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March 18, 2010

Our file # 5210

CASCADIA CONSULTING
P.O. BOX 1572
3 200 - 37700 SECOND AVENUE
SQUAMISH, B.C.
V8B 0B2

ATTENTION:- Mr Peter Gordon

Dear Sirs,

RE:- SITE AT 38014 FOURTH AVENUE, SQUAMISH, B.C.

Attached is our initial report on the above site with reference to the condition of the existing church building and the implications of any future construction on the site.

Truly Yours,



Doug Hills, P. Eng
for Hyport Engineering Consultants Ltd.

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SITE AT 38014 FOURTH AVENUE, SQUAMISH, B.C.

1 INTRODUCTION

The site is presently occupied by a wood framed structure that was built in 1963 to serve as a church sanctuary with a single storey flat roofed building attached to the its South side. This latter building serves as the main entrance to the church and includes a kitchen , bathrooms, a study and an informal gathering area. In this report we shall refer to this latter structure as the annex.

2 FINDINGS

The main church structure is in sound condition and could easily offer accommodation for many years to come provided the gutters system and the downpipes are renovated and properly connected to a run off system and some small amount of grading carried out so as to lead standing water away from the perimeter of the building. We noted that there are some areas where the downpipes needed immediate work but we now understand that remedial work has been done.

There is no evidence of any water penetration in the roof and the exterior of the building is in good condition. The ground floor is set on wooden joists which span across the building resting on short wood framed pony walls which in turn sit on continuous concrete strip footings running the length of the building. The main rafters of the church roof are laminated glulam beams supported on wooden columns set in the exterior walls. The original shake roof has been replaced with a galvanised steel roof using preformed cladding.

Subject to the areas of concern that we raise later in this report it is our professional opinion that the church structure could be brought up to the current construction criteria for resistance to seismic events by stiffening the connections where the rafters sit on the perimeter columns.

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2. FINDINGS (cont'd)

Steel brackets would have to be set at intervals along the concrete strip foundations to increase the anchorage of the wood framed pony walls under the floor onto the concrete foundations which run the length of the main church structure.

The annex has a number of interior walls which extend in both East to West directions and which almost certainly offer sufficient stiffness to the structure to meet current Code requirements. It appears to be in sound condition although no inspection was made of its flat roof or its foundations.

3 AREAS OF CONCERN

We have read the soils report # 7806 prepared by Geopacific Consultants Ltd and we note:-

- (a) Their concerns that there will be a significant amount of settlement if the area around the church is prepared for a future building .

“ This is because the poor nature of the existing soil to carry structural loads without excessive settlement will demand that material will have to be stacked on the foot print of the new building to consolidate the existing soil below until it reaches a density that will support the new loads without the undesirable settlement. ”

- (b) The present floor level of the church is below the new flood plain criteria by approximately five feet.

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3 AREAS OF CONCERN (cont'd)

Our initial thoughts were that this would be the most obstinate obstacle to any future development. We were concerned that the local authority would deny any development on the site whose construction did not address the possibility of flood damage that could be caused by flood water at this level. We have since learnt that the flood control levels only apply to " habitable " uses such as residential and thus the site is exempt from the flood plain requirements .

4 RECOMMENDATIONS

The following recommendations are only relevant if the parties interested in the future development of this site can satisfy themselves that the problems of preload settlement as addressed above have been, or can be, successfully resolved.

Initially some preliminary outline drawings should be made of any proposed new work before spending more money on professional advice and the final working drawings.

We also suggest that a meeting with the Geotechnical Engineer could be of considerable value by providing the interested parties with a better understanding of the problems that preloading the site would compel them to address.

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If, after such a meeting, the decision to proceed is made we would be pleased to act further on your behalf to work with your Architect to prepare the necessary designs and drawings to get prices for the sites development.

Respectfully Submitted.



Doug Hills, P. Eng.
For Hyport Engineering Consultants Ltd.





**METRIX PROFESSIONAL
INSURANCE BROKERS**

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Vancouver, B.C. V6E 3Z3
Telephone: 604-683-5583
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THIS IS TO CERTIFY THAT insurance has been effected as shown below:

INSURED: Hyport Engineering Consultants Ltd.
and other insureds who may be identified in the policy.

INSURER: XL Insurance Company Ltd.

POLICY NO: DPX9433931

POLICY EXPIRY: December 14, 2010 ; 12:01 A.M. Local Standard Time

COVERAGE: PROFESSIONAL LIABILITY INSURANCE

LIMIT OF LIABILITY: CAN \$1,000,000. each claim and in the
aggregate annually CAN \$1,000,000 .

This certificate is valid at the date of issuance. The policy is subject to change, expiration or cancellation without notice to the certificate-holder.

This certificate is issued for information only, and confers no rights on any holder and imposes no liability upon the insurer, which assumes no responsibility whatsoever in furnishing this certificate.

The Policy contains all the terms and conditions of coverage. The policy is not limited to claims by or in connection with the above-noted certificate-holder. The limit of liability may be inclusive of damages and claims expenses; the aggregate limit is the maximum available for all covered claims.

METRIX PROFESSIONAL INSURANCE BROKERS INC.

Authorized Representative

Dated: December 15, 2009

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