

## Natural Environment Referral Response - Flood

Application Number:	DA2020/0352
Date:	29/05/2020
To:	Jordan Davies
Land to be developed (Address):	Lot 356 DP 16719 , 33 Nareen Parade NORTH NARRABEEN NSW 2101

### Reasons for referral

This application seeks consent for the following:

- All Development Applications on land below the 1 in100 year flood level;
- All Development Applications located on land below the Probable Maximum Flood levels.

And as such, Council's Natural Environment Unit officers are required to consider the likely impacts on drainage regimes.

### Officer comments

The proposed development is in a high flood risk area with depths reaching 1.13m in a 1% AEP event and 3.03m in a PMF event. The FPL is 3.53m AHD and the PMF flood level is 5.00m AHD.

A second storey addition is proposed above the PMF level. The first floor will remain as existing.

The proposal is therefore supported.

Note: Should you have any concerns with the referral comments above, please discuss these with the Responsible Officer.

### Recommended Natural Environment Conditions:

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

#### Flooding

In order to protect property and occupants from flood risk the following is required:

##### Building Components and Structural Soundness – C1

All new development shall be designed and constructed as flood compatible buildings in accordance with Reducing Vulnerability of Buildings to Flood Damage: Guidance on Building in Flood Prone Areas, Hawkesbury-Nepean Floodplain Management Steering Committee (2006).

##### Building Components and Structural Soundness – C2

All new development must be designed and constructed to ensure structural integrity up to the Probable Maximum Flood (5.00m AHD), taking into account the forces of floodwater, wave

action, flowing water with debris, buoyancy and immersion. Structural certification shall be provided confirming the above.

#### Building Components and Structural Soundness – C3

All new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections must be waterproofed and/or located above the Flood Planning Level. All existing electrical equipment and power points located below the Flood Planning Level must have residual current devices installed cut electricity supply during flood events.

#### Storage of Goods – D1

Hazardous or potentially polluting materials shall not be stored below the Flood Planning Level unless adequately protected from floodwaters in accordance with industry standards.

#### Flood Emergency Response – E2

Appropriate access to the shelter in place refuge should be available from all areas of the new development.

#### Floor Levels – F1

New floor levels within the development shall be set at or above the Flood Planning Level of 3.53m AHD.

#### Car parking – G6

Car ports are to be designed to allow flood waters to pass through and are to have a minimum of 50% open area below the 1% flood level.

#### Fencing – H1

Fencing (including pool fencing, boundary fencing, balcony balustrades and accessway balustrades) shall be open for passage of flood waters - All new fencing on the property must be design with a minimum of 50% open area between the 1% flood level and natural ground level, to allow flood waters to pass through.

#### Recommendations

The development must comply with all recommendations outlined in:

- The Flood Risk Management Report prepared by Northern Beaches Consulting dated 24th March 2020.

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

**Reason:** To reduce the impact of flooding and flood liability on owners and occupiers of flood-prone property and reduce public and private losses in accordance with Council and NSW Government policy.

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

A suitably qualified structural engineer is to certify the structural stability of the shelter in place considering lateral flood flow, buoyancy, suction effects, wave action and debris load impact of the Probable Maximum Flood (PMF) design flood depths and velocities. Details demonstrating compliance are to be submitted to the Certifying Authority for approval.

Reason: To reduce the impact of flooding and flood liability on owners and occupiers of flood-prone property and reduce public and private losses in accordance with Council and NSW Government policy.

**Conditions – Prior to Occupation Cert: Certification that new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections are located above the FPL and waterproofing of electrical equipment and installation of residual current devices below the FPL**

A suitably qualified electrical engineer or contractor is to certify that all new electrical equipment, power points, wiring, fuel lines, sewerage systems or any other service pipes and connections are located above the Flood Planning Level and any existing electrical devices, wiring and the like located below the FPL are protected from water egress or have residual current devices installed to cut electricity supply during flood events. Details demonstrating compliance are to be submitted to the Certifying Authority for approval.

Reason: To reduce the impact of flooding and flood liability on owners and occupiers of flood-prone property and reduce public and private losses in accordance with Council and NSW Government policy.