

Engineering Referral Response

Application Number:	DA2021/2515
Date:	06/10/2022
To:	Maxwell Duncan
Land to be developed (Address):	Lot 9 DP 25048 , 15 Bridgeview Crescent 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

Applicant seeks to demolish the existing dwelling and construct a new dwelling. Retaining the existing driveway is acceptable and connection to Council's stormwater pipe is subject to S68 Local government Act approval. These can be details as conditions of DA consent.

Council's drainage infrastructure is located on the adjoining property along the southern boundary next to the existing timber fence. There is a trapped low point fronting the common driveway. The development is likely to be affected by stormwater overland flow in heavy storm events (1 in 100 year storm). A slab on ground type structure may not be suitable given the proximity of the dwelling with Council's drainage infrastructure. As such the location of Council stormwater infrastructure asset need to be confirmed for Council to undertake an informed assessment on the proposed works, and as result the development cannot be supported for the following reasons:-

- The applicant has not demonstrated compliance with Council's Water Management for Development Policy Clause 6.7.1.1. It is recommended that the applicant provides additional information to accurately locate, confirm dimensions including depth and plot Council's stormwater pipelines and associated infrastructure to scale on the DA plans. This should be carried out by a service locating contractor and registered surveyor. Evidence of methodology used for locating stormwater system should be provided.
- Applicant has not provided details to show that foundation for dwelling are designed to ensure the dwelling is structurally independent of Council pipe and drainage system in the event Council requires to excavate the existing pipe for future maintenance.
- The applicant has not demonstrated compliance with Council's Water Management for

Development Policy Clause 6.3. The subject site is impacted by stormwater overland flow from upstream catchment. A hydraulic engineer's report shall be prepared for all storms up to the 1 in 100 year ARI, demonstrating how the stormwater overland flow is managed for pre & post development within the property ensuring no impact to adjoining properties is caused as a result of the proposed development. All habitable finished floor levels shall be a minimum of 500mm above 1% AEP stormwater overland flow established by the applicant's Engineer. The proposed garage must not be lower than the 1% AEP stormwater overland flow. Detail hydraulic model study is required to be prepared by a hydraulic Civil Engineer.

Additional information submitted 22/8/22

The submitted overland flow report is acceptable.

Development Engineering support the proposal, 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 \$2,000 as security against any damage to Council's stormwater drainage infrastructure 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

Stormwater Disposal

The applicant is to submit Stormwater Engineering Plans for the new development within this development consent, prepared by an appropriately qualified and practicing Civil Engineer, indicating all details relevant to the collection and disposal of stormwater from the site, buildings, paved areas and where appropriate adjacent catchments. Stormwater shall be conveyed from the site to the Council pipeline within the adjoining property at 17 Bridgeview Crescent. A Stormwater Approval under Section 68 of the Local Government Act 1993 is to be provided by Council for the connection.

Details demonstrating compliance 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 the development.

Flood Mitigation Recommendations

Civil Engineering certification is to be provided for the proposal demonstrating compliance with the flood mitigation measures listed in the Flood Impact Statement by Amity Engineers, Ref - 220472-FIA_A dated 18 August 2022.

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

Reason: To ensure appropriate protection to the development from overland flow inundation.

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.

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.

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 Civil Engineering plans for the design of the stormwater connection from the site into the Council drainage pipeline within 17 Bridgeview Crescent which are to be generally in accordance with the civil design approved with the Development Application 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 following details are to be provided with the application.

1. The connection to the pipeline is to be via a 'Flowcon connector' or equivalent.

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.

Pre-Construction Stormwater Assets Dilapidation Report

The Applicant is to submit a pre-construction / demolition Dilapidation Survey of Council's Stormwater Assets 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/2009084729guidelineforpreparingadilapidationsurveyofcouncilstormwaterassets2.pdf>

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

Reason: Protection of Council's infrastructure.

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.

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 Civil Engineer.

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

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

Post-Construction Stormwater Assets Dilapidation Report

The Applicant shall submit a post-construction Dilapidation Survey of Council's Stormwater Assets 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 and approval. Any damage to Council's stormwater infrastructure is to be rectified prior to the release of any Drainage security bonds. Council's acceptance of the Dilapidation Survey is to be submitted to the Principal Certifying Authority prior to the issue of an Occupation Certificate.

Reason: Protection of Council's infrastructure.

Flood Mitigation Compliance

Upon completion of the development, certification from a Consulting Engineer stating that the flood mitigation measures listed in the report by Amity Engineers, Ref - 220472-FIA_A dated 18 August 2022 have been completed.

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

Reason: To ensure the Flood Mitigation Measures are completed and certified.