

Engineering Referral Response

Application Number:	DA2020/1723
Date:	07/04/2021
To:	Adam Croft
Land to be developed (Address):	Lot 74 DP 7310 , 48 Johnson Street FRESHWATER NSW 2096

Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m² or
- Alterations to existing or new driveways or
- Where proposals affect or are adjacent to Council drainage infrastructure incl. watercourses and drainage channels or
- Torrens, Stratum and Community Title Subdivisions or
- All new Commercial and Industrial and RFB Development with the exception of signage or
- Works/uses in flood affected areas

And as such, Council's development engineers are required to consider the likely impacts on drainage regimes.

Officer comments

9/03/2021:

Stormwater

As the site area is less than 450 Sqm, hence No On Site Detention Tank(OSD) required

Stormwater from the roof areas will be directed to the street gutter in Johnson Street, in accordance with the existing arrangements.

Access

Vehicular access is available to the site from Johnson Street via a concrete driveway.

Proposal is for Single attached open carport together with adjacent open car space, including driveway access from Johnson Street. Existing driveway crossing and layback location to be renewed to accommodate the new carport and open car space.

Applicant to apply for vehicle crossing application.

Excavation

The proposal includes a ground Swimming pool. The provision of swimming pool requires an excavation of nearly 2m.

As the area falls under Landslip Risk Map-Area A, a preliminary assessment of site conditions is required and must be prepared, in accordance with the Checklist for Council's assessment of site conditions by a suitably qualified geotechnical engineer/ engineering geologist. The preliminary

assessment must be submitted to Council before the granting of any development consent. (Warringah DCP 2011, E10 LAND SLIP RISK)

Applicant to provide a preliminary assessment of site conditions prepared by a suitably qualified geotechnical engineer.

07/04/2021:

Geotech report by Green geotechnics, Report GG10127.001, dated 26th March 2021 is satisfactory.

For Planner

- 1) Please recommend the use of Geotech report in the design and construction phase.
- 2) As per Geotech Report, "It would be appropriate before commencing excavation to undertake a dilapidation survey of any adjacent structures that may potentially be damaged. This will provide a reasonable basis for assessing any future claims of damage."

The proposal is therefore supported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

Recommended Engineering Conditions:

CONDITIONS TO BE SATISFIED PRIOR TO THE ISSUE OF THE CONSTRUCTION CERTIFICATE

Stormwater Disposal from Low Level Property

The Applicant is to provide a certification of drainage plans detailing the provision of dispersion trench in accordance with Northern Beaches Council's Water Management for Development Policy clause 5.5.1.1.3 and generally in accordance with the concept drainage plans prepared by ITM Design Pty Ltd, Job Number 20/89, Drawing Number H-DA-00, Issue A, dated 27-11-2020. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to the Institution of Engineers Australia, National Professional Engineers Register (NPER) and registered in the General Area of Practice for civil engineering.

The drainage plans must address the following:

- i) Applicant must install a rainwater tank of at least 3000lt capacity (BASIX).
- ii) The dispersion trench in backyard is to discharge rest of the surface water, while the roof discharge is going to be discharged to Johnson Street via rainwater tank.
- iii) Dispersion system has to be in line with contours for it to allow to flow
- iv) Dispersion system should be 3m away from site boundary and pool as well.

Detailed drainage plans, including engineering certification, are to be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

Reason: To ensure appropriate provision for the disposal of stormwater and stormwater management arising from the development.

Vehicle Driveway Gradients

The Applicant is to ensure driveway gradients within the private property are not to exceed a gradient of 1 in 4 (25%) with a transition gradient of 1 in 10 (10%) for 1.5 metres prior to a level parking facility. Access levels across the road reserve are to comply with the allocated vehicle profile detailed in this consent.

Details demonstrating compliance are to be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

Reason: To ensure suitable vehicular access to private property.

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:

- (a) maximum height of 900mm above or below ground level and at least 900mm from any property boundary, and
- (b) Comply with AS3700, AS3600 and AS1170 and timber walls with AS1720 and AS1170.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To provide public and private safety.

Vehicle Crossings Application

The Applicant is to submit an application for driveway levels with Council in accordance with Section 138 of the Roads Act 1993. The fee associated with the assessment and approval of the application is to be in accordance with Council's Fee and Charges.

An approval is to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To facilitate suitable vehicular access to private property.

CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK**Road Reserve**

The applicant shall ensure the public footways and roadways adjacent to the site are maintained in a safe condition at all times during the course of the work.

Reason: Public safety.

Vehicle Crossings

The Applicant is to construct one vehicle crossing 3 metres wide in accordance with Northern Beaches Council Drawing No A4-3330/ 1N and the driveway levels application approval. An Authorised Vehicle Crossing Contractor shall construct the vehicle crossing and associated works within the road reserve in plain concrete. All redundant laybacks and crossings are to be restored to footpath/grass. Prior to the pouring of concrete, the vehicle crossing is to be inspected by Council and a satisfactory "Vehicle Crossing Inspection" card issued.

A copy of the vehicle crossing inspection form is to be submitted to the Principal Certifying Authority.

Reason: To facilitate suitable vehicular access to private property.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Stormwater Disposal

The stormwater drainage works shall be certified as compliant with all relevant Australian Standards and Codes by a suitably qualified person. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any Final Occupation Certificate.

Reason: To ensure appropriate provision for the disposal of stormwater arising from the development.