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Our ref: AF997

Date: 26 November 2019

Hennie Bekker Trust

IT nr. 1699/2001

Email: kobussteyn24@gmail.com

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And: **Other Interested Parties**

Dear Sirs

Floodline Review for the Proposed Aalwyndal Development

The proposed Aalwyndal Development is on Portion 175 of the Farm 220, Vyf-Brakke-Fonteinen. This is a fairly high piece of ground above the Aalwyn Road. It is also above the minor tributary of the Tweekuilen River which is to the north and on the far side of the Aalwyn Road.

To the west of Aalwyndal is Portion 176 of the Farm 220, Vyf-Brakke-Fonteinen. There is a dam on this neighbouring property that has a spillway leading to the lands below the dam. The lands below are essentially a broad dished channel. Photographs 1, 2 and 3 of Appendix A show the dam, spillway and dished lands. Photograph 1 shows that Aalwyndal is well above the dam and dished channel. During times of excessive rainfalls, and if the dam is full enough to spill water, the runoff will flow to the Aalwyn Road via the dished channel and will not effect Aalwyndal.

To the north of the Road is the tributary of the Tweekuilen River. It has a dam shown as Photograph 4 of Appendix A. The proposed development of Aalwyndal is above the spillway height of this dam.

The Tweekuilen tributary, it's dam, and the Aalwyn Road have reasonably informal flow routes, and blockages. There is a low point at the North-West corner of Aalwyndal, and this is shown in Photograph 5 of Appendix A. This is the only part of Aalwyndal that could be inundated with water should the surrounding watercourses, tributaries or dams be disturbed. This area is small, about the size of a tennis court, and minor earthworks will be taking place in the area which will shape the area free draining.

Aalwyndal is predominantly well above all possible sources of flooding. The minor area mentioned above is the only area that could be inundated by any floodwaters. The development of Aalwyndal will require earthworks for roadways and so forth, and the only area that requires any earthworks to ensure no ponding of water is the minor low point of Photograph 5. This work is insignificant and would be catered for by the general stormwater design of the development. We recommend that all ground levels are kept at 150mm above the Aalwyn Road level.

The Civil Engineer for the development shall take into account the level of the sewer to the north of the Aalwyn Road when designing the stormwater system.

In summary:

1. there are informal flow routes in the area;
2. Aalwyndal is well above these flow routes except for a minor area, the size of a tennis court, in the North-West corner;
3. the stormwater design and road geometrics design will eliminate any possible stormwater issue in this area; and
4. Aalwyndal is well above any possible floodlines in the area.

Please call for any further information.

Yours faithfully,

A handwritten signature in black ink that reads "A. Fraser".

Alastair Fraser Pr. Eng

Attached: Appendix A. Photographs

Appendix A. Photographs



P1. The neighbouring farm dam looking east to Aalwyndal. (It is noticeable that Aalwyndal is on higher ground).



P2. The downstream side of the neighbouring farm dam spillway



P3. The lands downstream of the neighbouring farm dam are in the shape of a broad dished channel, and below the ground elevations of the Aalwyndal property.



P4. North of the Aalwyn Road is a tributary of the Tweekuilen River. This tributary has a dam and spillway.



P5. A low point of the Aalwyndal property (NW corner) that could be inundated with water should the surrounding topography be disturbed.