

## Engineering Referral Response

<b>Application Number:</b>	DA2021/2613
<b>Date:</b>	23/06/2022
<b>To:</b>	Thomas Prosser
<b>Land to be developed (Address):</b>	Lot 107 DP 14113 , 129 Headland Road NORTH CURL CURL NSW 2099

### 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

#### 05/04/2022:

The proposal seeks consent for the demolition of the existing structures and the construction of a new dwelling including basement storage, driveway access, swimming pool and associated landscaping works.

#### Access

Applicant to provide a longitudinal section of proposed driveway from the street gutter to the proposed garage. Longitudinal section to include existing levels, proposed levels and grades and to be compliant with Australian standards and Council's standard vehicle crossing profiles.

#### Stormwater

Stormwater Management Plan prepared by ISTRUCT Consulting Engineers, Drawing number D01, Project No 211105, Issue A and Dated 20/12/2021, is satisfactory.

But before Council consider this plan applicant is advised as below:

- a) The Stormwater drainage for the site shall demonstrate compliance with Council's Water

Management for Development Policy, particularly Stormwater Drainage from Low Level Properties Technical Specification Section 5.5. As the subject site falls to the rear, an easement to drain water is to be created in favor of the site over the downstream properties. Evidence of owners consent by the property owners (6 Parr Avenue NORTH CURL CURL) shall be submitted with the Development Application. The Application shall be supported by a long section of the inter-allotment drainage to the connection with Council's road drainage system.

b) Should this method of stormwater disposal not be possible, evidence shall be submitted with the Application.

For sample letter refer Appendix 2, Easement Letter of Council's Water Management for Development Policy.

**For Planner:**

An excavation to a maximum depth of ~4.2m is proposed to construct the basement with car stacker. Geotech report by White Geotechnical Group , Ref J3907, Dated 9th Dec 2021 is provided. Please recommend the use of geotechnical report at design and construction stages.

**23/06/022:**

An easement refusal letter from property owners, 6 Parr Avenue NORTH CURL CURL is provided.

**For Planner:**

- 1) Low level retaining wall proposed in front setback is outside of the front boundary, refer drawing no DA11.
- 2) An excavation to a maximum depth of ~4.2m is proposed to construct the basement with car stacker. Geotech report by White Geotechnical Group , Ref J3907, Dated 9th Dec 2021 is provided. Please recommend the use of geotechnical report at design and construction stages.

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**

**On-site Stormwater Detention Details**

The Applicant is to provide a certification of drainage plans detailing the provision of on-site stormwater detention in accordance with Northern Beaches Council's WATER MANAGEMENT for DEVELOPMENT POLICY and generally in accordance with the concept drainage plans prepared by ISTRUCT Consulting Engineers, Drawing number D01, Project No 211105, Issue A and Dated 20/12/2021. 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. OSD to be provided in accordance with Clause 9.0 of Council's Water Management for Development
- ii. Applicant must install a rainwater tank of at least 3500l capacity (BASIX).
- iii. Level spreader to be at least 3m away from any site boundary
- iv. 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 and Manoeuvring**

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.

To facilitate satisfactory and safe access to and from the proposed development the site access is restricted to 'Forward In and Forward Out' vehicle movement. All vehicle maneuvering should be within the site.

Detailed plans, including engineering certification 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 confirming the above requirements which is vehicle maneuvering within the site and safe forward in and forward out vehicle movement from the site have been satisfied and complying AS 2890, 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.

### **Tanking of Basement Level**

The basement area is to be permanently tanked. The Applicant is to submit structural details of the tanking, prepared by a suitably qualified Engineer. Where temporary dewatering works are required on the development site during construction, the developer/applicant must apply for and obtain a bore license from the NSW Office of Environment and Heritage. The bore license must be obtained prior to commencement of dewatering works. All requirements of the NSW Office of Water are to be complied with and a copy of the approval must be submitted to the Certifying Authority. Details demonstrating compliance are to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To prevent ingress of sub-surface flows into the basement area and to comply with State Government Requirements.

### **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 5 metres wide with one wing on eastern side and merging with neighboring layback (131 Headland Road) on western side in accordance with Northern Beaches Council Drawing No A4-3330/ 5EL 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**

### **Positive Covenant for the Maintenance of Stormwater Pump-out Facilities**

The Applicant shall lodge the Legal Documents Authorisation Application with the original completed request forms (NSW Land Registry standard forms 13PC and/or 13RPA) to Council and a copy of the Works-as-Executed plan (details overdrawn on a copy of the approved drainage plan), hydraulic engineers' certification.

The Applicant shall create on the Title a positive covenant in respect to the ongoing maintenance of the pump-out facility on the property being developed. Northern Beaches Council shall be nominated in the instrument as the only party authorised to release, vary or modify the instrument. Northern Beaches Council's delegate shall sign these documents prior to the submission to the NSW Land Registry Services. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the final Occupation Certificate.

A copy of the certificate of title demonstrating the creation of the positive covenant and restriction for

on-site storm water detention as to user is to be submitted.

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

Reason: To ensure adequate provision is made for the stormwater pump out system to be maintained to an appropriate operational standard.

**Positive Covenant and Restriction as to User for On-site Stormwater Disposal Structures**

The Applicant shall lodge a Legal Documents Authorisation Application with Council. The application is to include the original completed request forms (NSW Land Registry standard forms 13PC and/or 13RPA) and a copy of the Works-as-Executed plan (details overdrawn on a copy of the approved drainage plan by a Registered Surveyor), Hydraulic Engineers' certification and photographic evidence for the completed onsite stormwater detention system works. A guide to the process can be found on Council's website using the following link.

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdfforms/legaldocumentsauthorisation-on-site-stormwater-detention-systems/guide-submitting-lda-anov19.pdf>

The form for the application can be found on Council's website using the following link.

[https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdfforms/legaldocumentsauthorisation-on-site-stormwater-detention-systems/4023 legaldocumentsauthorisationoct19.pdf](https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/pdfforms/legaldocumentsauthorisation-on-site-stormwater-detention-systems/4023%20legaldocumentsauthorisationoct19.pdf)

The Applicant shall create on the Title a positive covenant in respect to the ongoing maintenance and restriction as to user over the on-site stormwater detention system within this development consent. The terms of the positive covenant and restriction are to be prepared to Council's standard requirements at the applicant's expense and endorsed by Northern Beaches Council's delegate prior to lodgment with the NSW Land Registry Services. Northern Beaches Council shall be nominated as the party to release, vary or modify such covenant. A copy of the certificate of title demonstrating the creation of the positive covenant and restriction as to user for the on-site stormwater detention system is to be submitted.

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

Reason: To ensure the on-site stormwater disposal system is maintained to an appropriate operational standard and not altered.