



henry&hymas



31 October 2024

Our Ref: 21J51-C2/tr

Revelop Buildings & Developments Pty Ltd  
PO BOX 313,  
Baulkham Hills NSW 1755

Attention: Ms Emily Han

Dear Ms Emily,

**RE: FORESTWAY SHOPPING CENTRE EXPANSION  
22 FOREST WAY FRENCHS FOREST, NSW**

This letter is written in response to the Northern Beaches Council's Engineering Referral Response Letter DA2023/1757 dated 25/03/2024 regarding the stormwater design issues. Our responses are written in blue.

***Unsatisfactory Stormwater Design***

*The stormwater management plan and report prepared by Henry and Hymas has been reviewed and is not supported for the following reasons:*

- 1) *The DRAINS model as referred to in the stormwater report is to be submitted to Council for review. The DRAINS model is to clearly demonstrate that state of nature pre developed conditions have been used for all the new development areas. The stormwater plans and report seem to detail no attenuation of post developed flows in the table for OSD tanks 1 and 2. The state of nature has been used for pre-developed conditions in the drains model with 100% pervious state for all catchment areas. Post developed flows have been designed to either match or be less than pre developed flows in the 5, 20, and 100 year ARI storm events as shown in the report as well as in drawings C201[04] and C202[04].*
- 2) *A catchment plan is to be submitted with the DRAINS model to demonstrate what catchments are being directed to OSD tanks 1,2 and 3. Catchment plan C250[03] has been submitted with the DRAINS model. Catchment areas in the DRAINS model match the catchment areas in the catchment plan.*
- 4) *Hydraulic grade line analysis is also to be submitted for all OSD tank outlets to demonstrate the outlets are not submerged, (Grace and Forestway) Refer to the DRAINS model submitted for details of the downstream water levels for OSD 1, 2 and 3 in the 5-yr, 20-yr, and 100-yr storm events. We have adopted top of kerb levels, pit surface levels, and outlet pipe obvert levels at the connection points for the 5-yr, 20-yr and 100-yr storm events respectively. Results of the DRAINS model have demonstrated that the osd design works from a hydraulic grade line point of view.*
- 5) *Long sections of the outlet pipes with Councils road reserve areas are to be provided detailing the outlets are clear of all footpath services. Long sections showing the underground services based on the latest survey (prepared by REALSERVE*



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dated 24-06-2024) have been provided in drawing C210[02]. There are no clashes with footpath services.

Furthermore, the DRAINS model submitted for review is titled "21J51 drains[08]."

I trust this information meets your requirement. If you have any further inquiries, please contact the undersigned.

Yours faithfully,

**THOMAS ROZEHNAL**

For, and on behalf of,  
H & H Consulting Engineers Pty Ltd