



**REPORT TO THE JUAN DE FUCA LAND USE COMMITTEE  
MEETING OF TUESDAY, JANUARY 20, 2015**

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**SUBJECT**     **FLOODPLAIN EXEMPTION FOR LOT 3, SECTION 2, RENFREW DISTRICT,  
PLAN VIP83339**

**ISSUE**

A request has been made for a floodplain exemption in order to construct a single-family dwelling within the floodplain setbacks specified in Part 5 of the Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040.

**BACKGROUND**

The vacant 1.008 ha property is located on Waters Edge Drive in Jordan River and is zoned Rural Residential 2A (RR-2A) in Juan de Fuca Land Use Bylaw, 1992, Bylaw No. 2040. The property is bounded by RR-2A zoned properties to the east and west, Waters Edge Drive to the north, and the Strait of Juan de Fuca to the south (Appendix 1). The applicants are proposing to construct a single-family dwelling with attached garage (Appendix 2).

The parcel was created in June 2007 as part of a 63-lot subdivision called The Shores. As a condition of subdivision, a geotechnical engineer assessed the parcels for hazards and the preliminary report was secured as a covenant on title. The covenant restricts building on the lots until such time a site specific review has been conducted by a geotechnical engineer. An additional covenant was registered on title as part of the subdivision process restricting building within 30 m and not less than 4 m above the natural boundary of the sea.

CRD floodplain regulations were applied to the area in 2010 when the RR-2A zone was adopted in Bylaw No. 2040. The proposed building site on Lot 3 is within the floodplain setback as established in Part 5, Section 2.0 (2)(e) of Bylaw No. 2040, which states:

*“Where the building site is at the top of a steep bank (30 metres or more from horizontal) and where the toe of the bank is subject to erosion and is closer than 15 metres from the natural boundary of the sea, the setback shall be a horizontal distance from the Top of Bank equal to 3 times the height of the bank as measured from the toe of the bank.”*

A geotechnical engineer’s report has been prepared assessing the proposed building site on Lot 3 and providing recommendations to ensure it is built safely for the use intended (Appendix 3). As the proposed building site is within the floodplain setback, the applicant is requesting a floodplain exemption pursuant to Section 910(5) of the *Local Government Act (LGA)*.

**ALTERNATIVES**

That the Land Use Committee recommends to the Capital Regional District Board:

- 1 a) That floodplain exemption FP-01-14 for Lot 3, Section 2, Renfrew District, Plan VIP83339 for the purpose of constructing a single-family dwelling, as shown in Appendix 2, be granted subject to the following conditions:
  - b) That the proposed development comply with the recommendations outlined in the professional geotechnical engineer’s reports prepared by Levelton Consultants Ltd., dated November 29, 2012 (Appendix 3) and December 3, 2014 (Appendix 4);
  - c) That the building setback be verified by survey prior to completion of the building permit; and

- d) That the professional geotechnical engineer's reports prepared by Levelton Consultants Ltd., dated November 29, 2012 and December 3, 2014, be secured via a restrictive covenant registered on title as part of the Building Permit process.
- 2) Refer the application back to staff for additional information.

### **LEGISLATIVE IMPLICATIONS**

Section 910 of the *LGA* authorizes local governments to designate areas as floodplains and to specify flood levels, setbacks and other related provisions. Part 5 of Bylaw No. 2040 outlines requirements for floodplain management. Local government may exempt a person from the floodplain bylaw pursuant to Section 910 (5) of the *LGA*. The information submitted with this application is considered in substantial compliance with these guidelines.

### **PUBLIC CONSULTATION IMPLICATIONS**

There is no statutory or bylaw requirement to notify members of the public about a request for a floodplain exemption. Notice of the Land Use Committee meeting is posted on the CRD website and in the newspaper. Any comments received from the public will be presented at the January 20, 2015 Land Use Committee meeting.

### **LAND USE IMPLICATIONS**

The parcel is currently designated as within a foreshore and steep slope development permit area in the Shirley/Jordan River Official Community Plan Bylaw No. 3717; however, as the proposed building site is outside of the foreshore and steep slope development permit areas, the applicants are exempt from a development permit as outlined in Section 4.4.3 of Bylaw No. 3717.

The 2007 geotechnical engineer's assessment of the property identified potential for instability in the steep ocean foreshore slopes and recommended building setbacks from the slope crest. That report considered a frequency of occurrence of a potential hazard in terms of a 10% probability in 50 years. Assessment standards changed in 2010 to a standard of a 2% in 50 year probability of seismic occurrence for hazard assessment.

The Levelton Consultants Ltd. report prepared on November 29, 2012 considered the new seismic standard (Appendix 3). The report describes Lot 3 as having a foreshore slope angle of approximately 35 degrees with some localized areas up to 45 degrees. Some evidence of slope activity was noted including bowed tree trunks and minor sloughing at the crest of the slope since their 2007 assessment. The toe of the slope contains exposures of natural soils protected somewhat by driftwood and fallen trees. A setback of 17.5 m from the crest of the slope is recommended for the building as well as appropriate installation of perimeter drains to direct runoff into an on-site storm sewer and away from the crest of the slope. Levelton Consultants Ltd. have provided an updated report dated December 3, 2014 indicating the building location and design shown in Appendix 2 comply with their recommendations and are considered safe for the intended use (Appendix 4).

The height of the embankment is approximately 35 m and, based on the floodplain setback specifications outlined in Part 5, Section 2.0 (2)(e) of Bylaw No. 2040, the setback is a horizontal setback equal to three times the height of the bank totalling approximately 105 m. This setback encompasses the entire property. However, the geotechnical engineer has reviewed the proposed building site and considers it safe for the intended use subject to following their construction recommendations. The report meets the requirements of Section 910 (5) of the *LGA* and, therefore, staff recommend granting a floodplain exemption subject to the conditions outlined in the Levelton Consultants Ltd. reports (Appendices 3 and 4), securing the reports in a restrictive covenant registered on title, and subject to verification of the building siting by survey.

**CONCLUSION**

The applicant is requesting a floodplain exemption on Lot 3, Section 2, Renfrew District, Plan VIP83339 for the purpose of constructing a single-family dwelling. Reports prepared by Levelton Consultants Ltd. provide specific recommendations for building location and construction to ensure the structure is safe for the use intended. Staff recommends exempting the subject property from the floodplain setback subject to the conditions of the geotechnical reports, securing the reports in a covenant registered on title, and verification of the building location by survey.

**RECOMMENDATION**

That the Land Use Committee recommends to the Capital Regional District Board:

- 1 a) That floodplain exemption FP-01-14 for Lot 3, Section 2, Renfrew District, Plan VIP83339 for the purpose of constructing a single-family dwelling, as shown in Appendix 2, be granted subject to the following conditions:
  - b) That the proposed development comply with the recommendations outlined in the professional geotechnical engineer's reports prepared by Levelton Consultants Ltd., dated November 29, 2012 (Appendix 3) and December 3, 2014 (Appendix 4);
  - c) That the building setback be verified by survey prior to completion of the building permit; and
  - d) That the professional geotechnical engineer's reports prepared by Levelton Consultants Ltd., dated November 29, 2012 and December 3, 2014, be secured via a restrictive covenant registered on title as part of the Building Permit process.

**\*\*ORIGINAL SIGNED\*\***

\_\_\_\_\_  
Emma Taylor, MCIP, RPP  
Planner

\_\_\_\_\_  
June Klassen, MCIP, RPP  
Manager, Local Area Planning  
Concurrence

\_\_\_\_\_  
Kevin Lorette, P.Eng., MBA  
General Manager,  
Planning and Protective Services  
Concurrence

\_\_\_\_\_  
Robert Lapham, MCIP, RPP  
Chief Administrative Officer  
Concurrence

Appendix 1: Subject Property Map

Appendix 2: Building Plans

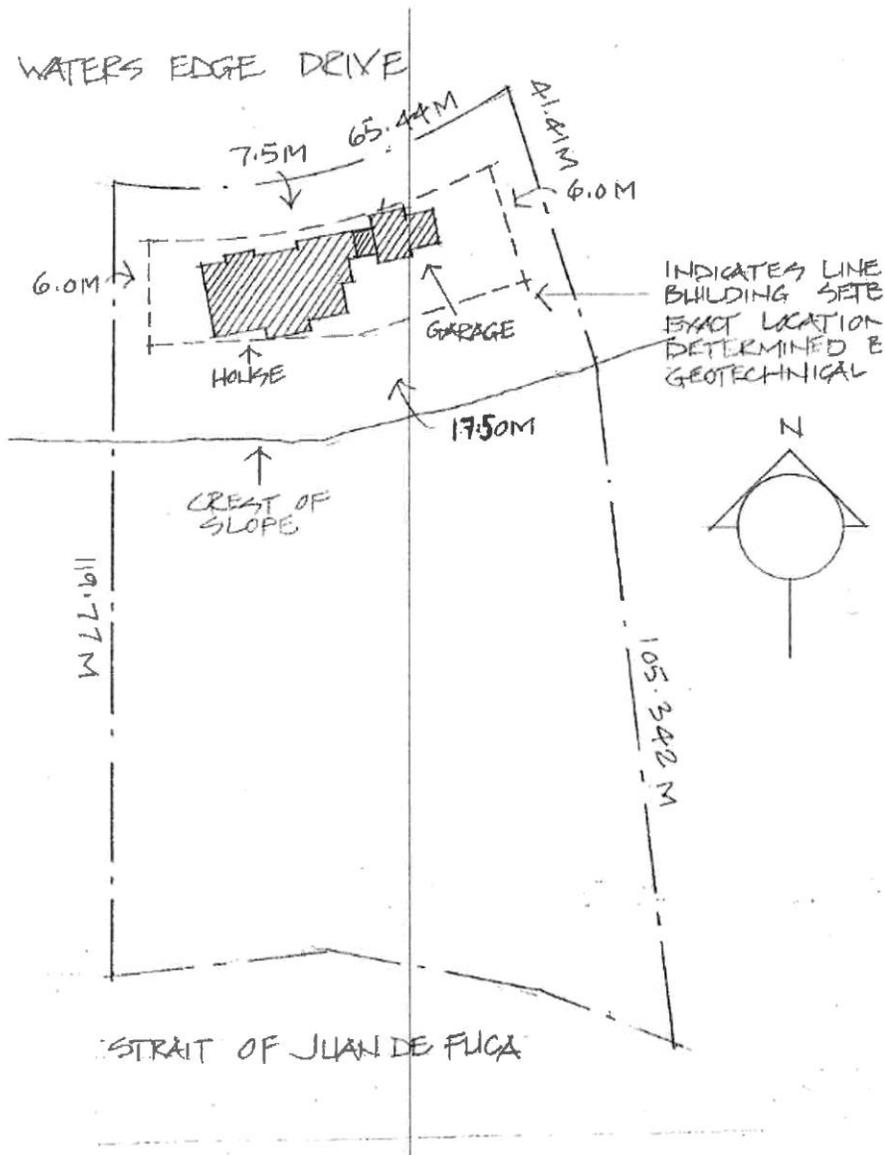
Appendix 3: Levelton Consultants Ltd. Report, November 29, 2012

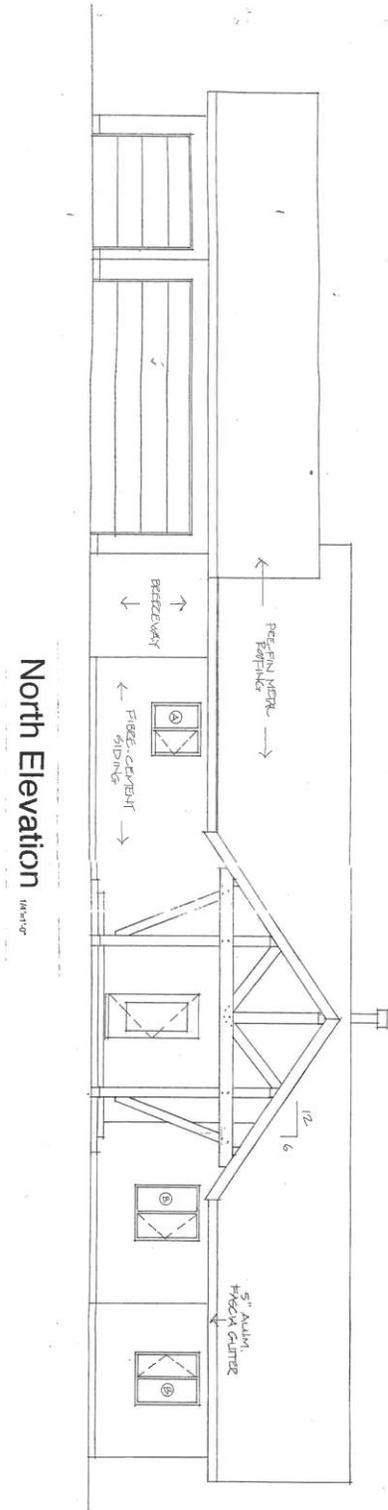
Appendix 4: Levelton Consultants Ltd. Report, December 3, 2014

Appendix 1: Subject Property Map



Appendix 2: Building Plans





Appendix 3: Levelton Consultants Ltd. Report, November 29, 2012



Levelton Consultants Ltd.  
Web Site: [www.levelton.com](http://www.levelton.com)

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Construction Materials  
Building Science  
Geotechnical  
Metallurgy and Corrosion  
Environmental  
Physical Testing

November 29, 2012  
File Ref: VI12-2255-00

ECO2 Environmental Consultants  
6488 Beechwood Place  
Sooke, BC  
V9Z 0Y7

Attention: Mr. Mike Johns

**Re: Proposed Single Family House  
Lot 3, Shores at Jordan River, BC  
Report of Geotechnical Assessment**

As requested, Levelton Consultants Ltd. (Levelton) has performed a geotechnical assessment at the above-referenced site where it is proposed to construct a new house on a lot that has yet to be developed. Subdivision construction was conducted in 2006 and 2007, with geotechnical input provided by Levelton. This work was conducted on Lot 3 specifically to assist with house setback requirements from the foreshore slope. Our geotechnical work was carried out in accordance with our November 15, 2012 proposal, which was accepted on November 19, 2012.

At the time of subdivision construction, Levelton performed slope stability analyses for all of the foreshore properties, and others with steep slopes, within the Shores at Jordan River subdivision. Our analyses were detailed in a summary report dated January 6, 2007, which provided setback requirements for each of the lots that contained steep slopes. Based on our review at the time of subdivision construction, it was recommended that house construction on Lot 3 be set back a minimum 17.5 m from the crest of the foreshore slope. It is understood that the front and side yard setbacks have been established as 7.5 m and 6 m, respectively.

Our analyses performed in 2006/07 was conducted under the then recently adopted Provincial Regulation M268 for the 2006 BC Building Code, which stipulated a 10% in 50 year probability of seismic event. As of February 2010, the slope stability guidelines were changed to assess the 2% in 50 year seismic event under the current Provincial Regulation M297. This guideline considers a much larger earthquake for design but allows for a maximum of 150 mm of displacement at the house location, which is determined to be an appropriate amount of movement for safe egress.

Richmond   Victoria   Nanaimo   Courtenay   Surrey   Abbotsford   Kelowna   Calgary

ECO2 Environmental Consultants  
Lot 3, Shores at Jordan River  
Geotechnical Assessment

File Ref.: V112-2255-00  
November 29, 2012  
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A site walkover to review the current conditions at Lot 4 was conducted on November 20, 2012. The lot was observed to be cleared at the eastern property boundary, which extended into Lot 2. The foreshore slope was traversed at the time of our site walkover and it appears to have remained relatively consistent with its appearance since our involvement in 2006/07. The overall slope angle remains at approximately 35 degrees with some localized oversteepened areas that were measured to be 40 to 45 degrees. There is evidence of slope activity within the surficial soils by way of the bowed tree trunks on the slope and minor sloughing observed at the crest of the slope. The toe of the slope contains exposures of natural soils with some erosion protection provided by fallen trees and driftwood that has accumulated on the beach, however there is no seawall or other constructed form of erosion protection.

The subsurface conditions were not reviewed beyond a visual examination of soil exposures, review of previous work within the subdivision and discussion with a water well driller on the subject property. The soil conditions are understood to be compact to dense, native sands and gravels throughout the lot. Sands and gravels were observed in exposures throughout the foreshore slope. It is understood that drilling encountered granular soils for the full height of the embankment, which is approximately 35 m. The static groundwater table was encountered approximately 33.1 m below the existing ground surface.

The embankment slope was modelled using SLOPE/W to assess the stability under static and seismic conditions. As discussed, modelling was conducted under Provincial Regulation M297, the 2% in 50 year event was used for seismic modeling. Our preliminary slope stability modeling was carried out on a house structure at the same setback line as described in our January 2007 report (14 m). Our modelling indicates that the proposed setback of 17.5 m from the crest of the foreshore embankment allows for more than the stipulated 150 mm of displacement if the foundation is located at the existing ground surface. Further modelling indicates that lowering the foundation 1.5 m below the existing grade provides adequate stability for displacements under the design earthquake to be less than 150 mm. As it is expected that the foundation will be at least 1.5 m below the existing grade, we have shown the setback requirement to be unchanged from our initial assessment.

The proposed building area has been shown on the attached Figure 1. It is noted that deepening the footings does improve the stability of the foundation and as such, it may be possible to encroach the geotechnical setback line on the south side of the building area. Based on our slope stability analysis, if the foundation was lowered to 3 m below the existing grade, the setback from the crest of the slope could be reduced to 15.5 m, instead of the 17.5 m shown. Levelton should carry out final review of the house plans to verify the appropriate stability of the foundation.

Provided footings are constructed directly atop the compact to dense, native sand and gravel subgrade throughout the building footprint, the proposed house siting described above is considered

ECO2 Environmental Consultants  
Lot 3, Shores at Jordan River  
Geotechnical Assessment

File Ref.:VI12-2255-00  
November 29, 2012  
Page 3



appropriate. Levelton confirms that provision of BC Building Code Schedules B (for the Geotechnical discipline) can be carried out when needed for the building permit process. It is important that all parties understand that the field reviews must be performed during the construction phase in order for the Geotechnical Engineer of Record to be in a position to provide the BC Building Code Schedule C-B to the Capital Regional District Building Department to confirm that the work was completed in general compliance with our geotechnical recommendations. We expect that Levelton will be contacted when foundation construction is scheduled in order to carry out the necessary field reviews.

It will be important to ensure appropriate installation of perimeter drains around the foundation and that the collected groundwater and the storm water from the rain water leaders are disposed through the storm sewer connection on the site. Introduction of additional water at the crest of the slope could be detrimental to the slope stability.

This report has been prepared by Levelton Consultants Ltd. exclusively for ECO2 Environmental Consultants for application of the project described herein. The Capital Regional District Building Dept. is considered an authorized user of this report. The report has been prepared in accordance with the attached Terms of Reference for Geotechnical Reports. No other warrantee, expressed or implied, is provided.

We trust that this report meets your current needs. Please do not hesitate to call if you have any further questions.

Yours truly,  
**LEVELTON CONSULTANTS LTD.**

A handwritten signature in blue ink, appearing to read "Alec Morse".

Per: Alec Morse, P.Eng.



Reviewed by: Steven Scotton, P.Eng., M.A.Sc.

Attachments: Figure 1: Setback Requirements – Lot 3  
Terms of Reference for Geotechnical Reports





**TERMS OF REFERENCE FOR GEOTECHNICAL REPORTS  
ISSUED BY LEVELTON CONSULTANTS LTD.**

**1. STANDARD OF CARE**

Levelton Consultants Ltd. ("Levelton") prepared and issued this geotechnical report (the "Report") for its client (the "Client") in accordance with generally-accepted engineering consulting practices for the geotechnical discipline. No other warranty, expressed or implied, is made. Unless specifically stated in the Report, the Report does not address environmental issues.

The terms of reference for geotechnical reports issued by Levelton (the "Terms of Reference") contained in the present document provide additional information and caution related to standard of care and the use of the Report. The Client should read and familiarize itself with these Terms of Reference.

**2. COMPLETENESS OF THE REPORT**

All documents, records, drawings, correspondence, data, files and deliverables, whether hard copy, electronic or otherwise, generated as part of the services for the Client are inherent components of the Report and, collectively, form the instruments of professional services (the "Instruments of Professional Services"). The Report is of a summary nature and is not intended to stand alone without reference to the instructions given to Levelton by the Client, the communications between Levelton and the Client, and to any other reports, writings, proposals or documents prepared by Levelton for the Client relative to the specific site described in the Report, all of which constitute the Report.

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**4. USE OF THE REPORT**

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**TERMS OF REFERENCE FOR GEOTECHNICAL REPORTS  
ISSUED BY LEVELTON CONSULTANTS LTD. (continued)**

**5. INTERPRETATION OF THE REPORT**

- a. **Nature and Exactness of Descriptions:** The classification and identification of soils, rocks and geological units, as well as engineering assessments and estimates have been based on investigations performed in accordance with the standards set out in Paragraph 1 above. The classification and identification of these items are judgmental in nature and even comprehensive sampling and testing programs, implemented with the appropriate equipment by experienced personnel, may fail to locate some conditions. All investigations or assessments utilizing the standards of Paragraph 1 involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. 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. Some conditions are subject to changes over time and the parties making use of the Report should be aware of this possibility and understand that the Report only presents the conditions at the sampled points at the time of sampling. Where special concerns exist, or when the Client has special considerations or requirements, the Client must disclose them to Levelton so that additional or special investigations may be undertaken, which would not otherwise be within the scope of investigations made by Levelton or the purposes of the Report.
- b. **Reliance on information:** The evaluation and conclusions contained in the Report have been prepared on the basis of conditions in evidence at the time of site investigation and field review and on the basis of information provided to Levelton. Levelton has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Levelton cannot accept responsibility for any deficiency, misstatement or inaccuracy contained in the report as a result of misstatements, omissions, misrepresentations or fraudulent acts of persons providing information.
- c. **Additional Involvement by Levelton:** To avoid misunderstandings, Levelton should be retained to assist other professionals to explain relevant engineering findings and to review the geotechnical aspects of the plans, drawings and specifications of other professionals relative to the engineering issues pertaining to the geotechnical consulting services provided by Levelton. To ensure compliance and consistency with the applicable building codes, legislation, regulations, guidelines and generally-accepted practices, Levelton should also be retained to provide field review services during the performance of any related work. Where applicable, it is understood that such field review services must meet or exceed the minimum necessary requirements to ascertain that the work being carried out is in general conformity with the recommendations made by Levelton. Any reduction from the level of services recommended by Levelton will result in Levelton providing qualified opinions regarding adequacy of the work.

**6. ALTERNATE REPORT FORMAT**

When Levelton submits both electronic and hard copy versions of the Instruments of Professional Services, the Client agrees that only the signed and sealed hard copy versions shall be considered final and legally binding upon Levelton. The hard copy versions submitted by Levelton shall be the original documents for record and working purposes, and, in the event of a dispute or discrepancy, the hard copy versions shall govern over the electronic versions; furthermore, the Client agrees and waives all future right of dispute that the original hard copy signed and sealed versions of the Instruments of Professional Services maintained or retained, or both, by Levelton shall be deemed to be the overall originals for the Project.

The Client agrees that the electronic file and hard copy versions of Instruments of Professional Services shall not, under any circumstances, no matter who owns or uses them, be altered by any party except Levelton. The Client warrants that the Instruments of Professional Services will be used only and exactly as submitted by Levelton.

The Client recognizes and agrees that Levelton prepared and submitted electronic files using specific software or hardware systems, or both. Levelton makes no representation about the compatibility of these files with the current or future software and hardware systems of the Client, the Approved Users or any other party. The Client further agrees that Levelton is under no obligation, unless otherwise expressly specified, to provide the Client, the Approved Users and any other party, or any or all of them, with specific software and hardware systems that are compatible with any electronic submitted by Levelton. The Client further agrees that should the Client, an Approved User or a third party require Levelton to provide specific software or hardware systems, or both, compatible with the electronic files prepared and submitted by Levelton, for any reason whatsoever included but not restricted to an order from a court, then the Client will pay Levelton for all reasonable costs related to the provision of the specific software or hardware systems, or both. The Client further agrees to indemnify and hold harmless Levelton, its officers, directors, employees, agents, representative or sub-consultant, or any or all of them, against any claim or any nature whatsoever brought against Levelton, whether in contract or in tort, arising or related to the provision or use of any specific software or hardware provided by Levelton.

Appendix 4: Levelton Consultants Ltd. Report, December 3, 2014



**LEVELTON CONSULTANTS LTD.**

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December 03, 2014

Levelton File # R714-2041

Mike and Julie Johns  
6488 Beechwood Place  
Sooke, BC V9Z 0Y7

**Attention: Mr. Mike Johns**

**Project: Proposed House – Lot 3, Shores at Jordan River**

**Subject: House Siting Review**

Further to our November 29, 2012 Report of Geotechnical Assessment on the above-referenced property, Levelton has reviewed the proposed house layout, supplied by the Owner. The proposed house footprint meets the setback guidelines established by Levelton using the 2% in 50 year probability of seismic occurrence for hazard assessment. Based on the drawing provided by the Owner and confirmation of the slope stability assessment conducted in 2012, the proposed house site is considered safe and suitable for the use intended.

It will be necessary for Levelton to conduct field review when excavation for the house has been conducted. Field review will be performed to confirm the ground conditions are in agreement with those used in our analysis and confirmation measurements for the setback will be made at that time. Please contact us when the excavation has been scheduled on Lot 3.

This report has been prepared for Mike and Julie Johns in accordance with the attached Terms of Reference for Geotechnical Reports. The Capital Regional District is considered an authorized user of this report. We trust that this information meets your current needs.

Yours truly,

**Levelton Consultants Ltd.**

Per: Alec Morse, P. Eng.



Attachment(s): Terms of Reference for Geotechnical Reports



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**TERMS OF REFERENCE FOR GEOTECHNICAL REPORTS  
ISSUED BY LEVELTON CONSULTANTS LTD. (continued)**

**5. INTERPRETATION OF THE REPORT**

- a. **Nature and Exactness of Descriptions:** The classification and identification of soils, rocks and geological units, as well as engineering assessments and estimates have been based on investigations performed in accordance with the standards set out in Paragraph 1 above. The classification and identification of these items are judgmental in nature and even comprehensive sampling and testing programs, implemented with the appropriate equipment by experienced personnel, may fail to locate some conditions. All investigations or assessments utilizing the standards of Paragraph 1 involve an inherent risk that some conditions will not be detected and all documents or records summarizing such investigations will be based on assumptions of what exists between the actual points sampled. 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. Some conditions are subject to changes over time and the parties making use of the Report should be aware of this possibility and understand that the Report only presents the conditions at the sampled points at the time of sampling. Where special concerns exist, or when the Client has special considerations or requirements, the Client must disclose them to Levelton so that additional or special investigations may be undertaken, which would not otherwise be within the scope of investigations made by Levelton or the purposes of the Report.
- b. **Reliance on information:** The evaluation and conclusions contained in the Report have been prepared on the basis of conditions in evidence at the time of site investigation and field review and on the basis of information provided to Levelton. Levelton has relied in good faith upon representations, information and instructions provided by the Client and others concerning the site. Accordingly, Levelton cannot accept responsibility for any deficiency, misstatement or inaccuracy contained in the report as a result of misstatements, omissions, misrepresentations or fraudulent acts of persons providing information.
- c. **Additional Involvement by Levelton:** To avoid misunderstandings, Levelton should be retained to assist other professionals to explain relevant engineering findings and to review the geotechnical aspects of the plans, drawings and specifications of other professionals relative to the engineering issues pertaining to the geotechnical consulting services provided by Levelton. To ensure compliance and consistency with the applicable building codes, legislation, regulations, guidelines and generally-accepted practices, Levelton should also be retained to provide field review services during the performance of any related work. Where applicable, it is understood that such field review services must meet or exceed the minimum necessary requirements to ascertain that the work being carried out is in general conformity with the recommendations made by Levelton. Any reduction from the level of services recommended by Levelton will result in Levelton providing qualified opinions regarding adequacy of the work.

**6. ALTERNATE REPORT FORMAT**

When Levelton submits both electronic and hard copy versions of the Instruments of Professional Services, the Client agrees that only the signed and sealed hard copy versions shall be considered final and legally binding upon Levelton. The hard copy versions submitted by Levelton shall be the original documents for record and working purposes, and, in the event of a dispute or discrepancy, the hard copy versions shall govern over the electronic versions; furthermore, the Client agrees and waives all future right of dispute that the original hard copy signed and sealed versions of the Instruments of Professional Services maintained or retained, or both, by Levelton shall be deemed to be the overall originals for the Project.

The Client agrees that the electronic file and hard copy versions of Instruments of Professional Services shall not, under any circumstances, no matter who owns or uses them, be altered by any party except Levelton. The Client warrants that the Instruments of Professional Services will be used only and exactly as submitted by Levelton.

The Client recognizes and agrees that Levelton prepared and submitted electronic files using specific software or hardware systems, or both. Levelton makes no representation about the compatibility of these files with the current or future software and hardware systems of the Client, the Approved Users or any other party. The Client further agrees that Levelton is under no obligation, unless otherwise expressly specified, to provide the Client, the Approved Users and any other party, or any or all of them, with specific software and hardware systems that are compatible with any electronic submitted by Levelton. The Client further agrees that should the Client, an Approved User or a third party require Levelton to provide specific software or hardware systems, or both, compatible with the electronic files prepared and submitted by Levelton, for any reason whatsoever included but not restricted to an order from a court, then the Client will pay Levelton for all reasonable costs related to the provision of the specific software or hardware systems, or both. The Client further agrees to indemnify and hold harmless Levelton, its officers, directors, employees, agents, representative or sub-consultant, or any or all of them, against any claim or any nature whatsoever brought against Levelton, whether in contract or in tort, arising or related to the provision or use of any specific software or hardware provided by Levelton.