

## Engineering Referral Response

<b>Application Number:</b>	DA2020/1574
<b>Date:</b>	28/01/2021
<b>To:</b>	Lashta Haidari
<b>Land to be developed (Address):</b>	Lot 80 DP 11784 , 12 Ingleside Road INGLESIDE NSW 2101

### 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

The stormwater management plan is considered to be acceptable, after having discussed with Council's Stormwater Assets Engineer (Trim2020/719151). The proposed stormwater channel construction which traverses the subject site is to be management in perpetuity by the property owner. This is due to the applicant's Engineer proposal to construct an open lined channel rather than a pipe drainage system (in accordance with Water Management for Development Policy, requires piping and provision for overland flow path of the existing unformed open channel). As a result the property owner is required to maintain the drainage system within the subject site.

No Development Engineering objection subject to conditions,

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:

#### FEES / CHARGES / CONTRIBUTIONS

#### Construction, Excavation and Associated Works Bond (Drainage works)

The applicant is to lodge a bond of \$60,000.00 as security against any damage or failure to complete the construction of stormwater drainage works as part of this consent.

Details confirming payment of the bond are to be submitted to the Certifying Authority prior to the issue

of the Construction Certificate.

Reason: Protection of Council's infrastructure.

## 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 Storm Civil, drawing number D1 & D2 issue B dated 02/07/2020. 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.

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.

### **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.

### **Stormwater Drainage Application**

The applicant is to provide a stormwater drainage application under Section 68 of the Local Government Act 1993 to Council for approval. The submission is to include four (4) copies of Civil Engineering plans for the design of the lined open channel from Ingleside Road to the rear of the property which are to be generally in accordance with the civil design Plans prepared by

southeast engineering + environment drawing number 513-02, 03,04 and 05 dated 05/11/2020 submitted with the Development Application and Council's specification for engineering works - AUS-SPEC #1. The design must include the following information:

- The lined open channel shall be capable of carrying a 100 year ARI storm water flows.
- The open channel must capture all runoff from Ingleside road to the open channel.
- Any road drainage works required to ensure the capture of stormwater runoff must be designed and constructed.
- The proposed dwelling shall be protected and a free board of 300mm is to be provided within the open channel and the culvert for the driveway,
- Head wall and scour protection shall be designed for both inlet and outlet of the proposed lined open channel.

The S68 application form can be found on Council's website at [www.northernbeaches.nsw.gov.au](http://www.northernbeaches.nsw.gov.au) > Council Forms > Stormwater Drainage Application Form.

The fee associated with the assessment and approval of the application is to be in accordance with Council's Fees and Charges.

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

Reason: To ensure appropriate provision for disposal and maintenance stormwater management and compliance with the BASIX requirements, arising from the development.

## **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.

### **Civil Works Supervision**

The Applicant shall ensure all civil works approved in the Section 68 Local Government Act for the construction of open channel and associated works are supervised by an appropriately qualified and practising Civil Engineer.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority and/or Roads Authority.

Reason: To ensure compliance of civil works with Council's specification for engineering works.

### **Vehicle Crossings**

The Applicant is to construct on normal low vehicle crossing 3.0 metres wide in accordance with Northern Beaches Council Drawing No A4-3330/3 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 and Restriction as to User for On-site Stormwater Disposal Structures**

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 restriction on the use of land and a positive covenant in respect to the ongoing maintenance and restriction of the on-site stormwater disposal structures 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 lodgement 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 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 the on-site stormwater disposal system is maintained to an appropriate operational standard.

### **Positive Covenant for Drainage channel, culvert, headwall and associated structures**

The Applicant shall submit a positive covenant under the provisions of Section 88B of the Conveyancing Act or transfer and granting of easement is to be created on the title in favour of Northern Beaches Council. The covenant will require the proprietor of the land to maintain the drainage system within the property in accordance with the requirements and agreements of Council. The applicant is to provide details which can be created by a legal services or surveyor at applicant's expense.

The terms of the positive covenant are to be prepared to the requirements and agreement of Council which must incorporate the following:

- The Owner must permit the free flow of stormwater overland flow within the drainage channel.
- Keep the area clean and free from obstructions, rubbish and debris
- Maintain and repair the stormwater open channel, head wall, culvert and energy dissipator (open drainage system) at the sole expense of the Owner in perpetuity so that it functions (as an overland stormwater flow path for the free passage of water) in a safe and efficient manner:
- Permit the Council from time to time and upon giving reasonable notice (but in the case of emergency, at any time and without notice) to enter and inspect the open drainage system for compliance with the requirements of this covenant;
- Comply with the terms of any written notice issued by the Council in respect of the requirements of this covenant within the time stated in the notice.

The Council shall have the following additional power:

- In the event the Owner fails to comply with any written notice from the Council as set out above the Council may enter the lot burden with all the necessary materials and equipment and carry

- our any work which the Council in its discretion considers reasonable to comply with the notice..
- The Council can recover any expensed incurred as result of undertaking the works, supervising and administering.
- Legal cost in an indemnity basis for the issue of the notice and recover all cost associated the under taking the works.

Northern Beaches Council shall be nominated as the sole authority empowered to release, vary or modify such covenant. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of final occupation certificate.

Reason: To ensure ongoing maintenance of the constructed lined open channel and drainage system

**Certification of Council Drainage Works and Works as Executed Data within Private Land**

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed works have been constructed in accordance with this consent and the approved Section 68 approved plans. Works as Executed data (details overdrawn on a copy of the approved drainage plan) certified by a registered surveyor in relation to boundaries, shall be submitted to Council for approval.

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

Reason: To ensure compliance of drainage works with Council's specification for engineering works.

**Restriction as to User (lined open Drainage channel and culvert)**

A restriction is to be placed over the area affected by the 100 year ARI storm water overland flow in order to:-

- Prohibit the alteration of the final overland flowpath and drainage channel and associated drainage structures.
- Prohibit the erection of any structure (including fencing) within the overland flowpath without the written permission of Northern Beaches Council.

Reason: To ensure no modification to the stormwater drainage structure without the approval of Northern Beaches Council.