

Engineering Referral Response

Application Number:	DA2020/0341
Date:	25/05/2020
To:	Claire Ryan
Land to be developed (Address):	Lot 2413 DP 752038 , 87 Blackbutts 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 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 submitted drainage plan including OSD and connection via an extension to the existing Council drainage system has been assessed and is satisfactory subject to conditions. The proposed new driveway crossing and internal driveway grades are also satisfactory. In accordance with clause 26 of the SEPP, the existing pram ramps adjacent to the refuge island in Blackbutts Rd will need to be reconstructed to meet the grade requirements and a landing slab will be required at the existing bus stop. These requirements have been conditioned to suit.

No objection to approval, subject to conditions as recommended.

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 \$40,000 as security against any damage or failure to complete the construction of stormwater drainage works that revert to Council's care and control 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 Security Bond (Crossing / Kerb)

The applicant is to lodge a Bond of \$30,000 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.

Construction, Excavation and Associated Works Bond (Maintenance for civil works)

The developer/applicant must lodge with Council a maintenance bond of \$5,000 for the construction of the civil works associated with the development that revert to Council's care and control. The maintenance bond will only be refunded upon completion of the six month maintenance period, if work has been completed in accordance with the approved plans and to the satisfaction of Council. The maintenance bond is to be paid prior to Council issuing practical completion.

Reason: To ensure adequate protection of Council infrastructure.

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

Traffic Management and Control

The Applicant is to submit an application for Traffic Management Plan to Council for approval prior to issue of the Construction Certificate. The Traffic Management Plan shall be prepared to RMS standards by an appropriately certified person.

Reason: To ensure appropriate measures have been considered for site access, storage and the operation of the site during all phases of the construction process.

On-site Stormwater Detention Details and Certification

The Applicant is to provide a certification and 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 Smart Structures Australia, drawing number 190373 D00A, D01C and D05B dated January 2020. 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.

The drainage plans must address the following:

- i. The outlet for the OSD system is to be designed for tailwater conditions.

ii. The OSD basin is to include a minimum of 20% additional volume to the required volume to cater for the proposed landscaping.

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.

Submission Roads Act Application for Civil Works in the Public Road

The Applicant is to submit an application with Council for approval for infrastructure works on Council's 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 the driveway crossing, footpath, kerb and gutter, bus stop slab and pram ramp reconstruction 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:

1. 5 metre wide driveway crossing in accordance with Council drawing A4/3330/1 N.
2. 150mm kerb and gutter for the entire frontage of the site in accordance with Council drawing A4/2276/A.
3. 1500mm wide concrete footpath for the entire frontage of the site in accordance with Council drawing A4/10536.
4. 2000mm wide concrete slab 100mm thick between the existing footpath and the kerb adjacent to the existing bus stop in front of 95 Blackbutts Road.
5. Removal and reinstatement of the pram ramps and associated footpath on either side of the existing refuge island in front of 97 Blackbutts Road in accordance with Council drawing A4/7284.
6. 1.8 metre lintel with 900mm grated kerb inlet pit in front of the site with a 375mm RCP extension at 1% minimum grade to the existing Council drainage pit in front of 91 Blackbutts Road in accordance with Council drawing A2/5476/A.

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.

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.

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 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.

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.

Civil Works Supervision

The Applicant shall ensure all civil works approved in the Section 138 approval are supervised by an appropriately qualified and practicing 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.

Footpath Construction

The applicant shall reconstruct the footpath to 1500mm wide for the entire frontage of the site, construct a

slab adjacent to the existing bus stop in front of 95 Blackbutts Road and remove and reinstate the pram ramps and associated footpath on either side of the existing refuge island in front of 97 Blackbutts Road. The works shall be in accordance with the following:

- (a) All works are to be constructed in accordance with Section 138 Road Act approval.
- (b) Council is to inspect the formwork prior to pouring of concrete to ensure the works are in accordance with Section 138 Road Act approval for footpath. Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

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

Notification of Inspections (infrastructure works to be handed over to Council)

Council's Development Engineer is to be given 48 hours notice when the works reach the following stages:

- (a) Installation of Silt and Sediment control devices
- (b) Prior to backfilling of pipelines
- (c) Prior to pouring of stormwater gully pits
- (d) Prior to pouring of kerb and gutter, footpath and driveway crossing
- (e) Subgrade level / basecourse level / subbase
- (f) Sealing road pavement

NOTE: Any inspections carried out by Council do not imply Council approval or acceptance of the work, and do not relieve the developer/applicant from the requirement to provide an engineer's certification.

Reason: To ensure new Council infrastructure is constructed in accordance with Auspec 1 Council's design and specification standards.

Traffic Control During Road Works

Lighting, fencing, traffic control and advanced warning signs shall be provided for the protection of the works and for the safety and convenience of the public and others in accordance with RMS Traffic Control At Work Sites Manual (<http://www.rms.nsw.gov.au/business-industry/partners-suppliers/documents/technical-manuals/tcws-version-4/tcwsv4i2.pdf>) and to the satisfaction of the Roads Authority. Traffic movement in both directions on public roads, and vehicular access to private properties is to be maintained at all times during the works

Reason: Public Safety.

Vehicle Crossings

The Applicant is to construct one vehicle crossing 5 metres wide in accordance with Northern Beaches Council Drawing No A4-3330/1 N 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. The redundant layback and crossing are to be restored to kerb, footpath and 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.

Kerb and Gutter Construction

The Applicant is to construct 150mm kerb and gutter and associated works along the entire frontage of the site in accordance with Northern Beaches Council Drawing No. A4/2276/A. Prior to the pouring of concrete, the works are to be inspected by Council and an approval issued.

The approval is to be submitted to the Principal Certifying Authority.

Reason: To facilitate the preservation of on street parking spaces.

Stormwater Connection

The applicant shall connect the pipeline in accordance with the Section 138 Roads Act approval and shall reconstruct all affected kerb and gutter, bitumen reinstatements, adjust all vehicular crossings for paths, grass verges and household stormwater connections to suit the works. All works shall be undertaken at the applicant's cost.

Reason: To ensure compliance of drainage works with Council's approved plans.

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 a Legal Documents Authorisation Application with Council. The application shall 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) and Hydraulic Engineers' certification.

The Applicant shall create on the Title a positive covenant in respect to the ongoing maintenance and restriction as to user for 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 obtained.

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

Reason: To ensure the on-site stormwater disposal system is maintained to an appropriate operational standard.

Certification of Council Drainage Works and Works as Executed Data

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed Council drainage works have been constructed in accordance with this consent and the approved Section 138 approved plans. The certification and Works as Executed data (details overdrawn on a copy of the approved drainage plans) certified by a Registered Surveyor prepared in accordance with Council's 'Guideline for preparing Works as Executed data for Council Stormwater Assets' shall be submitted to Council for their written acceptance.

Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue

of the Occupation Certificate.

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

Certification of Civil Works and Works as Executed Data on Council Land

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed works that revert to Council's care and control have been constructed in accordance with this consent and the approved Section 138 plans. Works as Executed data certified by a Registered Surveyor prepared in accordance with Council's 'Guideline for preparing Works as Executed data (details overdrawn on a copy of the approved civil plans) for Council Assets' in an approved format shall be submitted to Council for acceptance prior to the release of any security deposits.

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

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