

April 23, 2019



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23-Apr-19

Development Department
Liverpool City Council
Locked Bag 7064, Liverpool BC, NSW 1871

Site Address: 23 – 29 Harvey Avenue, Moorebank

Council D.A. Ref: DA-627/2018

Element: Stormwater Engineer

Loka Job No: 18NL157

To whom it may concern,

This letter is written in regards to the council's comments on the 14th of March, 2019 as follows:

Prior to further assessment by Land Development the following matters must be addressed by the applicant:

- 1. The proposed onsite detention (OSD) basin shall be design to ensure that downstream peak post-development discharges do not exceed peak pre-development discharges for 20%, 5% and 1% AEP storm events.*
- 2. The proposed OSD at the rear property shall be underground*
- 3. The proposed storage volume is excessively high. Please submit Drains model for review.*

Our Stormwater Drainage Plan, Job number 18NL241, has been reviewed and our responds are as below:

1. Our Drains Model has shown all of AEP storm events in our DRAINS Model (Please find attached)
2. Due to Site configuration, deep soil ratio, landscaping and head height of tank restriction, below ground OSD tank cannot be provided. Filter cartridges shall be located inside a chamber under ground floor slab. Extra 20% volume is also provided to offset landscaping features.
3. The development has only one site discharge with small Permissible Site Discharge for a large development, hence, we have high storage volume. A second outlet is difficult to provide given the basement level and potential basin location. Please find attached DRAINS model for review.

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If you have any questions, please don't hesitate to contact the person undersigned or Jayden Pham on (02 8065 9689 or **02 9748 8742**).

Yours faithfully,

LOKA CONSULTING ENGINEERS



Nermein Loka

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