

Flood Response Management Plan

**74-75 Carlton Crescent,
Summer Hill**

Prepared for IGLU 14/08/2019

181975

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1.0 Introduction

Taylor Thomson Whitting (TTW) have prepared a Flood Response Management Plan (FRMP) for the proposed development at 74-75 Carlton Crescent ("Site"). The Site is located within the Hawthorne Canal catchment and lies between Carlton Crescent to the north, Summer Hill Skate Park to the west and Hardie Avenue to the south-east.

This FRMP has been prepared as part of a Development Application for the Site (REF No. DA 2018.220). As parts of the site lie below the probable maximum flood (PMF) level, TTW has prepared this site-specific Flood Response Management Plan to be developed and implemented as part of the proposal.

The purpose of this FRMP is to summarise the flood risks within the site, identify preparation measures required, and to provide an action plan with steps to be completed during a flood event.

The proposed development is the construction of a new 180 bed student accommodation facility by Australia's market-leading owner, developer and long-term operator of purpose-built off-campus student accommodation facilities, Iglu Pty Ltd (Iglu). Iglu currently has in operation over 3,400 beds across the major capital cities, Sydney, Melbourne and Brisbane. Iglu has a strong hospitality management platform and operates its buildings along hotel service lines.

Key features of the hospitality service include a 24/7 reception and student concierge service. The property will also have an alarm system, which will include 36 lower ground floor residences. The completed development at 74-75 Carlton Crescent will be managed by a 24/7 on-site hospitality team with up to 8 staff with a minimum of 2 staff on duty at any one time that will be trained and able to action the FRMP procedures. The staff on site will include:

- 1 x General Manager
- 2 x Customer Service Coordinators
- 4 x Resident Leaders
- 1 x Facilities Manager

2.0 Flood Behaviour

The building has been designed to ensure that there is a 500mm freeboard over and above the 1% AEF event (1 in 100 year flood event) in accordance with Council's and the State Government's flood management policies, which will ensure that flood waters will not enter the site in a 1% AEF event.

Notwithstanding, the Probable Maximum Flood (PMF) Level for the site is outlined in a Flood Impact Assessment prepared by WMA water (utilising Inner West Council's Hawthorne Canal Flood Model) as shown in the following figure.

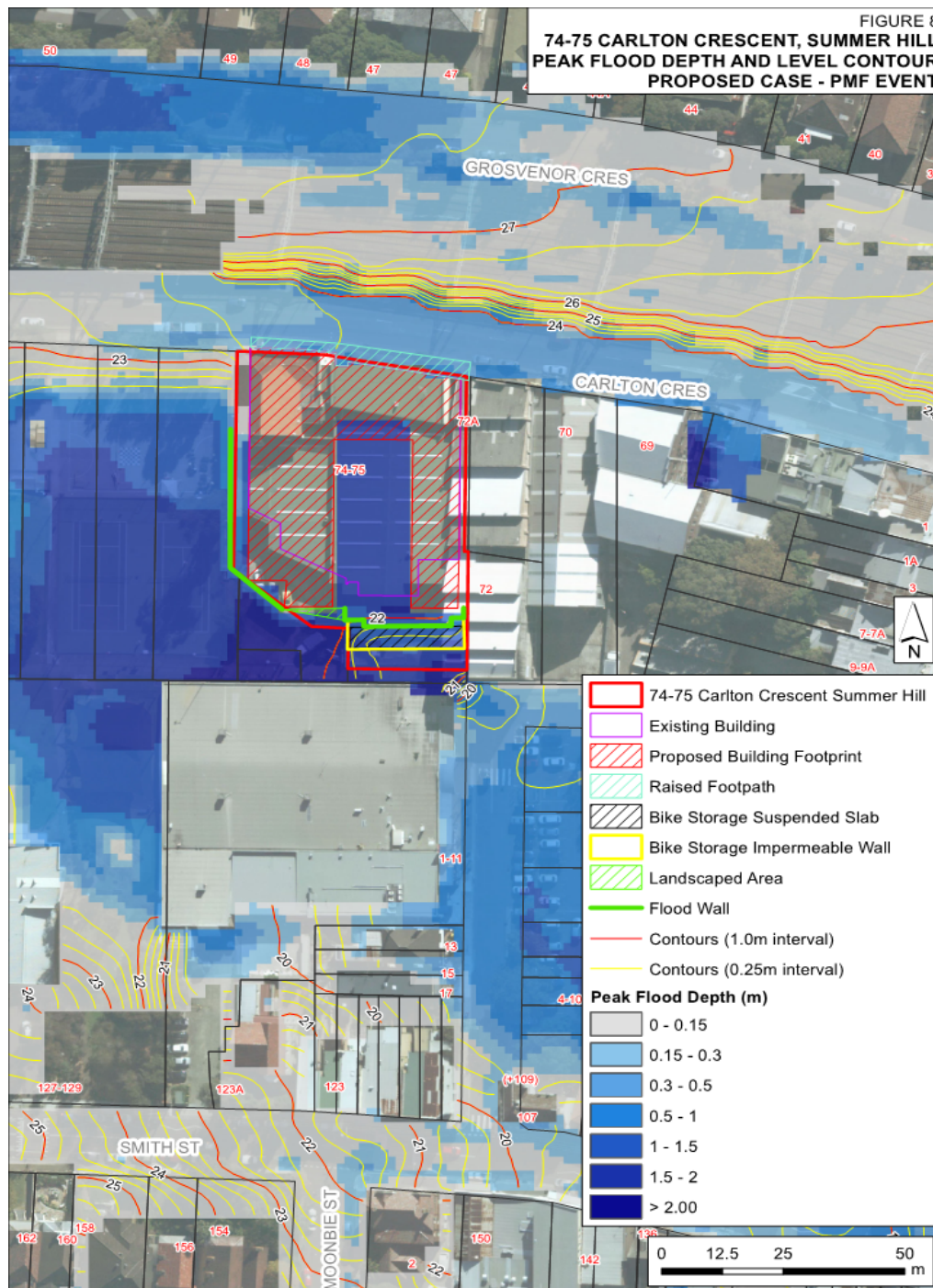


Figure 1: PMF Flood Level/Extent

Source: 74-75 Carlton Crescent Flood Impact Assessment, Prepared by WMAwater

The assessment confirms that for the PMF event, flooding caused by PMF occurs in the lower level of the site including the courtyard. Accordingly, and consistent with the Council's Ashfield Development Control Plan (DCP) 2016 a site Flood Response Plan is to be prepared for utilisation in the case of a PMF event.

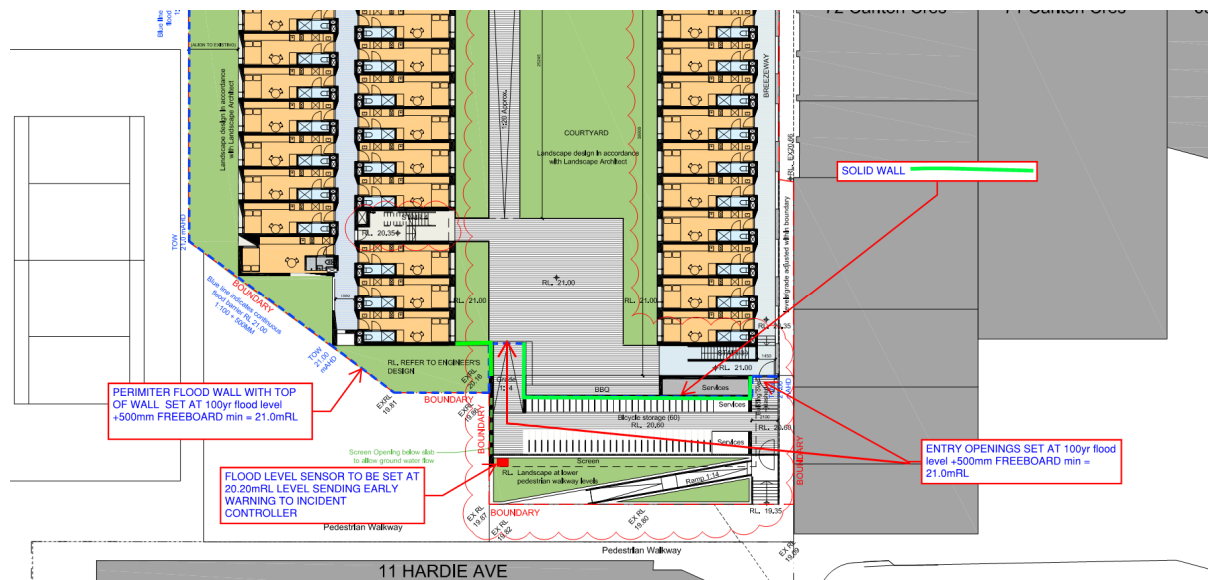


Figure 1.0: Flood Mitigation and Flood Level Sensor System

TTW recommends that evacuation in place is appropriate for the PMF flood condition and that lower ground residents* be moved to the upper floors of the development in the event that any flood event produces flows greater than 300mm deep in the southern pedestrian walkway. The 300mm flood depth is equivalent to the 1 in 100-year flood event level well before the PMF flood level which is some 1.50m higher

(* Note: Personal Emergency Evacuation Plan (PEEP) will also be made with a person with a disability and communicated to staff members to ensure the safety of each student in the case of an evacuation. Note that all residents in the lower ground floor level are intended to be for abled residents with residents with disability to reside at ground floor & Level 1 which are both located above the PMF flood level)

3.0 Preparation for Flood Response

3.1 Education

Resident awareness of flooding is a significant issue within the floodplain due to the infrequency of severe floods and the anticipated depths of these floods in a PMF event.

3.1.1 Staff

As part of the preparation for a flood event, the staff managing the 24/7 reception and student concierge service will be made aware of the flood risk and their obligation to evacuate the ground floor when flood flows in the southern lane exceed 300mm depth. Inductions will be held to educate staff on their role during a flood event. Staff to keep record of resident briefings.

3.1.2 Residents

Residents are to be made aware of the flood risk and the response requirement during a flood event which creates overland flow in excess of 300mm in the southern pedestrian connection. As part of this procedure, flood response drills should be conducted regularly to ensure residents are aware of the procedures for sheltering on the ground floor level.

3.2 Flood Response Drills

It is recommended that flood response drills be held at a minimum of twice yearly to ensure all residents and staff are aware of and familiar with their flood response actions, the sound of the alert and occupancy warning system, and the location of the assembly point.

All staff will be trained in the flood response procedures with mandatory drills to be conducted twice a year as per Iglu Summer Hill's Work Health Safety (WHS) calendar. Personal safety awareness sessions will be conducted at the start of each semester or three (3) times a year.

3.3 Flood Emergency Kit

A Flood Emergency Kit should be prepared prior to a flood event taking place and regularly checked to ensure that supplies within the kit are sufficient and in working condition. This check could occur after the flood response drill takes place to provide a regular schedule. The Kit should include:

- Radio with spare batteries;
- Torch with spare batteries;
- First aid kit and other medicines;
- Candles and waterproof matches;
- Waterproof bags;
- A copy of the Site's Emergency Management Plan; and
- Emergency contact numbers.

This Emergency Kit should be stored in a waterproof container and is the responsibility of the First Aid Officer.

4.0 Coordination of Flood Response Warnings and Orders

IGLU Staff will decide when to issue Flood Response Warnings and Orders for the site.

A water level sensor device will be provided at the landscaped area south of the communal area as shown in the Figure 1.0. The flood water level sensor will be set up to provide early flood warning when flood water reaches 300mm deep in the in the southern pedestrian connection to provide early warning.

The early warning system installed will be connected to the 24/7 reception and student concierge service, Iglu's Incident Controller, to distribute these warnings to residents.

The Incident Controller will initiate a flood response and occupant warning through a Public Address (PA) occupant warning system including continuous bell that can alert residents and staff in the event of an emergency immediately followed by door to door entry** to each accommodation located at lower ground level.

Flood Response Plan	
<u>Alarm Condition</u>	<u>Recommended actions</u>
1) Local Councils or Bureau of Meteorology issues an alert, advice or warning.	Iglu's Incident Controller to observe ponding levels in Southern Laneway.
2) Flood Water level sensor sending alert High flooding level when depth of ponding in the Southern Laneway equals or exceeds 300mm.	Iglu's Incident Controller to confirm the ponding is to 300mm depth.
	Send an alert and occupant warning message over the PA occupant warning system compliant with the NCC confirming a major flood event. Announce that there is water over the laneway.
	Immediately commence door to door entry to each accommodation at Lower Ground Level evacuating them to Ground level above systematically to communal lounge and study area where a headcount will be undertaken and numbers reported to the incident controller.
	Confirm any remaining people in the lower ground level have been evacuated.
3) Alert will remain in place for approximately 2 hours or such time that the ponding depth recedes	Confirm that there is no ponding in the courtyard. Once floodwater subsided below 300mm in the southern laneway, the lower ground floor would be inspected by the incident controller. Once it has been confirmed that the water level has reduced in a level of less than 300mm in

	the southern laneway for a period of at least 2 hours and if determined safe a final headcount would be undertaken. Upon confirmation of all persons safe and accounted for the incident controller may announce that residents can return to lower ground floor and courtyard
4) Flooded areas are to remain off limits until ponding is cleared. The directions of police and SES are to be followed at all times.	

(** Note: Note that Iglu Incident Controller will have access keys to all accommodation in case of emergency)

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