TAYLOR C O N S U L T I N G CIVIL A STRUCTURAL ENGINEERS



27 January 2020

General Manager Northern Beaches Council PO Box 882 MONA VALE NSW 1660

Dear Sir / Madam

Re: Flood Assessment - New Carport & Deck - 3 Bakers Road, Church Point

With reference to the development application for the above property this document is to acknowledge that the site has been identified by Northern Beaches Council as being affected by flooding and as such is subject to development control Section *B3.11- Flood Prone Land*.

Council were able to issue (certified) site-specific flood data for the location of the proposed works as follows:

- Flood Life Hazard H1 & H2
- Flood Risk Precinct Low

This indicates that the proposed works are in an area where the lowest point of the property is affected by the Flood Planning Level. Note that Council's flood data is attached to this report.

Flood Characteristics

The topography of the site and adjacent sites is such that in times of heavy and intense rainfall events, runoff cannot easily drain away and into the Council system.

As such, during extreme and intense rainfall events, the front yard (northern portion) of the site can potentially be affected by overland flows emanating from properties situated above the site.

Note that the site is not affected by flows for the 1 in 100 year event but is affected by the Probable Maximum Flood (see attached).



Existing Site

An existing two-storey dwelling is situated on the upper section of the site. Note that the floor level of the existing dwelling (R.L. 10.84 is above the designated Probable Maximum Flood level for the site (R.L. 7.4m A.H.D).

Proposed Works

It is proposed to provide a new double carport in the front yard of the site. The carport will be positioned over the existing driveway and parking area. Critically, the carport has been located on the site to be clear of the areas defined as flood affected. It is also proposed to provide a new deck to the existing dwelling however these works will be well outside the extent of the P.M.F.

Flood Control Compliance

Council's Flood Prone Land Design Standard has been used as a guide for the design of the proposed carport as follows:

There is to be no net loss of flood storage/floodway - Complies as the proposed carport has been assessed by me as not being situated within an overland flow path or storage area and as such there will be no reduction in the site's flood storage or potential floodway area.

There is to be no adverse changes in flood levels and velocities caused by alterations to the flood conveyance - Complies as the proposed works have been assessed by me as not being situated within a floodway area and as such there will be no adverse changes in flood levels and velocities caused by the proposed carport.

There are no adverse effects on surrounding properties - Complies as the proposed carport has been assessed by me as not being situated within an overland flow path or storage area and as such there will be no adverse effects on surrounding properties.

It is sited to minimise exposure to flood hazard – Complies as the proposed carport has been assessed by me as not being situated within an overland flow path or storage area and as such could be considered to be situated to minimize exposure to flood hazard.

Note that there are no prescriptive controls from Section B3.11 for low hazard areas with respect to proposed car parking elements for residential developments. Note also the emergency response for large storm events would be to seek shelter-in-place within the existing dwelling.

Summary

This is to advise that I have reviewed the proposed architectural details and can advise that the proposed development is generally in accordance with Council's applicable flood planning controls.

As the proposed works are not situated in an area inundated by potential overland flows or isolated flooding, the expected 1 in 100 year flooding regime at the front of the site will not be altered and subsequently the works do not adversely affect neighbouring properties.

It is considered that the provision of the carport structure and decking will be in accordance with Section B3.11 'Flood Prone Land' of Council's D.C.P.

Should you require any further information please contact the undersigned.

Yours faithfully TAYLOR CONSULTING

SSI

D M SCHAEFER – Director B.E. Civil (Hons) M.I.E. Aust.