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TJH:jh

22 April 2015

MORNINGTON PENINSULA SHIRE

2 Queen Street,

MORNINGTON VIC 3931

Attention: Nick Jay

Ref: 116269/A

COPY: CIVILTEST PTY LTD

PO Box 537

MORNINGTON VIC 3931

Attention: Patrick Oai

COPY: VAST ARCHITECTS

L1, 180 Upper Heidelberg Road,

IVANHOE VIC 3079

Attention: Vasili Tsekrekos

Dear Sirs,

**RE: Response to Peer Review of Land Stability Assessment, 601 Point Nepean Road, MCCRAE**

Further to the Civil Test Pty Ltd peer review with reference 1150087 dated 11<sup>th</sup> March 2015 of the A.S. James Pty Ltd Land Stability Assessment report with reference 116269, dated 4<sup>th</sup> December 2015 at the above site, we confirm having examined the CivilTest peer review and we note as follows with reference to the peer review comments / remarks requiring clarification. We have not revised our report in that much of the comments require clarification only, but this should be read in connection with our report:

We confirm the 'sub horizontal bore' was drilled at an angle of 10.5° with respect to the horizontal axis dipping down into the escarpment.

The terraced shallow timber retaining walls are acceptable to encourage vegetation regrowth. Vertical supports for the lateral timber boards should extend into the natural clay underlying any fill to be designed based on the lateral force of the soil wedge backfill behind them and be drained structures. This may require replacement of many of these supports.

The raking piles are recommended to be constructed tied to the structure at the base of the escarpment applying lateral restraint. These will take the lateral load of the slope and as indicated in the report, are expected to be significant.

Lateral active earth pressures provided in Section 3.1.3 can be used to design the vertical elements of the terraced shallow timber retaining walls. Although it is anticipated some minor lateral deflections would occur due to the cantilevered nature of the vertical elements, these should not affect the aesthetic aspects of the timber retaining walls with the emphasis being on regrowth.

The effective cohesion value for the gabion wall was purposefully adopted to be higher than usual to simulate the 'rigid' nature of the gabion wall and ensure localised failure modes would not be through this wall but under it. Although a higher adopted value was used the gabion walls lateral restraining capacity, with respect to the overall stability analysis of the slope, is not seen as a major influencing factor, rather a localised support element.

The report was compiled with reference to the current AS2870-2011 'Residential Slabs and Footings', the older version stated in the report is an error.

We confirm the minimum embedment depth of the piles of 8.0 m is based on consideration of the slope stability. No unit skin friction was provided purposefully in this "active" zone. If the eventual design requires a skin friction below the 'active' zone, this can be provided.

A.S James should be engaged to inspect all footings and provide Geotechnical Certifications during the detailed design, i.e. Forms A, B & F in the Australian Geomechanics Society's "Landslide Risk Management Guidelines Vol. 42, No. 1, March, 2007" as appropriate. These can only be provided in conjunction with the detailed structural design.

Should any point remain in doubt please do not hesitate to contact us.

Yours faithfully,

**Irrelevant / Sensitive**

T.J. HOLT MIEAust CPEng EC-1022  
A.S. JAMES PTY LTD