool which combines data related to sensitive ecosystems, water recharge and other factors related to development impact into a single map. Cultural heritage interests and other data can also be integrated into this tool.

Staff are recommending that summer engagement focus on policy options that balance support for attainable and affordable housing with the preservation and protection of the natural environment. Examples of questions are as follows:

1. How do you feel about removing the ability for more lots to be created except for the donation of land for the purposes of affordable housing development and conservation? What concerns do you have?
2. How do you feel about the OCP supporting the ability to rezone to enable clusters of multiple small dwellings within a maximum floor area?
3. What do you think about using available data to identify suitable areas for increasing the number of housing units?

Staff are working on outreach material for Denman Island's housing project that addresses similar questions. This material includes visual comparisons of what is currently permitted and what cluster housing could look like. It also includes options for maximum combined floor area for different sizes of lots.

The work being done for Denman Island's housing project can be updated to address the Gabriola context. Staff will also work on putting together mapping to help facilitate discussion related to suitable areas. The webpage will also be updated to support this conversation and postcard with the URL can be printed and distributed to direct community members to the site.

A revision to the OCP Engagement Plan Summer 2025, reflecting the discussion above, is provided in the following table, blue highlight identifies changes and updates:

Table 1: OCP Engagement Plan Summer 2025 Update

Activity	Purpose/Process	Date
OCP engagement video (was webinar)	To orient community members to the next phase in engagement. Allow access to information on demand.	TBD
Engagement with SFN staff	IT staff will be working with SFN staff through each topic area related to the OCP.	June 26- September 2025
Share What We Heard Report	Share survey results and results from focus groups	
Share questions for community review online	Questions will be added to the webpage. A direct link to a comment page will be provided.	
Share OCP processes and related questions at markets and/or community events (TBD)	The purpose of the market outreach will be to engage the community in key questions related to the OCP review. The number of events will depend on staff availability.	
In person community meeting to review input June- Sept and focus on growth management questions	This will provide the opportunity to share outcomes of summer engagement and focus on in more detail on key questions related to housing options and growth management.	September 2025

Rationale for Recommendation

Focussing on key questions related to growth management and housing options through the summer will help to identify key concerns ahead of a draft OCP being presented.

ALTERNATIVES

1. The LTC may want to proceed with the previous approach to community engagement. Staff have the revised policy language to support this approach. However, it will not be presented in the same way in the integrated format.
2. The LTC can identify additional and/or alternative questions to ask the community.

NEXT STEPS

If the staff recommendation is approved staff will:

- Record a video presentation on the OCP process and engagement for the website
- The website will be updated to support proposed engagement approach
- Community engagement materials will be developed
- Staff will work on integrated format for the OCP
- Staff will schedule September workshop on housing options and growth management

Submitted By:	Narissa Chadwick RPP MCIP, Island Planner Stephen Baugh, Island Planner	June 17, 2025
Concurrence:	Renée Jamurat, RPP MCIP, Regional Planning Manager	June 18, 2025

File No.: 4050-03

DATE OF MEETING: June 26, 2025

TO: Gabriola Island Local Trust Committee

FROM: Warren Dingman, Manager of Bylaw Compliance & Enforcement, Local Planning Services

SUBJECT: Bylaw Enforcement Notification Bylaw Amendments

RECOMMENDATION

- 1) That Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 320, cited as “Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 263, 2011, Amendment No. 1, 2024”, be read a first time.
- 2) That Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 320, cited as “Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 263, 2011, Amendment No. 1, 2024”, be read a second time.
- 3) That Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 320, cited as “Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 263, 2011, Amendment No. 1, 2024”, be read a third time.
- 4) That Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 320, cited as “Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 263, 2011, Amendment No. 1, 2024”, be forwarded to the Secretary of the Islands Trust for approval by the Executive Committee.

REPORT SUMMARY

This report recommends amendments to Gabriola Island Local Trust Area Bylaw Enforcement Notification Bylaw No. 263, 2011 (BEN), so that amendments in the Gabriola, Mudge and DeCourcy Island Land Use Bylaws (LUBs) are included; and so that various housekeeping amendments can be made.

Background:

The contraventions Schedules have been updated and simplified. A penalty has been added for failure to obtain a development permit for work within a development permit area. The current enforcement option is to file a notice of claim in BC Supreme Court if there is non-compliance, and the costs of doing so can be prohibitive.

A standard \$300 surcharge has been applied for all contraventions for failure to pay the penalty assessed in a bylaw notice by the due date. This surcharge is applied in order to cover the costs of debt collection in small claims court.

Next Steps:

As this is an administrative bylaw, no approval from the province is necessary. The LTC can give three readings to the bylaw at a single meeting and refer the bylaw to the Executive Committee for approval and then returned to the Gambier Island LTC for final adoption.

Submitted By:	Warren Dingman, Manager of Bylaw Compliance & Enforcement	June 6, 2025
Reviewed By:	Sonja Zupanec, RPP, MCIP, Acting Regional Planning Manager	June 9, 2025

ATTACHMENT

1. Proposed Bylaw No. 320 with amended Schedules

BYLAW NO. 320

Schedule A
GABRIOLA ISLAND LAND USE BYLAW NO. 177, 1999
CONTRAVENTIONS AND PENALTIES

Bylaw Section	Description The following fines apply to the contraventions below:	A1 Penalty Amount	A2 Discounted Penalty (within 14 days)	A3 Late Payment (\$300 surcharge after 28 days)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount
A.3.2.1	Fail to Permit Inspection	\$500	\$400	\$800	Yes	100%
B.1.2.1 – B.1.2.3	Prohibited Use, Building or Structure	\$500	\$400	\$800	Yes	100%
B.2.1	Fail to Comply with Special Setback and Elevation Provisions	\$500	\$400	\$800	Yes	100%
B.2.3	Fail to Comply with Height Regulations	\$500	\$400	\$800	Yes	100%
B.2.4	Fail to Comply with Fence Regulations	\$350	\$250	\$650	Yes	100%
B.2.7	Inadequate Landscape Screen	\$300	\$200	\$600	Yes	100%
B.2.9	Over Height Structure	\$350	\$250	\$650	Yes	100%
B.2.10	Fail to Provide Landscape Screen	\$350	\$250	\$650	Yes	100%
B.3.1	No Permanent Resident for Home Occupation	\$350	\$250	\$650	Yes	100%
B.3.2	Prohibited Home Occupation	\$500	\$400	\$800	Yes	100%
B.3.3	Fail to Comply with Home Occupation Provisions	\$350	\$250	\$650	Yes	100%
B.3.4	Fail to Comply with Home Industry Provisions	\$500	\$400	\$800	Yes	100%
B.3.5	Exceed Maximum Number of Employees	\$350	\$250	\$650	Yes	100%
B.3.6	Fail to Comply with Bed & Breakfast Regulations	\$350	\$250	\$650	Yes	100%
B.4.1 – B.4.8	Fail to Comply with Sign Regulations	\$350	\$250	\$650	Yes	100%

Schedule A
GABRIOLA ISLAND LAND USE BYLAW NO. 177, 1999
CONTRAVENTIONS AND PENALTIES

Bylaw Section	Description The following fines apply to the contraventions below:	A1 Penalty Amount	A2 Discounted Penalty (within 14 days)	A3 Late Payment (\$300 surcharge after 28 days)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount
B.4.8.1	Prohibited Illuminated Sign	\$500	\$400	\$800	Yes	100%
B.5	Fail to Comply with Parking Regulations	\$300	\$200	\$600	Yes	100%
B.6.1	Exceed Maximum number of Boarders	\$300	\$200	\$600	Yes	100%
B.6.2	Fail to Comply with Limited Public Market Regulations	\$300	\$200	\$600	Yes	100%
B.6.3	Prohibited Commercial Vacation Rental	\$500	\$400	\$800	Yes	100%
B.6.4.1	Fail to Comply with Regulations for Travel Trailers, Recreational Vehicles & Accessory Buildings	\$350	\$250	\$650	Yes	100%
B.6.5	Prohibited Storage of Unlicensed Vehicle	\$400	\$300	\$700	Yes	100%
B.6.6	Fail to Comply with Secondary Suite Regulations	\$350	\$250	\$650	Yes	100%
D.1 – D.5	Non-Permitted Use in Any Zone	\$500	\$400	\$800	Yes	100%
D.1 – D.5	Non-Permitted Building, Density, or Structure in Any Zone	\$500	\$400	\$800	Yes	100%
D.1 – D.5	Non-Permitted Siting, Height, or Lot Coverage in Any Zone	\$350	\$250	\$650	Yes	100%
F.1 – F.11	Fail to Obtain Development Permit in Any Development Permit Area	\$500	\$400	\$800	Yes	100%

Schedule B
MUDGE ISLAND LAND USE BYLAW NO. 228, 2007
CONTRAVENTIONS AND PENALTIES

Bylaw Section	Description The following fines apply to the contraventions below:	A1 Penalty Amount	A2 Discounted Penalty (within 14 days)	A3 Late Payment (\$300 surcharge after 28 days)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount
3.2.	Prohibited Use	\$500	\$400	\$800	Yes	100%
3.3	Fail to Comply with Siting and Setback Regulations	\$350	\$250	\$650	Yes	100%
3.4	Fail to Comply with Height Regulations	\$300	\$200	\$600	Yes	100%
3.5.(1)	Use of Accessory Building or Structure for Overnight Accommodation	\$300	\$200	\$600	Yes	100%
3.5.(3)	Non-Permitted Residential Use of a Vessel, Building, or Structure on the Water	\$500	\$400	\$800	Yes	100%
3.6	Fail to Comply with Home Occupation Regulations	\$350	\$250	\$650	Yes	100%
3.7	Inadequate Landscape Screen	\$300	\$200	\$600	Yes	100%
3.8	Non-Permitted Use of Recreational Vehicle, Tent, or Camper	\$350	\$250	\$650	Yes	100%
3.9. (1)	Wrecking/Storage of Vehicles/Vessels or Use of Parcel as Junkyard	\$500	\$400	\$800	Yes	100%
3.9. (2)	Inadequate Screening of Unlicensed Vehicles/Vessels Undergoing Repair or Exceed Maximum Number Vehicles/Vessels	\$300	\$200	\$600	Yes	100%
5.1 – 5.4	Non-Permitted Use in Any Zone	\$500	\$400	\$800	Yes	100%
5.1 – 5.4	Non-Permitted Building/Structure in Any Zone	\$400	\$300	\$700	Yes	100%
5.1 – 5.4	Non-Permitted Lot Coverage, Floor Area, Siting or Size in Any Zone	\$300	\$200	\$600	Yes	100%
5.4	Fail to Comply with Water Marina Zoning Regulations	\$350	\$250	\$650	Yes	100%
6.1.1	Fail to Comply with Sign Regulations	\$300	\$200	\$600	Yes	100%
7.1.1	Fail to Comply with Parking Regulations	\$250	\$150	\$550	Yes	100%

Schedule C
DECOURCY ISLAND ZONING BYLAW NO. 44, 1987
CONTRAVENTIONS AND PENALTIES

Bylaw Section	Description The following fines apply to the contraventions below:	A1 Penalty Amount	A2 Discounted Penalty (within 14 days)	A3 Late Payment (\$300 surcharge after 28 days)	A4 Compliance Agreement Available	A5 Compliance Agreement Discount
2.1	Non-Permitted Use or Structure	\$500	\$400	\$800	Yes	100%
2.6	Guest Cottage Exceeds Floor Area Restriction	\$300	\$200	\$600	Yes	100%
3.1 – 3.6	Non-Permitted Use in Any Zone	\$500	\$400	\$800	Yes	100%
3.1 – 3.6	Non-Permitted Building/Structure in Any Zone	\$400	\$300	\$700	Yes	100%
3.1 – 3.6	Exceed Site Density in Any Zone	\$500	\$400	\$800	Yes	100%
3.1 – 3.6	Non-Permitted Height in Any Zone	\$350	\$250	\$650	Yes	100%
3.1 – 3.6	Non-Permitted Siting in Any Zone	\$300	\$200	\$600	Yes	100%
3.1 – 3.6	Exceed Maximum Lot Coverage in Any Zone	\$300	\$200	\$600	Yes	100%
3.5(c)(i)	Prohibited Residential Use of Vessel or Prohibited Float Home	\$500	\$400	\$800	Yes	100%



the Heron



A newsletter from Islands Trust Conservancy | Protecting islands in the Salish Sea | islandstrust.bc.ca/conservancy

SPRING 2025

Take me home!

This newsletter is provided FREE by ITC

Celebrating 35 Years of Conservation

p. 2



For links and additional media, visit the Heron Newsletter online.

www.islandstrust.bc.ca/conservancy/heron-newsletter/

ALSO IN THIS ISSUE

PHOTO: ISLANDS TRUST CONSERVANCY

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COMMON CAMAS. PHOTO: ISLANDS TRUST CONSERVANCY

**Introducing New Board
Members** *p. 4*

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Celebrating 35 Years of Conservation

This year, Islands Trust Conservancy is recognizing 35 years as a conservation land trust committed to the protection and preservation of sensitive species and ecosystems on over 450 islands in the Salish Sea.

Since 1990, Islands Trust Conservancy has worked closely with landholders, communities, and conservation partners to protect places they care about - building on the stewardship of Indigenous Peoples who have cared for these lands and waters since time immemorial. To date, ITC has protected 115 properties - 34 nature reserves and 81 conservation covenants - totalling more than 1,385 hectares of ecologically and culturally significant land on islands in the Salish Sea.

ITC is celebrating its 35th anniversary through various initiatives, including the launch of a new blog on the ITC website, titled the *Islands Trust Conservancy Journal*. Contribute your stories, memories, and positive words about ITC for the Journal through the survey: <https://www.surveymonkey.com/r/ITC35th>.



MAP OF THE ISLANDS TRUST AREA. MAP: ISLANDS TRUST CONSERVANCY

"This region is unlike anywhere else in the world and people cherish it for many different reasons. We are committed to working together to ensure its protection for current and future generations."

- Lisa Gauvreau, Chair of the Islands Trust Conservancy Board



WENDY TYRRELL

Introducing Wendy Tyrrell, Islands Trust Conservancy Acting Manager

Hi! My name is Wendy. I'm so excited to be back working with Islands Trust Conservancy in time to celebrate the 35th anniversary of the organization and help support staff in moving projects forward. I first joined ITC from 2021 to 2023 as the Species at Risk Program Coordinator, and have worked for a variety of land trusts leading land protection and habitat restoration projects. In my spare time, you can find me hanging with my teenager, playing pickleball, dancing, and kayaking in the Salish Sea. Connect with me to learn more about ITC's projects in 2025 by emailing itcmail@islandstrust.bc.ca.



PHOTO: LISA WILCOX

Islands Trust and Islands Trust Conservancy respectfully acknowledge that the lands and waters that encompass the Islands Trust Area have been home to Indigenous peoples since time immemorial and that their deep connection to the islands continues to this day. We are committed to reconciliation, to upholding the rights of Indigenous peoples, and to working together to preserve and protect this ecologically, culturally, and spiritually significant region in the Salish Sea. The Islands Trust Area is located in the treaty and territorial lands and waters of the BOKEĆEN, Cowichan Tribes, K'ómoks, Lyackson, MÁLEXEL, Qualicum, scəwəθən, səlilw'ətəl, SEMYOME, shishálh, Skwxwú7mesh, Snaw-naw-as, Snuneymuxw, Songhees, Spune'luxuth', STÁUTW, Stz'uminus, la?əmen, Ts'uubaa-asatx, Wei Wai Kum, We Wai Kai, W JOLELP, WSIKEM, Xeláltxw, Xwémalhkwu, Xwsepsum, and x'wəθək'əy.

In Memoriam



LONGINI COVENANT. PHOTO: ISLANDS TRUST CONSERVANCY

"I was living in a landscape which I couldn't feel I 'owned' in the same sense that I had owned a house in the city. A sense of responsibility began to grow."

In 2001, Rose subdivided her property, retaining 60 acres of ALR land for her farm and the surrounding ecosystems; however, she wanted to ensure that the habitat would remain intact and ancient trees protected no matter who owned the lots in the future. With the help of Islands Trust Conservancy and the Galiano Conservancy Association, she placed covenants on both properties. Rose's legacy will continue to live on through the protection of land that provides a beautiful sanctuary where ecosystems and species can flourish

Rose Longini, Donor of Green Frog Farm Covenant & Longini Covenant, Galiano Island

Rose Longini, organic farmer and donor of the Green Frog Farm and Longini covenants on Galiano Island, passed away last September. Rose cared deeply about the land and protecting nature. In 1990, when Rose bought the 80-acre lot that would eventually become the two covenants, she had just moved to the Gulf Islands from the city. Over time, she learned more about the land and quickly fell in love with the ecosystems, habitats, and diversity of species that exist there.



POND AT GREEN FROG FARM COVENANT. PHOTO: ISLANDS TRUST CONSERVANCY



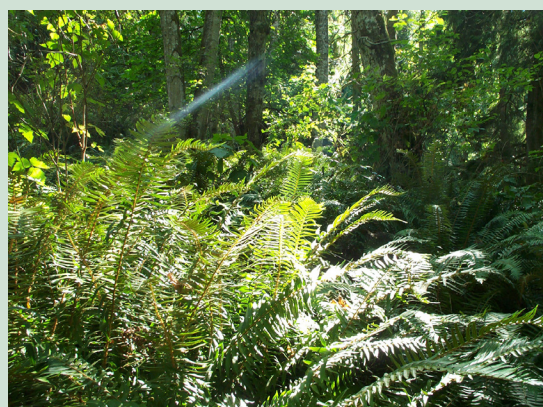
NINA RAGINSKY. SOURCE: GULF ISLANDS DRIFTWOOD

Nina Raginsky, Donor of Walter Bay NAPTEP Covenant, Salt Spring Island

Nina Raginsky, donor of the Walter Bay NAPTEP Covenant on Salt Spring Island, passed away last May. Nina was a lifelong advocate for the natural world and was widely honored and acknowledged for her work as a photographer and artist. Nina was a fierce, generous, and loving woman who spoke for the species and landscapes that have no voice, drawing people's attention to what needed protection.

Her deep commitment to environmental protection was evident through her efforts as a citizen scientist working with the Wild Bird Trust to protect McFadden Creek, advocating for the protection of oystercatcher nests, hosting tea parties with developers and community members to invite communication on divisive issues, and protecting her beloved waterfront property, which contributed to a larger provincial and federal effort to protect Walter Bay.

Nina's ongoing advocacy and environmental stewardship throughout her life demonstrated that one person's efforts can have a huge impact on conservation. Nina will be deeply missed.



WALTER BAY NAPTEP COVENANT. PHOTO: THE LAND CONSERVANCY OF BC



Introducing New Islands Trust Conservancy Board Members



Lisa Gauvreau, Chair, Trust Council Elected Board Member

Lisa Gauvreau is a Trustee from Galiano Island and was elected to the Islands Trust Conservancy Board in June 2023. She is from the Ojibwe and Chippewa Nations territory, also known as Sault Ste Marie, Ontario, and has been a resident of Galiano for over 20 years. Along with her young family, she operates a year-round eatery on the island and has many years of experience working in the non-profit sector, mentoring and educating young people. She is eager to continue learning and working collaboratively with ITC partners to restore species and ecosystems, and take action toward Reconciliation and addressing the climate crisis.



Tanner Timothy, Vice-Chair, Provincially Appointed Board Member

Tanner Timothy is Coast Salish from the Tla'amin Nation located within the Qathet Regional District on the upper Sunshine Coast. He is dedicated to advancing initiatives that mitigate environmental impacts, preserve biodiversity, protect ecosystems, and reduce anthropogenic influence on our climate. Tanner is looking forward to fostering meaningful and respectful partnerships to further support the objectives of ITC.

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- youtube.com/IsITrustConservancy

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Questions? Contact us!

250-405-5186 itcmail@islandstrust.bc.ca
Or mail to: 200-1627 Fort Street, Victoria, BC V8R 1H8

To donate online visit:
islandstrust.bc.ca/donate-to-conservancy



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mm/yy

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(back of card)

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Name

Address

City

Country

Prov/State

Postal/Zip code

Phone

Email

Share your vision with future generations—please consider remembering Islands Trust Conservancy in your Will.

*Islands Trust Conservancy is a qualified donee as a Crown agent under B.C.'s Islands Trust Act. Islands Trust business # 122013576 RT0001



Gabriola Local Trust Committee Open Applications Report

Print Date: June 17, 2025

Development Permit

Application Number	Applicant Name	Date Received	Address	Purpose
GB-DP-2021.1	Centre Stage	5/20/2021	0 STOKES RD	DP application for protection of development from hazardous conditions DPA6, relating to subdivision application.
Planner	Status		Most Recent Completed Activity	
Sonja Zupanec	Local Trust Committee		Record LTC Decision/Update FUAL	

Development Variance Permit

Application Number	Applicant Name	Date Received	Address	Purpose
GB-DVP-2022.3	Thomas Pink	6/23/2022	1160 THE STRAND, GABRIOLA, BC	PID: 008-828-067 Shoreline protection variance. Civic address: 1160 The Strand, Gabriola Island, BC.
Planner	Status		Most Recent Completed Activity	
Margot Thomaidis	Under Review		Planning Review	

Gabriola

Application Number	Applicant Name	Date Received	Address	Purpose
GB-DVP-2022.4	Mark & Gail W	6/30/2022	1170 THE STRAND, GABRIOLA, BC	PID: 008-828-059 Foreshore protection variance. Civic address: 1170 The Strand, Gabriola Island, BC.
Planner		Status	Most Recent Completed Activity	
Margot Thomaidis		Local Trust Committee	Email Applicant of LTC Meeting	

Application Number	Applicant Name	Date Received	Address	Purpose
PLDVP20240299	Michael Apps	11/7/2024	1140 THE STRAND, GABRIOLA, BC	Application to allow a rock revetment to repair and prevent ongoing damage to the property shoreline.
Planner		Status	Most Recent Completed Activity	
Stephen Baugh		Local Trust Committee	Generate LTC Public Notice	

Gabriola

Rezoning

Application Number	Applicant Name	Date Received	Address	Purpose
GB-RZ-2024.1	Talyn Martin	1/10/2024	0 SOUTH RD	PID: 004-633-989 seeking a rezoning from industrial to commercial in order to build a year-round community food hub at 465 South Rd. on Gabriola.
Planner		Status	Most Recent Completed Activity	
Stephen Baugh		Waiting for Revisions	Waiting for Revisions	

Application Number	Applicant Name	Date Received	Address	Purpose
PLRZ20250138	Toby Seward	3/29/2025	1900 STALKER RD, GABRIOLA, BC	Application to amend the OCP and complete a rezoning at 1900 Stalker Road, Gabriola.
Planner		Status	Most Recent Completed Activity	
Stephen Baugh		Under Review	Add Optional Referrals	

Application Number	Applicant Name	Date Received	Address	Purpose
GB-RZ-2023.1	John Steil	6/13/2023	0 DESCANSO BAY	PID: 025-798-090 and 025-798-103 renovation and expansion of ferry terminal at Descanso Bay Ferry Terminal on Gabriola Island.
Planner		Status	Most Recent Completed Activity	
Stephen Baugh		Local Trust Committee	Waiting for APC Response	

Gabriola

Application Number	Applicant Name	Date Received	Address	Purpose
PLRZ20240091	Nigel Gray	6/18/2024	793 LOCKINVAR LANE	Proposed rezoning to add propane tank storage and delivery as a site specific permitted use.
Planner		Status	Most Recent Completed Activity	
Ian Cox		In Progress Rezoning	Generate & Send Notice of LTC Decision	

Application Number	Applicant Name	Date Received	Address	Purpose
GB-RZ-2022.1	Kent Moen	6/7/2022	750 TIN CAN ALLEY, GABRIOLA, B	PID: 023-005-629 Change zoning to accommodate multiple changes in use. Civic address: 750 Tin Can Alley, Gabriola Island, BC.
Planner		Status	Most Recent Completed Activity	
Stephen Baugh		In Progress Rezoning	Generate & Send Notice of LTC Decision	

Gabriola

Subdivision

Application Number	Applicant Name	Date Received	Address	Purpose
GB-SUB-2024.2	Scott Stevenson	4/30/2024	0 STOKES RD	subdivision to create 2 lots at NORTH EAST 1/4 OF SECTION 3 GABRIOLA ISLAND NANAIMO DISTRICT EXCEPT PARCEL A (DD 77326I) AND EXCEPT PLANS EPP19453 AND EPP66666 on Gabriola Island.

Planner	Status	Most Recent Completed Activity
Sonja Zupanec	Administrative Review	Record and File PLR

Application Number	Applicant Name	Date Received	Address	Purpose
GB-SUB-2024.1	Scott Stevenson	3/13/2024	SEYMOUR RD	PID: 027-086-500 subdivision to create 11 lots at Lot 20, Section 8 on Gabriola Island.

Planner	Status	Most Recent Completed Activity
Sonja Zupanec	Administrative Review	Record and File PLR

Gabriola

Temporary Use Permit

Application Number	Applicant Name	Date Received	Address	Purpose
PLTUP20250167	Glenda and S. Brett	4/19/2025	2370 WINDECKER DR, GABRIOLA,	Application for a temporary use permit to allow a short-term rental.
Planner		Status	Most Recent Completed Activity	
Margot Thomaidis		Under Review	Generate Complete Application Letter	

Application Number	Applicant Name	Date Received	Address	Purpose
PLTUP20250126	Chris Campbell	3/20/2025	2235 SHAW RD, GABRIOLA, BC V0	Application for a short-term vacation rental.
Planner		Status	Most Recent Completed Activity	
Margot Thomaidis		Under Review	Generate Complete Application Letter	

Islands Trust
LTC EXP SUMMARY REPORT F2026
Invoices posted to Month ending April 2025

620 Gabriola	Invoices posted to Month ending April 2025	<u>Budget</u>	<u>Spent</u>	<u>Balance</u>
LTC Local				
65200-620	LTC - Local Exp - LTC Meeting Expenses	3,090.00	161.12	2,928.88
65220-620	LTC - Local Exp - Communications	490.00	0.00	490.00
TOTAL LTC Local Expense		<u>3,580.00</u>	<u>161.12</u>	<u>3,418.88</u>
Projects				
73001-620-2001	Gabriola OCP/LUB	48,000.00	8,063.06	39,936.94
TOTAL Project Expenses		<u>48,000.00</u>	<u>8,063.06</u>	<u>39,936.94</u>

Gabriola Island Local Trust Committee Policies & Standing Resolutions

No	Meeting Date	Resolution No.	Issue	Policy and Description
1.	June 14, 2018	GB-2018-040	Processing non-medical cannabis retail license applications	It was MOVED and SECONDED that the Gabriola Island Local Trust Committee adopt the following standing resolution with respect to the processing of non-medical cannabis retail license applications: - Proposed or amended licenses for non-medical cannabis retail establishments require an application to the Local Trust Committee; - The application process shall comprise a public consultation component, which includes at least one notification to neighbours, one public meeting, posting of public notices and one advertisement in a local periodical; - The public consultation process shall be determined by the Local Trust Committee after initial review of the proposal; and - However, as a minimum, the Local Trust Committee will mail or otherwise deliver a notice to all owners and residents of properties within a 500 metre radius of the subject property where the establishment is proposed at least 10 days before adoption of a resolution providing comment on the application. The required notice shall include the following information: - Name of the applicant and a description of the proposal in general terms; - The location of the proposed establishment and the subject site; - The place where, and date and time when, both a public meeting will be held and a resolution of the local trust committee considered; - The name and contact information of the Islands Trust planning staff member who can provide copies of the proposed or amended license application; and - How public comments may be submitted to the Local Trust Committee.
2.	November 22, 2018	GB-2018-122	Applications for Federal Cannabis License	It was MOVED and SECONDED that the Gabriola Island Local Trust Committee requests that Notices of Intention to Apply for a Federal Cannabis License be forwarded to the Local Trust Committee upon receipt by the Islands Trust.
3.	February 28, 2019	GB-2019-031	First Nations - Community Reconciliation	It was MOVED and SECONDED that the Gabriola Island Local Trust Committee adopt the following standing resolution: Whereas the Local Trust Committee seeks to engage in Reconciliation with local

				First Nations, governments and the island community by honouring the Truth and Reconciliation Commission Calls to Action, United Nations Declaration on the Rights of Indigenous Peoples, Draft Principles that Guide the Province of British Columbia's Relationship with Indigenous Peoples, and Islands Trust First Nations Engagement Principles, the Local Trust Committee endeavours to: a) Annually, write a letter to First Nations, (re)introducing Trustees and Staff and provide a schedule of known Local Trust Committee meetings for the upcoming year, as well as provide an update of current projects and advocacy activities; b) For various Local Trust Committee meetings, invite elders from local First Nations to attend and provide a traditional welcome to the territory; c) Work with First Nation governments on cooperative initiatives, including and not limited to, language, place names, territorial acknowledgements, and community education on Coast Salish and local First Nations' cultural heritage and history; d) Work with First Nation governments on engagement principles for inclusive land use, marine use and climate change planning; advocacy, protection and stewardship; and knowledge and information sharing protocols; and e) Establish and maintain government to government dialogue with First Nations, now and into the future, based on respect and recognition of Aboriginal rights and title, treaty rights, and First Nations' traditional territories within the Islands Trust Area.
4.	April 11, 2019	GB-2019-040	S219 Covenant Signatories	It was MOVED and SECONDED that the Gabriola Island Local Trust Committee adopt the following standing resolution: that the Gabriola Island Local Trust Committee is authorized to enter into section 219 covenants, in the form of the 'Model Covenant for Secondary Suites' attached and in satisfaction of subsection B.6.6.8 of the Gabriola Island Land Use Bylaw No. 177, provided that such covenants must be executed on behalf of the Local Trust Committee by two members of the Local Trust Committee.
5.	January 23, 2020	GB-2020-002	Consultation for Communication Towers	It was MOVED and SECONDED that the Gabriola Island Local Trust Committee adopt the "Model Strategy for Antenna Systems" prepared by the Local Planning Committee of the Islands Trust, as the Gabriola Local Trust Committee strategy to assess any future potential tower proposals in the Gabriola Local Trust Area.

6.	August 8, 2024	GB-2024-066	Defer enforcement of Mudge Island Land Use Bylaw No. 228 except...	It was MOVED and SECONDED that the Gabriola Island Local Trust Committee replace standing resolution GB-2024-023 with the following: defer enforcement of the Mudge Island Land Use Bylaw No. 228 until a full review of policies and procedures for compliance and enforcement is complete and adopted, and a targeted review of Land Use Bylaw No. 228 is undertaken by the Gabriola Local Trust Committee; with the exception of enforcement of derelict trailers and vehicles, health and safety concerns, interference with archeological heritage sites, or possible environmental damage that are a significant concern, and these would be brought to the Local Trust Committee for review.
7.	November 7, 2024	GB-2024-075	Gabriola Island Local Trust Committee Bylaw Compliance & Enforcement Policy	Bylaw Compliance & Enforcement Policy No. 1, effective November 7, 2024. Version No. 1 Purpose To establish policies and procedures for bylaw compliance and enforcement in the Gabriola Island Local Trust Area in accordance with the adopted Trust Council Policies contained in Policy 5.5.1., and that are within the authority of the Local Trust Committee to enforce, and that will ensure policies and procedures are efficient, transparent, reasonable, and consistent with local community standards. PART A 1.0 Application This policy will apply to the Gabriola Island Local Trust Area and the enforcement of all applicable regulatory bylaws. 2.0 Definitions & Abbreviations BEN – bylaw enforcement notice LUB – Land Use Bylaw LTC – Local Trust Committee Minor structure – any structure that does not require a building permit, and that is not located in a development permit area or located within any other environmentally sensitive area Respondent – a property owner whose property is subject to a bylaw enforcement complaint Health & Safety concerns – fire, unsafe construction, hazards relating to steep slopes or cliffs, dumping of sewage Vexatious - complaints that are made in bad faith or for retaliatory purposes or that are considered frivolous, may be considered vexatious; or repeated

				complaints that form a part of a pattern of conduct by the complainant that amounts to an abuse of the complaint process 3.0 References Gabriola Island Land Use Bylaw No. 177 Mudge Island Land Use Bylaw No. 228 Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 263 4.0 Priorities 4.1 Enforcement on short-term vacation rentals is a priority and proactive enforcement is authorized. 4.2 Enforcement on non-compliant dwellings will be deferred unless there are contraventions in development permit areas; or other environmentally sensitive areas; or there are concerns about health and safety; or the lack of an approved septic system; or if it is determined that there is contamination of wells or other drinking sources. 4.3 Enforcement on limited public markets will be deferred when they are operated indoors contrary to section B.6.2 of the LUB. Operators will be provided with information regarding the applicable land use regulations. 5.0 Inspection 5.1 At the start of any investigation, Bylaw Enforcement Officers will determine if entry to the property is necessary to investigate the alleged contravention or if the investigation can be conducted from a public road or other lands. 5.2 Bylaw Enforcement Officers will give 30 days notice for inspection of any property unless there is consent for a site inspection at less than 30 days. 5.3 Investigations into health and safety issues and matters that may cause adverse environmental impact and result in irreversible damage are a priority and may be investigated without notice pursuant to section A.3.2.1 of the LUB. 5.4 If a Respondent has indicated that they will work towards compliance, and have agreed on a time to comply, a site inspection is only required to confirm compliance. 5.5 Site inspections will be limited to the use or structure subject to complaint unless there is work observed in development permit areas, or other environmentally sensitive areas, or there are concerns regarding health and safety.
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				5.6 If a Respondent provides photographic evidence, a survey, or a professional report that confirms compliance, or other reliable evidence, a site inspection is not mandatory. 6.0 Enforcement Procedures 6.1 If a bylaw contravention is confirmed, and there is no agreement on a deadline for compliance, there will be notice in writing, and Respondents will be given a minimum of 90 days to comply. Notice may also be given that enforcement action will be escalated if there is no compliance at the deadline, and this may include the use of the BEN system or a request for legal action. 6.2 Bylaw Enforcement Officers can use their discretion to consider any reasonable request for time to comply from Respondents, but the term cannot be for more than one year. 6.3 If there are contraventions in environmentally sensitive areas, or development permit areas, or if there is a risk to health and safety, there will be a demand for the Respondent to cease the use or activity immediately. 6.4 Respondents will be given a Bylaw Warning Notice with a minimum of 45 days to comply before a Bylaw Violation Notice is issued, unless there are health and safety concerns, or contraventions in environmentally sensitive areas. 6.5 Bylaw Violation Notices will not be issued more than once per week unless authorized by the Manager of Bylaw Compliance and Enforcement. 7.0 Closing Files 7.1 If the identity of a complainant cannot be confirmed during the course of an investigation, or if a complainant uses a false name, the file will be closed. 7.2 If the contravention is for a minor structure that has only received one written complaint, the file can be closed. 7.3 If it is unreasonable for a Respondent to comply, whether due to specific circumstances or finances, Bylaw Enforcement Officers or the Manager of Bylaw Compliance and Enforcement, can use their discretion to close the file. 7.4 If a contravention has been identified that is subject to deferred enforcement by the LTC, the file can be closed unless there are contraventions that exist in environmentally sensitive areas or there are concerns about health and safety. 7.5 If it is determined during an investigation that the complaint was frivolous, repeat, or vexatious in nature, the Manager of Bylaw Compliance and Enforcement can use their discretion to close the file unless there is work on a
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				development permit area, or work in an environmentally sensitive area, or there are health and safety concerns. 7.6 The LTC will be notified when any file is closed. 8.0 Vexatious Complaints 8.1 If a decision is made to not act upon a complaint that is considered frivolous, repeat, or vexatious, the complainant will be advised of the decision, the reason for it, and may be advised of the circumstances under which it may be reconsidered. 9.0 Communications 9.1 When a file is opened and an investigation commenced, Respondents will be advised of the Trust Council Policy that authorized the opening of the file and that an investigation has commenced. 9.2 Respondents will receive as much information about complaints against their properties as possible without revealing the identity of the complainant. 9.3 The Manager of Bylaw Compliance and Enforcement will communicate with Trustees or the LTC if there are questions or concerns regarding individual files. 9.4 The Manager of Bylaw Compliance and Enforcement will arrange public information and education sessions regarding bylaw enforcement when appropriate and time permitting. 9.5 Bylaw staff will be available during regular LTC meeting public comment sessions to answer questions regarding bylaw enforcement. 10.0 Reporting 10.1 The LTC will receive regular reporting on bylaw compliance and enforcement files. 10.2 The Manager of Compliance and Enforcement will report to the LTC any concerns, trends, or issues with enforcement that they believe the LTC needs to be aware of. 10.3 The Manager of Compliance and Enforcement will maintain the Gabriola Island Bylaw Enforcement Policy and will report to the LTC if amendments are recommended or required. PART B MUDGE ISLAND
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				All policies in Part A will apply to compliance and enforcement of the Mudge Island Land Use Bylaw with the following exceptions: 1.1 Priorities 1.1.1 Enforcement of the Mudge Island Land Use Bylaw No. 228 will be deferred until a full review of policies and procedures for compliance and enforcement is complete and adopted, and a targeted review of Land Use Bylaw No. 228 is undertaken by the Gabriola Local Trust Committee; with the exception of enforcement of derelict trailers and vehicles, health and safety concerns, interference with archeological heritage sites, or possible environmental damage that are a significant concern, and these would be brought to the Local Trust Committee for review. 1.1.2 Enforcement will not proceed for siting contraventions involving structures that predate 2008. Property owners will be able to repair and maintain these structures as long as they did not expand the contravention. 1.1.3 Enforcement will not proceed regarding otherwise lawful accessory uses, buildings and structures on a parcel where no principal use exists if the adjacent parcel has a permitted principal use and both parcels are held under common ownership. 1.2 Inspection and Enforcement Procedures: 1.2.1 Subject to section 1.1.1, enforcement will proceed only if there are written complaints received from two property owners residing on separate parcels located in the immediate neighbourhood; and where the contraventions are causing a nuisance or an adverse effective in the neighbourhood. 1.2.2 Enforcement on contraventions that are in environmentally sensitive areas, concern issues of health and safety, or interfere with archeological heritage sites, will proceed if there is a written complaint from any person. 1.2.3 There will be 30 days notice for site inspections unless there is consent for an earlier date, or there are concerns about contraventions in environmentally sensitive areas, and issues of health and safety. 1.2.4 For confirmed contraventions, a minimum of 180 days will be given to comply unless there are immediate concerns regarding health and safety or possible environmental damage. PART C Bylaw Enforcement Notice Bylaw Screening Officer's Powers and Duties Policy Appointment of Screening Officers
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				Pursuant to section 7.2 of the Gabriola Island Local Trust Committee Bylaw Enforcement Notification Bylaw No. 263, 2011, (the Bylaw) the persons holding the following positions are appointed as screening officers: 1) Regional Planning Manager; 2) Manager of Compliance and Enforcement; and 3) Bylaw Compliance and Enforcement Assistant. Screening Officer Powers and Duties The powers and duties of the screening officer are contained in section 7.3 of the Bylaw. It is the direction of the Gabriola Island Local Trust Committee (LTC) that these powers and duties are only exercised in respect to each of the above positions as follows: 1) Regional Planning Manager. In respect to Bylaw Violation Notices issued by the Manager of Compliance and Enforcement, only the Regional Planning Manager, acting as Screening Officer, may exercise all of the powers and duties in Section 7.3 of the Bylaw; 2) Manager of Compliance and Enforcement. In respect to Bylaw Violation Notices issued by Bylaw Compliance and Enforcement Officers, only the Manager of Compliance and Enforcement, acting as Screening Officer, may exercise all of the powers and duties in Section 7.3 of the Bylaw; 3) Bylaw Compliance and Enforcement Assistant. In respect to Bylaw Violation Notices issued by the Manager of Compliance and Enforcement, and Bylaw Compliance and Enforcement Officers, the Bylaw Compliance and Enforcement Assistant, acting as Screening Officer, may exercise only those powers and duties in Section 7.3(1) and 7.3(2) of the Bylaw. Authorized Reasons to Cancel Bylaw Violation Notices The Screening Officer may cancel a Bylaw Violation Notice if satisfied that one or more of the following reasons exist: 1. The contravention did not occur as alleged. 2. The contravention no longer exists. 3. The Bylaw Violation Notice was issued to the wrong person. 4. The Bylaw Violation Notice was not completed properly. 5. The issuance of the Bylaw Violation Notice did not adhere to established Trust Council or LTC policies. 6. It is unreasonable for the person to pay the penalty. 7. An exception specified in the bylaw or related enactment or LTC Standing Resolution exists. 8. A permit exists or has been obtained that authorizes the alleged
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				contravention. 9. There is poor likelihood of success at adjudication for the Local Trust Committee the following reasons: a. The evidence is inadequate to show a contravention; b. Incorrect information was relied upon in issuing the Bylaw Violation Notice; c. The disputant intends to challenge the bylaw with a legal argument that is ill suited to the adjudication process or the legal arguments are too complicated to be decided by an adjudicator. 10. It is not in the public interest to proceed to adjudication for one of the following reasons: a. The bylaw has changed since the Bylaw Violation Notice was issued and now authorizes the contravention; b. An LTC resolution has deferred enforcement on the specific contravention; c. The LTC has closed the file; d. The offence occurred because of a circumstance that made it unreasonable for the person to comply with the bylaw.
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Active Projects Report

Gabriola Island

1. Major Project - Gabriola Island Comprehensive OCP and LUB Review - Phase 2	Responsible	Dates
Activity: To identify and prioritize the community values and vision that will inform the review of Gabriola Island's Official Community Plan and Land Use Bylaw through engaging Frist Nations, the Gabriola community, community organizations and other relevant groups. The 2024/25 Gabriola Island OCP and LUB Comprehensive Review will address a number of issues of importance to the Gabriola Community. In Phase 1 (2023/24), community engagement helped to identify the vision and values of the community. The next phases of the project will build upon this work with focused engagement on specific topic areas, undertake a water balance assessment and drafting of OCP policies related LUB changes. The project will result in a new Official Community Plan and Land Use Bylaw for Gabriola Island.	Narissa Chadwick	

Future Projects Report

Gabriola Island

1. 1. LTC Initiated Rezoning of Property with PID: 003-134-806

Responsible

Date Received

Bylaw amendments to rezone property with PID: 003-134-806. Legal Description:
NORTH EAST 1/4 OF SECTION 3 GABRIOLA ISLAND NANAIMO DISTRICT EXCEPT PARCEL
A (DD 77326I) AND EXCEPT PLANS EPP19453 AND EPP66666

2. 2. Mudge Island Official Community Plan and Land Use Bylaw Review

Responsible

Date Received

Comprehensive review or targeted amendments to Mudge Island OCP and LUB.