

Engineering Referral Response

Application Number:	DA2019/1346
Date:	06/05/2020
To:	Lashta Haidari
Land to be developed (Address):	Lot 1 DP 1220196 , 4 - 10 Inman Road CROMER 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

Reference is made to Development Engineering Referral Response dated 14/1/20 and additional information provided by the Applicant.

Note to Planner:

Please refer the additional information to Traffic Engineering for comments/conditions.

No objections are raised to the proposed development, 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 \$550,000 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 Security Bond (Crossing / Kerb)

The applicant is to lodge a Bond of \$200,000 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

Structures Located Adjacent to Council Pipeline or Council Easement

All structures are to be located clear of any Council pipeline or easement. The Applicant is to ensure footings of any new development within this development consent adjacent to an easement or pipeline are to be designed in accordance with Northern Beaches Council's Warringah Water Management Policy PL850. Details and certification prepared by a suitably qualified Civil Engineer demonstrating compliance are to be submitted to the Certifying Authority for approval prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

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

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 Costin Roe Consulting, drawing number C013674.01 - DA10, DA41, DA51, DA52, issue C, dated 28/2/20, drawing number drawing number C013674.01 - DA55, issue B, dated 28/2/20, drawing number C013674.01 - DA42, DA45, DA46, DA47, DA48, issue B, dated 26/11/19, drawing number C013674.01 - DA65, issue A, dated 26/11/19, and drawing number C013674.01 - DA70, DA71, DA72, issue A, dated 20/2/20. 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. The stormwater outlet connection to Council's drainage channel shall be amended to discharge at an angle with the direction of flow.

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 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 vehicle crossing and footpath 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. The Applicant is to construct three vehicle crossings in Inman Road (i) 6.2 metres wide, (ii) 10 metres wide at the boundary and 12.8 metres wide at the kerb, and (iii) 7 metres wide and two vehicle crossings in South Creek Road (i) 8 metres wide at the boundary and 12.3 metres wide at the kerb and (ii) 7.7 metres wide at the boundary and 14.5 metres wide at the kerb in accordance with Northern Beaches Council Drawing No A4-3330/1 N. The vehicle crossing shall be design for the largest service vehicle and supported by turning path templates.
2. Provision of a 1.5 metre wide footpath and upgrade of any associated pram ramps for the entire development frontage.

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.

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.

Shoring of Council's Road Reserve (Temporary road anchors)

Should the proposal require shoring to support an adjoining property or Council land, the Applicant shall provide the adjoining properties with engineering drawings, detailing the proposed shoring works for their consideration and approval.

Written approval from Council under Section 138 of the Roads Act 1993 is required if temporary ground anchors are to be used within Council's road reserve. The Owner's approval is to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: To ensure that owners consent is obtained for ancillary works, and to ensure the protection of adjoining properties and Council land.

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 stormwater drainage channel which are to be generally in accordance with the civil design prepared by Costin Roe Consulting, drawing number C013674.01 - DA10, DA41, DA51, DA52, issue C, dated 28/2/20, drawing number drawing number C013674.01 - DA55, issue B, dated 28/2/20, drawing number C013674.01 - DA42, DA45, DA46, DA47, DA48, issue B, dated 26/11/19, drawing number C013674.01 - DA65, issue A, dated 26/11/19, and drawing number C013674.01 - DA70, DA71, DA72, issue A, dated 20/2/20 and Council's specification for engineering works - AUS-SPEC #1. The form can be found on Council's website at www.northernbeaches.nsw.gov.au > Council Forms > Stormwater Drainage Application Form.

The drainage plans must address the following:

- i. Certification that the stormwater channel has been designed in accordance with the Overland Flow Report prepared by Costin Roe Consulting, project number Co13674.01, revision A, dated 28/2/20.
- ii. An easement for drainage purposes shall be shown on the submitted plans over the drainage channel the greater of five metres wide or a minimum 1 metre from the outside wall of the top of the stormwater channel.
- iii. A clear access way shall be provided a minimum of 3.5 metres wide along the adjoining driveway to the east to access the top bank of the channel for the full length for operational and maintenance purposes. A Right of Access shall be shown on the submitted plans over the access way, and shall be created in favour of Council.

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 arising from the development.

Pre-Construction Stormwater Assets Dilapidation Report

The Applicant is to submit a pre-construction/demolition Dilapidation Survey of Council's Stormwater Assets is to be prepared by a suitably qualified person in accordance with Council's Guidelines for Preparing a Dilapidation Survey of Council Stormwater Asset, to record the existing condition of the asset prior to the commencement of works. Council's Guidelines are available at:

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/general-information/engineering-specifications/preparingdilapidationsurveyforcouncilstormwaterassets.pdf>

The pre-construction/demolition dilapidation report must be submitted to Council for written approval and the written approval is then to be submitted to the Certifying Authority prior to the issue of the Construction Certificate.

Reason: Protection of Council's infrastructure.

Pre-commencement Dilapidation Report

The applicant must prepare and submit a pre-commencement dilapidation report providing an accurate record of the existing condition of adjoining public property and public infrastructure (including roads, gutter, footpaths, etc). A copy of the report must be provided to Council, any other owners of public infrastructure and the owners of adjoining and affected private properties.

The pre-construction / demolition dilapidation report must be submitted to Council for written approval and the written approval is then to be submitted to the Certifying Authority prior to the issue of the any Construction Certificate and the commencement of any works including demolition.

Reason: Protection of Council's Infrastructure during construction.

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 except where necessary to facilitate the provision of vehicular crossings approved within this consent.

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 / Section 68 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.

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.

Post- Construction Stormwater Assets Dilapidation Report (Council stormwater assets)

The Applicant shall submit a post-construction Dilapidation Survey of Council's Stormwater Assets is to be prepared by a suitably qualified person in accordance with Council's Guidelines for Preparing a Dilapidation Survey of Council Stormwater Asset in order to determine if the asset has been damaged by the works. Council's Guidelines are available at

<https://files.northernbeaches.nsw.gov.au/sites/default/files/documents/general-information/engineering-specifications/preparingdilapidationsurveyforcouncilstormwaterassets.pdf>

The post-construction / demolition dilapidation report must be submitted to Council for review Any damage to Council's stormwater infrastructure is to be rectified prior to the release of any Drainage security bonds.

Reason: Protection of Council's infrastructure.

Certification of Structures Located Adjacent to Council Pipeline or Council Easement

The Applicant shall submit a suitably qualified Civil Engineer's certification that the completed footing works have been constructed in accordance with this consent, Northern Beaches Council's Warringah Water Management Policy PL850 and the approved Construction Certificate plans. Civil Engineer demonstrating compliance is to be submitted to the Principal Certifying Authority prior to the issue of the Occupation Certificate.

Reason: Protection of Council's Infrastructure.

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.

Retaining wall

The retaining wall works shall be certified as compliant with all relevant Australian Standards and Codes by a Structural Engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any final Occupation Certificate.

Reason: Public and Private Safety

Post-Construction Dilapidation Report (Major Development)

The applicant must bear the cost of all restoration works to Council's road, footpath and drainage assets damaged during the course of this development.

A Post Construction Dilapidation Report after the completion of all building works is to demonstrate that there is no damage to Council infrastructure prior to the refund of any security deposits.

Reason: To ensure security against possible damage to Council property.

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 certified by a registered surveyor prepared in accordance with Council's requirements is to be provided to Council. Full details of the information to be submitted to Council, as part of the Works as Executed Data, are outlined in Council's 'Guideline for preparing Works as Executed data for Council stormwater assets' which is available from Council's Environment Unit. The Works as Executed data is to be verified by the Principal Certifying Authority prior to submission of any documentation.

The Works as Executed Data is to include but not be limited to the following:

- Works As Executed (WAE) plan,
- a Spreadsheet Schedule of all stormwater asset attributes and
- a CCTV Report of the completed pipeline/channel

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

Easement for Drainage

The Applicant shall create an easement for drainage (under the provisions of Section 88B of the Conveyancing Act) the greater of five metres wide or a minimum 1 metre from the outside wall of the top of the stormwater channel to ensure all drainage infrastructure is located within the appropriate easement(s).

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

Reason: To ensure access to Council stormwater infrastructure.

Right of Access

The Applicant shall create a right of access (under the provisions of Section 88B of the Conveyancing Act) a minimum 3.5 metres wide for Council to access stormwater infrastructure for operational and maintenance purposes.

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

Reason: To ensure access to Council stormwater infrastructure.