

ACN 646 685 592 Pty. Ltd. c/- Walsh Architects Pty Ltd
 Building 3.3 / 1 Dairy Road
 Fyshwick ACT 2609

Attention: Scott Walsh

Project: Proposed Two-Storey Residential Development with Basement
Site Location: 27a - 29 Pine Avenue, Brookvale NSW 2100 (Lots A & C of DP 403991)
Reference: 13626-GR-1-2
Date: 03 August 2022

RE: Addendum Letter for Geotechnical Investigation Report No.: 13626-GR-1-1

Alliance has previously conducted a geotechnical investigation at the above project site location with the results outlined in the geotechnical engineering report No.: 13626-GR-1-1 dated 22 October 2021.

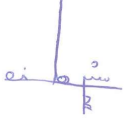

On the 29th of July Alliance received an email request from Hamish H of Gannet Developments and a call from the project architect Scott Walsh. From these communications, it is understood that an agreement has been reached between the developer and Northern Beaches Council with the assistance of the Land and Environment Court. However, prior to council consent being issued council require further geotechnical input specifically addressing council LEP conditions. This addendum letter has been provided to specifically address the following conditions of the Warringah LEP 2011 CI 6.2(3) earthworks and CI 6.4(3) with the details summarised in the Table below.

Warringah LEP 2011 Criteria	Alliance Comment
CI 6.2 Earthworks, specifically 6.2(3), which states: <i>(3) Before granting development consent for earthworks, the consent authority must consider the following matters:</i>	
<i>(a) the likely disruption of, or any detrimental effect on, existing drainage patterns and soil stability in the locality</i>	- Detailed recommendations are provided in the geotechnical engineering report, sections: 7.2 to 7.7 - Any disruption or detrimental effect on existing drainage patterns and soil stability is unlikely at the above site, subject to following the guidelines, design parameters, and geotechnical recommendations provided in the geotechnical engineering report No.: 13626-GR-1-1. Geotechnical site inspections should also be provided by an experienced geotechnical engineer during the construction at every 1.5m of excavation intervals and at bulk excavation level.
<i>(b) the effect of the proposed development on the likely future use or redevelopment of the land,</i> <i>(c) the quality of the fill or the soil to be excavated, or both,</i>	- Refer to the geotechnical engineering report, sections 5, and 7. - The bulk excavation is mainly consisting of shallow fill, residual sandy soils, and mass sandstone bedrock.
<i>(d) the effect of the proposed development on the existing and likely amenity of adjoining properties,</i>	- Refer to the geotechnical engineering report, section 7 for the excavation conditions and support system.

	<ul style="list-style-type: none"> - Vibration monitoring may be required for the rock excavation work - Geotechnical site inspections must be conducted during the bulk excavation work, and for any unforeseen conditions for ongoing ability and prior to the installation of shoring
<i>e) the source of any fill material and the destination of any excavated material</i>	<ul style="list-style-type: none"> - Any fill material to be used must be consistent with the Australian Standard AS3798. - Any off-site disposal of excavated materials will require an assessment for re-use or classification of the soils by EPA guidelines. This includes fill soils and natural soils removed from the site. Environmental assessments will need to be undertaken on excavated soils to classify spoil before removal from the site.
<i>(f) the likelihood of disturbing relics,</i>	<ul style="list-style-type: none"> - This condition relates more to a heritage/archaeology consultant and is beyond the scope of the geotechnical engineering discipline
<i>(g) the proximity to and potential for adverse impacts on any watercourse, drinking water catchment or environmentally sensitive area.</i>	<ul style="list-style-type: none"> - Refer to the geotechnical engineering report, section 7.2 - No groundwater table was observed during the site drilling investigation., Due to the shallow rock and the proposed single basement excavation depth distribution of a groundwater table is a low risk.
<p>Cl 6.4 Development on sloping land, specifically 6.4(3), which states: <i>(3) Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:</i></p>	
<i>(a) the application for development has been assessed for the risk associated with landslides in relation to both property and life, and</i>	<ul style="list-style-type: none"> - Based on our assessment of the shallow ground slope, site contour survey, and a site walkover conducted during the geotechnical site fieldwork, the above site is not likely to have a landslide risk. - According to Warringah Local Environmental Plan 2011 Landslip risk map, Sheet LSR_10A, the site is located in the landslip risk zone B, and following northern beaches council E10 landslip risk guidelines, a preliminary site conditions assessment prepared by a qualified engineer/engineering geologist is only required, and detailed landslip risk assessment in relation to both property and life is not required. - The site area is not located on the top or base of a slope, or any sloping ground in an area known to have a landslide problem, and based on our geotechnical engineering assessment, the risk of landslide for the above property is very low, and a detailed risk assessment is not required.
<i>(b) the development will not cause significant detrimental impacts because of stormwater discharge from the development site, and</i>	<ul style="list-style-type: none"> - Refer to the geotechnical engineering report, section 7.2 - No groundwater table was observed during the site drilling investigation., Due to the shallow rock and

<p>(c) the development will not impact on or affect the existing subsurface flow conditions</p>	<p>the proposed single basement excavation depth distribution of a groundwater table is a low risk. Any issues related to overland flows and surface drainage are to be considered by the project civil/hydraulic engineer.</p>
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Please note, the comments summarised in the table above are only based on the site conditions observed during the geotechnical investigation of the excavated boreholes. Due to the nature of the ground conditions, any other geotechnical variations than the ground conditions already investigated must be inspected by an experienced geotechnical engineer during the construction work.

	Author	Reviewer
<p>Signature</p>		
<p>Name</p>	<p>Ali Mirzaii</p>	<p>Thomas Dale</p>
<p>Title</p>	<p>BSc., MSc., Ph.D., MIAust, AGS, ISSMGE NSW Reg PE/DP (Geotechnical) Senior Geotechnical Engineer</p>	<p>BE (Civil) Hons MIEAust Managing Director</p>