Project Reference: 10518

11 August 2020

Design Manager USYD ETP Project Laing O'Rourke Australia Level 4, 100 Arthur Street North Sydney, NSW 2060

Attention: Luke Hoy



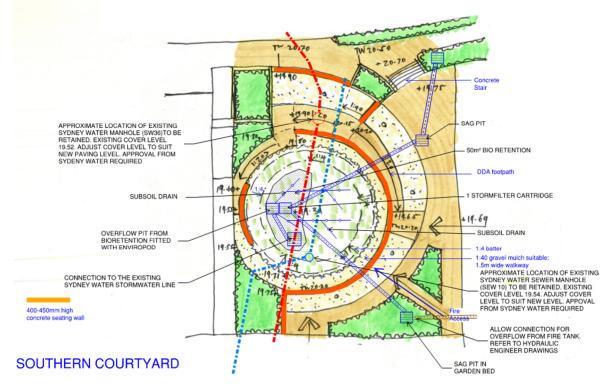
Bonacci Group (NSW) Pty Ltd ABN 29 102 719 352 Consulting Engineers Structural Civil Infrastructure Level 6, 37 York Street Sydney NSW 2000 Australia Tel: +61 2 8247 8400 Fax: +61 2 8247 8444 bons@bonaccigroup.com www.bonaccigroup.com

SYDNEY UNIVERSITY ENGINEERING PRECINCT PROJECT: SOUTHERN COURTYARD DESIGN ADJUSTMENT - FLOOD MODEL UPDATE

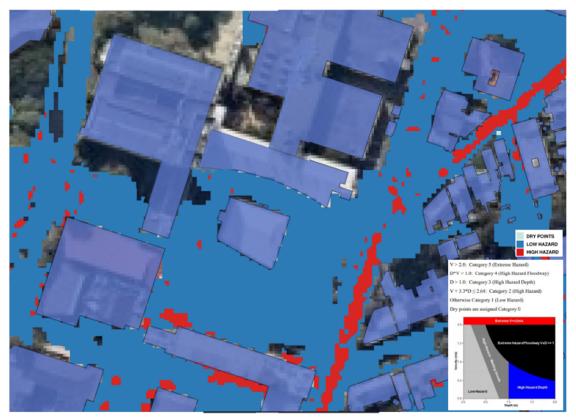
Bonacci Group (NSW) have been engaged by Laing O'Rourke to provide Civil and Structural Engineering services for the above project.

We have been requested to review the proposed Southern Courtyard in order to provide an adjusted design to prevent water entering the building at the north of the courtyard. Furthermore, we have been requested to investigate whether the adjusted design is capable of the same performance as the previously proposed basin. The following is a summary of the flood investigation for the revised design

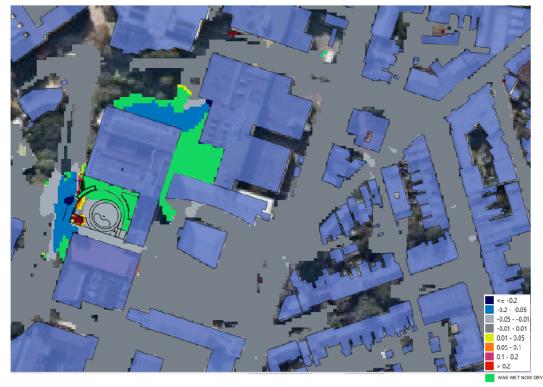
 A flood "wall" in the form of a nominal 450mm high seat, top level of RL 20.20, is provided at the north of the landscaped area of the courtyard. This provides protection to the building entrance from flood water (as the 1% flood level is approximately RL 20.07). Refer landscape sketch extract below



• The flood hazard for the proposed design has generally been reduced to low. Refer flood map extract below.



• The revised Southern Courtyard has been modelled, with the afflux mapping (being the change in flood level) being produced. An extract is provided below which shows there is no downstream impact. The proposed layout is then capable of providing the same performance as the previously proposed basin.

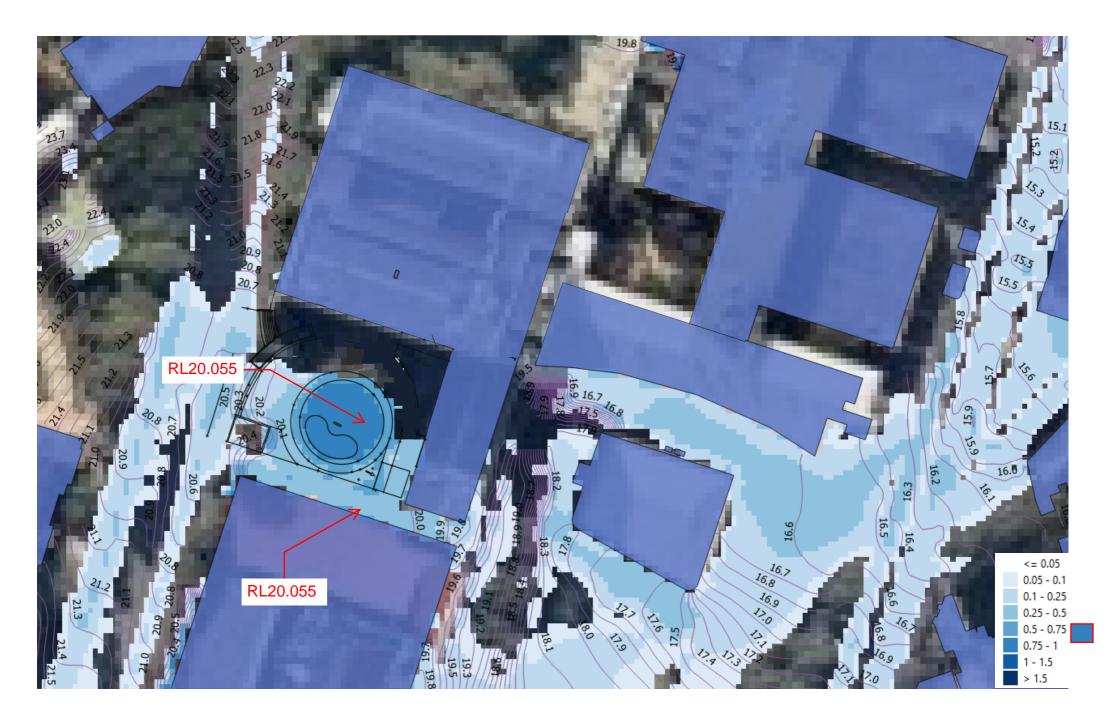


BON068: 1% AEP FLOOD LEVEL AFFLUX PROPOSED - EXISTING Flood modelling of the revised Southern Courtyard design has demonstrated that the proposed adjusted layout is capable of the same flood performance as the previously proposed basin.

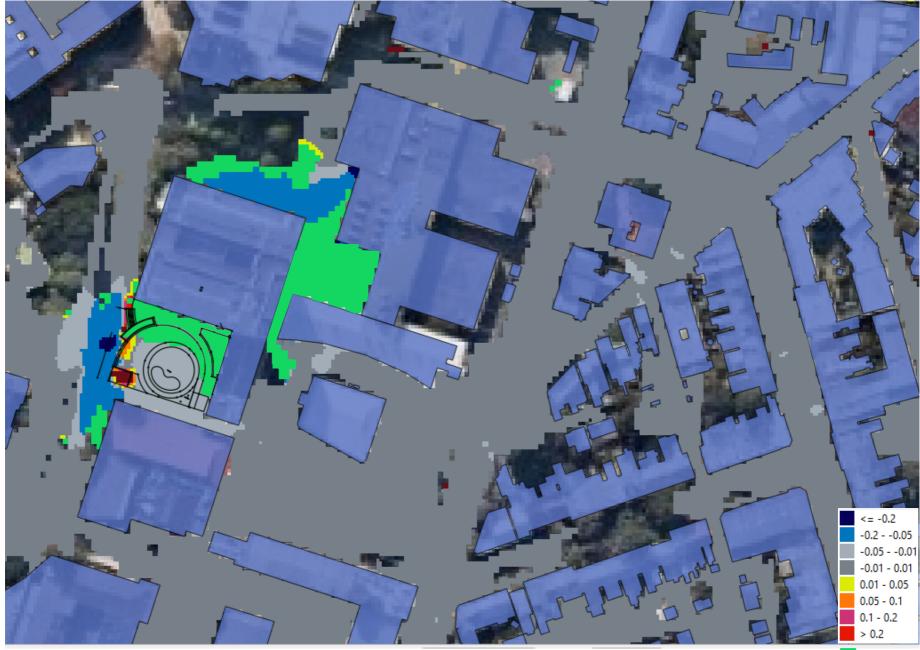
Yours Sincerely BONACCI GROUP (NSW) PTY LTD

Associate Director Stephen Naughton BE MIEAust NER CPEng RPEQ

Enc: Flood maps for Depth, Hazard and Afflux



BON068



BON068: 1% AEP FLOOD LEVEL AFFLUX PROPOSED - EXISTING WAS WET NOW DRY

