

## Engineering Referral Response

<b>Application Number:</b>	DA2018/0849
<b>To:</b>	Alex Keller
<b>Land to be developed (Address):</b>	Lot 16 DP 23317 , 10 Naree Road FRENCHS FOREST NSW 2086

### Reasons for referral

This application seeks consent for the following:

- New Dwellings or
- Applications that require OSD where additional impervious area exceeds 50m<sup>2</sup> 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

#### Additional Comments (3/2/20):

Reference is made to advice previously provided by Development Engineering TRIM No's 2019/404890 & 2019/645036. As no additional information has been provided to address the matters previously raised, the Development Application is still not supported by Development Engineering.

As requested by Planning section, conditions have been provided for the Application.

### Previous Comments:

*Development Engineers have reviewed the proposal and advise the proposal cannot be supported due to the following reasons:*

#### Vehicle access

*1. Engineering longitudinal sections on both sides of the proposed driveway are to be submitted to Development Engineers for assessment. Longitudinal sections must include existing and proposed finished ground surface levels. The applicant is to incorporate one of Council's standard driveway profiles between the kerb alignment and property boundary. The applicant is to also incorporate an updated RMS Property Works drawing consistent with the location of proposed vehicle crossing for the development. Development Engineers are not in receipt of the above documentations.*

2. The proposed vehicle crossing is located close to the existing light pole on the grass verge and may need to be re-located provide sufficient clearance to the pole. Written approval/requirements from Ausgrid must be provided to comply with the above. Development Engineers are not in receipt of the above documentations.

#### Stormwater drainage

3. Council is not in receipt of any evidence indicating that the downstream property owner is prepared to grant drainage easement for the development.

4. Insufficient details are submitted to demonstrate stormwater disposal to Council's drainage infrastructure in Wareham Crescent complies with Council's requirements. In this regard, an engineering longitudinal section through the outlet pipe from the OSD system to the connection into the Council system must be provided. This longsection is to show design invert levels, finished surface levels, pipes size, design flows, all utility services that may cross the line and a hydraulic grade line.

Note: It is the responsibility of the Applicant to provide full details of all relevant services that may conflict with the proposed OSD system(s) and stormwater lines. The exact locations of any crossings or connections are to be shown.

5. In order for Council to adequately check the design of the OSD system, when the DRAINS program is used, the input data and summary information including a copy of the model on computer disc must be provided. Sufficient details must be submitted to demonstrate the total discharge (controlled and un-controlled) off the development site is restricted to the 'state of nature' condition, as per section 4.3 of Council's On-site Stormwater Detention Technical Specification. Development Engineers are not in receipt

Not supported for approval due to lack of information to address:

- Stormwater drainage for the development in accordance with Part C4 Stormwater of the WDCP
- Vehicle access for the development in accordance with Part C2 Traffic, Access and Safety

#### Planning Comment:

The development engineering assessment and comments are supported and warrant refusal of the application.

The proposal is therefore unsupported.

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

#### **Recommended Engineering Conditions:**

### **DEFERRED COMMENCEMENT CONDITIONS**

#### **Stormwater Drainage Easement**

As the natural fall of the land is towards the rear of the site the disposal of stormwater drainage is to be via an easement through the downstream property(s). The easement is to be created under Sections 88B, and/or 88K of the Conveyancing Act 1919. The applicant must provide Council with evidence of the creation of the easement in order to activate the consent.

Reason: To ensure adequate provision is made for stormwater drainage from the site in a proper manner that protects adjoining properties.

## FEES / CHARGES / CONTRIBUTIONS

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

The applicant is to lodge a bond of \$ 10000 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.

### **Construction, Excavation and Associated Works Bond (Crossing / Kerb)**

The applicant is to lodge a Bond of \$5,000 as security against any damage or failure to complete the construction of any vehicular crossings, kerb and gutter, any footpath works and removal of any redundant driveways required 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

### **Survey Certificate**

The applicant is to submit an up to date survey plan on Naree Road prepared by a Registered Surveyor.

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

Reason: To determine the height of buildings under construction comply with levels shown on approved plans.

### **Pump-Out System Design for Stormwater Disposal**

The design of the pump-out system for Stormwater disposal will be permitted for drainage of hard surfaces areas such as driveways and basement pavement areas only, and must be designed in accordance with AS/NZS 3500. Engineering details demonstrating compliance with this requirement and certified by an appropriately qualified and practising hydraulic engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure adequate provision is made for the discharge of Stormwater from the excavated parts of the site.

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### **Submission Roads Act Application for Civil Works in the Public Road**

The Applicant is to submit an application for approval for Infrastructure works on Councils roadway. Engineering plans for the new development works within the road reserve and this development consent are to be submitted to Council for approval under the provisions of Sections 138 and 139 of the

Roads Act 1993.

The application is to include four (4) copies of Civil Engineering plans for the design of driveway crossing, footpath and associated works which are to be generally in accordance with the Council's specification for engineering works - AUS-SPEC #1. The plan shall be prepared by a qualified civil engineer. The design must include the following information: 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 ensure engineering works are constructed in accordance with relevant standards and Council's specification.

### **Vehicle Driveway Gradients**

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 Council's Minor Works Policy. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate

Reason: To ensure suitable vehicular access to private property

### **On-site Stormwater Detention**

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 Warringah Water Management Policy PL850, and generally in accordance with the concept drainage plans prepared by Martens & Associates Pty Ltd, project number P1706342, drawing number PS02-A000, revision D, dated 10/07/19, drawing number PS02-E100, E101, E200, E600, E700, revision C, dated 10/07/19. Detailed drainage plans are to be prepared by a suitably qualified Civil Engineer, who has membership to Engineers Australia, National Engineers Register (NER) 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 disposal and stormwater management arising from 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.

### **Sub-Soil Seepage**

All sub-soil seepage drainage shall be discharged via a suitable silt arrester pit, directly to Council's nearest stormwater drainage line and is to be carried out in accordance with relevant Australian Standards. (Note: At the time of determination the following (but not limited to) Standards applied:

- Australian/New Zealand Standard AS/NZS 3500.3 - 2003 Plumbing and drainage - Stormwater drainage
- Australian/New Zealand Standard AS/NZS 3500.3 - 2003 / Amdt 1 - 2006 Plumbing and drainage - Stormwater drainage.)

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

Reason: To ensure appropriate drainage and Stormwater management on site to protect amenity of residents.

### **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 drainage easement, on site stormwater detention system and associated works which are to be generally in accordance with the civil design approved with the Development Application and Council's specification

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 THAT MUST BE ADDRESSED PRIOR TO ANY COMMENCEMENT**

### **Public Liability Insurance - Works on Public Land**

Any person or contractor undertaking works on public land must take out Public Risk Insurance with a minimum cover of \$20 million in relation to the occupation of, and approved works within Council's road reserve or public land, as approved in this consent. The Policy is to note, and provide protection for Northern Beaches Council, as an interested party and a copy of the Policy must be submitted to Council prior to commencement of the works. The Policy must be valid for the entire period that the works are being undertaken on public land.

Reason: To ensure the community is protected from the cost of any claim for damages arising from works on public land.

## **CONDITIONS TO BE COMPLIED WITH DURING DEMOLITION AND BUILDING WORK**

### **Road Reserve**

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

Reason: Public Safety.

### **Property Boundary Levels**

The Applicant is to maintain the property boundary levels. No approval is granted for any change to existing property alignment levels to accommodate the development.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

Reason: To maintain the existing profile of the nature strip/road reserve.

## **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 interim / final Occupation Certificate.

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

### **Reinstatement of Kerb**

All redundant laybacks and vehicular crossings shall be reinstated to conventional kerb and gutter, footpath or grassed verge as appropriate with all costs borne by the applicant. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To facilitate the preservation of on street parking spaces

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

A Positive Covenant (under the provisions of Section 88B of the Conveyancing Act 1919) is to be created on the property title to ensure the on-going maintenance of the stormwater pump-out facilities 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 any interim / 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 Detention**

A positive covenant shall be created on the title of the land requiring the proprietor of the land to maintain the on-site stormwater detention structure in accordance with the standard requirements of Council. The terms of the positive covenant 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 NSW Land Registry Services. Northern Beaches Council shall be nominated as the party to release, vary or modify such covenant.

A restriction as to user shall be created on the title over the on-site stormwater detention system,

restricting any alteration to the levels and/or any construction on the land. The terms of such restriction are to be prepared to Council's standard requirements at the applicant's expense and endorsed by Council prior to lodgement with NSW Land Registry Services. Northern Beaches Council shall be nominated as the party to release, vary or modify such restriction.

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 the on-site detention and/or pump system is maintained to an appropriate operational standard.