

## Engineering Referral Response

<b>Application Number:</b>	DA2023/0669
<b>Proposed Development:</b>	Demolition work and the construction of 28 dwellings, infrastructure, roadworks, tree removal, landscaping, community title subdivision and the dedication of the creekline corridor to Council.
<b>Date:</b>	08/07/2023
<b>To:</b>	Alex Keller
<b>Land to be developed (Address):</b>	Lot 4 DP 553816 , 16 Macpherson Street WARRIEWOOD NSW 2102

### 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

**A DRAINS model of pre development and post development conditions for the subdivision design should be submitted as soon as possible prior to perusal of the development engineering comments.**

#### **Water Cycle Management Report by Craig & Rhodes dated May 2023**

(i) 3.2.2. As per the requirements of the *Warriewood Valley Urban Land Release Water Management Specification* (WVULRWMS) the post development area is to be assumed a minimum of 50% of site area.

(ii) 3.3 This section states 30% of the pre development site is impervious. The WVULRWMS states that for modelling pre developed conditions the site should be considered as rural or forest. Therefore the pre development impervious area should be assumed as 5%.

(iii) The WVULRWMS states that "Post development peak flows both from the sector and in the channel at the downstream boundary of each sector are not to exceed the pre-development flows for the full range of duration's and frequencies up to the 1% AEP level". The analysis and the basin sizing should therefore consider the 50% AEP storm event.

**Proposed Subdivision of Lot 4 DP 553816 16 MacPherson Street Warriewood Civil Works Development Application rev D by Craig & Rhodes**

1. Drawing No. 048-22C-DA-0101.

- (i) Amend concrete footpath width to 1.2m.
- (ii) Provide a detail of typical surface inlet pit for Road 1 and Road 3. Has a concrete channel been considered? Are butterfly grates proposed?

2. Drawing No. 048-22C-DA-0752.

- (i) Provide labels for Sections. Provide levels.
- (ii) Provide additional section for longest dimension of basin from north west corner to south east corner. Provide levels.

3. Drawing No. 048-22C-DA-0712

- (i) The minimum cover for stormwater pipes and culverts is 600 mm.
- (ii) The minimum slope for pipes and culverts as per Councils Works Specifications is 1%. An absolute minimum of 0.5% will be considered on merit.
- (iii) Provide DRAINS model used for sizing proposed culvert.

4. Drawing No. 048-22C-DA-0751

- (i) Provide a more detailed design of OSD / bioretention basin.
- (ii) Show proposed maintenance access.
- (iii) Provide a plan and longitudinal section of overland flow access to basin for major storms in excess of street pipe network capacity.
- (iv) Provide emergency overflow weir for detention basin.

The proposal is therefore unsupported.

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

**Recommended Engineering Conditions:**

Nil.