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RE: DA2019/1157 - 353 Barrenjoey Road NEWPORT NSW 2106

Newport Anglican Church
35-39 Foamcrest Ave, Newport

I am responding to the amended plans and reports provided for the proposed development on 353 Barrenjoey Rd Newport.

The amended details provided are not adequate to address the impacts of the development on flooding on the church site and impacts on the foundations of the heritage item along the western boundary of the proposed development.

1. Flooding

The Flood Management Report by Demlakian dated March 2020 provides detailed flood information from Council which is helpful to understand the flood impacts on the church site. In the 100 yr ARI flood, there is overland flow from the church site to the subject property with existing land levels dropping from RL 6.6m in the south eastern corner of the church site to RL 5.5m in the open central courtyard on the subject site. This water flows from the church site through a 5.5m wide opening between two buildings on the subject site. It then ponds in this central courtyard until it can flow out the existing 3.6 m wide driveway to Robertson Lane which has a crest level at about RL 6.3m. The predicted 100 yr ARI flood level at the south western corner of the subject site is RL 6.99m. The Council data shows flood levels and velocities for the open areas of the site.

It is evident that flood storage does occur on the site and the development will remove this flood storage and relocate it onto the church site thereby increasing flood levels on the church site.

The flood study proposes a 0.3m wide overland flow channel along the western boundary to mitigate any adverse impact on flood levels on the church site. There two problems with this channel. Firstly, if at present flood waters flow onto the subject site through a 5.5m wide corridor and then off the subject site through a 3.6m wide driveway, how is a 0.3m wide channel going to mitigate adverse impacts on the church site. The channel cannot match the existing flow capacity. Secondly, the proposed mitigation channel is located in a different location to that of the existing overland flow path and has no ground slope (extending from RL 6.6 on the church site to RL 6.6m at the existing footpath level at Robertson Lane).

The mitigation measure needs to be a 3m wide drainage easement along the western boundary which is subject to a positive covenant and restriction on the land title and provides for the inherent right to be able to drain the church site without adverse flooding impacts.

2. Geotechnical and Groundwater

There is no geotechnical or groundwater data or assessment provided to support the adequacy or not of a 1.5m setback provided to the deep excavation either during construction or over the long term. The various drawings are inconsistent as to the dept of this proposed setback. I would hope that this setback extends from ground level to the full depth of the basements. This is completely inadequate given that a heritage item on shallow footings is located less than 1m from the western boundary of the subject site.

The basement will extend significantly below groundwater levels requiring continuous dewatering during construction (RL 0m AHD is mean tide level in the ocean) and lowering of groundwater levels. This combined with construction vibrations could cause significant damage to shallow footings

and damage to the heritage building.

The natural flow of groundwater will be towards the ocean in the east. Following completion of the basement, groundwater will be prevented from flowing to the east by the basement wall and will accumulated on the western side of the building thereby raising groundwater levels under the heritage building on the church site. This could lead to damage to foundations and the heritage building.

There is no data or detailed assessment of these important matters which should be undertaken at the DA stage given the likely potential for impacts especially on the heritage building.

In summary, further detailed data collection and assessment as detailed above is required prior to any final decision on this DA. If this data or assessment is not provided, then the building, including all the basements and at ground level, should be setback a minimum 3m from the western boundary.

Regards

Mark Tooker