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## SHOREPLAN

June 30, 2017

Port Credit West Village Partners c/o Bob Blazevski Executive Vice President and COO Diamond Corp. 22 St. Clair Avenue East, Suite 1010, Toronto, ON M4T 2S3

Dear West Village Partners

Re: 70 Mississauga Rd., Mississauga Port Credit West Village Partners Inc. Natural Hazards Summary Our File: 15-2265

Credit Valley Conservation (CVC) regulates development along the Lake Ontario shoreline of their watershed by administering Ontario Regulation 160/06 under Section 28 of the Conservation Authorities Act. In 2005 Shoreplan completed a shoreline hazards study to be used by CVC in the preparation of new regulation mapping under the Generic Regulations of the Conservation Authorities Act. The purpose of that study was to prepare mapping showing the limits of the natural hazards that occur along the Lake Ontario shoreline within the jurisdiction of CVC. That study was authored by the undersigned.

Our study defined the erosion hazard limit, the flooding hazard limit, and the dynamic beach hazard limit for a total of 87 shoreline reaches. The shoreline at 70 Mississauga Rd., owned by Port Credit West Village Partners Inc., includes two full reaches, plus a portion of a third reach from that study. The reaches were defined on the basis of both coastal processes and consistency of shoreline conditions and hazards.

Within each reach we developed a set of attributes to describe the characteristics of the reach and to calculate the various hazard limits. Those attributes included a physical description of the shoreline, an average annual erosion rate and stable slope, and a description of the protection structures including the structure type, dimension, estimated life span and effectiveness. We used conservative estimates of all attributes so that the reaches were defined on a worst-case scenario rather than a best case scenario.

The attached Figure 1 shows the hazard limits we defined for the shoreline fronting 70 Mississauga Rd. Figure 1 also shows the legal survey information you provided to us. The flooding and erosion hazard lines and the limit of

regulated area are based on the digital data provided to CVC as part of our study. The regulated area limit line is a 15m setback from the landward most hazard limit, which is the erosion hazard limit at this location. It is a buffer beyond the calculated hazard limits so that any inaccuracies associated with the hazard limit calculations do not exclude shoreline areas that should be within the regulated area. The regulated area limit line is used by CVC when first reviewing a development application, but it is not part of the hazard limit.

Figure 1 also shows the reach limits from our 2005 study. Reach 7d includes only the pier, which was defined as a major structure in our study. Major structures were special cases requiring specific engineering analyses before being modified or developed so there are no hazard limits shown for that reach. Reach 7e extends from the pier to the groyne and Reach 7f extends from the groyne to the west property limit.

Our 2005 Shoreline Hazard Study report includes a listing of all the attributes used for these reaches. Our 2005 study is not considered to be a site specific study. Should a site specific hazard assessment be completed for the property, it is expected that the hazard lines would be moved lakeward because site specific attributes would be used instead of the 2005 reach wide conservative attributes.

A site specific analysis would provide a more accurate description of the present condition of the existing protection structures. The average annual erosion rates and stable slopes presented in our study have been used in a number of site specific studies submitted to CVC and accepted at other sites.

Please direct any questions you may have regarding this submission to Mr. Sturm, P. Eng. at 416-487-4756 ext 222.

Yours truly,

Shoreplan Engineering Limited

M. Sturm, P. Eng. Principal

Bruce Pinchin, P. Eng.



Cc: Kate Hatoum, Development Manager, Diamond Corp

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