

Staff Report to Council

Planning & Development

FILE: 4320-20

REPORT DATE: April 20, 2020

MEETING DATE:

April 28, 2020

TO: Mayor and Council

FROM: Alex Wallace, Manager of Planning and Development

SUBJECT: Soil Removal and Fill Deposit Permit Application – 11751 Baynes Road

CHIEF ADMINISTRATIVE OFFICER REVIEW/APPROVAL:



RECOMMENDATION(S): THAT Council:

A. Approve issuance of a Soil Removal and Fill Deposit Permit to Crossroads Venture Corp., for 11751 Baynes Road with the following conditions:

- A.1 A Highway Use Permit & Traffic Management Plan to be approved by the Director of Engineering and Operations or their designate to prevent the obstruction of traffic or staging of trucks on any road; AND
- A.2 No dirt, debris or mud shall be permitted on any road. Roads must be kept clean and swept daily as outlined in the Highway Use Permit, or more if required by the City. Baynes Road, Airport Way and access to site must be monitored at all times during fill activities, and any debris removed right away; AND
- A.3 Filling activities are prohibited on Saturdays, Sundays and statutory holidays and restricted to the hours between 7:00 a.m. and 5:00 p.m. any other day of the week; OR

B. Other.

PURPOSE

The purpose of this application is to permit the deposit of 44,354 cubic metres of fill to raise current site grades to prevent flooding of the proposed new development. No soil is required to be removed from the property.

☐ Information Report

☐ Decision Report

☒ Direction Report

DISCUSSION

Background:

The Soil Removal and Fill Deposit Regulation Bylaw restricts the removal of soil or the depositing of fill on lands within the City. When the deposit of fill or removal of soil is 500 cubic metres or greater, the proposed activities require Council authorization before issuance of a permit. The application is for the placement of approximately 44,354 cubic meters of structural fill on the 3.6 hectares (8.89 acres) site (See Attachment "A" Subject Property Map). The bylaw requires the following information from applicants:

- Topographic information about the placement or removal of soil signed and sealed by a Qualified Professional;
- A description of the composition and volume of the soil to be deposited or removed;
- Method of soil removal or fill deposits;
- Proposed accesses to the site during the operations including the proposed routes and schedules of trucks;
- Proposed measures to prevent tracking of soil or other material onto highways and measures for cleaning the highways abutting the parcel where fill is to be placed;
- Proposed measures to control erosion, drainage and soil stability during and after removal or deposit signed and sealed by a Qualified Professional;
- Certification that the soil to be removed or fill to be deposited meets the applicable provincial ministry's criteria.

The development proposed at 11751 Baynes Road is four hangars for the use of small airplane storage and maintenance. The subject property is zoned I-5 (Airport), and the Official Community Plan (OCP) land use designation is Airport. The subject property is located at Pitt Meadows Airport to the north of the existing small airplane hangars access off Baynes Road. (Attachment B).

The applicant has applied for a Soil Deposit and Fill Removal Permit to raise current site grades for construction purposes to prevent flooding of the proposed new development at 11751 Baynes Road. (Attachment C, Fill Plan)

The source of the fill used is from various lower mainland sites. All material is to be free of environmental contaminants and be approved by Took Engineering Inc. The fill must be accompanied by an up to date environmental report that has been issued within six months of review. All fill activity will be placed and compacted as per Took Engineering Inc. recommendations. The applicant will be using trucks, bulldozers, plate vibrators, and ride-on-rollers to deposit and spread the material.

To reduce the potential negative impacts on the surrounding properties, the following measures will be taken:

- graveling of a driveway and a parking lot for equipment;
- highway use permit with a traffic plan will regulate truck traffic;
- soil mulching and revegetation of the site and;
- erosion and sediment control plan will be followed and monitored by a Qualified Professional throughout the project.

Relevant Policy, Bylaw, or Legislation:

The Soil Removal and Fill Deposit Regulation Bylaw No. 2593, 2013 regulates the placement of fill or the removal of soil or other material on land in the City.

The Highway and Traffic Bylaw No. 2260, 2006 regulates traffic and the use of highways and other areas in the City.

Council Policy C030, Geotechnical Report Guidelines, provides information to prospective applicants and their engineering professionals on when geotechnical reports are required and set out the standards and requirements to be addressed in those reports.

Analysis:

Geotechnical Report

Policy No. C030 "Geotechnical Report Guidelines" (Attachment D) applies to projects requiring fill and soil consolidation to support a foundation. The policy sets the standards and requirements to be addressed. Took Engineering Inc. has prepared a geotechnical report dated January 30, 2020, which meets the standards set out in Policy No. C030.

The report states that the black silt loam topsoil is to be removed from within 1.0 meters of the building and asphalt taxiway footprints and stockpiled for placement in the vegetated areas between the main taxiway and the buildings.

Road Cleaning

According to the provisions of the Soil Removal & Fill Deposit Regulation Bylaw, "dirt, mud, and debris resulting from a removal or deposit operation which is tracked onto public roads must be removed daily or as directed by the Director." (Attachment D)

The access to the property is off Baynes Road. A stabilized access point from Baynes Road is to be installed. It will provide a roadway structure that will assist in the removal of muddy soils from vehicle wheels and minimize the transportation of fine sediments onto Baynes Road. In addition, a temporary wheel wash will be installed to ensure no material is tracked on to the roads. (Attachment E).

The following conditions will be added to the Highway Use Permit and the Soil Removal and Fill Deposit Permit:

- *No obstruction to traffic or staging on the road permitted at any time (even with traffic control in place). This would require a Traffic Management Plan and/or further approval from the City.*
- *No dirt, debris, or mud on the road. Roads to be kept clean and swept three times daily minimum or more if required, the last time occurring at the end of the workday. Baynes Road and access to site must be monitored at all times during fill activities, and any debris removed right away.*

Operations Hours

The filling would be prohibited on Saturdays, Sundays and statutory holidays and restricted to the hours between 7:00 a.m. to 5:00 p.m. on weekdays. No specific duration for fill activity is stated on the application. Crossroads Venture Corp. can apply for a renewal of the permit 30 days before the expiry date of the existing permit.

Archaeological Sites

According to mapping prepared by the Ministry of Forests, Lands, and Natural Resource Operations, no archaeological sites are identified on the site. It is expected that, if archaeological artifact finds are discovered during the fill process, Cross Roads Venture Corp. would report these finds directly to appropriate provincial authorities.

COUNCIL STRATEGIC PLAN ALIGNMENT

- ☐ Principled Governance ☐ Balanced Economic Prosperity ☐ Corporate Excellence
☐ Community Spirit & Wellbeing ☐ Transportation & Infrastructure Initiatives
☒ Not Applicable
-

FINANCIAL IMPLICATIONS

- ☐ None ☐ Budget Previously Approved ☐ Referral to Business Planning
☒ Other

The City will receive a levy of \$0.50/cubic metres for the material being placed on site. The estimated amount of structural fill to be deposited is 44,354 cubic metres. The \$22,177 levy collected would be placed in transportation reserves.

PUBLIC PARTICIPATION

- ☒ Inform ☐ Consult ☐ Involve ☐ Collaborate ☐ Empower
-

KATZIE FIRST NATION CONSIDERATIONS

Referral ☐ Yes ☒ No

SIGN-OFFS

Written by:

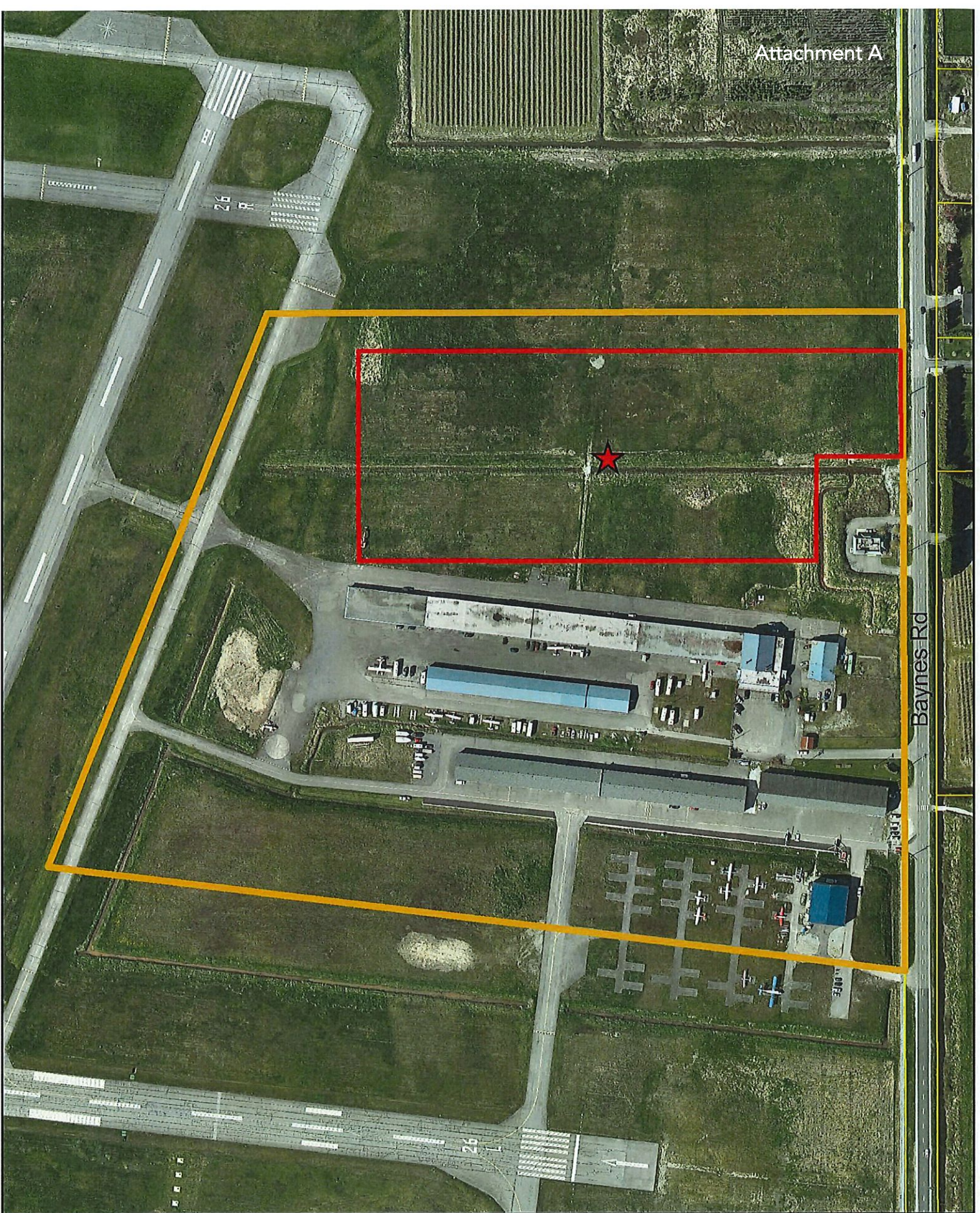
Chantal Gemperle, Supervisor of Building
& Bylaws, Licensing Inspector

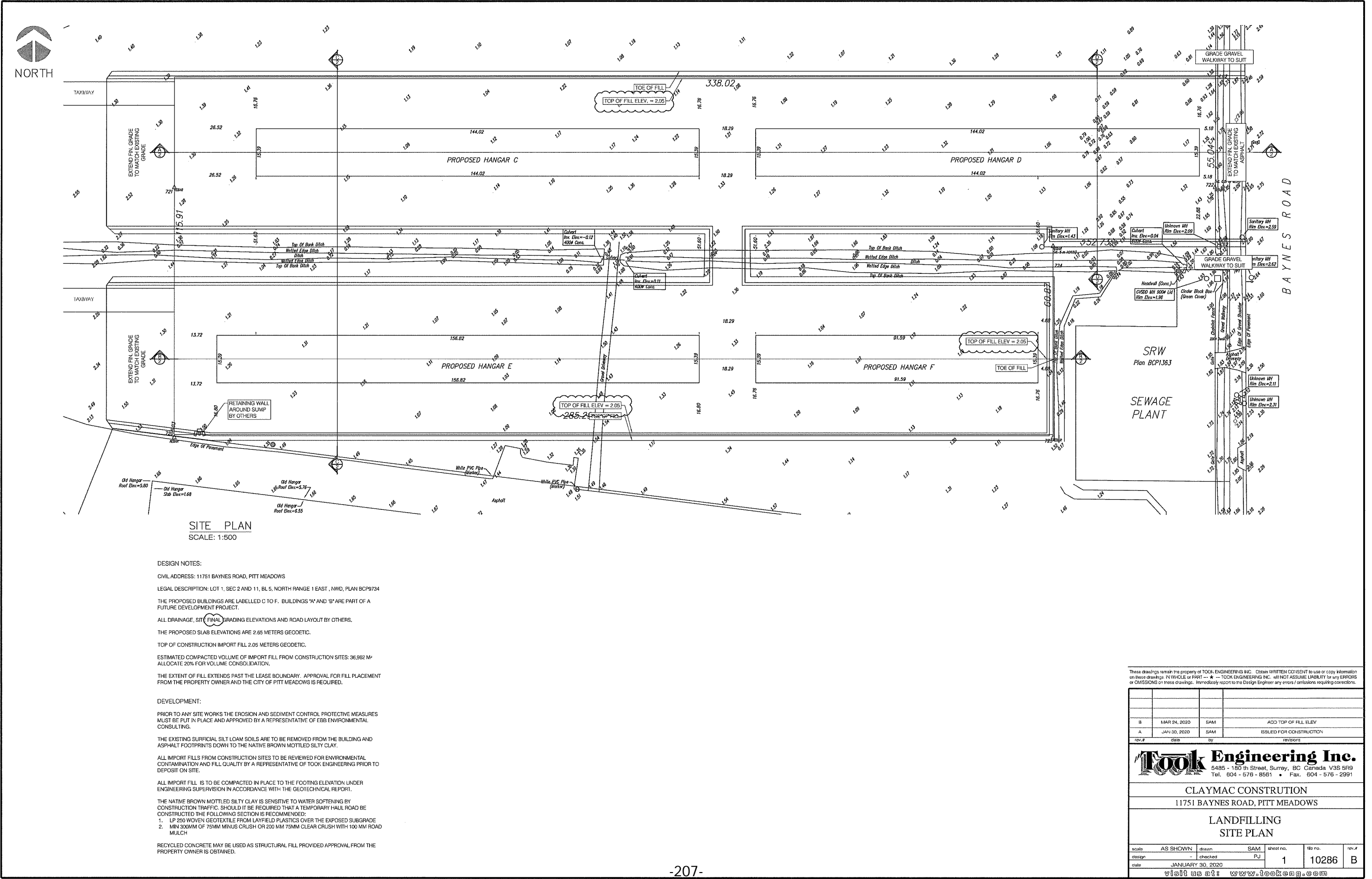
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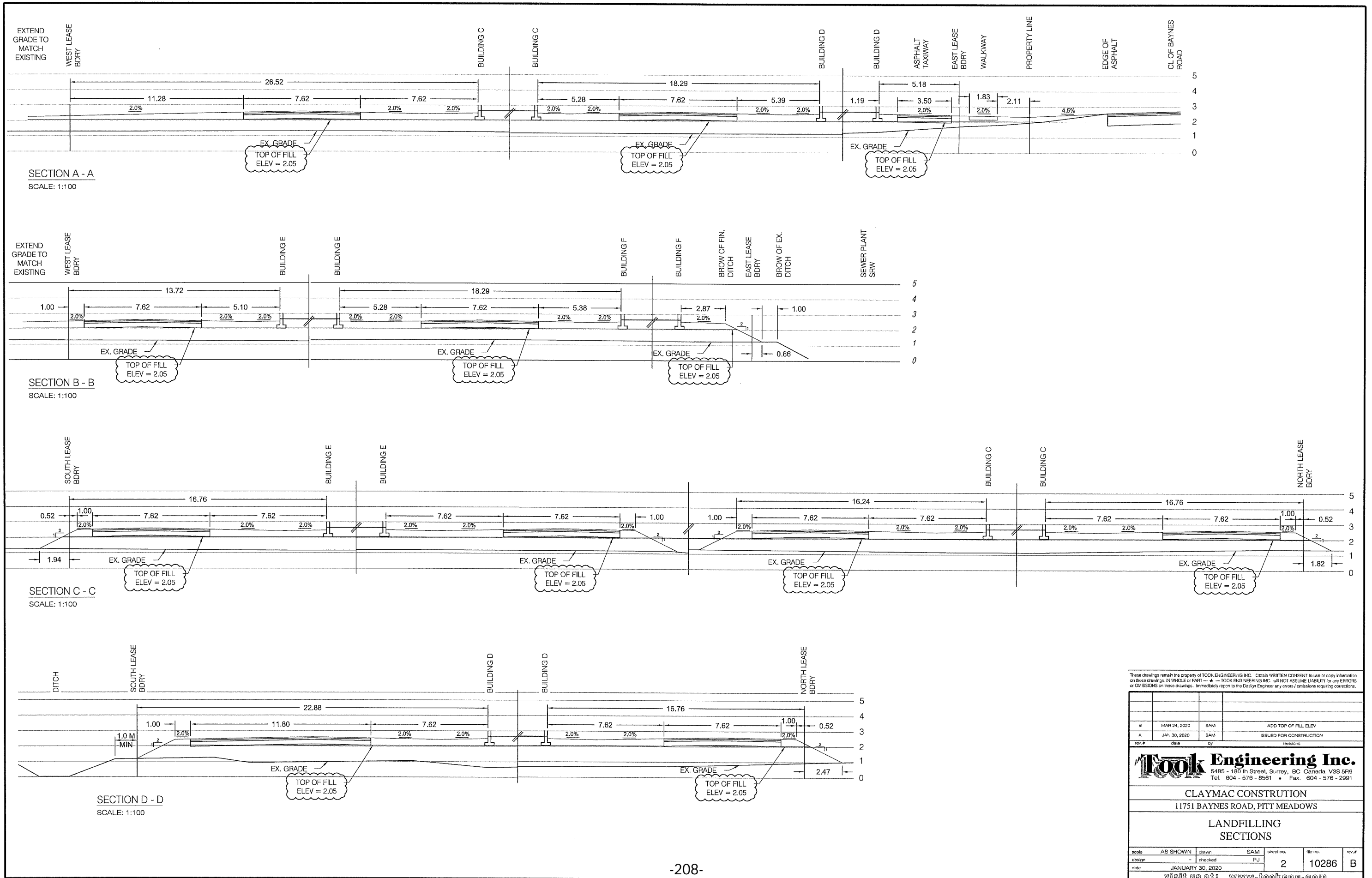
Alex Wallace, Manager of Planning and
Development

ATTACHMENT(S):

- A. Subject Property Map
- B. Lot Grading Plan
- C. Council Policy C030, Geotechnical Report Guidelines
- D. Erosion Sediment Control Plan
- E. Truck Route Network







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rev.#	date	by	revisions
B	MAR 24, 2020	SAM	ADD TOP OF FILL ELEV
A	JAN 30, 2020	SAM	ISSUED FOR CONSTRUCTION

Took Engineering Inc.
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Tel. 604 - 576 - 8581 • Fax. 604 - 576 - 2991

CLAYMAC CONSTRUCTION
11751 BAYNES ROAD, PITT MEADOWS

LANDFILLING SECTIONS

scale	AS SHOWN	drawn	SAM	sheet no.	file no.	rev.#
design		checked	PJ	2	10286	B
date	JANUARY 30, 2020					

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COUNCIL POLICY C030

13 - Planning & Development

Geotechnical Report Guidelines

Effective Date: October 2, 2007

Revised Date: July 3, 2012

Reaffirmed Date: July 21, 2015

1. Purpose

The City is relying on the geotechnical engineer's report to avoid, or at least mitigate as specified, any damage to property and/or injury to persons from occurring as a result of geotechnical concerns relating to proposed development.

This policy provides information to prospective applicants and their engineering professionals on when geotechnical reports are required and sets out the standards and requirements to be addressed in those reports.

2. Policy

Application

A geological and geotechnical review, report, study or site specific study is required by the City to support Development Permit, Building Permit, and Rezoning or Subdivision applications in areas as determined by the City from time to time.

A geological and geotechnical review may be required when any of the following conditions apply:

- The project is located on or within 15 metres of a natural, existing or proposed slope greater than 20%
- The project proposes to direct storm water to an existing or proposed slope greater than 20%
- The project will require site grading involving more than 500 m³ or cuts/fills in excess of 1.2 metres in depth or height
- The project will require pre-load or soil consolidation to support a foundation.

Level of Safety

The professional engineer shall consider the following requirements when determining whether a property is “safe” or can be “safely used”:

- The extent of property damage and damage/harm to life and limb which occurs is not likely to be in any way greater than the damage or harm which would occur prior to the development taking place.

A detailed geotechnical review and onsite investigation shall be undertaken by qualified professional geological or geotechnical engineers in order to determine whether the proposed development can occur in a safe manner and to describe mitigation requirements to be employed, where appropriate. The professional shall be guided by the City’s requirement that development shall have a level of safety for any and all geotechnical failures with a 0.5% probability of failure occurring in a 50 year period (a return period of 1:10,000) for applications requiring rezoning, subdivision or development permit approval and a 2% probability of failure occurring in a 50 year period (a return period of 1:2475) for building permit applications.

The City reserves the right to modify this standard to suit the proposed development.

Report Requirements

A geotechnical report shall address the following minimum requirements pertaining to slope and soil stability:

- The professional geotechnical engineer has reviewed all information available to the consultant, including previous geotechnical reports and relevant materials located within the City’s Geotechnical Library. Each report shall describe the specific information reviewed and onsite tests conducted to arrive at the conclusions and recommendations within the report
- Each report shall contain all logs of geotechnical explorations (boring, test pits, trench logs, etc.) conducted on the property, plus a statement explaining the sufficiency in number and depth in order to evaluate site conditions and acquire data to justify all conclusions and recommendations
- The scope and intent of the proposed development
- Statement that there is no net decrease in overall slope and soil stability resulting from the proposed development or works
- Identification, probability and consequences of risks and a statement that slope/soil instabilities will be mitigated by the owner/developer to provide for the safe occupation and use of the development lands and adjacent nearby lands
- Other factors which the professional geotechnical engineer considers relevant to the review, including an assessment of risk, potential consequences, and mechanisms to guarantee ongoing maintenance of slope/soil stabilities over time



- A construction management plan, monitoring and reporting requirements by the professional geotechnical engineer
- Sign and seal each report/letter submitted to the City.

Professional Assurances

The professional geotechnical engineer **MUST** provide in writing the following specific geotechnical assurances **to the City** with each report/letter:

- The professional geotechnical engineer has carried out all necessary surface and subsurface investigations that the Engineer considers necessary to provide the review, design and supervision undertaking being given and adherence to these guidelines
- The professional geotechnical engineer will provide the review, design and supervision such that, in the Engineer's opinion, the site is suitable for the proposed development and the proposed development does not and will not compromise in any way the stability of the soil on-site or soil on lands which are adjacent or nearby, and will not cause or contribute to such soils becoming susceptible to land slip, land slide, rock fall, mud/land flow, debris flow, torrent, erosion, slumping, creeping, settling, avalanches or other such occurrence
- In the professional geotechnical engineer's opinion, in the event of any land slip, land slide, rock fall, mud flow, debris flow, debris torrent, erosion, slumping, settling or other such occurrence, which occurs after the proposed development is completed, the extent of the property damage and damage to life and limb which occurs is not likely to be in any way greater than the damage or harm which would occur prior to the development taking place
- The professional geotechnical engineer's undertaking that he/she is retained by the owner/developer to review, consult, design and fully supervise the construction of the proposed development, and that on completion of the work, he/she will confirm in writing that he/she has fulfilled the review, design and supervision undertakings and the proposed development can be safely used for its intended purpose, taking into consideration future changes which could reasonably occur to the proposed development over time. In the event the retainer is terminated for any reason by the owner/developer, the Engineer shall be obligated to immediately notify the City in writing of that fact
- The professional geotechnical engineer's undertaking that he/she shall notify the City if he/she becomes aware of changes or new information which could affect the outcome of their geotechnical review and/or recommendations.



Professional Liability Insurance

The professional geotechnical engineer shall provide the City with evidence of occurrence based professional liability insurance coverage which does not lapse in the amount of at least \$2,000,000 as provided to their client.

Covenants

The owner/developer may be required by the City to register a covenant against the property title at the Land Titles Office as a notification to future land owners. The covenant will incorporate provisions included in the geotechnical report(s) and indemnify the City against all claims. During the construction phase enforcement of the covenant provisions are the joint responsibility of the owner/developer and the professional geotechnical engineer.

Security

The owner/developer may be required by the City to provide bonding as security for performance of the on-site and off-site construction works and secure the provisions outlined in the geotechnical report(s) pertaining to that construction.

Peer Review

The City may require a professional geotechnical engineer peer review for conformance to good engineering practice and adherence to these guidelines on a case by case basis. The peer review shall be completed by a qualified professional geotechnical engineer engaged directly by the City. Any costs incurred by the City to conduct a peer review shall be borne by the owner/developer. The Engineer engaged by the City shall notify the professional geotechnical engineer and owner/developer in writing of the peer review.



Figure 4. Proposed placement of ESC measures.

City of Pitt Meadows Truck Route Network

- Provincial Highway/Translink
- City Truck Routes
- Limited Use Truck Route (Max 26,100 Kg)

