

## Engineering Referral Response

<b>Application Number:</b>	DA2017/1274
<b>To:</b>	Lashta Haidari
<b>Land to be developed (Address):</b>	<p>Lot 1 DP 662920 , 52 Cabbage Tree Road BAYVIEW NSW 2104</p> <p>Lot 1 DP 19161 , 52 Cabbage Tree Road BAYVIEW NSW 2104</p> <p>Lot A DP 339874 , 1825 Pittwater Road BAYVIEW NSW 2104</p> <p>Lot 1 DP 986894 , 1825 Pittwater Road BAYVIEW NSW 2104</p> <p>Lot 2 DP 986894 , 1825 Pittwater Road BAYVIEW NSW 2104</p> <p>Lot 3 DP 986894 , 1825 Pittwater Road BAYVIEW NSW 2104</p> <p>Lot 150 DP 1003518 , 1825 Pittwater Road BAYVIEW NSW 2104</p> <p>Lot 191 DP 1039481 , 1825 Pittwater Road BAYVIEW NSW 2104</p> <p>Lot 300 DP 1139238 , 1825 Pittwater Road BAYVIEW NSW 2104</p>

### 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

Comments 19/7/18.

I have reviewed the applicants comments re the outstanding stormwater drainage details and confirm the following information/details are still required.

### Stormwater Drainage from the Development

- 1) The applicant is required to submit the DRAINS model for Councils review and also a summary information report/table of the parameters used in the development of the model.

### External drainage works.

- 2) A Drains model and Hydraulic grade line analysis is to be submitted for the proposed twin 750mm stormwater line which captures and diverts upstream overland flows around the development to the downstream system. (5 year, 20year and 100-year ARI). Similarly, a Drains model and HGL analysis to be provided for the proposed twin box culverts that run under the entrance driveway.
- 4) The current drainage depressions are to be filled and the connection to the upstream and downstream systems on both sides of Cabbage Tree Road is to be replaced with adequately sized mixing chambers/pits with letterbox openings above. These engineering details are required for the Development Application assessment.
- 5) Also a DRAINS model and HGL analysis is to be provided for the downstream drainage network of pits and pipes including the proposed Cabbage Tree Road culverts and connection to the downstream drainage channel.
- 6) There is lack of detail in regard to the connection of the proposed upstream drainage system to the existing causeway/drainage channel located within the golf course near the greenkeepers compound. Civil engineering plans are to detail the extension and connection of the proposed upstream drainage system to the existing drainage channel noting that scour is to be minimised. These engineering details are required for the Development Application assessment.

### Soil and water management plan.(SWMP)

- 7) In accordance with the Managing Urban Stormwater - Soils and Construction handbook as the area of disturbance is greater than 2500m<sup>2</sup> a SWMP addressing soil erosion and sediment pollution including calculations detailing the provision of a sediment basin is to be submitted to Council for review. The plan is an essential component of any major development application.

Following a review of the Stormwater management plans and accompanying civil engineering concept plans the application requires further information as follows:

### Stormwater Drainage from the Development

- 1) The applicant is required to submit the DRAINS model for Councils review and also a summary information report/table of the parameters used in the development of the model.
- 2) The report also indicates that rainwater storage will be provided for only 33% of non-potable demand. This is not adequate for the size of the development and to demonstrate a commitment to WSUD initiatives the rainwater storage volume is to be increased to facilitate **100% of non-potable water demand**.

### External drainage works.

- 3) A Drains model and Hydraulic grade line analysis is to be submitted for the proposed twin 750mm stormwater line which captures and diverts upstream overland flows around the development to the downstream system. (5 year, 20year and 100-year ARI). Similarly, a Drains model and HGL analysis to be provided for the proposed twin box culverts that run under the

entrance driveway.

- 4) The current drainage depressions are to be filled and the connection to the upstream and downstream systems on both sides of Cabbage Tree Road is to be replaced with adequately sized mixing chambers/pits with letterbox openings above.
- 5) Also a DRAINS model and HGL analysis is to be provided for the downstream drainage network of pits and pipes including the proposed Cabbage Tree Road culverts and connection to the downstream drainage channel.
- 6) There is lack of detail in regard to the connection of the proposed upstream drainage system to the existing causeway/drainage channel located within the golf course near the greenkeepers compound. Civil engineering plans are to detail the extension and connection of the proposed upstream drainage system to the existing drainage channel noting that scour is to be minimised.

#### **Soil and water management plan.(SWMP)**

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#### **Referral Body Recommendation**

Recommended for refusal

#### **Refusal comments**

#### **Recommended Engineering Conditions:**

Nil.