

ENQUIRIES: IAN HARRIS
PROJECT NO: 31166-CI

26 June 2017

STORMWATER MANAGEMENT REPORT – 41 MCLAREN STREET, NORTH SYDNEY

Wood & Grieve Engineers have been engaged by Erolcene Pty & Claijade Pty Ltd to provide stormwater management design in support of the Development Application associated with the proposed redevelopment of 41 McLaren Street, North Sydney.

This report discusses the proposed stormwater management for the development which has been prepared in line with North Sydney Council's Development Control guidelines.

1.1 The Development Site

The proposed site area is 2,368m².

The site is currently fully developed with commercial building. As can be seen from the image below the site is bound by McLaren Street to the North, Harnett Street to the East and private property to the East and South.



Site Location (Source: Nearmaps 2017)

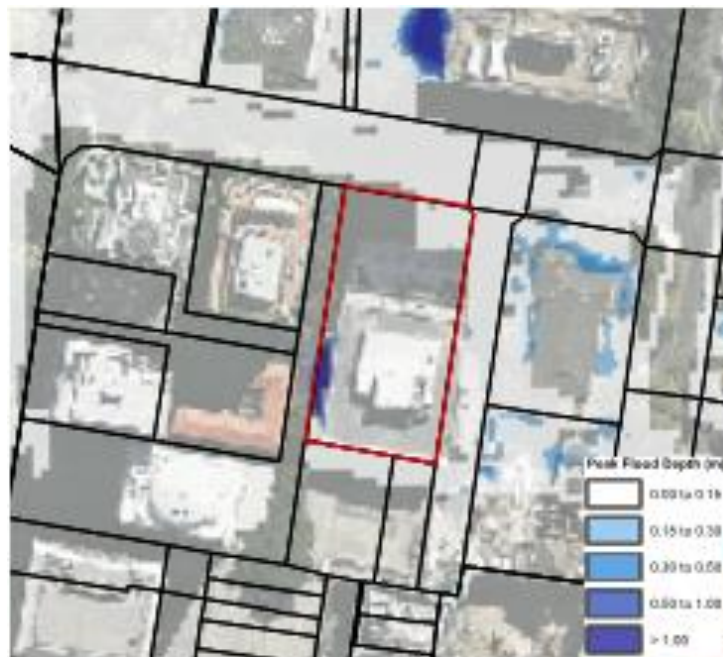
To us, it's more than just work

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1.2 Flooding

Referencing the North Sydney LGA Wide Flood Study mapping available on council's website it has been confirmed that the proposed development site is currently marginally impacted by flood water with a low section on the eastern boundary showing signs of ponding water. The flood depths in McLaren Street and Harnett Street indicated as being under 150mm in the 100 year flood events.



Existing 100 Year Flood Extent

As the proposed redevelopment of the building will not change the flood plate of the ground floor the proposed works will not have a negative impact on flooding through the catchment.

1.3 Stormwater Conveyance

All roof areas will be drained through a gravity system. The drainage system will be designed in accordance with AS3500.3:2003 to convey the minor design storm runoff from the roof to the in ground drainage system. Flows in excess of the design flows will surcharge the roof drainage system and discharge onto the surrounding ground where it will then be conveyed overland to the surrounding in ground drainage network.

The in ground drainage has been designed to meet the following criteria:

- In the minor design storm event (20 year) there will be no surcharging of the in ground drainage system and;
- In the major design storm event (100 year) there will be no uncontrolled discharge from the site onto the residential properties surrounding the site.

1.4 Stormwater Attenuation

In accordance with North Sydney Council's Development Control Plan stormwater management for a development is to ensure that the post development stormwater runoff does not exceed the pre-development peak discharge. As the redevelopment of the site will not increase the impermeable catchment size the post development discharge rates will be identical to the pre-development discharge. As a result, there is no requirement for On Site Detention for this development.

1.5 Stormwater Treatment

Stormwater treatment is not proposed for this redevelopment. The redevelopment of the building will not change the runoff quality and hence it is proposed that no water quality treatment will be required.

1.6 Legal Point of Discharge

The legal point of discharge for the development will be to a new kerb inlet pit constructed on Harnett Street as part of the public drainage system realignment. The connection will be a direct connection to the back of the in ground pit.

1.7 Sediment & Erosion Control

The control of erosion and sedimentation describes the measures incorporated during and following construction of a new development to prevent the pollution and degradation of the downstream watercourse.

A Soil and Water Management Plan has prepared as part of the development application documentation.

Common control measures adopted are:

- Sedimentation fences;
- Sedimentation basins;
- Stormwater drainage inlet protection;
- Overland flow diversion swales;
- Shaker Grids and wash downs for vehicles leaving the construction site;
- Dust control measures.

The maintenance of these control measures throughout their intended lifespan will ensure that the risk of erosion and sedimentation pollution of the downstream watercourse will be minimized.

We trust that this information is sufficient for your purposes, however should you have any queries in regards to this report please feel free to contact me.

Yours faithfully

A handwritten signature in black ink, appearing to read 'Ian Harris', with a stylized, cursive script.

Ian Harris
for **Wood & Grieve Engineers**
Encl
cc