

## Engineering Referral Response

<b>Application Number:</b>	DA2018/1924
<b>Date:</b>	05/11/2020
<b>To:</b>	David Auster
<b>Land to be developed (Address):</b>	Lot 20 DP 1209801 , Forest Way 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

#### Updated Comments 5/11/2020

The applicant has not submitted the previous further information as requested including the CCTV review/condition report of the western Council downstream drainage network. Additionally the applicant has not provided the minimum information as required by clause 3.1.3 of Councils "On site detention technical specification" which includes detailed stormwater drainage plans and the DRAINS model so Council can review the determination of the post development flows. However as requested by Development Assessment deferred commencement conditions will be drafted to address the above issues.

#### Comments 27/4/20

##### Downstream drainage impacts.

The amended stormwater management as prepared by TTW has been reviewed and the requested report on the condition of the Council downstream eastern drainage infrastructure ie Council drainage lines SPI 06153 (375mm RCP) and SPI 11916 (600mm RCP) has not been provided.

This is critical to the connection of the proposed drainage infrastructure within Sorlie Place and Grace Avenue and the site drainage and whether the downstream system is functional and able to handle the additional flows.

A CCTV video inspection of the downstream lines including a detailed condition report is required together with confirmation of their locations to complete the referral assessment.

**Site stormwater/OSD detention.**

The applicant has not provided the minimum information as required by clause 3.1.3 of Councils "On site detention technical specification" which includes detailed stormwater drainage plans and the DRAINS model so Council can review the determination of the post development flows.

**Comments 31/12/19**

There has been no further stormwater drainage information submitted as requested previously. The application is not supported by Development Engineering. Please see previous referral comments .

**Comments 24/5/19**

There has been no further stormwater drainage information submitted as requested previously. The application is not supported by Development Engineering.

**ADDITIONAL INFO RECEIVED - SEE TRIM**

The proposed alterations to the existing shopping centre are not supported because of the following reasons:

As also advised at the Pre lodgement meeting :

The condition of the western Council downstream drainage networks are to be condition assessed by CCTV and engineers report .Where the structural condition of these lines are poor they will need to be replaced or relined in accordance with Councils technical specifications.

Gross pollutant traps are to be incorporated into the stormwater drainage design in accordance with Councils stormwater management policy.

**Site works/excavation of the car parking basements.**

In accordance with the Sydney Coastal councils " Ground water management handbook" the basement will need to be fully tanked if groundwater is encountered .

Any proposed dewatering of the site is to comply with the handbook and Northern Beaches Council requirements.

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:

### DEFERRED COMMENCEMENT CONDITIONS

#### Stormwater Drainage /On Site Detention Design

Stormwater Drainage Plans indicating all engineering details relevant to the site regarding the collection and disposal of stormwater from the site, buildings, and adjacent areas, must be submitted to Council for written approval.

The stormwater drainage plans detailing the provision of on site stormwater detention are to be in accordance with Councils Water Management Policy and the On Site Detention Technical specification.

The following supporting information is to also be provided:

- 1) The minimum information as required by clause 3.1.3 of Councils "On site detention technical specification" which includes detailed stormwater drainage plans .
- 2) A DRAINS model so is also be submitted to Council for review . The predeveloped flow condition is to be "state of nature" for all events up to the 100 Year AEP storm event.
- 3) An updated stormwater management report which contains the minimum information as required by clause 3.1.3 of Councils "On site detention technical specification"

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

#### Condition of Councils downstream drainage network

The applicant is to provide a CCTV condition report on the condition of the Council downstream eastern drainage infrastructure ie Council drainage lines SPI 06153 (375mm RCP) and SPI 11916 (600mm RCP) . The CCTV review is to be prepared in accordance with Councils standard guidelines and use Council asset numbers for all Pits .

This is critical for the proposed drainage infrastructure connections within Sorlie Place and Grace Avenue to determine whether the downstream system is functional and able to handle the stormwater flows from the new development.. A supplementary report is to be prepared by the stormwater drainage design engineer addressing these concerns.

If the CCTV video inspection of the downstream lines and supplementary report indicate failures of the existing lines to Council infrastructure then the affected stormwater lines are to be replaced or relined in accordance with Councils specifications.

A bond amount to be determined by Council will be payable accordingly to cover this work.

Reason: To ensure the the adequacy of the downstream drainage system

### FEES / CHARGES / CONTRIBUTIONS

#### Construction, Excavation and Associated Works Bond (Road)

A Bond of \$50000 as security against any damage or failure to complete the construction of road pavement/shoulder reconstruction works as part of this consent.

Reason: Protection of Council's Infrastructure

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

A Bond of \$150000 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: Enhancement of Council's Infrastructure

**Construction, Excavation and Associated Works Bond (Road Damage)**

A bond of \$150000 as security against damage to Council's road(s) fronting the site caused by the transport and disposal of materials and equipment to and from the site.

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 \$50000 for the construction of civil works with the public domain and Councils Roadway. The Maintenance Bond will only be refunded on 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 and may be exchanged for the works bond.

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.

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

An Application for Works to be approved within Council Roadway and footpath areas, 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 following works:

- 1) Kerb and gutter reconstruction (Russel Avenue)
- 2) Full width footpath paving in Russel Avenue and a 1.5m wide concrete pavement in Grace Avenue.
- 3) Street scape works in Sorlie Place including road pavement adjustment , regulatory signage, new kerb and gutter and footpath paving .

All works are generally in accordance with the Development Application and Council's specification for engineering works - AUS-SPEC #1 and Council's standard Engineering drawings. The plan shall be prepared by a qualified Civil Engineer with NER or RPENG registration in Civil works.

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 Principal Certifying Authority prior to the issue of the Construction Certificate

Reason: To provide public infrastructure as a result of the development.

### **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.

### **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.

### **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.

### **Footpath Construction**

The applicant shall construct the following footpath works.

- 1) A 1.5m wide concrete footpath for the Grace Avenue frontage of the property .
- 2) Full width paving for the Russel Avenue Frontage .
- 3) Paving treatment as approved by Councils landscape officer in Sorlie Place.

The works shall be in accordance with Council's Footpath Specification and Streetscape design templates.

Council is to inspect the formwork/ base prior to pouring of concrete or placement of pavers . 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**

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

- (b) Prior to backfilling of pipelines within Councils roadway.
- (c) Prior to pouring of stormwater gully pits
- (d) Prior to pouring of kerb and gutter
- (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. 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.

### **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 Principal Certifying 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 provision of 1 vehicle crossing 4 metres wide (Russell Avenue) 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.

### **Safety Fencing of Excavation and/or demolition**

The site must be fenced throughout demolition and/or excavation and must comply with WorkCover

New South Wales requirements and be a minimum of 1.8m in height.

Reason: To ensure private and 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

### **Kerb and Gutter Construction**

The kerb and gutter is to be reconstructed along the entire Russell Avenue frontage of the site in accordance with Northern Beaches Councils standard engineering details.

Reason: To ensure the provision of adequate infrastructure.

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

### **Post-Construction Road Reserve 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.

### **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.

### **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

### **On-Site Stormwater Detention Compliance Certification**

Upon completion of the on-site stormwater detention (OSD) system, certification from a consulting engineer and a "work as executed" (WAE) drawing certified by a registered surveyor and overdrawn in red on a copy of the approved OSD system plans are to be provided to Council. Additionally a Compliance Certificate is to be issued by an Accredited Certifier in Civil Works registered with the Institute of Engineers Australia, stating that the works are in accordance with the approved plans.



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 stormwater disposal is constructed to Council's satisfaction. (DACENF10)

**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.

**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