

Engineering Referral Response

Application Number:	DA2019/0108
To:	Nick England
Land to be developed (Address):	Lot 100 DP 615225 , 11 - 13 Cook Street FORESTVILLE NSW 2087

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

Service Conflicts:

The application does not address conflicts between the proposed development and the existing telecommunications tower and facility. There are existing easements across the land for access and services. Concurrence is required from all parties benefiting the easement. Please consider in Planning assessment.

Stormwater:

Insufficient information has been provided with regard to the proposed extension of Council's stormwater infrastructure. In accordance with Council's Building Over and Adjacent to Constructed Council Drainage Systems and Easements Technical Specification, full hydrological and hydraulic details shall be provided and the design requirements are detailed in Section 4, including HGL analysis.

The proposed application cannot be supported by Development Engineering due to lack of information to address:

- Conflicts between the development and existing easements for access and services.
- Council's stormwater pipeline extension for the development in accordance with clause C6 Building Over or Adjacent to Constructed Council Drainage Easements.

Referral Body Recommendation

Recommended for approval, subject to conditions

Refusal comments

Recommended Engineering Conditions:

FEES / CHARGES / CONTRIBUTIONS

Construction, Excavation and Associated Works Bond (Cook Street Drainage works)

A Bond of \$ 220,000 as security against any damage or failure to complete the construction of Stormwater drainage works in Cook Street as part of this consent.

Reason: Protection of Council's Infrastructure

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

A Bond of \$30000 as security against any damage or failure to complete the construction of any vehicular crossings, kerb and gutter and any footpath works required as part of this consent.

Reason: Protection of Council's Infrastructure

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

Stormwater Disposal

Stormwater shall be disposed of to an existing approved system or in accordance with Northern Beaches Council's WARRINGAH WATER MANAGEMENT POLICY PL850.

A certificate is to be provided to the Principal Certifying Authority with the Construction Certificate application by a qualified experienced practicing Civil Engineer, with Corporate membership of the Institute of Engineers Australia (M.I.E.) or who is eligible to become a Corporate member and has appropriate experience and competence in the related field that the existing approved system can accommodate the additional flows or provide drainage plans demonstrating compliance with Council's requirements.

Details demonstrating compliance are to be submitted to the Principal 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.

On-site Stormwater Detention Compliance

Certification of Drainage plans detailing the provision of On-site Stormwater Detention and the Storm Water quality controls in accordance with Northern Beaches Council's WARRINGAH WATER MANAGEMENT POLICY PL850, and the stormwater management plan by Van Der Mer, dated February 2019. Details demonstrating compliance are to be submitted to the Principal Certifying Authority for approval prior to the issue of the Construction Certificate.

All external drainage works with Councils road reserve require a separate approval by council.

Reason: To ensure engineering works are constructed in accordance with relevant standards and

Council's specification.

Submission Roads Act Application for Civil Works in the Public Road

An Application for Stormwater Drainage Works to be approved within Council Roadway, including engineering plans is 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 retaining walls through the nature strip and driveway crossing which are to be generally in accordance with the Development Application and Council's specification for engineering works - AUS-SPEC #1 and/ or Council's Minor Works Policy.

The plans are to detail :

- 1) Construction of a new reinforced concrete stormwater drainage line and inlet pits in Cook Street from the existing site south to connect into the council pit at the corner of Cook and View Street. Note the minimum size pipe required is 375mm.
 - 2) The proposed On Site Stormwater Detention system is to be connected to this new line.
 - 3) The construction of stormwater gully pits at spacings in accordance with AUS-SPEC #1.
- The cost of all construction works including any approvals are to be borne by the applicant.
- 4) Submission of all hydraulic calculations to support the design including Hydraulic Grade Line analysis.

The plan shall be prepared by a qualified structural 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. The Council approved drainage works plans 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

A Driveway Levels and Formwork Inspections Application shall be made with Council subject to the payment of the fee in accordance with Council's Fees and Charges. The fee includes all Council inspections relating to the driveway construction and must be paid.

Approval of the application by Council is to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

Reason: To facilitate suitable vehicular access to private property.

Construction Management Program

An application for Traffic Management Plan is to be submitted to Council for approval prior to commencement of road and drainage works in Cook Street. The Traffic Management Plan shall be prepared to RMS standard by an appropriately certified person. An approval is to be submitted to the Principal Certifying Authority prior to the issue of the Construction Certificate.

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 in a manner that respects adjoining owner's property rights and protects amenity in the locality, without unreasonable inconvenience to the community

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 and private properties 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.

Reason: Protection of Council's and Private Party'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 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.

Progress Certification (Road & Subdivision)

Written certification is to be provided by a suitably qualified engineer upon completion and/or as and when requested by the Council for the following stages of works in Cook Street.

- (a) Silt and sediment control facilities
- (b) Laying of stormwater pipes and construction of pits in Cook street.
- (c) Kerb and gutter construction
- (d) Pavement
- (e) Landscaping and vegetation
- (f) Clean-up of site, and of adjoining Council roadway and drainage system. (**To be tested by a recognized N.A.T.A. approved laboratory). Details demonstrating compliance are to be submitted to the Principal Certifying Authority.

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

Civil Works Supervision

All civil works approved in the Construction Certificate are to be supervised by an appropriately qualified and practising Civil Engineer. Details demonstrating compliance are to be submitted to the Principal Certifying Authority

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

Notification of Inspections

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 the stormwater pipeline in Cook street
- (c) Prior to pouring of stormwater gully pits in cook street.
- (d) Prior to pouring of kerb and gutter

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.

Council approval or acceptance of any stage of the work must be obtained in writing, and will only be issued after completion of the work to the satisfaction of Council and receipt of the required certification

Reason: To ensure new Council infrastructure is constructed to Council's requirements.

Vehicle Crossings

The provision of 2 new vehicle crossing 10 and 6 metres wide in accordance with Northern Beaches Council Drawing No A4-3330/ Normal and specifications. 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.

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

Reason: To facilitate suitable vehicular access to private property.

Maintenance of 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.

Temporary Sediment

Temporary sedimentation and erosion controls are to be constructed prior to commencement of any work to eliminate the discharge of sediment from the site.

Reason: To reduce erosion and prevent sediment runoff into public assets

Maintenance of Sediment

Sedimentation and erosion controls are to be effectively maintained at all times during the course of construction and shall not be removed until the site has been stabilised or landscaped to the Principal Certifying Authority's satisfaction.

Reason: To ensure sediment controls are effective

Cleaning of Vehicles Leaving Site

Adequate measures shall be undertaken to remove clay from vehicles leaving the site so as to maintain public roads in a clean condition.

Reason: To reduce sediment being taken offsite

Kerb and Gutter Construction

The existing kerb and gutter is to be reconstructed along the entire frontage of the site in accordance with Northern Beaches Council Drawing No. A4 2276/A.

Reason: To ensure the adequate stormwater management.

CONDITIONS WHICH MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF THE OCCUPATION CERTIFICATE

Authorisation of Legal Documentation Required for Onsite Detention

The original completed request forms (NSW Land Registry standard forms 13PC and/or 13RPA) must

be submitted to Council, with a copy of the Works-as-Executed plan (details overdrawn on a copy of the approved drainage plan), hydraulic engineers certification and Compliance Certificate issued by an Accredited Certifier in Civil Works. Details demonstrating compliance are to be submitted to the Principal Certifying Authority prior to the issue of any interim / final Occupation Certificate.

Reason: To create encumbrances on the land.

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.

Creation of Positive Covenant and Restriction as a User

A restriction on the use of land and a positive covenant shall be created on the title of the land in respect of the installation and maintenance of on-site stormwater/water quality control disposal structures. The detailed information for a restriction on the use of land and a positive covenant is shown in Northern Beaches Council's WARRINGAH WATER MANAGEMENT POLICY PL850 . The terms of the positive covenant and a Restriction on the use of land 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 Department of Lands. Northern Beaches Council shall be nominated as the party to release, vary or modify such covenant.

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

Reason: To ensure the on-site detention and/or pump system is maintained to an appropriate operational standard

Certification of Water Management

Certification is to be provided to the accredited certifier by a qualified experienced practising Civil Engineer with corporate membership of the Institute of Engineers Australia (M.I.E.), or who is eligible to become a corporate member and has appropriate experience and competence in the related field, that the drainage/stormwater management system has been installed to the manufacturer's specification (where applicable) and completed in accordance with the engineering plans and specifications required under this consent.

Reason: To ensure Stormwater Management has been built in accordance with the plans and

specifications required under this consent

**CONDITIONS THAT MUST BE COMPLIED WITH PRIOR TO THE ISSUE OF ANY STRATA
SUBDIVISION OR SUBDIVISION CERTIFICATE**

Restoration of Damaged Public Infrastructure

Restoration of all damaged public infrastructure caused as a result of the development to Council's satisfaction. Council's written approval that all restorations have been completed satisfactorily must be obtained and provided to the Private Certifying Authority with the Occupation Certificate application.

Reason: To ensure public infrastructure is returned to the state it was in prior to development.