

**REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN**

**REQUEST FOR PROPOSALS**

**DESIGN & CONSTRUCTION SUPPORT SERVICES FOR**

**APEX FIRE STATION**



**September 1, 2022**

REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN  
RFP – DESIGN & CONSTRUCTION SUPPORT SERVICES FOR  
APEX FIRE STATION

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REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN  
RFP – DESIGN & CONSTRUCTION SUPPORT SERVICES FOR  
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**DEFINITIONS**

“**AVFR**” means Apex Volunteer Fire Rescue.

“**BAC**” means the Building Advisory Committee.

“**CCDC**” means Canadian Construction Documents Committee.

“**CM**” means the Construction Manager.

“**CONSULTANT**” means the Proponent whose Proposal has been accepted by the Regional District and enters into an agreement with the Regional District to carry out the Work.

“**GC**” means the General Contractor who will be responsible for oversight of the construction project.

“**PROponent**” means the responder to this RFP.

“**PROPOSAL**” means a proposal to carry out the Work submitted by a Proponent in response to this RFP.

“**REGIONAL DISTRICT**” or “**RDOS**” means the Regional District of Okanagan-Similkameen.

“**RFP**” means this Request for Proposals.

“**WORK**” means and includes anything and everything required to be done for fulfillment and completion of the Project in accordance with this RFP and Proposal.

**1. INTRODUCTION**

**1.1. PURPOSE**

The RDOS and AVFR are soliciting proposals for design and construction support services via a Design Team (Architectural Services) for a new rural Fire Station at the community of Apex. Funding for development of the fire hall was approved through a March 2021 referendum.

The RDOS and the AVFR are interested in a flexible Project delivery methodology that allows for collaboration between the RDOS, AVFR, Design Team, Construction Manager / General Contractor while mitigating risk. Integrating local contractors and suppliers will be encouraged to take advantage of any possible cost savings through in-kind donations.

The services required will address the following components of the Project and their associated activities:

- pre-design
- conceptual design
- schematic design
- detailed design
- construction documentation and tendering
- construction administration to completion, handover, and closeout of the Project.

## **1.2. BACKGROUND**

Apex is a ski resort community located approximately 33 kilometers west of Penticton and is a significant attraction and employer within the South Okanagan. Primarily a winter resort, Apex and the surrounding area offer recreational activities such as downhill and cross-country skiing, tubing, skating, and snowshoeing during the winter season and mountain biking and hiking opportunities in the warmer months.

The village area at the resort includes restaurants, a ski sales and repair shop, a general store, day lodges, equipment rental, childcare facilities, and a range of accommodations, including a hostel, condos, hotels, B&Bs, and private cabins.

The AVFR has recently received limited funding, through a tax-based referendum, to provide a Fire Service with a newer Fire Engine and a suitable Fire Station.

The total building construction budget is approximately \$2 million, which does not include site acquisition, off site services costs, design fees, furniture, owner's Project costs or applicable taxes.

## **2. INSTRUCTIONS TO PROPONENTS**

### **2.1. SUBMISSION OF PROPOSALS**

Proponents should submit two (2) hard copies of their Proposals plus one (1) electronic copy on a USB thumb drive. Proposals should be in a sealed package, marked on the outside with the RFP title. No electronically transmitted proposals will be accepted.

Proposal submissions must be delivered to the RDOS at the following address:

**Regional District of Okanagan-Similkameen  
101 Martin Street,  
Penticton, BC V2A 5J9**

Proposals must be received on or before the **Closing Time** of:

**TIME: 10:00 AM local time**  
**DATE: Wednesday, September 28<sup>th</sup>, 2022**

The Proponent is responsible for ensuring its Proposal is received at the address set out above by the Closing Time.

Proponents wishing to make revisions to their Proposals after submission but prior to the Closing Time may do so by submitting the revisions by hard copy as listed above.

Proposals received after the Closing Time will not be considered and will be returned.

### **2.2. INQUIRIES**

Proponents must carefully examine the RFP documents and the Project information to fully understand existing conditions, site limitations, and any other factor that may affect the Work.

No consideration will be given after submission of a Proposal to any claim that there was any misunderstanding with respect to undertaking of the Work.

Proponents finding discrepancies or omissions in this RFP, or having doubts as to the meaning or intent of any provisions therein, should immediately notify the Regional District Project Contact. If there are any changes, additions, or deletions to the RFP, Proponents will be advised by means of an Addendum issued by the Regional District. All Addenda will become part of the RFP. Receipt of Addenda should be acknowledged by the Proponent in their submission.

Verbal discussions between the Proponent and the RDOS (including Regional District directors, trustees, management, AVFD members, or staff) shall not become a part of the RFP or modify the RFP unless confirmed by written Addendum.

All inquiries related to this RFP should be directed in writing to the RDOS Project Contact named below.

Project Contact: **Doug Reeve, Project Coordinator**

All Project inquiries must be submitted by **Friday September 16<sup>th</sup> at 12:00 noon**.

### **2.3. OPTIONAL SITE VISIT & INFORMATIONAL MEETING**

An optional pre-proposal site visit and informational meeting will be held for interested proponents on **Friday September 9<sup>th</sup>, 2022 at 1:00 p.m.** The site is located at 1246 Apex Mountain Road, Apex near Penticton, BC. The meeting will be held at the property unless advised otherwise.

## **3. GENERAL TERMS OF PROPOSAL PROCESS**

### **3.1. PROPOSAL PREPARATION COSTS**

All expenses incurred by the Proponent in preparation and submission of a Proposal are to be borne by the Proponent. The RDOS shall not be responsible for any costs involved in or associated with any meetings, discussion or negotiation following submission that may or may not result in acceptance of a Proposal and award of a contract.

### **3.2. PROPOSAL EVALUATION**

Proposals will be evaluated by a team appointed by the RDOS. The evaluation team will consider criteria that, at their discretion, is relevant to the evaluation process. Any criteria considered will be used in the evaluation of all Proposals.

The Regional District, at its sole discretion, reserves the right to:

- reject any or all Proposals whether complete or not,
- reject any Proposal it considers not in its best interests,
- waive any minor irregularity or insufficiency in any Proposal submitted,
- not be liable for misunderstandings or errors in the Request for Proposals,
- issue addenda to the Request for Proposals,
- contact references provided by the Proponents,
- retain independent persons or contractors for assistance in evaluating Proposals,
- request points of clarification to assist the Regional District in evaluating Proposals,
- negotiate changes with the successful Proponent,
- select a Proposal with a higher price if it offers greater value,
- award separate contracts for separate work components, and
- withdraw the Request for Proposals.

Proposal evaluation criteria is provided in Appendix A.

### **3.3. PROPOSAL CONFIDENTIALITY**

All Proposal submissions become the property of the RDOS and will not be returned. The Regional District reserves the right to make copies of Proposals for its internal review and for review by its financial, accounting, legal, and technical consultants.

Proponents should be aware that the RDOS is a “public body” as defined in and subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. **If the Proponent believes any of the information provided by them in their Proposal is confidential, then they should identify it as such and provide a rationale as to why it should not be released under “Freedom of Information” legislation.**

The rationale for keeping information confidential under this legislation includes:

- a) Trade secrets of the Proponent;
- b) Financial, commercial, scientific or technical information, the disclosure of which could reasonably be expected to result in material financial loss or gain or could reasonably be expected to prejudice the competitive position of the Proponent; or
- c) Information the disclosure of which could be reasonably expected to interfere with contractual or other negotiations of the Proponent.

### **3.4. CONFLICT OF INTEREST**

Proposals must disclose any actual or potential conflicts of interest and existing business relationships the Proponent may have with the RDOS, its elected or appointed officials or employees. The Regional District may rely on such disclosure.

### **3.5. NO COLLUSION**

Except as otherwise specified or as arising by reason of the provision of the contract documents, no person whether natural, or body corporate, other than the Proponent has or will have any interest or share in this Proposal or in the proposed contract which may be completed in respect thereof. By submission of a Proposal, the Proponent certifies that there is no collusion or

arrangement between the Proponent and any other actual or prospective Proponents in connection with Proposals submitted for this Project and the Proponent has no knowledge of the contents of other Proposals and has made no comparison of figures or agreement or arrangement, express or implied, with any other party in connection with the making of the Proposal.

### **3.6. LITIGATION**

Proponents who, either directly or indirectly through another corporation or entity, have been or are in litigation, or who have served notice with intent to proceed with court action against the Regional District in connection with any contract for works or services, may be considered ineligible Proponents. Receipt of Proposals from such Proponents may be disqualified from the evaluation process.

### **3.7. NO CONTRACT**

This RFP is not a tender and does not commit the RDOS in any way to select a preferred Proponent. By submitting a Proposal and participating in the process as outlined in this RFP, Proponents expressly agree that no contractual, tort or other legal obligation of any kind is formed under or imposed on the Regional District by this RFP or submissions prior to the acceptance of a Proposal and the execution of a formal written contract.

### **3.8. PROPOSAL CONTENT**

The Proponent shall address all the information requested in this RFP. Content to be included in the Proposal is defined in Appendix B.

### **3.9. ACCEPTANCE OF PROPOSAL**

The acceptance of a Proposal will be made in writing from the RDOS, and will be sent to the successful Proponent at the address given in the submitted Proposal. Following acceptance, the Proponent is expected to enter into a contract with the Regional District to perform the works or services set out in their Proposal. Acceptance of a Proposal is subject to approval by the RDOS Board of Directors.

The agreement that the successful Proponent will be expected to execute with the Regional District will contain terms similar to those contained in the sample Consulting Services Agreement provided in Appendix C. The agreement attachments will include the entire Request for Proposal, the Proponent's Proposal submission and any mutually agreed upon modifications, changes or negotiated adjustments.

### **3.10. INNOVATION**

The Proponent is encouraged to include innovative, alternative, or unique solutions to the Proposal subject that may, along with other things, indicate cost initiatives, reduced environmental impacts, improved public relations and/or Project acceptance, reduced risk, improved management or administrative efficiencies, etc. Any alternative Proposals submitted should include all the requirements of the original RFP with costs identified for comparative purposes.



### **3.11. SAFETY REQUIREMENTS**

While undertaking the Work, the Consultant will be required to meet or exceed at all times the Provincial Occupational Health and Safety Regulations.

## **4. SCOPE OF WORK AND SCHEDULE**

### **4.1. PROJECT OVERVIEW**

The Project will be a single fire station building with a useable area of approximately 5,000 to 6,000 square feet with adequate space for:

- fire response operations and apparatus, as well as the business operations of the administration of Apex Volunteer Fire Rescue.
- future expansion of the Fire Station; and
- in-building and onsite space for single company training activities.

### **4.2. PROJECT LOCATION**

The new Fire Station is to be located on RDOS property at 1246 Apex Mountain Road, which is about 33 km south-west of Penticton, BC.

### **4.3. SITE INFORMATION**

Information available for the Project location includes a topographic site survey, preliminary grading plan, draft geotechnical report, and a conceptual site use plan. These items are included in Appendix D.

### **4.4. SCOPE OF WORK**

Provide design and construction support services for a Fire Station that will include as a priority the following functional areas:

- Training / Meeting Room
- Apparatus Bays (2)
- Office Space
- Staff Facilities
- Janitorial
- Mechanical/Electrical
- Hose drying capabilities
- Kitchen Facilities
- Storage (to be itemized)

Design and construction of the new facility will implement cost-effective and sustainable solutions that will meet budget requirements and demonstrate the best use of public funds.

#### 4.5. RISKS AND CHALLENGES

- Construction costs have increased significantly since a conceptual budget was established in 2020 for the referendum. Careful consideration of construction methodology, building size, design and finishes will be required to mitigate potential cost overruns.
- Availability of materials and equipment has been affected by the global pandemic (supply chain issues). Careful consideration and research will be required to assure availability of chosen building components for when construction starts.
- The construction season at Apex is very short (8 months max.) – this may influence the proposed materials and method of construction. The Fire Station is required ASAP as the current temporary location is inadequate to sustain operational readiness of AVFR.
- The General Contractor selected to build the Fire Station must demonstrate that they have sufficient manpower to complete the Project in a timely fashion - on schedule.
- Using as much prefabricated panelized construction components as possible in Fire Station construction is encouraged. This could possibly shorten the construction period by allowing work to commence in winter months preceding on site activities.

#### 4.6. APPROACH

- Engage RDOS staff and the Building Advisory Committee (BAC) in the early stages of the design to ensure effectiveness of decision-making.
- Maintain direct relationship between the design and construction stages to determine and manage Project conformance and costs through clear, open, and continual feedback.
- Establish well defined design methodology, processes and procedures and lines of communication required to ensure delivering a well-coordinated Project.
- Ensure all Regional, Provincial and Federal codes, bylaws and regulations are met.

#### 4.7. DESIGN CONSIDERATIONS

- Affordability
- Adaptability (i.e., use and ability to expand future use)
- Inclusiveness
- Efficiency in operation (i.e., equipment, design, energy)
- Minimum impact on the environment
- Durability and use of FireSmart principles
- Life-cycle approach (consider high-quality products that maximize Owner's return on investment and ability to expand)

#### 4.8. PROJECT STAGES

The stages below describe the various requirements for this Project as considered by the RDOS. It is not intended to be an exhaustive list. If necessary, the stages can be modified, and all Proponents are required to clarify the stages and activities or tasks to be undertaken as part of their Proposal.

**Note:** that Construction Management (CM) services will be sourced separately by the RDOS commencing at the beginning of Stage 4. The Construction Manager's duties will include, but not be limited to the following:

- *Attend meetings and coordinate with other consultants.*
- *Establish and monitor an overall timeline for each stage of the Project.*
- *Provide input on constructability issues.*
- *Provide cost estimates at each of the design stages (beginning of Stage 4 to end of Stage 5) as outlined to assure cost predictability.*
- *Identify, negotiate, and complete agreements with all required sub-contractors.*
- *Provide reports and recommendations to RDOS to obtain approvals as required.*

*CM services will terminate at the conclusion of Stage 5. Expectations are for the CM to provide a fixed price CCDC 2 contract with the RDOS at the conclusion of Stage 5. (Alternate options for construction services may be considered if an agreement between the RDOS and CM cannot be reached)*

#### **4.9. Stage 1: Pre-Design**

- Become familiar with the Project's site characteristics.
- Review and confirm requirements.
- Review applicable statutes, regulations, codes, and bylaws to ensure understanding of the requirements of authorities having jurisdiction.
- Ensure compliance with all applicable statutes, regulations, codes and by-laws throughout the design and construction of the Project.
- Prepare a more detailed Project design schedule that identifies the necessary major tasks and milestones during the design process. Estimate the time required to accomplish each major task, including those associated with design review. The Project schedule will be updated throughout the design process.
- Evaluate the draft geotechnical report, conceptual site use plan and site survey (Appendix D) to enable conceptual development for the extent of work including onsite servicing (it is anticipated that offsite servicing will be designed and installed under a separate contract) which includes but not limited to all utilities - fire protection (if applicable), connections to water and sanitary system, stormwater management/drainage, electrical power, propane supply (if deemed appropriate), site access management, fuel storage, accessory vehicles, and parking.
- Participate in a Project kick-off meeting with RDOS Staff and BAC to formulate a design statement in which major Project goals are identified.

##### **4.9.1. Stage 2: Conceptual Design**

Prepare a conceptual design of the site to include a full build out of a Fire Station that illustrates the scale and character of the Project and how the parts of the Project functionally relate to each other as listed below:

- Site plan
- Spatial relationship diagrams and general floor plans
- Materials and architectural expression concepts, including building type
- Assist in preparation of a high-level cost estimate of the Project inclusive of on-site servicing, earthwork, paving, site lighting etc. to support decision making.
- Consideration will be given to the priority functional requirements identified in this RFP (see Section 4.4).
- Support the RDOS in the decision-making process to refine the scope of the Project that will go forward for design and construction.
- Obtain approval from the RDOS and BAC on the conceptual design and budget prior to

proceeding to the next stage.

#### **4.9.2. Stage 3: Schematic Design**

- Refine and validate Project details and construction budget in relation to the conceptual design.
- Based on the refined requirements, schedule, and construction budget, prepare a schematic design document of the Project and how the parts of the Project functionally relate to each other as listed below.
  - Site plan
  - Spatial relationship and flow diagrams
  - Principal floor plan(s)
  - Building sections and build types
  - Elevations
  - Brief detailing of the areas, building systems design report and early specifications to describe the size and character of the Project including the architectural, civil, structural, fire protection (if applicable), mechanical and electrical systems, materials, and such other elements as may be appropriate.
- Present schematic design documents to the RDOS and BAC.
- Review any input received by the RDOS and BAC.
- From the responses to the Schematic Designs, prepare a semi-final Schematic Design with probable construction costs for the Project and review it with the RDOS staff and BAC.
- Obtain approval from the RDOS and BAC on the design and budget prior to proceeding to the next stage.

#### **4.9.3. Stage 4: Detailed Design**

- Coordinate 60% and 90% design review meetings with the RDOS staff, BAC and CM.
- Based on the approved design option from the previous stage, prepare for the RDOS's review and approval, documents consisting of drawings and other documents for the Project, such as but not limited to:
  - Site plan
  - Floor plans
  - Elevations
  - Sections
  - Outline specifications by standard section including the architectural, civil, landscape, structural, mechanical, and electrical discipline scope
  - Updated statement of probable construction cost detailing all variances from previous estimates
- In preparation of the detailed design drawings, consideration will be given to the following:
  - Elements of design are consistent with and support the RDOS and AVFR's standards and requirements.
  - Safety and security, internally and externally
  - Barrier free accessibility for users, spectators, and staff.
  - Overall functionality and use requirements
  - Drainage, water table review and base development requirements
  - Warranty of materials and systems
  - Surveyed location and site servicing
  - Environmental impacts for construction and operating costs and

- recommendations on environmental sustainability as appropriate.
  - Code compliance
- Coordinate furniture, fixtures, and equipment (FF&E) requirements (AVFR to participate).
- CM to provide appropriate (Class C at 60% and Class B at 90%) construction cost estimates (with the participation of the design team) and operating cost projections based on detail design documents and considerations outlined.
- Prepare submissions for required permitting related to a development permit if required and building permits. Assist and support the RDOS's effort to obtain permits. The RDOS will pay the charges for the permits.
- On-going constructability and value engineering reviews will occur as necessary to assure budget compliance.
- Obtain approval from the RDOS on the design development and budget for this stage prior to proceeding to the development of Construction documents.

#### **4.9.4. Stage 5: Construction Documents and Procurement**

- Provide all drawings, specifications, and Project specific information required to prepare the necessary Construction Tender documents.
- These documents will describe, in adequate detail, all aspects of the construction of the Project. Construction Documents issued for Tender should be clear and complete to minimize the likelihood for change orders due to lack of information.
- CM to Issue tender documents to qualified trade contractors (at the recommendation of the CM).
- Close tenders and analyze bids. CM to recommend which bids and contractors to retain. The RDOS, BAC and the Consultants will agree on successful trade contractors and assist in negotiations with any "own force" work bids submitted by the CM.
- Review all necessary permitting requirements and assist the RDOS in acquiring all permits and licenses necessary for the Project.
- CM to provide an updated statement of probable construction cost (Class A budget) detailing all variances from previous estimates at 60% and 90% stage. This will be used as a basis for a negotiated "fixed fee" amount to be transferred to a CCDC 2 contract between the RDOS and the GC.
- Obtain approval of the RDOS and BAC before proceeding with construction procurement.
- Attend any pre-bid and pre-construction meetings.
- Respond to any questions or requests for additional information from bidders during the bid or procurement phase.
- In coordination with the RDOS and AVFR
  - Assist and advise in obtaining bids or negotiated proposals
  - Prepare and coordinate addenda as applicable
  - Analyze proposals
  - Participate in the evaluation of submissions and selection and appointment of construction team. A fixed price contract for the Project should be possible at this stage of the Project. It is expected that the RDOS will enter a CCDC 2 with the participating CM.
- Prepare for the RDOS's review and approval, Issued for Construction Documents, including specifications and drawings, setting forth in detail the requirements for construction of the Project for all professional disciplines and suitable for construction

and submission to authorities for approval. These documents will form part of the Construction Contract and must incorporate all added items discovered through the bidding / clarification stage.

#### **4.9.5. Stage 6: Construction, Post-Construction & Contract Administration**

- Perform ongoing Architectural/Engineering tasks (request for information, review change order requests, approve contractor payment applications, prepare field reports, etc.) during construction as required to implement the Project.
- Manage the construction process including general review and field services including but not limited to:
  - The Architect will attend and participate in monthly construction site meetings and prepare meeting notes that will contain at a minimum adequate detail to document progress, action items, decisions, and risk issues.
  - All Consultants will perform timely site visits and observe construction to the degree necessary and as required to ensure conformance with the Construction Documents and applicable Codes.
  - Architect responsible for issuance of direction from the RDOS to the construction team.
  - Consultants will review, advise on validity, and process any change requests.
  - Consultants will review (in a timely fashion) all submittals for shop drawings, product data and samples.
  - The Architect will complete a review of Project works prior to the expiry of construction warranty and maintenance period.
  - The Architect will track budget and advise the RDOS of any concerns.
- Through coordination with the Contractor the Consultants will provide electronic and hard copy of full record drawing set (“as-builts”) of the facility.
- The Architect will review an Operations & Maintenance Manual (provided by the GC) at Project completion containing all building element sources, subcontractor and manufacturer contact information, manufacturer owner’s manuals, warranty information, product and material specifications, vendor lists and other relevant data.
- Consultants will complete all certificates of completion (schedules) and notices of certification of completion in accordance with appropriate legislation.
- The Architect will be the payment certifier according to the contract between RDOS and the GC, certifying regular payments, substantial performance and final completion of the Project including lien search requirements. The sub-consultants will verify associated trade progress draws.
- Submit a final Project report with all relevant documentation including commissioning of the building.
- Prepare a full record drawing set based on contractor’s submitted as-builts.

#### 4.10. PRELIMINARY SCHEDULE

A preliminary schedule for Project stages is included below.

Activity	Date
Procure Design Team	Sept 2022
Complete Stage 1	Oct 31, 2022
Complete Stage 2	Dec 31, 2022
Complete Stage 3	Jan 31, 2023
Procure CM	Jan 31, 2023
Complete 60% Stage 4	Mar 15, 2023
Complete 90% Stage 4	April 15, 2023
Complete Stage 5	April 30, 2023
Start Construction	May 15, 2023
Complete Stage 6	Dec 15, 2023
Occupancy	Dec 31, 2023

#### 4.11. DELIVERABLES

The successful Proponent(s) are expected to deliver at a minimum the following elements associated with best practices for Project Consultants (Architect and Sub-Consultants and CM alike):

- Regular meetings with the RDOS and Project Team. Architect to coordinate agendas and prepare / distribute minutes.
- Meetings as needed with other RDOS staff including but not limited to Planners and regulatory staff.
- Application and approvals for all applicable plans, permits, and agreements required by the RDOS and any relevant outside agencies.
- Architect may be required to present final design to Board of Directors of the RDOS and disseminate information about the Project and secure approvals.
- CM responsible for preliminary and detailed cost estimates at Stages 4 and 5 with additional cost control measures as required to keep the Project on budget (Pre-tender cost estimate and cost review post-tender with recommendations).
- Detailed construction drawings and specifications.
- Addenda as necessary during construction services solicitation period.
- Quality assurance (schedules), site visits and change orders during construction.
- Commissioning of Mechanical and Electrical systems.
- Ensure turn-over of documents including as-built drawings, operations and maintenance manuals and warranty documents.

## 5. **CONTRACT TERM**

The contract term is from **October 5<sup>th</sup>, 2022 to January 31<sup>st</sup>, 2023**.

## 6. **FEES AND DISBURSEMENTS**

Proponents should provide a fee proposal for the Services (in applicable Table) and identify any options and cost saving strategies that will benefit the RDOS. As described in this Section, the RDOS is seeking individual fixed fee proposals together with hourly rates for additional services.

Proponents should:

- propose a fixed fee and a breakdown of their proposed fixed fee by Project phase using Table 1 below (Proponents may add additional line items as required).
- indicate whether disbursements are included in the fixed fee or will be charged separately as Reimbursable Expenses, and provide an estimate of Reimbursable Expenses plus any applicable administrative charge; and
- for any additional services that may be required under the Contract, provide a list of hourly charge out rates for all personnel using Table 2 below.

Proposed fees should be in Canadian dollars and should include all applicable taxes, except for GST.



## **APPENDIX A – Evaluation Criteria**

The Project will be awarded to the Proponent(s) judged to provide the best overall value. The best value proposals will demonstrate the Proponent's ability to provide the most efficient solution and carry out the required services at a competitive price. All proposal submissions will be evaluated using the following criteria:

### **1. Completeness & Overall Quality of Proposal**

- Submission criteria are met
- No weaknesses or deficiencies evident
- Tailored to meet needs of RDOS and AVFR.

### **2. Experience**

- Relevant knowledge, experience and qualification of the Proponent and team members, and subcontractors (if applicable), with focus on similar projects. Include resumes or staff profiles for key members of the consulting team.
- Demonstrated experience working with municipalities or Regional Districts on similar types of rural projects.
- Provision of at least three (3) relevant and recent references.

### **3. Understanding**

- Demonstrates understanding of the Project scope, objectives, deliverables, and schedule limitations.
- Understanding of how the Project needs to progress to inform decision making on the overall scope and budget for the Project.

### **4. Technical**

- Proposed methodology that outlines how each stage will be completed including the integration of Project management (RDOS, AVFR), construction management (CM/GC) and overall coordination of a successful Project.
- Approach to overall Project communication.
- The RDOS encourages Proponents to propose unique methodologies or techniques to meet Project goals and objectives while mitigating risk to the Project schedule and overall cost.

### **5. Financial**

- Proposed Project costs and fee schedules that include detailed cost breakdown and estimates for each stage and type of service.

## **APPENDIX B – Proposal Content**

Proponents should provide the following information in their Proposals and in the order that follows:

### **SECTION A: Cover Letter**

Proponents should provide a cover letter referencing the RFP title. The letter should include the name of the person who will be authorized to make representations for the Proponent, their title and telephone number and email address. The cover letter should be signed by an authorized signatory in a position to legally bind the Proponent to statements made in response to this RFP.

### **SECTION B: Table of Contents**

Proponents should provide a table of contents referencing the applicable section, sub-section and page numbers.

### **SECTION C: Experience, Capacity for Architectural firm and each Consulting Engineering firm's Composition and Resources**

Proponents should provide information that demonstrates their experience, capacity, and availability of resources, including the ability to meet the requirements of this RFP, qualifications and competencies, references of current and former clients for the types of services described in this RFP, including the following:

#### **Part 1: Profile and Experience of Proponent**

Part 1 should include the following information:

- a) name and corporate profile of the architectural firm that will lead the Project as Prime Consultant and coordinating professional;
- b) names and resumes (including relevant qualifications and experience) of the architectural firm lead's key personnel to be assigned to the Project and confirmation of their availability for the duration of the Project;
- c) a detailed listing, with descriptions, of at least three (3) successfully completed projects that demonstrate the proposed architectural and each consulting engineer's experience with providing the types of services required by this RFP;
- d) name and corporate profile of all sub-consultants who will perform services as required for the Project:
  - I. structural engineering;
  - II. mechanical engineering;
  - III. electrical engineering;
  - IV. civil engineering;

- V. Registered Energy Advisor; and
- VI. any other consultants who will provide specialized services that the Proponent believes will add value to the Project; and
- e) For each sub-consultant: the name of the design lead, a brief resume identifying their relevant qualifications and experience, and confirmation of their availability for the duration of the Project.

Note: The RDOS will work with the successful Architect to assemble the best Project Team from the successful list of sub-consultant proponents.

### **Part 2: Additional Information**

In this section, Proponents may provide any additional comments about the Proponent's experience, capacity and resources which they feel would be informative and beneficial to the RDOS.

### **Part 3: References**

Proponents should provide a list of references for clients for whom the Proponent has provided similar services to those required in this RFP, with an emphasis on local regional districts /municipalities, over the past five years. Proponents should include a brief summary of the services provided and the date of the services. Include the organization name and address, telephone number, and email address of primary contact. The RDOS may, during the evaluation process, contact the references to confirm statements made in response to this RFP.

## **SECTION D: TECHNICAL INFORMATION**

Proponents should provide:

- a) A brief narrative of the firm's understanding of the Project scope, objectives, deliverables, schedule, challenges, risks, and opportunities associated with the Project
- b) Description of the proposed Project delivery model and how the proposed approach would achieve collaboration and mitigation of risk for the Project.
- c) Work plan outlining the proposed methodology that addresses the various Project stages including but not limited to Stage 1: Pre-Design through Stage 6: Construction, Post-Construction & Contract Administration, overall Project management, construction management, interaction with RDOS staff and the BAC.
  - Methodology used should generally conform to the services requested, however the Proponent is encouraged to include services or steps to enhance the quality of the Project. These should be identified as additional or enhanced services if included.
  - Identify key tasks required to be undertaken by the RDOS and or the BAC.
- d) a Project design schedule that includes planning milestones.

## **SECTION E: DELIVERABLES AND METHODOLOGY**

Proponents should:

- a) Confirm they will perform the services described in this RFP and/or provide or suggested changes;
- b) Respond and comment on the preliminary Project schedule included in this RFP; and
- c) Suggest a detailed design process and timetable given the fixed milestone date already established by the RDOS for the successful delivery of the Project.

#### **SECTION F: WORKSAFE, INSURANCE(S), BUSINESS LICENSE**

Proponents should provide:

- a) confirmation of WorkSafe BC coverage. Proponents not already having the appropriate WorkSafe BC coverage will be required to obtain the appropriate coverage prior to award of a Contract; and
- b) confirmation that the Proponent maintains the insurance coverage described in the draft Contract (Appendix C, Section 8).

#### **SECTION G: FEES**

Proponents should provide a fee proposal for the Services and identify any options and cost saving strategies that will benefit the RDOS. As described in this Section, the RDOS is seeking fixed fee proposals together with hourly rates for additional services.

Proponents should:

- a) propose a fixed fee and a breakdown of their proposed fixed fee by discipline and Project phase using Tables 1 through 4 below (Proponents may add additional line items as may be required);
- b) indicate whether disbursements are included in the fixed fee or will be charged separately as Reimbursable Expenses, and provide an estimate of Reimbursable Expenses plus any applicable administrative charge; and
- c) for any additional services that may be required under the Contract, provide a list of hourly charge out rates for all personnel using the tables below.

Proposed fees should be in Canadian dollars and should include all applicable taxes, except for GST.



**Table 3** – Proposed Fixed Fee for Consulting Engineering Services. Provide a fixed fee breakdown in accordance with the following, and provide similar details for any additional consulting services that may be required:

<b>Engineering: Structural</b>	<b>Fixed Fee</b>
<b>Company Name</b>	
Pre-Design (Stage 1)	
Conceptual (Stage 2)	
Schematic Design (Stage 3)	
Design Development, IFT, Tender (Stage 4)	
Contract Documents and IFC (Stage 5)	
Contract Administration (Stage 6) – provide hourly rates & estimate # hours	Hourly as per table 4
Disbursements (estimate)	
Sub-total	
<b>Engineering: Mechanical</b>	<b>Fixed Fee</b>
<b>Company Name</b>	
Pre-Design (Stage 1)	
Conceptual (Stage 2)	
Schematic Design (Stage 3)	
Design Development, IFT, Tender (Stage 4)	
Contract Documents and IFC (Stage 5)	
Contract Administration (Stage 6) – provide hourly rates & estimate # hours	Hourly as per table 4
Disbursements (estimate)	
Sub-total	
<b>Engineering: Electrical</b>	<b>Fixed Fee</b>
<b>Company Name</b>	
Pre-Design (Stage 1)	
Conceptual (Stage 2)	
Schematic Design (Stage 3)	
Design Development, IFT, Tender (Stage 4)	
Contract Documents and IFC (Stage 5)	
Contract Administration (Stage 6) – provide hourly rates & estimate # hours	Hourly as per table 4
Disbursements (estimate)	
Sub-total	



**APPENDIX C – Sample Contract**

**CONSULTING SERVICES AGREEMENT**

THIS AGREEMENT made the \_\_\_\_ day of \_\_\_\_, 2022.

BETWEEN :

**REGIONAL DISTRICT OF OKANAGAN-SIMILKAMEEN**

101 Martin Street  
Penticton, British Columbia, V2A 5J9

(hereinafter called the “Regional District”)

OF THE FIRST PART

AND :

**NAME**

Address

Address

(hereinafter called the “Consultant”)

OF THE SECOND PART

WHEREAS the Regional District desires to engage the services of the Consultant as an independent contractor to perform consulting services and the Consultant has agreed to provide consulting services subject to the hereinafter terms and conditions.

AND WHEREAS the parties hereto wish to set out herein their respective rights and obligations.

NOW THEREFORE, the Regional District and the Consultant in consideration of their mutual rights and obligations as hereinafter set forth do hereby agree as follows:

**To provide ....[add description of the work that the consultant will be performing].**

**SECTION 1. INTERPRETATION**

1.1 For purposes of this Agreement, except as otherwise expressly provided:

- (a) Section—all references in this Agreement to a designated “section” or other subdivision or to a Schedule is to the designated section or other subdivision of, or Schedule to, this Agreement;
- (b) Whole Agreement—the words “herein”, “hereof”, “hereunder” and other words of similar import refer to this Agreement as a whole and not to any particular section or other subdivision or Schedule;
- (c) Headings—any headings have been inserted for convenience only and do not form a part of this Agreement and are not intended to interpret, define or limit the scope, extent or intent of this Agreement or any provision hereof;



- (d) Non-limiting—the singular of any term includes the plural, and vice versa; the use of any term referable to a particular gender is equally applicable to any gender and, where applicable, a body corporate; the word “or” is not exclusive and the word “including” is not limiting (whether or not non-limiting language, such as “without limitation” or “but not limited to” or words of similar import is used with reference thereto).

## **SECTION 2 CONSULTANT’S DUTIES**

- 2.1 The Consultant shall provide, and has agreed to provide to the Regional District all Services set out in the Request for Proposal (attached hereto as Schedule “A”) and the Consultant’s Proposal (attached hereto as Schedule “B”), both of which form part of this Agreement (hereinafter collectively called the “Services”). The Services shall be provided within the times specified in Schedules A and B.
- 2.2 In performing the Services under this Agreement, the Consultant shall, at all times, act in the best interests of the Regional District and exercise that degree of professional skill, care and diligence required according to generally accepted professional science and engineering standards applicable to the performance of such Services at the time and place the Services are performed.
- 2.3 It is agreed that in awarding the professional Services encompassed within this Agreement to the Consultant, the Regional District has relied upon the Consultant’s representations concerning the experience of certain identified personnel in the employ of the Consultant. It is agreed that, in performing the Services under this Agreement, the Consultant shall designate those key staff and subconsultants specified in Schedule “B” to carry out and provide the Services to be provided by the Consultant as referred to herein
- 2.4 The Consultant shall request of the Regional District any information or data contained in Regional District files which the Consultant requires in order to perform the Services. The Regional District is only obligated to provide to the Consultant information and data that is pertinent to the terms of reference and work program set out in Schedules “A” and “B”. The Consultant may rely on such information or data as may be provided by the Regional District without independent verification.
- 2.5 To ensure that the Project is processed in a timely manner, the Consultant and the Regional District will apply their best efforts to meeting the following deadlines:
- (a) Phone call inquiries from the Regional District will be returned within 24 hours;
  - (b) Public inquiries to the Consultant on technical issues will be returned within 48 hours;
  - (c) Meetings will be scheduled within 5 working days from date of request;
  - (d) Review comments for material submitted by the Consultant will be processed by the Regional District within 14 days of receipt.
- 2.6 Costs which have not been identified by the Consultant in the cost estimate set out in Schedule “B” will not be paid by the Regional District without prior approval and confirmation in writing. No payment shall be made to the Consultant for cost overruns that have not been the subject of prior notice and approval by the Regional District.
- Any change in the rates charged for fees and disbursements must be approved in advance,

in writing, by the Regional District.

- 2.7 The Consultant shall submit to the Regional District regular progress reports, as requested from time to time, and such additional reports as may be reasonably required.

### **SECTION 3 FEES AND DISBURSEMENTS**

- 3.1 The Consultant shall receive from the Regional District for the performance of the Services the compensation referred to in the proposal set out in Schedule "B".
- 3.2 Invoices may be rendered on a monthly basis prorated to the work completed or, at the conclusion of each phase by the Consultant to the Regional District, and shall be delivered to the Regional District of Okanagan-Similkameen, 101 Martin Street, Penticton, British Columbia, V2A 5J9. Invoices shall be payable in full by the Regional District within thirty (30) days of receipt.
- 3.3 The Consultant shall provide all necessary and sufficient substantiation to the Regional District in order to verify any invoice upon request. If the Regional District is unable to verify any invoice within thirty (30) days of receipt, any payment by the Regional District either may be withheld or may be made and treated as an advance pending verification of the invoice.
- 3.4 Any necessary adjustments which have not been made prior to payment of an invoice may be made by the Regional District at the time of a later payment. If the Regional District is shown to have overpaid, the Regional District may deduct the amount from any other sums due to the Consultant from the Regional District or the Consultant shall pay the amount to the Regional District within thirty (30) days of the amount being agreed upon or otherwise established.
- 3.5 The Regional District may request the Consultant to submit prior to payment of the final invoice a statutory declaration or other proof that there are no outstanding costs, assessments, liens or claims in connection with the Project.

### **SECTION 4 CONFIDENTIALITY, OWNERSHIP AND USE OF DOCUMENTS AND MATERIALS**

- 4.1 The Consultant acknowledges that in the performance of the Consultant's responsibilities hereunder, the Consultant may have access to confidential information, records and customer lists of the Regional District (the "Confidential Information"). During and after the term of this Agreement, the Consultant shall not, directly or indirectly, disclose such Confidential Information to any person or use any such Confidential Information, except:
- (a) as required in the course of performing such Services and then only to staff of the Regional District on a need-to-know basis; or
  - (b) with the prior written consent of the Regional District;

and all Confidential Information which the Consultant shall prepare or use or come in contact with shall be and remain the Regional District's sole property and shall not be removed from the Regional District's premises without its prior written consent, except as required in the normal course of performing the Services under this Agreement.

- 4.2 The Consultant agrees that all base materials, research results, computer programs, computer files, drawings, documents and notes and materials of any type whatsoever developed or prepared by the Consultant (hereinafter called the "Documents") in the performance of the Services shall vest and become the absolute property of the Regional District, including copyright of such Documents and upon completion of the Services or termination of this Agreement, all copies of Documents shall be delivered by the Consultant to the Regional District. The Consultant may retain one copy of its materials for record purposes.
- 4.3 The Consultant agrees that all restrictions in this Section 4 are reasonable, fair and valid in all the circumstances and, to the fullest extent permitted by law, hereby waives all defences to the strict enforcement thereof by the Regional District.
- 4.4 The Regional District acknowledges and agrees that the Consultant's Services have been provided for a specific purpose. Any reuse, modification, or misuse of the Consultant's studies, reports,
- drawings, plans, designs, specifications, models, software, processes, documents, or other information by the Regional District or third parties shall be at the Regional District's sole risk and responsibility.

#### **SECTION 5 SPECIAL TOOLS AND EQUIPMENT**

- 5.1 All necessary special tools, equipment and other things shall be acquired by the Consultant solely at the Consultant's cost and shall be the property of the Consultant unless the Regional District specifically authorizes the purchase of a specific item at the Regional District's expense.
- 5.2 The cost of special tools, equipment and other things that have not been specifically identified in detail by the Consultant or specifically authorized in writing by the Regional District during performance of the Project shall be considered to be within the overhead of the Consultant.
- 5.3 If the Regional District specifically authorizes, in writing, that the Consultant shall purchase any special tool, equipment, or other things at the expense of the Regional District then such items shall become the property of the Regional District. The Consultant shall bear the risk of loss or damage, normal wear and tear excepted, to all such items for the time when such items are out of the possession and control of the Regional District. Upon completion of the Project, the Consultant shall deliver all such special tools, equipment and other things to the Regional District.

#### **SECTION 6 SUB-CONSULTANTS AND SUB-CONTRACTORS**

- 6.1 The Consultant may, with the prior written approval of the Regional District, engage the services of sub-consultants or sub-contractors to perform work which the Consultant is unable to perform.
- 6.2 The sub-Consultants and sub-contractors shall agree in writing prior to their participation in the Project to be bound by duties and obligations arising out of this Agreement between the Consultant and the Regional District.

- 6.3 The Consultant shall be responsible to the Regional District for all work carried out by sub-consultants and sub-contractors in connection with the Project as if such work had been performed by the Consultant.
- 6.4 The Consultant shall be responsible to the Regional District for the acts and omissions of all sub-consultants and sub-contractors, their employees and agents, as if such sub-consultants and sub-contractors, their employees and agents, were persons directly employed by the Consultant.

## **SECTION 7 TERMINATION AND SUSPENSION**

### **By the Regional District :**

- 7.1 If the Consultant is in default in the performance of any of their material obligations set forth in this Agreement, then the Regional District may, by written notice to the Consultant, require such default to be remedied. If, within seven (7) days after delivery of such notice, such default shall not have been corrected or reasonable steps to correct such default have not been taken, the Regional District may, without limiting any other right or remedy the Regional District may have, immediately terminate this Agreement and discharge its obligations under this Agreement by paying for the cost of the Services rendered and disbursements incurred by the Consultant and remaining unpaid as of the effective date of the termination.
- 7.2 The Regional District may terminate this Agreement upon seven (7) days' prior written notice in the event the Consultant:
- (a) fails to complete the Services or any portion thereon within the time specified by this Agreement;
  - (b) becomes insolvent;
  - (c) commits an act of bankruptcy;
  - (d) assigns this Agreement without the required written consent of the Regional District;
  - (e) fails to adhere to or perform any of the provisions of this Agreement;
  - (f) has any conflict of interest which may, in the opinion of the Regional District, adversely affect any Project for which the Services are being provided; or
  - (g) there is a change in the personnel referred to in Schedule "B" herein without the prior written approval of the Regional District.
- 7.3 Notwithstanding anything herein to the contrary, the Regional District may, for whatever reason, terminate this Agreement on one (1) month's prior written notice to the Consultant, in which case the term of this Agreement shall expire upon the effective date set out in the aforesaid notice, and the Regional District shall have no further obligation to the Consultant for the balance of the term of this Agreement save and except as may exist on the termination date.

Upon receipt of such written notice, the Consultant shall perform no further Services other than those reasonably necessary to close out the Project.

In such event, the Consultant shall be paid by the Regional District for all Services performed and all disbursements incurred pursuant to this Agreement and remaining unpaid as of the

effective date of such termination. On said payment the Regional District shall have no further liability of any nature whatsoever to the Consultant for any loss of profit or any other losses suffered, either directly or indirectly, by the Consultant as a result of the termination of this Agreement.

- 7.4 The Consultant shall, upon termination, forthwith provide to the Regional District a reproducible copy of all materials used by the Consultant or prepared by the Consultant in regards to the Services.
- 7.5 The Consultant agrees that the termination or suspension of this Agreement or any change thereto does not operate as to relieve or discharge the Consultant from any obligation under this Agreement or imposed upon the Consultant by law in respect of the Services or any portion of the Services that the Consultant has completed to date or such termination or suspension. This provision shall survive the expiry or sooner termination of this Agreement.

**By the Consultant :**

- 7.6 If the Regional District is shown to be in default in performance of any of its material obligations set forth in this Agreement, then the Consultant may, by written notice to the Regional District, require such default to be corrected.
- If, within seven (7) days after receipt of such notice such default shall not have been corrected, or reasonable steps have not been taken to correct such default, the Consultant may, without limiting any other right or remedy he may have, immediately terminate this Agreement. In such an event, the Consultant shall be paid by the Regional District for all Services performed and disbursements incurred pursuant to this Agreement and remaining unpaid as of the effective date of such termination.
- 7.7 If the Consultant's Services are suspended by the Regional District at any time for more than thirty (30) days through no fault of the Consultant, then the Consultant shall have the right at any time until such suspension is lifted by the Regional District, to terminate this Agreement upon giving written notice thereof to the Regional District.
- In such event, the Consultant shall be paid by the Regional District for all Services performed and all disbursements incurred pursuant to this Agreement and remaining unpaid as of the effective date of such suspension.

**SECTION 8 INSURANCE AND INDEMNITY**

- 8.1 The Consultant shall maintain in full force and effect with insurers licensed in the Province of British Columbia, all insurance as outlined on the attached **Certificate of Insurance – Standard Certificate Form** as provided by the Regional District. This form must be completed by the Consultant's insurance broker and returned to the Regional District.:
- 8.2 The Consultant shall, at their expense, establish and maintain Errors and Omissions Insurance in respect to the Services and operations of the Consultant based on the following:
1. Preliminary Project where fees do not exceed \$15,000: Insurance limit shall be a minimum of \$250,000 per claim and \$500,000 per policy period.
  2. Studies with no designing required: Insurance limit shall be a minimum of \$500,000 per claim and \$1,000,000 per policy period.
  3. Design assignments and/ or planning services covering projects not exceeding \$1,000,000 in value: Insurance limit shall be a minimum of \$1,000,000 per claim and \$1,000,000 per policy period.

4. Design assignments and/ or planning services covering projects exceeding \$1,000,000 in value: Insurance limit shall be a minimum of \$2,000,000 per claim.
- 8.3 The Consultant's Professional Errors and Omissions Insurance shall be maintained continuously during the term of this Consulting Services Agreement and subsequently continue to be in force for twelve (12) months beyond the Project completion date of Services (i.e., submission of Final Report, as approved in writing by the Regional District).  
The Consultant will provide 30 days written notice in advance of cancelation of any policies.
- 8.4 The Consultant shall provide owned and non-owned automobile liability insurance as outlined on the **Certificate of Insurance – Standard Certificate Form**.
- 8.5 General liability insurance must be obtained on an occurrence basis for the Consultant with limits of not less than \$5,000,000 inclusive per occurrence for bodily injury and property damage. Detailed coverage is to be as specified on the provided Standard Certificate Form.
- 8.6 The Consultant shall ensure that Commercial General Liability insurance coverage maintained by the Consultant in accordance with this Agreement shall name the Regional District as an additional insured, contain a severability of interests or cross liability clause, a waiver of any subrogation rights which the Consultant's insurers may have against Regional District, its elected officials, directors, officers, employees, contractors, agents and representatives, and shall provide that no such insurance policy may be cancelled without the insurer providing no less than thirty (30) days' written notice of such cancellation to the Regional District. The Consultant shall, upon the request of the Regional District, furnish written documentation, satisfactory to the Regional District, evidencing the required insurance coverage. The cost of all of the insurance required to be held by the Consultant as set forth herein shall be borne by the Consultant.
- 8.7 The Consultant shall at all times indemnify and hold harmless the Regional District, and the Regional District elected and appointed officials, officers, employees and agents from and against all liabilities, losses, costs, damages, reasonable legal fees, disbursements, fines, penalties, expenses, all manner of actions, causes of action, claims, demands, and proceedings, whether arising directly or indirectly from death, personal or bodily injury, sickness, disease, property loss, property damage or other loss or damage which may result from or be connected with the performance of this Agreement, including any breach or default of this Agreement by the Consultant or its employee.

## **SECTION 9 DISPUTE RESOLUTION**

- 9.1 In the case of any dispute arising between the Regional District and the Consultant, as to their respective rights and obligations under the terms and conditions of this Agreement and subsequent documents, either party shall be entitled to give the other written notice, within ten (10) working days of that party's awareness of such a dispute.
- 9.2 If a mutually agreeable resolution is not reached under section 9.1, the parties agree to the following procedure:
- (a) the Regional District's representative and the Consultant will work to resolve the dispute. If a resolution still cannot be reached the dispute will be escalated to the

second level detailed in subsection (b);

- (b) the matter in dispute may be referred to the British Columbia International Commercial Arbitration Centre ("BCICAC") for commercial mediation, pursuant to its rules; and
- (c) in the event the commercial mediation process is unsuccessful, the parties may agree to have the BCICAC will appoint an arbitrator and if so agreed by the parties, the decision of any arbitrator shall be final and binding upon the parties, including any decision of the arbitrator with respect to the costs of arbitration.

9.3 Unless the parties agree to binding arbitration under subsection 9.2(c), any efforts by the parties to resolve a dispute shall not preclude either of them from commencing legal proceedings or in accessing any other rights under law.

#### **SECTION 10 INDEPENDENT CONTRACTOR**

10.1 Nothing in this Agreement or the Consultant's performance of their duties under this Agreement shall constitute or create an employer-employee relationship. The Consultant shall act solely as an independent contractor and not as an employee or agent of the Regional District and is not authorized to create obligations on the part of the Regional District to third parties.

#### **SECTION 11 WAIVER**

11.1 Any failure of the Regional District at any time to enforce or require strict compliance with any of the terms of this Agreement shall not constitute a waiver or relinquishment of any such terms and the same shall remain at all times in full force and effect.

#### **SECTION 12 RECORDS AND AUDIT**

12.1 The Consultant shall keep reasonable and proper records, accounts, statements and other relevant documents for a period of not less than twelve (12) months after completion of the Project or for such extended period as the Regional District may request in advance and in writing.

12.2 The Consultant shall permit the Regional District to inspect, audit and copy all records, accounts, statements and other relevant documents of the Consultant relating to the Project at all reasonable business hours in the offices of the Consultant unless otherwise agreed in writing by the parties.

#### **SECTION 13 SUCCESSORS AND ASSIGNS**

13.1 This Agreement shall ensure to the benefit of and be binding upon the parties hereto and their respective executors, heirs, administrators, successors and assigns, as the case may be.

13.2 Neither party may assign this Agreement without the prior consent in writing of the other, which consent shall not be unreasonably withheld.

#### **SECTION 14 COMPLIANCE WITH LAWS**

14.1 The Consultant shall comply with all applicable bylaws and regulations of the Regional

District and all applicable laws of the Province of British Columbia and the Government of Canada. Without restricting the generality of the foregoing, the Consultant shall abide by all provisions of the Workers' Compensation Act of British Columbia and upon request by the Regional District shall supply proof that all assessments have been paid.

- 14.2 The laws of the Province of British Columbia shall govern this Agreement and any arbitration or litigation in respect thereof.

#### **SECTION 15 CORPORATE STANDING**

- 15.1 The Consultant is required to be in compliance with the Business Corporations Act – BC Laws.

#### **SECTION 16 TERM**

- 16.1 The parties hereto agree that the Term of this Consulting Services Agreement will be from \_\_\_\_ to \_\_\_\_.

#### **SECTION 17 ENTIRE AGREEMENT**

- 17.1 This Agreement constitutes and expresses the whole Agreement of the parties with reference to the engagement of the Consultant by the Regional District.

#### **SECTION 18 NOTICE**

- 18.1 Except in the case of emergency, when notice may be given by telephone with later confirmation in writing, any notice, request, approval, demand or other communication which may be or is hereby required or permitted to be given under this Agreement shall be in writing and either delivered by hand or sent by facsimile transmission addressed as follows:

- (a) if to the Regional District:  
101 Martin Street, Penticton, BC, V2A 5J9  
Fax No. 250-492-0063; and
- (b) if to the Consultant:  
  
Fax No.

or at such other address or facsimile number, which notice has been given as provided in this section. Any notice which is delivered by hand will be deemed to have been given on the first day on which it is delivered. Any notice which is sent by facsimile transmission will be deemed to have been given on the first day after it is transmitted, provided that the sender obtains written confirmation of successful transmission. If a party will promptly give notice of its new address or facsimile number, or both, to such other parties provided in this section, whereupon such notice to such party will thereafter be sent to such new address or facsimile number.

#### **SECTION 19 TIME OF THE ESSENCE**

- 19.1 Time shall remain of the essence with respect to this Agreement.



**SECTION 20    EXECUTION**

- 20.1    This Agreement may be executed in any number of counterparts, each of which so executed shall be deemed an original and the counterparts together from a valid and binding Agreement which may be sufficient evidence by any one such original counterpart.
- 20.2    In the event this Agreement is executed by two or more persons, the covenants and Agreements herein shall be deemed to be joint and several covenants.

**SECTION 21    ELECTRONIC MAIL**

- 21.1    This Agreement may be executed by the parties and transmitted by facsimile or electronic mail and if so executed and transmitted, this Agreement will be for all purposes as effective as if the parties hereto had delivered an executed original of this Agreement.

SAMPLE

IN WITNESS WHEREOF the parties hereto have executed this Agreement on the day and year first above written.

The signatures of the Signing  
Authority of the  
**REGIONAL DISTRICT OF  
OKANAGAN - SIMILKAMEEN**  
was hereto affixed:

---

*Mark Pendergraft, Chairman*

---

*Bill Newell, Chief Administrative Officer*

The signatures of the Signing  
Authority of the  
**CONSULTANT** by its authorized signatories,  
was hereto affixed:

---

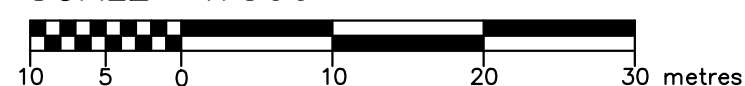
*Authorized Signatory*

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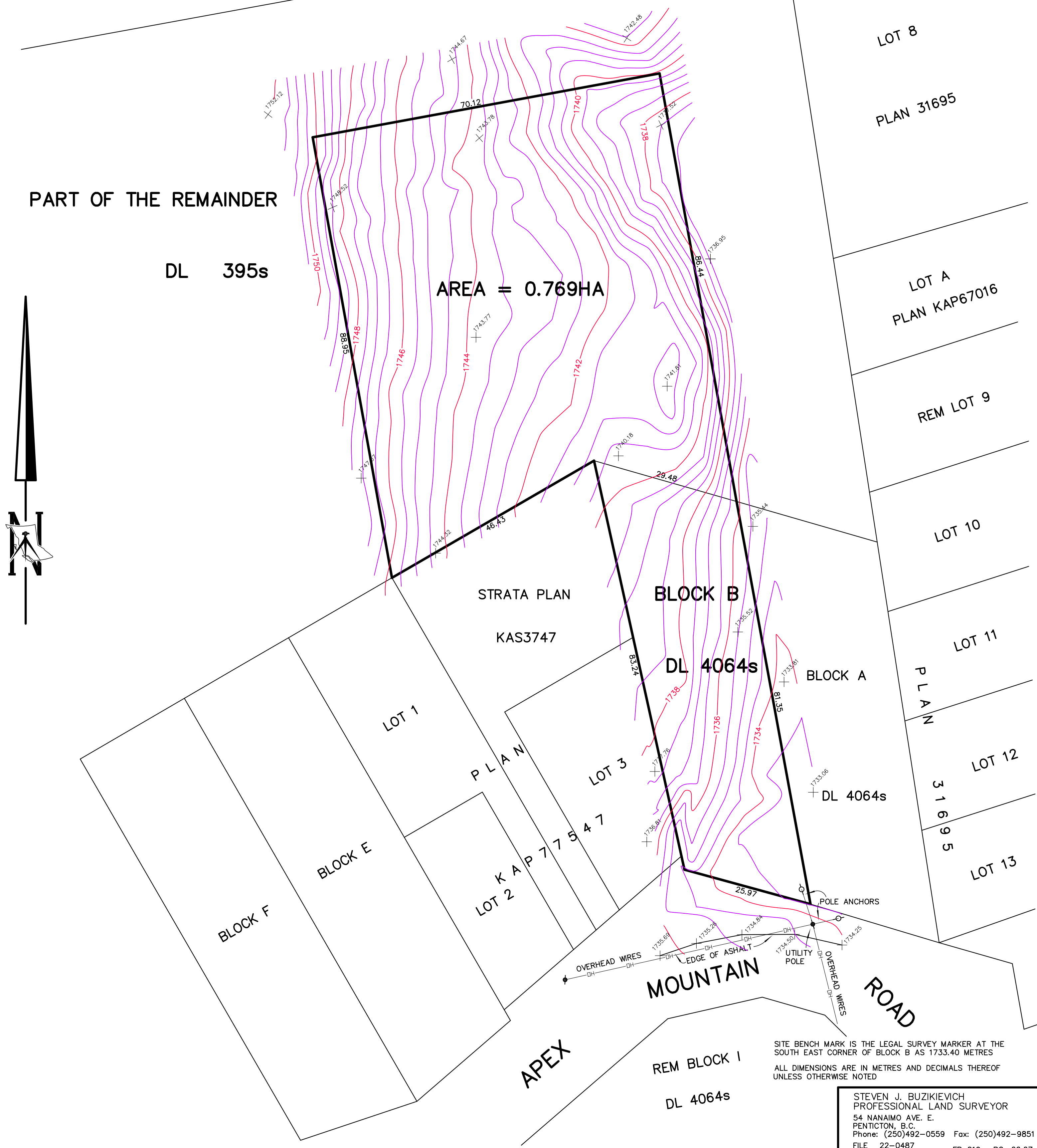
*Authorized Signatory*

## **APPENDIX D – Site Information**

BCGS 82E.031  
SCALE 1:500



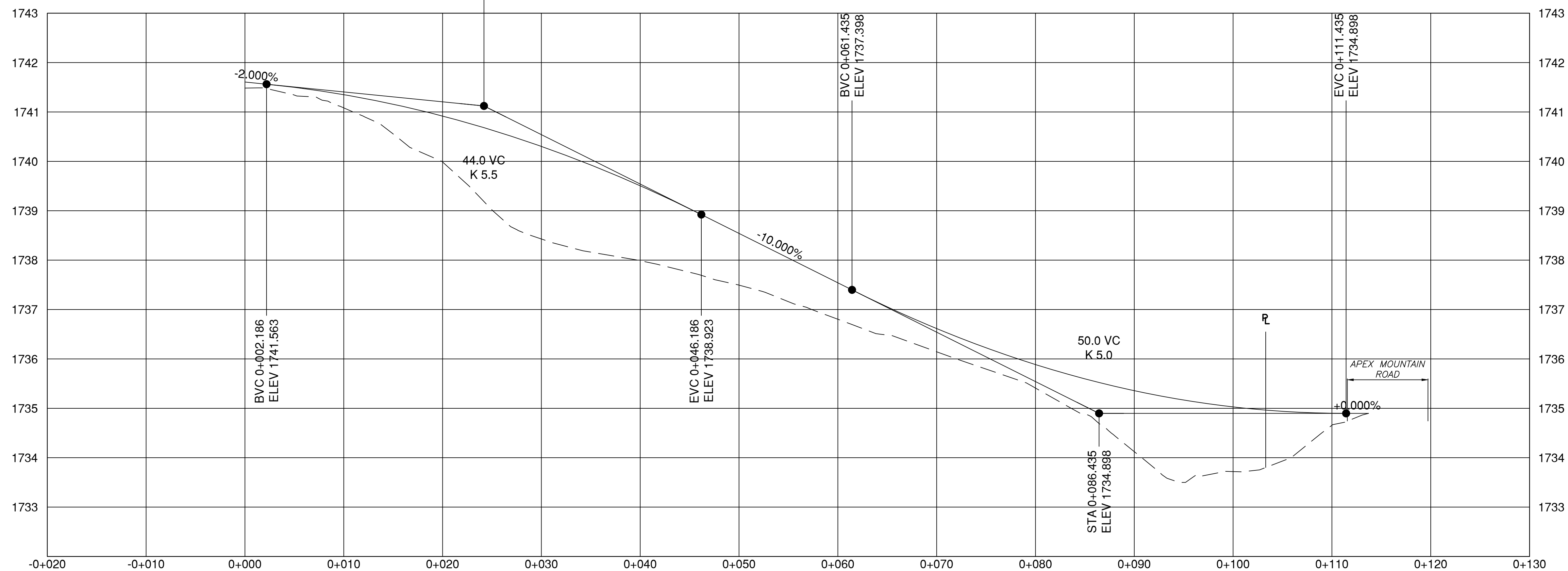
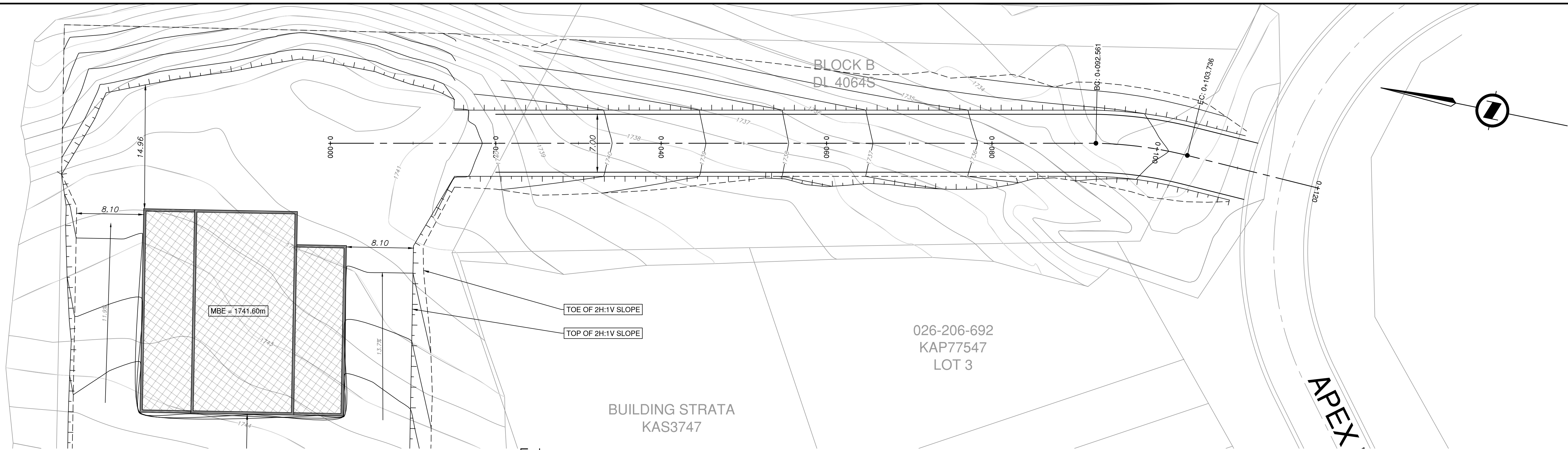
CIVIC ADDRESS: 1246 APEX MOUNTAIN ROAD, APEX MOUNTAIN, PENTICTON, BC



SITE BENCH MARK IS THE LEGAL SURVEY MARKER AT THE SOUTH EAST CORNER OF BLOCK B AS 1733.40 METRES

ALL DIMENSIONS ARE IN METRES AND DECIMALS THEREOF UNLESS OTHERWISE NOTED

STEVEN J. BUZIKIEVICH  
PROFESSIONAL LAND SURVEYOR  
54 NANAIMO AVE. E.  
PENTICTON, B.C.  
Phone: (250)492-0559 Fax: (250)492-9851  
FILE 22-0487 FB. 219 PG. 66,67  
DWG. 22-0487A



CONSULTANT SEAL	SCALE		CAD FILENAME 2022.008 APEX	
	PLOT DATE 2022-05-06			
	REV	DATE	REVISIONS	NAME
	0	2022-05-06	ISSUED FOR DISCUSSION	CP
PERMIT: XXXXX				
		DESIGNED CP DATE 2022-05-06		
		QUALITY CONTROL CP DATE 2022-05-06		
		QUALITY ASSURANCE DD DATE 2022-05-06		
		DRAWN DD DATE 2022-05-06		
PLAN & PROFILE				
APEX FIRE HALL				
BLOCK B DL 4064S				
FILE NUMBER	DRAWING NUMBER	SHEET	REV	
2022.008	201	04 of 04	0	



Suite #4, 385 Baker Street  
Nelson, BC, V1L 4H6  
250 509 1009

GEOTECHNICAL ASSESSMENT  
FOR THE  
PROPOSED FIRE HALL  
AT  
APEX MOUNTAIN SKI RESORT

August 28, 2022

Report Number: 21.540.52

Distribution:

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## 1. Introduction

At the request of Doug Reeve, Project Coordinator II for the Regional District of Okanagan Similkameen (RDOS), SNT Geotechnical Ltd. (SNTG) performed a geotechnical assessment of the foundation soils for the proposed firehall at the Apex Mountain ski hill located west of Penticton, BC.

This report addresses the field investigation undertaken, presents the factual report on subsurface conditions encountered, and provides preliminary foundation design recommendations.

## 2. Terms of Reference

The following is a summary of the requested geotechnical services for the proposed building.

### 2.1. Field Work

- Pre-fieldwork review of existing information;
- Review site to gain understanding of geologic and geomorphologic conditions; and
- Perform geotechnical test pitting on the property for the purposes of characterizing the soil conditions, and to obtain samples for laboratory confirmation of soil composition and character.

### 2.2. Analyses and Report

- Summarize geologic and geomorphologic conditions;
- Compile field and laboratory information: summarize subsurface conditions;
- Analyze information and develop recommendations for foundation parameters including:
  - Footings bearing capacity estimate;
  - Anticipated settlement; and
  - Subsurface drainage;
  - Frost susceptibility;
- Compile a report outlining the investigation, analysis and recommendations.

### 2.3. Analysis and Report Exclusions

Given the limited scope of the requested assessment, it should be understood that the investigation, analysis and report do not specifically address the following geotechnical components:

- environmental aspects;
- final site grading;
- local slope stability; and
- natural hazard and legislated landslide assessment;



### 3. Site Description and Proposed Development

The proposed fire hall site is located on Apex Mountain Road approximately 600m northwest of the ski hill base at UTM Coordinates: zone 11U, 288,500m E, 5,475,490m N

The proposed building site is currently undeveloped forested land with an average 6% grade sloping downward from west at east. Access to the location is gained through a panhandle corridor that averages approximately 10% grade, sloping uphill to the site from Apex Mountain Road. The elevation of the site is 1744m a.s.l..

Although architectural renderings have not been completed, discussions with the RDOS and review of sketches indicate the building is proposed to be a two storey structure connected to a two bay garage of an equivalent two storey height. Buildings of this type are typically supported by concrete strip and pad foundations.



**Figure 1.** General area of proposed Fire Hall. (RDOS Parcel Viewer, 2022)

## 4. Field Work

A field investigation was conducted by Mike Walsh, P.Eng. on July 12, 2022, using a small tracked excavator. Four geotechnical test pits (TP) were advanced to depths ranging from 2.1m to 3.0m in depth. Test pit depths were limited due to refusal on very dense till soil. Representative soil samples were collected from the test pits for further review. The test pit locations are shown in Figure 2.

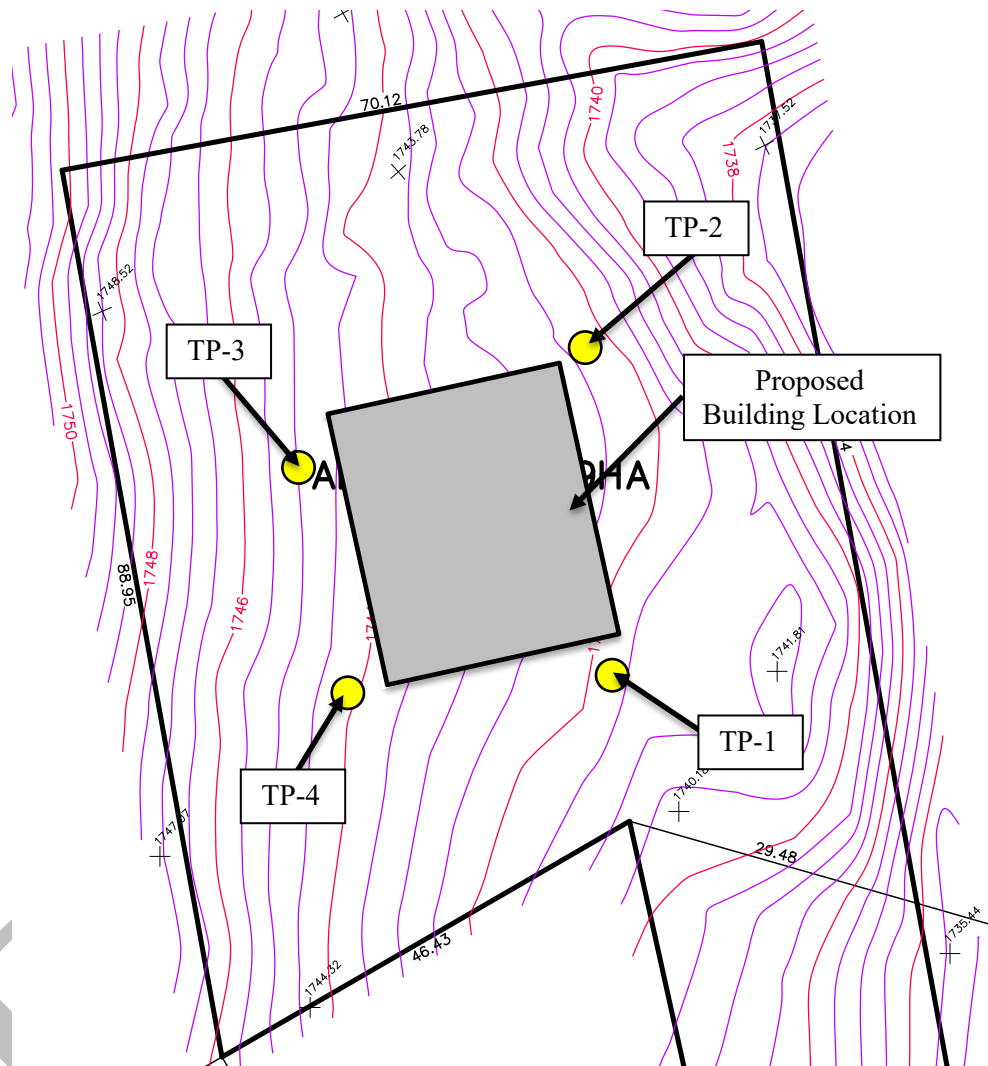


Figure 2: Approximate test pit locations. (RDOS, 2022)

## 5. Description of Subsurface Conditions

Interpretation of the surficial geology at the proposed building site is based on the test pit data. The subsurface conditions are relatively consistent; comprise of a thin organic layer overlying silty sand, overlying a dense till.

Details of the subsurface conditions encountered in the test pits are provided in Table 1, photos of the test pits are included as Appendix A - Photos:

Table 1. Summary of Encountered Soil Conditions

Test Pit #	Depth Range (m)	Soil Conditions	USCS
TP-1	0.0 to 0.2	moist loose dark brown silty SAND w/ roots + organics, Topsoil	-
	0.2 to 2.1	moist compact brown silty SAND, some gravel	SM
	2.1 to 3.0	moist dense to very dense grey sandy gravelly SILT, TILL, minor seepage at 2.1m	GM
TP-2	0.0 to 0.35	moist loose dark brown silty SAND w/ roots + organics, Topsoil	-
	0.35 to 1.9	moist compact brown silty SAND, some gravel	SM
	1.9 to 2.8	moist/wet very dense grey sandy gravelly SILT, TILL	GM
TP-3	0.0 to 0.3	moist loose dark brown silty SAND w/ roots + organics, Topsoil	-
	0.30 to 1.85	moist dense brown silty SAND with gravel, abundant cobbles to 350mm dia.	SM-GM
	1.85 to 2.1	moist/wet very dense grey sandy gravelly SILT, abundant cobbles and boulders to 750mm dia., TILL	GM
TP-4	0.0 to 0.3	moist loose dark brown silty SAND w/ roots + organics, Topsoil	-
	0.30 to 2.1	moist dense brown silty SAND with gravel, abundant cobbles to 350mm dia., heavy seepage at 2.10m	SM-GM
	2.1 to 2.3	moist/wet very dense grey sandy gravelly SILT, abundant cobbles 300mm dia., TILL	GM

Groundwater seepage was encountered in test pits 1 and 4 at a depth of 2.1m. This groundwater was observed as seepage over the Till layer which is relatively impermeable in relation to the overlying sand and gravels. Given the reducing moisture in the Till soil with depth, it is speculated that the seepage does not reflect a sustained groundwater level but rather an impermeable level where the seasonal freshet infiltrates along.

## 6. Design Considerations and Recommendations

The recommendations that follow are intended to provide guidance for construction of the proposed building:

### 6.1. Dewatering

Groundwater seepage was encountered in TP-1 and TP-4; dewatering may be required to perform and maintain the proposed foundation excavation dependent on the time of year in relation to snow melt. It is anticipated that typical excavation dewatering techniques would be feasible to manage the groundwater including excavation of an outlet trench on the downslope side of the building excavation to transmit groundwater away from the building footprint. The exact measure will be dependent on the amount and location of the groundwater seepage; therefore, it is recommended that a review be performed at the time of the building excavation.

### 6.2. Site Preparation

Organic topsoil; vegetation; tree stumps; fill; and loose, soft, wet, weathered, and unsuitable soils should be removed from within the footprint of the proposed building foundation. The removal of unsuitable material should extend down to the approved bearing surfaces described in section 6.4. The depth of excavation required to remove the topsoil and deleterious materials varied across the site but was generally observed to be less than 0.35m in thickness.

### 6.3. Temporary Cut Slopes

The excavations for footings will be generally performed through natural soils.

Excavation slopes exceeding the Work Safe BC requirements provided in section 20.78 – 20.81 of the Occupation Health and Safety Regulation will require the contractor to engage an independent qualified geotechnical professional experienced in excavation stability to provide written instruction for a safe excavation.

### 6.4. Strip and Pad Footing Recommendations

The in-situ undisturbed till soil (ML) encountered in the test pits will provide a suitable subgrade on which to support reasonable building loads using conventional strip and pad footings. Although the sand soil observed in TP-4 would be suitable for foundation soils, the sands observed in the remaining test pits were too poorly graded and would not be suitable. Moreover, having different foundation subgrade soils (till and sand) may result in differential settlement of the foundation across the soil type transition. Consequently, it is recommended that the footing depths be increased to develop a till foundation subgrade for the entire foundation or, the footprint of the footings can be over excavated to expose the till and structural backfill be placed to raise the subgrade to a suitable depth (minimum 1200mm for frost depth).

Footings founded on the undisturbed till can be designed using the soil bearing resistance values in Table 1.

**Table 1: Limit States Design and Working Stress Design**

Limit States Design		Working Stress Design
Factored Ultimate Limit State Bearing Resistance	Serviceability Limit State Bearing Resistance	Allowable Bearing Pressure DL + LL
210 kPa	140 kPa	140 kPa

The above design bearing pressures for soil subgrade assume the following;

- Strip and pad footings have a minimum width of 600mm
- Footings are founded at least 600mm below lowest interior floor slab and finished exterior grade for confinement purposes. It is noted that the exterior burial for frost protection is 1200mm.
- Foundation bearing surfaces are no higher than 1H:1V from the base or toe of adjacent walls, sumps, or buried structures such as utility lines, etc.
- Footings are placed below a 2H:1V line projected up from lower footings.
- Adjacent footings located at the same elevation are at least three footing widths apart from each other.

If alternative footing configurations are proposed, it is recommended that they be reviewed prior to final building design to ensure sufficient bearing capacity.

Generally, if the foundation recommendations outlined in this report are followed, differential movements of the footings are estimated to be less than 25 mm.

## 6.5. Seismicity & Soil Classification

The interpolated seismic hazard values for the project site were determined using Natural Resource Canada's (NRC's) 2015 National Building Code of Canada online seismic hazard calculator. Using a probability of exceedance of 2% in 50 years, the Peak Ground Acceleration for the site was found to be 0.086g (see Appendix B).

Based on information presented in Table 4.1.8.4.-A in the BC Building Code (2018), we would recommend that a seismic site classification of "Site Class C – firm ground" be used to assess the spectral response of any buildings.

## 6.6. Engineered Structural Fill

In the event Engineered Structural Fill (ESF) is required under the footings and/or slab, the ESF should comprise of a well graded pitrun gravel (75mm minus) with less than 5% fines. The ESF should be compacted to 100% Standard Proctor Density Maximum Dry Density (ASTM D698) and placed in lifts not exceeding 200mm thickness. Gradation analysis (ASTM D6913) and Proctor laboratory test data for the ESF material should be reviewed by SNTG prior to placement and compaction. In addition, for SNTG to provide sign-off for the ESF, a quality control density testing program overseen by SNTG will be required.



No organic soil, frozen material or other deleterious material should be placed in any fill used to support the footings. If fill material becomes excessively wet, it should not be used until it is allowed to dry. Depending on the natural moisture content of the material and the applied compaction energy, the addition of water to the fill may be required to achieve the specified compaction. If water is required, it should be applied to the fill during spreading of lifts, prior to compaction. Structural fill materials, compaction process, and frequency of and location of compaction testing should be approved by the geotechnical engineer prior to placing.

## 6.7. Subsurface Drainage

Buildings are required to have footing drains to ensure that any water that collects on the bearing soils is drained to prevent weakening of the soils. Footing drains are to be placed around the outside of all strip footings below frost depth and are to be directed through positive drainage to an approved outlet. The following guidelines should be followed when placing foundation drains:

- The drains are to consist of rigid perforated PVC pipe with minimum diameter of 100mm installed with perforations oriented towards the bottom of the excavation.
- Non-woven geotextile filter fabric (Nilex 4552 or an approved equivalent) is to be laid on the base of the excavation, such that the geotextile is below the bottom of the footings. In the event structural fill is used under the footings, the geotextile must be placed at the base of that material.
- The drainpipe is to be bedded on a thin layer (not greater than 100mm) of drain rock on top of the non-woven geotextile fabric (Nilex 4552 or equiv.).
- The top and sides of the drain pipe should be covered with a minimum 300mm of drain rock.
- The drain rock is to consist of clean coarse granular material with 100% passing the 37.5mm sieve and no material passing the 4.75mm sieve.
- The drain rock and pipe system are to be wrapped with non-woven geotextile (Nilex 4552 or equiv.) on all sides to prevent the migration of fine-grained soils into the drain.
- The geotextile, drain rock and pipe system is to be overlain with pit run sand and gravel with less than 5% passing the 0.075mm sieve placed to an elevation up to 300mm below the final grade. The pit run material should be nominally compacted to reduce the likelihood of settlement. The final 300mm of material up to final grade should consist of a material with greater than 12% fines to minimize surface water from infiltrating the ground.

The installation of a perimeter drainage system as described above is common practice to reduce the potential for groundwater and surface water migration through buried walls and footings and to reduce the potential for saturation of soils above the footing elevation. However, due to inherent variability associated with groundwater and soils there is no guarantee the drainage system will work as designed over the life of the structure.

The subsurface drainage system described above is intended for low groundwater flow rates. It is noted that based on the groundwater seepage identified in TP-1 and TP-4 there is the potential for the presence of high groundwater inflow rates during Spring freshet. Depending on the groundwater conditions

encountered during excavation a more robust sub-surface drainage system may be required; SNTG can provide a sub surface drainage design if deemed necessary at the completion of the excavation for the proposed building.

### **6.8. Footing Burial Depth**

All exterior footings and slabs for a permanently heated building should be provided a minimum of 1200mm of compacted soil cover for frost protection purposes or equivalent insulation provided.

## **7. Field Reviews**

It is recommended that SNTG review the final building plans and specifications to confirm that they incorporate the above geotechnical recommendations. Provisions should be made for geotechnical reviews and approval of the exposed subgrade soils and engineered structural fills.

All foundation design recommendations presented in this report are based on the assumption that an adequate level of construction monitoring by qualified personnel during construction will be provided.

An important purpose of providing an adequate level of review is to check that recommendations, based on discrete test pitting locations, are relevant to other areas of the site. To provide an adequate level of review, qualified geotechnical personnel should review the following tasks during construction:

- Confirm that materials and methods meet specifications;
- Review foundation subgrades;
- Review placement and compaction of engineered structural fills;
- Review compaction testing records;
- Review installation of sub-surface drainage system;
- Review sieve and proctors for engineered structural fill material; and
- Provide review comments, including any discrepancies found with respect to specifications and the need for any modifications to the design or methods.

SNTG requests two weeks' notice before project commencement and a minimum 72 hours' notice before each required field review to ensure staff availability.

## **8. Closure – Report Use and Limitations**

This report is prepared for the exclusive use of Whitewater resort. and their designated representatives and may not be used by other parties without the written permission of SNT Geotechnical Ltd. The Regional District Central Kootenay may also rely on the findings of this report.

If the development plans change, or if during construction soil conditions are noted to be different from those described in this report, SNT Geotechnical should be notified immediately in order that the geotechnical recommendations can be confirmed or modified, if required. Further, this report assumes that field reviews will be completed by SNT Geotechnical during construction.

It should be noted that the recommendations and comments provided in this geotechnical report are based on a limited number of test holes. Subsurface conditions at other locations could vary and the actual extent of subsidence could be substantially different from anticipated values.

This report should not be included in the specifications without suitable qualifications approved by the geotechnical engineer. The site contractor should make their own assessment of subsurface conditions and select the construction means and methods most appropriate to the site conditions.

The use of this report is subject to the conditions on the Report Interpretation and Limitations sheet which is included with this report (Appendix C). The reader's attention is drawn specifically to those conditions, as it is considered essential that they be followed for proper use and interpretation of this report.

The geotechnical aspects of the final design drawings and specifications should be reviewed by this office prior to tendering and construction, to determine that the intent of this report has been satisfied. During construction, sufficient subgrade inspections should be carried out to review the exposed soil conditions and determine if they are consistent with those encountered in the test boreholes, as well as to monitor conformance to the geotechnical specifications. Adequate field review, observation, and testing during construction are necessary for SNTG 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, SNTG's responsibility is limited to interpreting accurately the information encountered at the borehole locations, at the time of their determination or measurement during the preparation of the Report. Where conditions encountered at the site differ significantly from those anticipated in this report, it is a condition of this report that SNTG be notified of any changes and be provided with an opportunity to review and revise the recommendations within this report. The material in this report reflects SNTG's best judgment and professional opinion in light of the information available to it at the time of preparation. Any use which a third party makes of this report or any reliance on or decision to be made based on it are the responsibility of such third parties. SNTG accepts no responsibility for damages, if any, suffered by any third party as a result of decision made or action based, or lack thereof, on this report. No other warranty is made, either expressed or implied.

Soil and groundwater conditions shown in the factual data and described in this 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 report and assessment have been carried out in a manner consistent with that level of care and skill ordinarily exercised by members of the engineering profession 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. The discussion and recommendations presented above are based on limited field investigation, boreholes, and inferences from surficial features. Inherent variability in surface and subsurface conditions may create unforeseen situations.



Prepared by:

Reviewed by:

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Geotechnical Engineer  
SNT Geotechnical Ltd.

Mike Walsh, P.Eng.  
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## 9. References

Canadian Foundation Engineering Manual 4<sup>th</sup> Edition 2006

Foundation Engineering Handbook 2005 Day, Robert. ASCE

Regional District Okanagan Similkameen Parcel Viewer. <https://maps.rdos.bc.ca>. Accessed Aug 27, 2022

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## **Appendix A – Test Pit Photos**

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Photo 1: Test pit 1



Photo 2: Test pit 2



Photo 3: Test pit 3



Photo 4: Test pit 4

## Appendix B – Site Seismicity

### 2015 National Building Code Seismic Hazard Calculation

INFORMATION: Eastern Canada English (613) 995-5548 français (613) 995-0600 Facsimile (613) 992-8836  
Western Canada English (250) 363-6500 Facsimile (250) 363-6565

Site: 49.396N 119.910W

User File Reference: Apex Mtn Fire Hall

2022-08-30 23:36 UT

Probability of exceedance per annum	0.000404	0.001	0.0021	0.01
Probability of exceedance in 50 years	2 %	5 %	10 %	40 %
Sa (0.05)	0.100	0.063	0.041	0.015
Sa (0.1)	0.147	0.091	0.060	0.022
Sa (0.2)	0.186	0.121	0.083	0.033
Sa (0.3)	0.182	0.123	0.087	0.037
Sa (0.5)	0.160	0.110	0.079	0.034
Sa (1.0)	0.115	0.078	0.055	0.023
Sa (2.0)	0.079	0.050	0.034	0.014
Sa (5.0)	0.034	0.020	0.012	0.004
Sa (10.0)	0.011	0.007	0.004	0.002
PGA (g)	0.086	0.056	0.037	0.013
PGV (m/s)	0.147	0.092	0.061	0.023

**Notes:** Spectral (Sa(T), where T is the period in seconds) and peak ground acceleration (PGA) values are given in units of g (9.81 m/s<sup>2</sup>). Peak ground velocity is given in m/s. Values are for "firm ground" (NBCC2015 Site Class C, average shear wave velocity 450 m/s). NBCC2015 and CSAS6-14 values are highlighted in yellow. Three additional periods are provided - their use is discussed in the NBCC2015 Commentary. Only 2 significant figures are to be used. **These values have been interpolated from a 10-km-spaced grid of points. Depending on the gradient of the nearby points, values at this location calculated directly from the hazard program may vary. More than 95 percent of interpolated values are within 2 percent of the directly calculated values.**

### References

**National Building Code of Canada 2015 NRCC no. 56190;** Appendix C: Table C-3, Seismic Design Data for Selected Locations in Canada

**Structural Commentaries (User's Guide - NBC 2015: Part 4 of Division B)**  
**Commentary J:** Design for Seismic Effects

**Geological Survey of Canada Open File 7893** Fifth Generation Seismic Hazard Model for Canada: Grid values of mean hazard to be used with the 2015 National Building Code of Canada

See the websites [www.EarthquakesCanada.ca](http://www.EarthquakesCanada.ca) and [www.nationalcodes.ca](http://www.nationalcodes.ca) for more information

## **Appendix C – Report Interpretation and Limitations**

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### **REPORT INTERPRETATION AND LIMITATIONS**

#### **1. STANDARD OF CARE**



SNT Geotechnical Ltd. (SNTG) has prepared this report in a manner consistent with generally accepted engineering consulting practices in this area, subject to the time and physical constraints applicable. No other warranty, expressed or implied, is made.

## **2. COMPLETENESS OF THIS REPORT**

This Report represents a summary of paper, electronic and other documents, records, data and files and is not intended to stand alone without reference to the instructions given to SNTG by the Client, communications between SNTG and the Client, and/or to any other reports, writings, proposals or documents prepared by SNTG for the Client relating to the specific site described herein.

This report is intended to be used and quoted in its entirety. Any references to this report must include the whole of the report and any appendices or supporting material. SNTG cannot be responsible for use by any party of portions of this report without reference to the entire report.

## **3. BASIS OF THIS REPORT**

This report has been prepared for the specific site, development, design objective, and purpose described to SNTG by the Client or the Client's Representatives or Consultants. The applicability and reliability of any of the factual data, findings, recommendations or opinions expressed in this document pertain to a specific project as described in this report and are not applicable to any other project or site, and are valid only to the extent that there has been no material alteration to or variation from any of the descriptions provided to SNTG. SNTG cannot be responsible for use of this report, or portions thereof, unless we were specifically

Requested by the Client to review and revise the Report in light of any alterations or variations to the project description provided by the Client.

If the project does not commence within 18 months of the report date, the report may become invalid and further review may be required.

The recommendations of this report should only be used for design. The extent of exploration including number of test pits or test holes necessary to thoroughly investigate the site for conditions that may affect

Construction costs will generally be greater than that required for design purposes. Contractors should rely upon their own explorations and interpretation of the factual data provided for costing purposes, equipment requirements, construction techniques, or to establish project schedule.

The information provided in this report is based on limited exploration, for a specific project scope. SNTG cannot accept responsibility for independent conclusions, interpretations, interpolations or decisions by the Client or others based on information contained in this Report. This restriction of liability includes decisions made to purchase or sell land.

## **4. USE OF THIS REPORT**

The contents of this report, including plans, data, drawings and all other documents including electronic and hard copies remain the copyright property of SNTG. However, we will consider any reasonable request by the Client to approve the use of this report by other parties as "Approved Users."

With regard to the duplication and distribution of this Report or its contents, we authorize only the Client and Approved Users to make copies of the Report only in such quantities as are reasonably necessary for the use of this Report by those parties. The Client and "Approved Users" may not give, lend, sell or otherwise make this Report or any portion thereof available to any other party without express written permission from SNTG. Any use which a third party makes of this Report – in its entirety or portions thereof – is the sole responsibility of such third parties. SNT GEOTECHNICAL LTD. ACCEPTS NO RESPONSIBILITY FOR DAMAGES SUFFERED BY ANY PARTY RESULTING FROM THE UNAUTHORIZED USE OF THIS REPORT.

Electronic media is susceptible to unauthorized modification or unintended alteration, and the Client should not rely on electronic versions of reports or other documents. All documents should be obtained directly from SNTG.

## **5. INTERPRETATION OF THIS REPORT**

Classification and identification of soils and rock and other geological units, including groundwater conditions have been based on exploration(s) performed in accordance with the standards set out in Paragraph 1.

These tasks are judgmental in nature; despite comprehensive sampling and testing programs properly performed by experienced personnel with the appropriate equipment, some conditions may elude detection.

As such, all explorations involve an inherent risk that some conditions will not be detected.

Further, all documents or records summarizing such exploration will be based on assumptions of what exists between the actual points sampled at the time of the site exploration. Actual conditions may vary significantly between the points investigated and all persons making use of such documents or records should be aware of and accept this risk.



The Client and “Approved Users” accept that subsurface conditions may change with time and this report only represents the soil conditions encountered at the time of exploration and/or review. Soil and ground water conditions may change due to construction activity on the site or on adjacent sites, and also from other causes, including climactic conditions.

The exploration and review provided in this report were for geotechnical purposes only. Environmental aspects of soil and groundwater have not been included in the exploration or review, or addressed in any other way.

The exploration and Report is based on information provided by the Client or the Client’s Consultants, and conditions observed at the time of our site reconnaissance or exploration. SNTG has relied in good faith upon all information provided. Accordingly, SNTG cannot accept responsibility for inaccuracies, misstatements, omissions, or deficiencies in this Report resulting from misstatements, omissions, misrepresentations or fraudulent acts of persons or sources providing this information.

## **6. DESIGN AND CONSTRUCTION REVIEW**

This report assumes that SNTG will be retained to work and coordinate design and construction with other Design Professionals and the Contractor. Further, it is assumed that SNTG will be retained to provide field reviews during construction to confirm adherence to building code guidelines and generally accepted engineering practices, and the recommendations provided in this report. Field services recommended for the project represent the minimum necessary to confirm that the work is being carried out in general conformance with SNTG’s recommendations and generally accepted engineering standards. It is the Client’s or the Client’s Contractor’s responsibility to provide timely notice to SNTG to carry out site reviews.

The Client acknowledges that unsatisfactory or unsafe conditions may be missed by intermittent site reviews by SNTG. Accordingly, it is the Client’s or Client’s Contractor’s responsibility to inform SNTG of any such conditions.

Work that is covered prior to review by SNTG may have to be re-exposed at considerable cost to the Client. Review of all Geotechnical aspects of the project are required for submittal of unconditional Letters of Assurance to regulatory authorities. The site reviews are not carried out for the benefit of the Contractor(s) and therefore do not in any way effect the Contractor(s) obligations to perform under the terms of his/her Contract.

## **7. SAMPLE DISPOSAL**

SNTG will dispose of all samples 3 months after issuance of this report, or after a longer period of time at the Client’s expense if requested by the Client. All contaminated samples remain the property of the Client and it will be the Client’s responsibility to dispose of them properly.

## **8. SUBCONSULTANTS AND CONTRACTORS**

Engineering studies frequently requires hiring the services of individuals and companies with special expertise and/or services which SNT Geotechnical Ltd. does not provide. These services are arranged as a convenience to our Clients, for the Client’s benefit. Accordingly, the Client agrees to hold the Company harmless and to indemnify and defend SNT Geotechnical Ltd. from and against all claims arising through such Sub consultants or Contractors as though the Client had retained those services directly. This includes responsibility for payment of services rendered and the pursuit of damages for errors, omissions or negligence by those parties in carrying out their work. These conditions apply to specialized sub consultants and the use of drilling, excavation and laboratory testing services, and any other Sub consultant or Contractor.

## **9. SITE SAFETY**

SNT Geotechnical Ltd. assumes responsibility for site safety solely for the activities of our employees on the jobsite. The Client or any Contractors on the site will be responsible for their own personnel. The Client or his representatives, Contractors or others retain control of the site. It is the Client’s or the Client’s Contractors responsibility to inform SNTG of conditions pertaining to the safety and security of the site – hazardous or otherwise – of which the Client or Contractor is aware.

Exploration or construction activities could uncover previously unknown hazardous conditions, materials, or substances that may result in the necessity to undertake emergency procedures to protect workers, the public or the environment. Additional work may be required that is outside of any previously established budget(s). The Client agrees to reimburse SNTG for fees and expenses resulting from such discoveries. The Client acknowledges that some discoveries require that certain regulatory bodies be informed. The Client agrees that notification to such bodies by SNTG Geotechnical Ltd. will not be a cause for either action or dispute.