

Multi-Trades and Digital Technology Hub at TAFE Meadowbank Flooding Response to Submissions SSD-10349

Introduction

This flooding assessment is provided as a response to submissions for the State Significant Development (SSD) 10349 for the proposed development of the Multi Trades and Digital Technology Hub at TAFE Meadowbank.

Existing Food Impact Report

The original SSD EIS submission included a flood impact report as Appendix R1, (*SSDA Flood Impact Report, TTW, 03 Oct 2019*). Two-dimension flood modelling was completed using the TUFLOW model provided by City of Ryde Council for the *Parramatta River - Ryde Sub Catchments Flood Study and Floodplain Risk Management Plan, August 2013*

The findings from this study and report were as follows:

- The site is affected by minor overland flow from See Street
- The site is affected by major overland flow from the open watercourse to the west of the site.
- The proposed Combined Multi-Trades and Digital Hub building is outside the mainstream flooding extent for the 1% AEP flood but is within the Probable Maximum Flood (PMF) extent, refer to figures 1 and 2 respectively.
- The new building site is classified as Low Flood Risk.
- The proposed building will be outside the minor overland flowpath which will be managed by site grading and proposed stormwater.

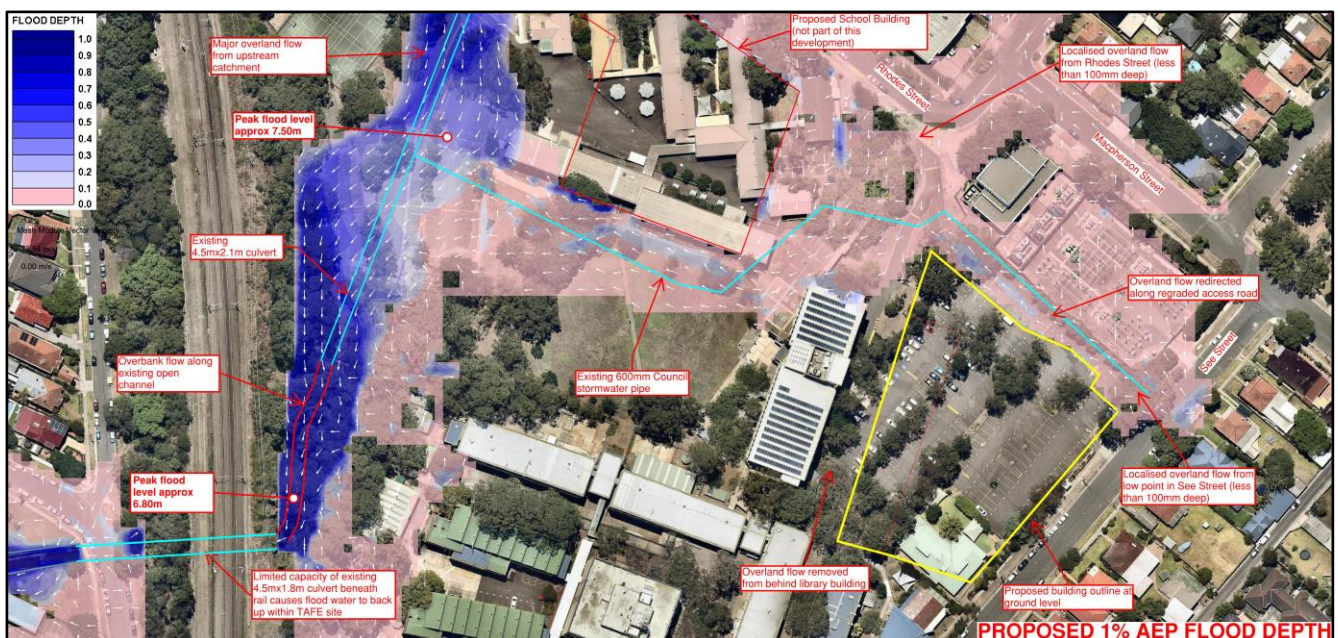


Figure 1. Proposed 1% AEP Flooding (*SSDA Flood Impact Report, TTW, 03 Oct 2019*)

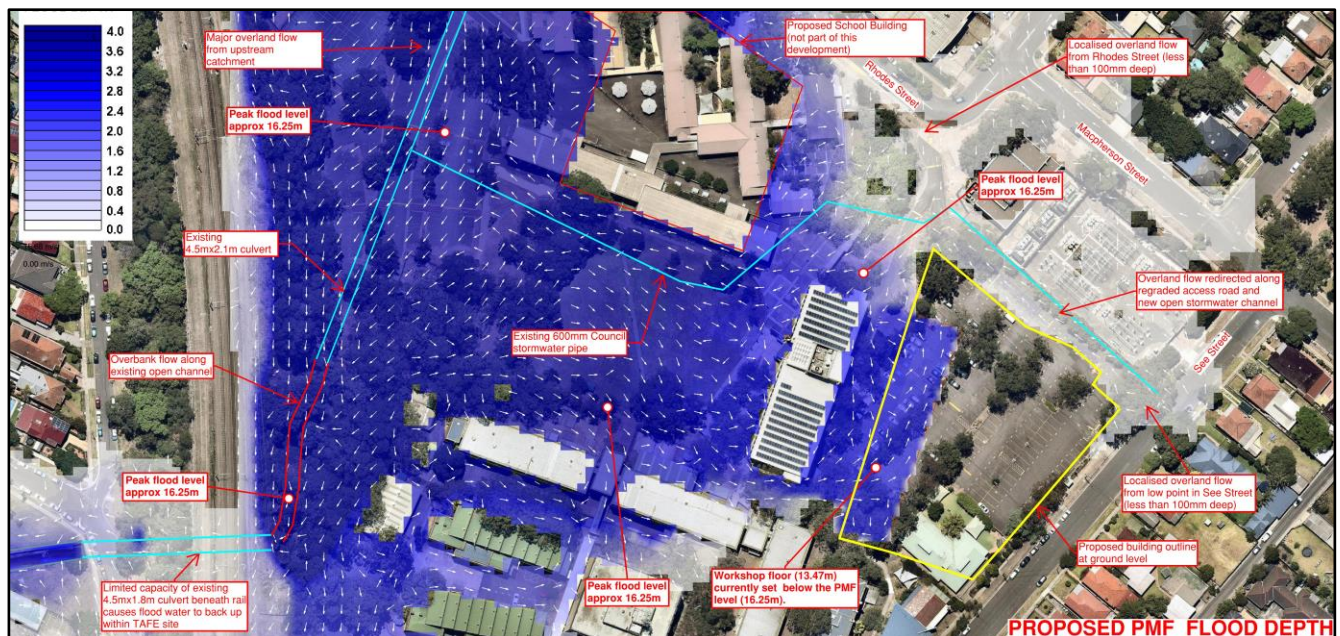


Figure 2. Proposed PMF Flooding (SSDA Flood Impact Report, TTW, 03 Oct 2019)

The flood impact report concludes that the proposed development:

- Does not adversely impact the existing flood regime in terms of diverting major overland flows. increases flood storage and provides suitable flood evacuation and sheltering.
- Does not reduce the amount of flood storage within the site.
- Does not increase flood levels or velocities such as to adversely impact adjoining property.
- Manages overland flow and flooding with several mitigation measures including flood evacuation, education and procedure, flood detection and warning as well as training drills.

The report confirms that the major overland flood levels across the site are as follows:

- 1% AEP Flood Level = 7.50m
- PMF Flood Level = 16.25m

SSD Submission

The submission from the Environment, Energy and Science (EES), in the Department of Planning Industry and Environment (ref DOC19/913558) confirms that the flood impact report is adequate.

Flooding

Please be advised that the flood impact report prepared by Taylor Thomson Whitting dated 3 October 2019 is considered to be adequate.

Proposed Multi-storey Carpark

In response to the submissions, carparking from the basement of the new Multi Trades and Digital Technology hub building is proposed to be moved to a new multi-storey carpark at the location of the existing on grade carpark to the south. Refer to figure 3.

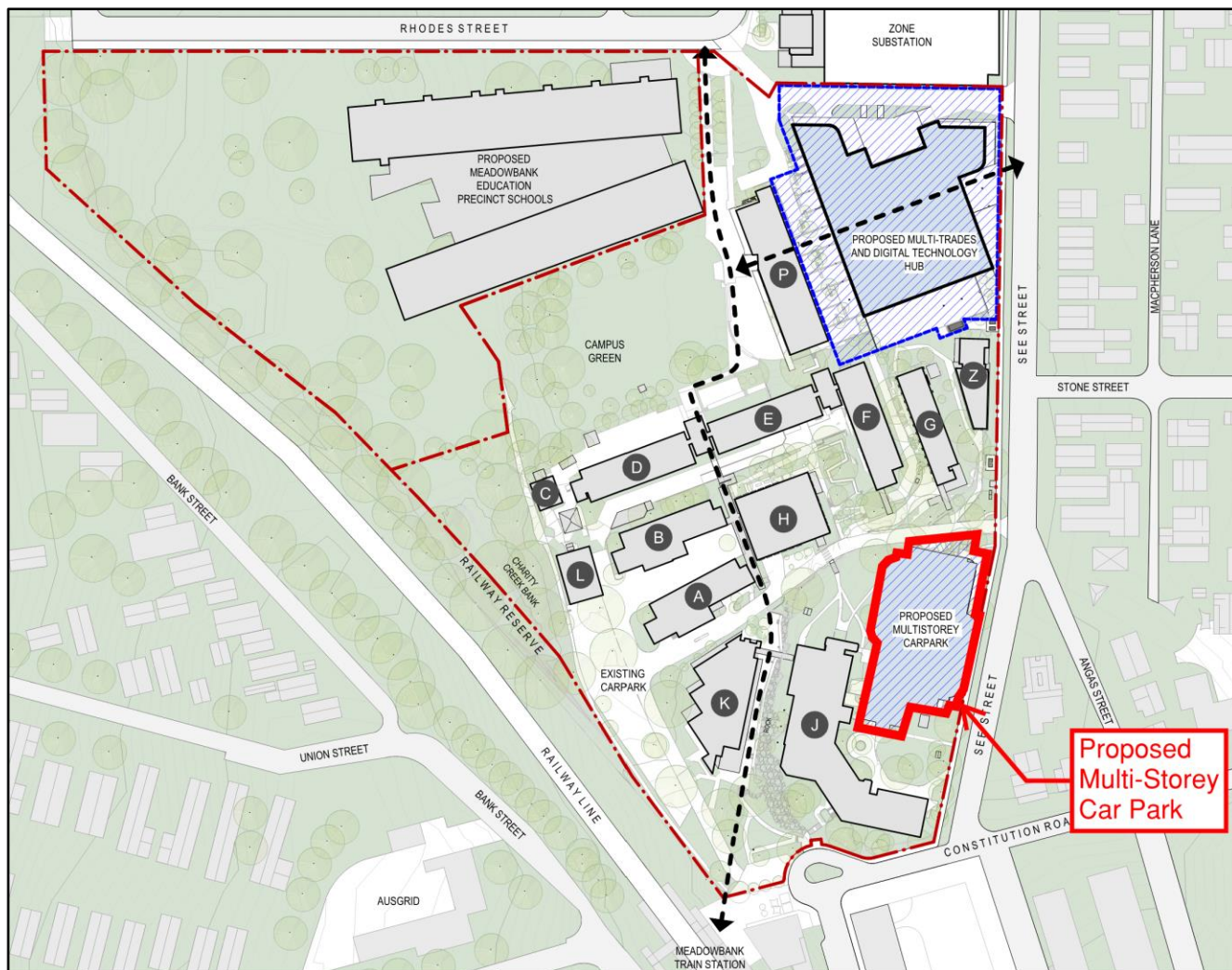


Figure 3. Proposed Location of the Multi-Storey Car Park

The proposed multi-storey car park will contain 3 levels with ground floor at RL 25.75m, level 1 at RL 29.15m and Level 2 at RL 32.55m. The proposed ground floor plan is shown in figure 4, and proposed section is shown in figure 5.

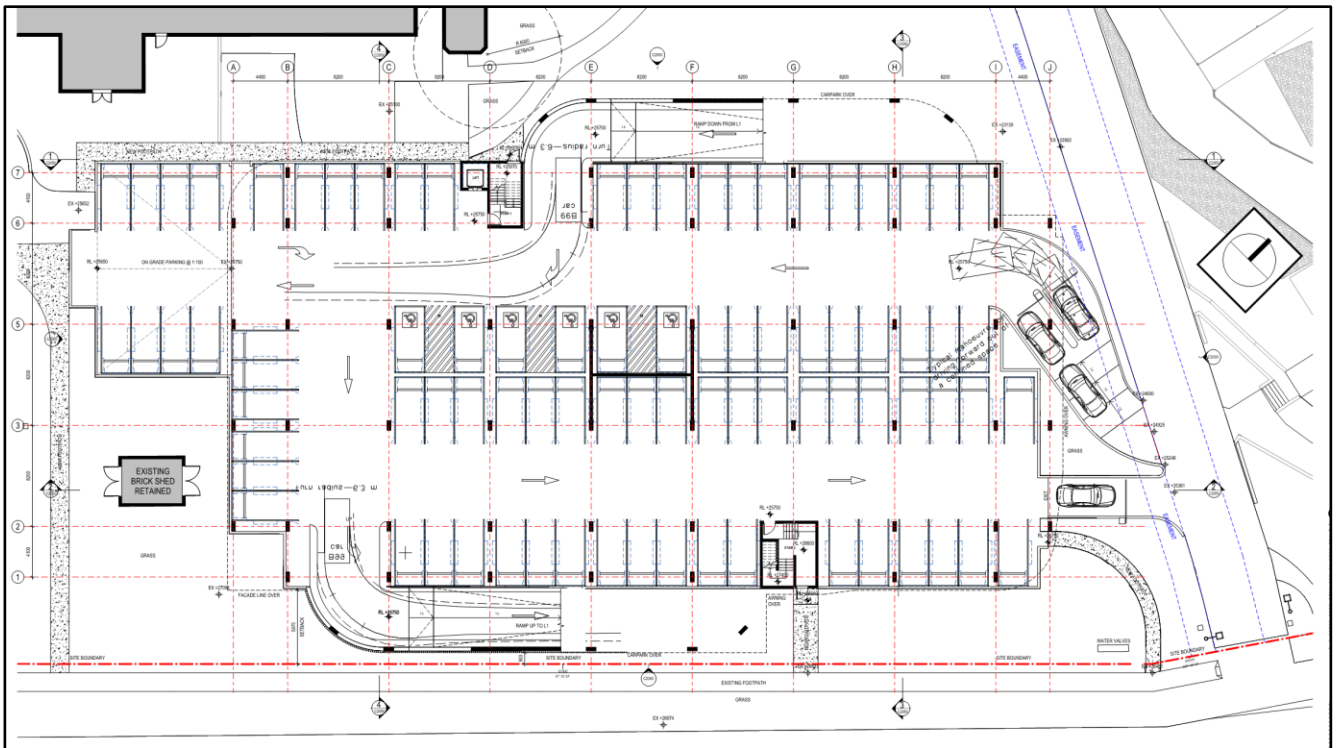


Figure 4. Proposed Ground Floor Plan of the Multi-Storey Car Park (Gray Puksand GP-AR-C1300)

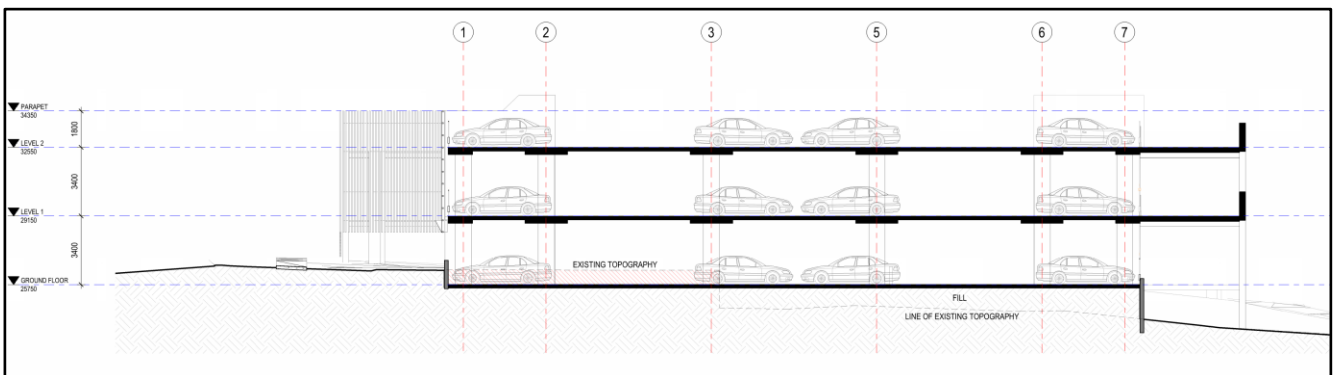


Figure 5. Proposed East-West Section of the Multi-Storey Car Park (Gray Puksand GP-AR-C2050)

Flood Impact of Proposed Multi-storey Carpark

The flood modelling originally completed for the SSD EIS submission was updated to include the proposed multi-storey car park. The flood modelling confirms that the location of the multi storey carpark is outside the extents of the 1% AEP flood and Probable Maximum Flood (PMF), refer to figures 6 and 7 respectively.

The proposed ground floor level of the multi storey carpark at RL 25.75m is significantly higher than the PMF level of RL 16.25m. The proposed car park has no impact on flooding and is in accordance with flooding requirements of City of Ryde Council's *Development Control Plan 2014 Part 8.2 - Stormwater and Floodplain Management*.

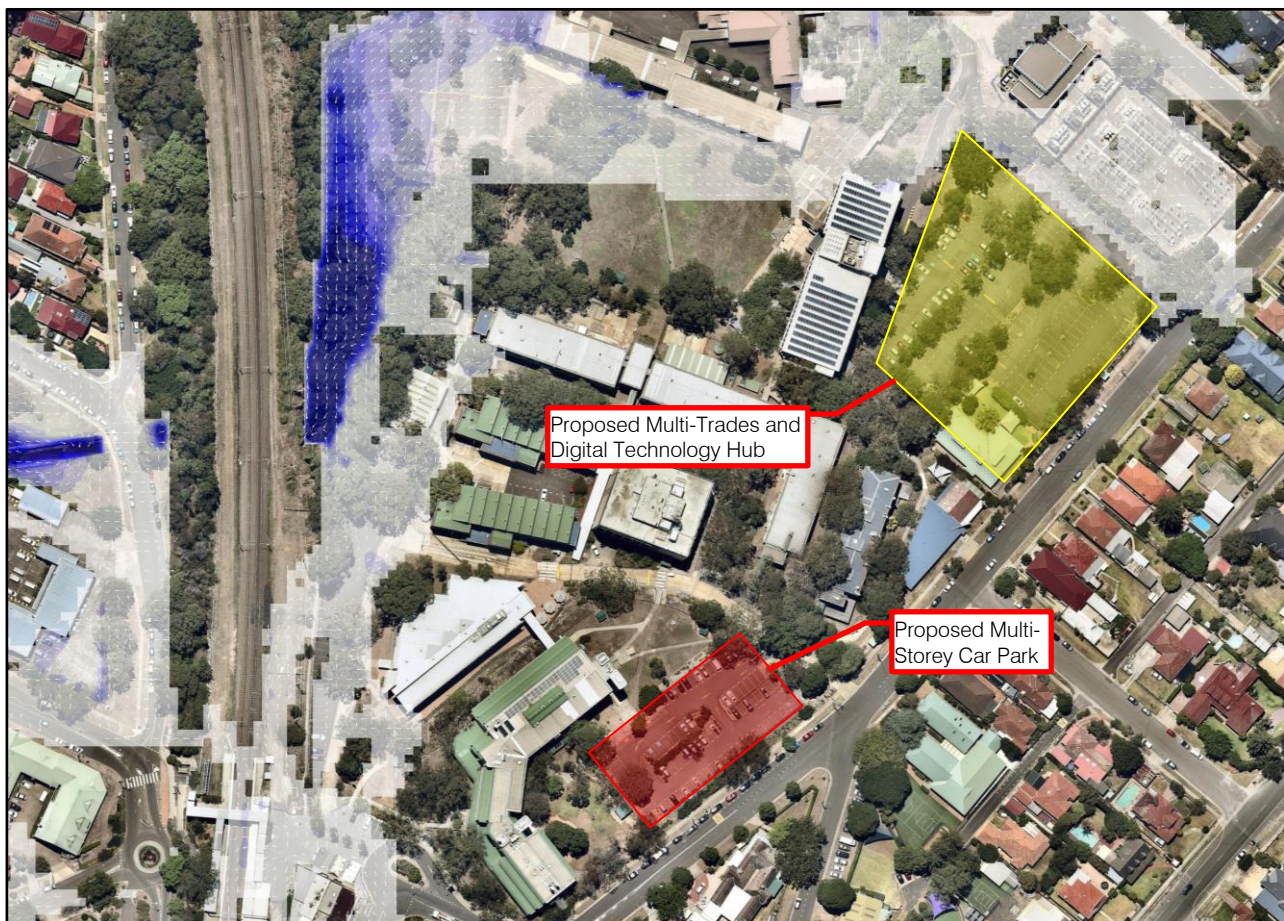


Figure 6. Proposed 1% AEP Flooding

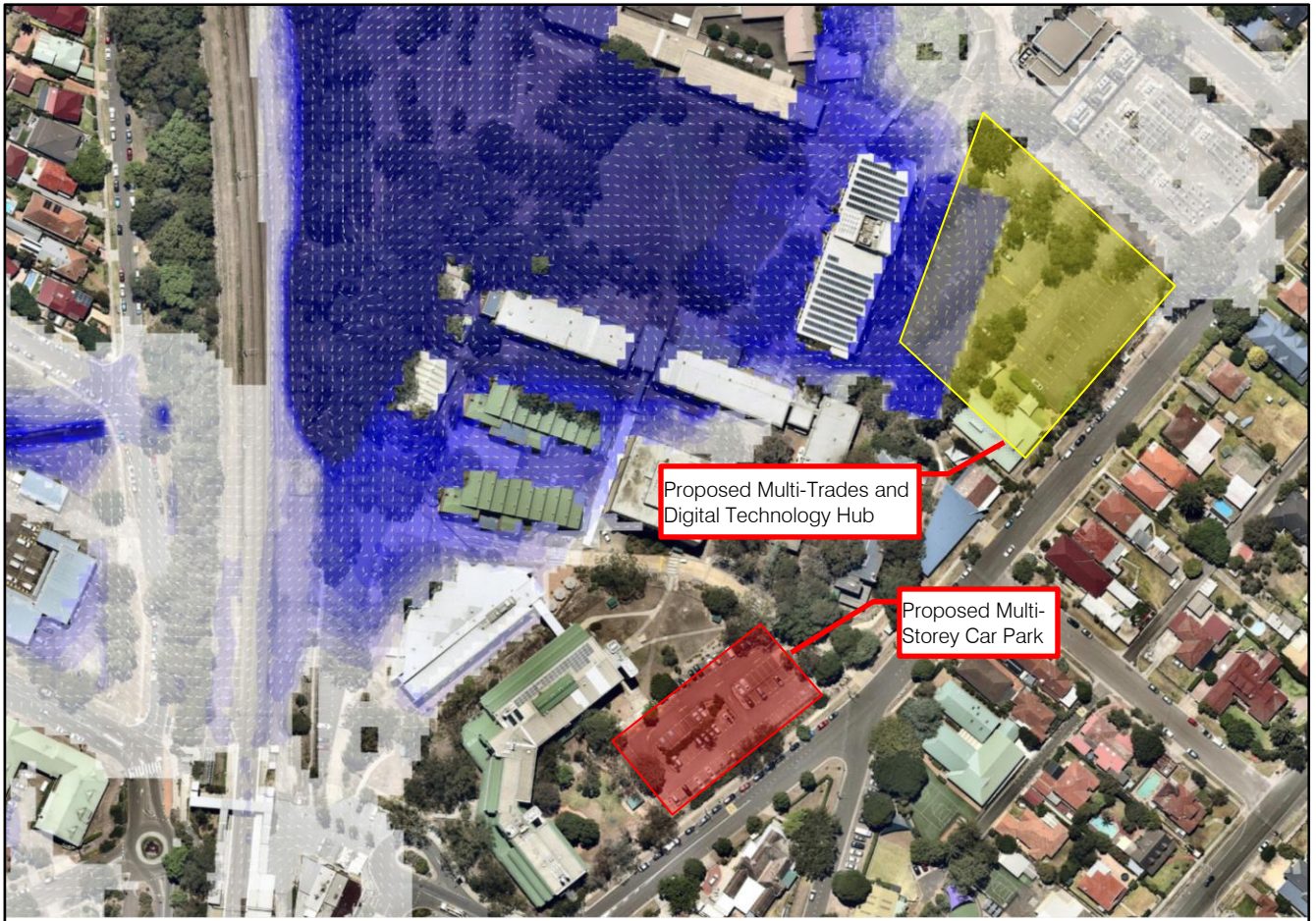


Figure 7. Proposed PMF Flooding

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