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NSW ARB # 5283

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Application Number: DA 2021/0419

Lot 221 DP 15376, 266 Whale Beach Road, WHALE BEACH, NSW, 2107

Demolition Works and the construction of a dwelling house

Zoning: E4 Environmental Living

Section 4.55 Statement of Modification

The modification has been generated by practical structural concerns and has no further impact on neighbours, the street or the character of the Palm Beach Locality Beach Locality.
The modifications are contained within the parameters of the Approved Development.

This statement references the following Conditions of Approval.

B8.1 Construction and Demolition - Excavation and Landfill

The proposal includes excavation exceeding 1.5 metres in depth. In order to address the requirements of this clause, the Applicant submitted a Geotechnical Report and certified forms 1 and 1A. Furthermore, Council's Development Engineer reviewed these documents, and raised no objections, subject to conditions as recommended.

13. Structural Adequacy and Excavation Work
Excavation work is to ensure the stability of the soil material of adjoining properties, the protection of adjoining buildings, services, structures and / or public infrastructure from damage using underpinning, shoring, retaining walls and support where required. All retaining walls are to be structurally adequate for the intended purpose, designed and certified by a Structural Engineer, except where site conditions permit the following:

Structural Adequacy and Excavation Work

The Modification addresses the requirement of the conditions of approval to ensure the stability of the soil material of adjoining properties, the protection of adjoining buildings, services, structures and / or public infrastructure from damage using underpinning, shoring, retaining walls and support where required. All retaining walls are to be structural adequate for the intended purpose, designed by and certified by a Structural Engineer.
Further the modification has been carried out to ensure compliance with Geotechnical Certification under the Geotechnical Risk Management Policy9Appendix5 of P21 DCP), To ensure geotechnical rick is mitigated appropriately.

RL of Entry Vehicle access , Garage and Basement determined by Planning codes relating to requirements for on site vehicle access and egress, as detailed in the Statement of Environmental Effects that accompanies the Development Approval.

After demolition of the existing house and removal of contaminated soil discovered under the house, further test bores that were not possible prior to demolition were carried out, as required by the original geotechnical report.

The results of these tests showed the ground condition in greater detail than that possible while the old house was still in place. The rock located in the initial analysis showed to be unstable floaters and stable footings at a deeper level.

Geotechnical Certification

The Geotechnical and Structural Engineers collaborated through an extensive process that included 3d modelling of the soil structure and bearing capacity to achieve the necessary stability with minimum excavation.
With the in ground supporting structure rationalised in this way, some areas required further excavation. This was mitigated by reducing the extent of excavation in other areas.

A structural solution that addressed the neighbours concern that the project structural support did not include any anchoring that extended beyond the property boundary was required.
The structural requirements to stabilise the site consisted of continuous piling of a greater diameter than anticipated. The slabs at each sub grade level were also required to provide bracing to the piles. (To achieve this bracing the slab at the garage level was extended to intersect with the piles. This has resulted in a modification to the layout of the garage level, as shown shaded red on the accompanying Drawing No: 11.6.1,11.6.2 and 11.6.3

This work is further detailed in the accompanying Geotechnical Report and Structural Details

The reason for this modification is solely for consolidation and stabilisation of ground/soil conditions to provide adequate structural support.It dose not alter the building envelope above ground.
The structural requirements that have generated the need for this modification are entirely below grade and have no impact on the street presence or any other planning controls.
Therefore it is considered that this Modification will not require notification

Allen de Carteret, Architect