

JMG Ref: 173021PH Council Ref: PLN-21-471

7th November 2022

Mr Ben Ikin Hobart City Council Via Online Development Services Portal

Attention: City Planning

Dear Mr Ikin

APPLICATION NO. PLN-21-471 - 175 CAMPBELL STREET & 177 CAMPBELL STREET & 179 CAMPBELL STREET & 169-173 CAMPBELL STREET, HOBART - PARTIAL DEMOLITION, ALTERATIONS, NEW BUILDING FOR 26 MULTIPLE DWELLINGS, FOOD SERVICES, BUSINESS AND PROFESSIONAL SERVICES, GENERAL RETAIL AND HIRE, AND SUBDIVISION (LOT CONSOLIDATION)

In further response to the representations and the officers comments in the draft agenda we would like the following considered in the future agenda report:

1. Flood Risk - Council's External Consultant's Assessment

There is much weight in the draft agenda placed on the external consultants assessment of the risk to uses of the car park particularly related to Clause E15.7.4 and E7.1.1.

- If there are inconsistencies in the water quality assessment is presented as suggested this should have been resolved at the RFI stage. MUSIC modelling was provided with the application which is the standard approach to water quality assessment in the State. The consultant clearly has no issue with water quality as they conclude this can simply be conditioned (ref 6.24.5).
- The subconsultant states the overland flow path has not been provided, which is untrue as they are clearly shown in Figures 4 and 5 of the Flussig report. The car park area of the building has been specifically designed to allow overland flow and the inlets and outlets are modelled (Figures 8 & 9 of the Flussig report)(ref 6.25.5).
- The consultant assumes because HIPS defines a habitable building as a building Class 1-9 in the BCA and as the car park is a class 7a building under the National Construction Code not all habitable floors are above the 1% AEP flood level then the proposal fails A4 and must therefore be refused. However, under the NCC categories certain elements are not considered 'habitable' so whilst the Planning Scheme may define the building as a 'habitable building' it does not

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follow that an basement car park needs to be built above the 1%AEP flood level (ref 6.25.5 & 6.25.6 & 6.32.5). A copy of this advice is attached.

- The consultant states there are no discussion of alternate options for managing flood risks this is untrue as specific recommendations were provided in the JMG report to manage flood risk including alarms, signage, vehicle access barriers, on site managers etc. The consultants later reference these measures in their comments (ref 6.32.5).
- The consultant then continues to state there is no discussion on the time it takes to become hazardous then concludes without knowing this, that 9.5 minutes is too short for any flood emergency plan to be appropriately implemented. A risk hazard assessment has been undertaken buy risk assessors under the WHS Act and the risk found to be acceptable subject to flood management measures. It is our view that if the risk is acceptable under the WHS Act then it meets the test whereby the risk to users is acceptable. A copy of this risk assessment is attached (ref 6.32.5).
- The consultant suggests that an evacuation timeline should have been submitted, but this was not requested of the applicant (ref 6.32.5).
- Damage to cars is not the test under the scheme provision and the Flussig Report discusses that in a flood event cars may cause structural damage (and thus the structure should accommodate this). Likewise insurance is also not relevant (ref 6.32.5).
- The consultant advises that they have only undertaken a high level review of flood management maps, notes that a flood behaviour map/flood afflux map is needed then concludes there isn't enough information to address P1. A modelling file was provided to Council. Again if more information was required this should have been requested in the RFI process and if Council cannot interrogate flood modelling data the applicant should not be penalised for it (ref 6.32.5 & 6.33.5).

2. Flood Risk - Council Officers Conclusion

The officers conclude: It is our opinion that the management measure proposed (emergency management plan) is not appropriate for this situation. Even if a detailed flood emergency plan could be developed, there would be a problem enacting the plan as the time required to enact the plan would be far longer than the flood response time (ref 7.4).

• This opinion is based on a simple assumption that a Flood Management Plan could not be executed in the short 8.5 minute duration between 50mm of water in the basement and it reaching critical levels. In our view, this ignores the flood hazard warning systems that give notice hours or days in advance. The Australian Disaster Resilience Handbook Collection Flood Warning Manual 21 states:

"Flooding is a highly manageable hazard where the flood risk can be defined, and appropriate emergency preparedness and mitigation strategies developed. Floods happen often in Australia and, in some areas, according to a regular seasonal rhythm. Their location is predictable and there is usually some warning of their occurrence. Much can be known about flooding and its consequences in advance; thus it is possible to determine who will be affected



and what problems they will face. Because of this, the opportunity exists to work out ahead of time (i.e. to plan) how a flood can best be managed in the interests of maximising public safety and minimising property and other damage".

• The Workplace Health and Safety review makes a number of recommendations that were not covered in the JMG recommendation which should be included in a Flood Emergency Management Plan.

3. Height

Since the lodgement of the application we have become aware that the Draft Precinct Plan is close to being finalised and is recommending a height limit of 18m for this area. The building height on the current set of plans is 23.1m but is exacerbated by the pitched roof design rising towards the lowest part of the site. By repitching these roof angles substantial reductions in the building could be achieved. If Council alters position on the stormwater issues discussed above, we are happy to redesign to give greater accuracy as to the building height reduction that could be achieved.

We trust this information can be considered in the future agenda we would be grateful, however, if further information or clarification is required, please contact me on 6231 2555 or at <u>planning@jmg.net.au</u>.

Yours faithfully

JOHNSTONE McGEE & GANDY PTY LTD

Shleh

Mat Clark PRINCIPAL/SENIOR TOWN PLANNER



ATTACHMENT A

Flooding Risk Assessment



Work Health & Safety (WH&S) Review

Flooding Risk Assessment

175-179 Campbell St, Hobart

Client:	SolutionsWon Group Pty Ltd
Attention:	Jamil Molinaro
Job No:	6926
Date:	7th November 2022
Revision No:	2

Simeon Branca Director Salus Risk Consulting T: 0437 662 567

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Executive Summary

Salus Risk Consulting has been engaged by SolutionsWon Group to undertake flooding risk assessment for the proposed property at 175-179 Campbell Street, Hobart. This site is adjacent to the gully running parallel with Brooker Highway, and thus may be susceptible to flooding.

The purpose of this report is to identify risks to safety of the occupants and workers in case of H5 hazard category flooding¹.

H5 – unsafe for vehicles and people. All buildings vulnerable to structural damage. Some less robust building types vulnerable to failure

To help design out and to mitigate these risks, the proposed design of the basement of the property was assessed in line with the requirements of the *Tasmanian Work Health and Safety Act 2012* ("the Act").

The Act is used as the primary instrument to determine risk profile and method, hazard ratings, and recommendations, to protect life safety.

The Act's stated aim is to address and mitigate Work and Occupational risks. It is also regarded as applicable here, as the <u>primary risks to life apply equally</u> to:

- Workers and contractors;
- Residents, tenants and property owners;
- Visitors;
- Any other occupants.

The methods adopted from The Act are therefore applicable to protect life safety for all foreseeable occupants.

¹ FS_HOB_2181_175-179 Campbell Street Flood Report REV-03 Appendix A: Risk Assessment Matrix



Revision History

Date	Rev. No.	No. of Pages	Issue or Description	Checked By	Approved By	Date Approved
03/11/22	1	11	WH&S Risk Report	K Muzammil	S Branca	03/11/22
07/11/22	2	11	WH&S Risk Report	K Muzammil	S Branca	07/11/22

1. Legislative and Statutory Requirements

It is the responsibility of people involved in the design of a workplace to comply with the *Tasmanian Work Health and Safety Act 2012.*

The Tasmanian WHS Act 2012 obliges all designers to ensure, so far as is reasonably practicable, that the plant, substance or structure is designed to be without risks to the health and safety of persons who, at the workplace, use the plant, substance or structure for a purpose for which it was designed. This obligation includes protection for those who manufacture, store, handle or dispose of substances and people who are at or in the vicinity of a workplace and are exposed to the substance or whose health or safety may be affected by a use or activity related to the substance.

Section 20 of the WHS Act 2012 also obliges the employer to provide a workplace, the means of entering and exiting the workplace and anything arising from the workplace are without risks to the health and safety of any person. This includes making arrangements for ensuring, so far as is reasonably practicable, safety and the absence of risks to health in connection with the use, handling, storage or transport of substances. These duties extend to an independent contractor engaged by the employer, and any employees of the independent contractor, such as construction workers.

This report will provide advice consistent with the requirements of the Act and forms part of the trail of evidence in support of the requirements.

No physical testing of any plant or equipment was undertaken by us in the preparation of this report.

2. Introduction



The assessment in this report is based upon design drawings, and upon initial observations with regard to the existing conditions based on review of the design drawings and documents including Flussig report and City of Hobart requests for information. The maintenance and operations team member will spend extended time in the basement for routine or preventative maintenance activities. The flood hazard categories only provide details about extent of flooding, flooding risk assessment is required along with necessary control measures to ensure the workplace is safe, and necessary provisions are made for emergency response.

Hierarchy of Risk Controls

Consideration is given to the risks identified and implementing the highest level of control in a set hierarchy of controls, which are: -

- Eliminate the hazard
- Substitute or isolate the hazard
- Implement an engineered solution

The above 3 controls are the proactive, preventive controls to manage hazards. The next 2 controls are the weakest in the hierarchy, only to be used when the 3 controls above are found to be not reasonably practicable

- Implement an administrative solution
- Provide personal protective equipment (PPE)

Depending upon the level of risk for each hazard the Standards make recommendations for the most appropriate method for mitigation of the risk. There will be occasions where local conditions or usages could work against the implementation of these recommendations. Under such conditions alternative solutions may be implemented so long as it can be demonstrated that these solutions provide at least an equivalent level of safety.

What is Reasonably Practicable?

Section 20 of the Act provides the concept of reasonably practicable that will be used by authorities when determining whether the obligations of the design team have been met:

20 What is "reasonably practicable" in ensuring health and safety

[...] regard must be had to the following matters in determining what is (or was at a particular time) reasonably practicable in relation to ensuring health and safety—

(a) the likelihood of the hazard or risk concerned eventuating;

(b) the degree of harm that would result if the hazard or risk eventuated; (c) what the person concerned knows, or ought reasonably to know, about the hazard or risk and any ways of eliminating or reducing the hazard or risk;

(d) the availability and suitability of ways to eliminate or reduce the hazard or risk;

(e)the cost of eliminating or reducing the hazard or risk.



3. Background

The project entails development of multi-residential property at 175-179 Campbell Street, Hobart which includes 8 townhouses, 22 apartments, and 4 sky homes. The total area of 2431 m², two of the existing buildings will be retained due to their heritage significance. The property is flood prone (Figure -1) and to comply with the standards in the Inundation Prone Areas Code in the Hobart Interim Planning Scheme 2015 any development should be designed and sited so that it does not increase risk to people.



FIGURE 1 CITY OF HOBART: POTENTIAL INUNDATION HAZARD AREAS²

² City of Hobart, 2022. Potential Inundation Hazard Areas. [online] Hobartcc.maps.arcgis.com. Available at:
<<u>https://hobartcc.maps.arcgis.com/apps/View/index.html?appid=3951383333b4476f9bc788d6d1ce0ba1&extent=147.</u>
<u>1309,-42.9425,147.4605,-42.8247</u>>



4. Observations & Recommendation

Based on review and risk assessment, the recommendations are summarized in this section. With the implementation of these recommendations, and continued adherence to managed procedures, the project will comply with the Tasmanian WH&S Act. Details assisting implementation of the recommendations are provided in the following section (Section 5).

Issue / Hazard	Picture	Observations, Recommendations in blue
There is a risk to personal safety in areas categorized as hazard H5 (basement) during 1% AEP flood event. The flow path could also pose a risk to personal safety. Probability: Possible Consequence: Major Risk Level: High	Image: state	 Hazard: Loss of human life; injury; isolation RECOMMENDATIONS: 1. Flood Emergency Plan: A flood emergency plan (specific to the basement) must be developed and communicated to the residents, operations and maintenance team, and visitors. The emergency plan should also include the following procedures or requirement. a. Flood intelligence, warning and emergency communication Systems b. Required training and periodic drills c. Emergency Evacuation Plan



Issue / Hazard	Picture	Observations,	
	Ficture	Recommendations in blue	
	1 2 3 4 STORAGE STORAGE STORA	 2. Design Modifications and Provision of special resources d. The lifts should be only accessible through ground floor in the event of activation of flood warning. A control system measure may be considered to restrict lifts from going to basement. e. An emergency exit door should be provided at south-west of waste room (enclosed in red circle). f. A water level sensor actuated in case of flood, and if desired a "break glass" access system, should activate the roller door at entrance to allow people to exit the basement. g. Signage: Signage "Do not access basement in case of flood warning' should be placed in the lifts, stairs, at main entry to the basement. h. There should be no areas of seclusion and CCTVs should be installed within the basement. i. Flood emergency kits should be placed (quantity and locations to be included in emergency plan). The kit should include life jacket, torch and a whistle as minimum. j. Disabled parking bays should be close to lifts. k. The stairs should be slip resistant. l. The substation should be sealed to prevent electrocution and to reduce risk of power interruption or outage. 	



5. Recommendation Details

To enable efficient implementation of the above risk controls, and therefore to achieve safety for the proposed use of the basement, the following details will assist.

- a. The systems implemented in buildings vary (e.g., SCADA, BMS and others). The system chosen at Campbell Street should be, if practicable, *connected to emergency services* such that early warning of a flood event is communicated to building management, on- or off-site security, and a mimic panel.
- b. Training should emphasize staff and contractors. Regular drills will involve residents as well.
- c. An Emergency Evacuation Plan will already be established based largely on foreseeable events which threaten life safety, principally fire. For simplicity and ease of use, the potential for an H5 (or other) flood *can be included in this document*. It is not recommended that the Emergency Evacuation Plan be duplicated.
- d. It is generally preferred by emergency services that *public use of lifts is banned during an emergency*. Programming the control system of the lifts to prevent persons going into the basement from the lifts may be considered, but only if this is to the agreement/acceptance of TFS and other emergency authorities.
- e. Emergency door location is recommended, and is optional, as it must be to the agreement of the Building Surveyor and to any structural engineering requirements.
- f. As the roller door is a security-controlled entrance, it will normally be closed, and the means to open it will be restricted to authorized persons (e.g., mainly residents, who will use a device such as a key fob to open the roller door from their car). This level of convenience may not be available to persons needing to escape, therefore the two recommendations of:
 - i. a Flood Detection Sensor/Float Switch, which should be located where tampering is not possible, and/or
 - ii. a *Break Glass* door-opening system, which could be connected to similar systems elsewhere in the building
- g. As this kind of signage is not statutory, it does not necessarily need to be in a standard color or typeface, and need only be clearly readable, so it could be in a similar style to other signage used within the project.
- h. CCTV cameras can most efficiently be placed in locations that provide coverage to places of seclusion.
- i. Flood emergency kits should be located so as not to encourage tampering.
- j. Location and number of DDA-compliant facilities and AS-1428-compliant parking spaces will be as per the requirements of the Building Surveyor/Accessibility Consultant.
- k. Stairs that may become submerged as a result of an H5 flood event will need specific design consideration, to ensure that no component comes loose in a flood event. This is only likely to be an issue in the case of building fabric which is not cast-in concrete; for example: bolted-in steel treads,



screwed-in metal nosings, flanged posts Dynabolted to concrete steps, or non-waterproof fittings.

I. Design is to be as per TasNetworks requirements, and it is not expected that there will be significant scope (or need) for design adjustment beyond their instructions. However, this recommendation is included to ensure that the flood risk is not missed.



Appendix A- Risk Matrix

					Probability		
			Α	В	С	D	E
			Almost Certain	Likely	Possible	Unlikely	Rare
			Possibility of Repeated Incidents	Possibility of isolated incidents	Possibility of occurring sometime	Not likely to occur	Practically impossible
	1	Catastrophic	Extreme	Extreme	Extreme	High	High
suces	2	Major	Extreme	Extreme	High	High	Medium
onseque	3	Moderate	Extreme	High	Medium	Medium	Medium
Ŭ	4	Minor	High	Medium	Medium	Low	Low
	5	Negligible	Medium	Low	Low	Low	Low

	Health & Safety	Assets	Reputation	Financial	Environmental
Catastrophic	Many Fatalities	\$10 Million	International Media	Corporate	Large Community
Major	Single Fatality	\$1 Million	National Media	Region / Affiliate	Small Community
Moderate	Many Injuries	\$100 thousand	Local Media	Division / Site	Minor
Minor	Single Injury	\$10 thousand	Some Media	Other	Minimal to None
Negligible	LTI	\$1 thousand	No Media	Negligible	None



ATTACHMENT B

NCC Advice



REGUALTORY COMPLIANCE NOTICE

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То	Cc	Attention	Company	Email
✓		Jamil Molinaro	Solutionswon Group Pty Ltd	jamil@solutionswon.com
	✓	Dean Coleman	Solutionswon Group Pty Ltd	dean@solutionswon.com
Date:		04/11/2022		
From:		Justin Saville	Number of Pages	: 2
Re:		Definition of C	arpark – NCC Volume 1	

Dear Jamil,

Further to your email 03/11/22 we note your query in relation to the definition, classification and use of a carpark under the National Construction Code (NCC) 2019, Volume 1, Amendment 1.

1. Classification and Definitions – Carpark

a. Definition (Carpark)

A carpark as defined within the NCC 2019, Volume 1, Amendment 1 means -

"a building that is used for the parking of motor vehicles but is neither a private garage nor used for the servicing of vehicles, other than washing, cleaning and polishing".

Moreover a carpark means a building or part of a building where by the above parameters are met and for which more than three (3) vehicle spaces are provided.

b. Classification (Carpark)

A building or part of a building containing carpark as defined above is classified as a **Class 7a** within the NCC 2019, Volume 1, Amendment 1.

2. Function & Use of a Carpark

a. Function and Use of a Carpark

The function of a carpark as set out in the NCC 2019, Volume 1, Amendment 1 is for the parking, washing, cleaning and or polishing of vehicles only. The building or part containing a carpark is generally termed as an transient and ancillary component to the building in which it is located.

b. Habitability

Typically, a building or part of a building is termed as being habitable whereby the area or space within the building is occupied frequently for a period of time to undertake activities such as work and or domestic related activities associated with a dwelling or Sole Occupancy Unit. More over, the BCA defines the term Habitable as follows;



"a room used for normal domestic activities, and -

- a) Includes a bedroom, living room, lounge room, music room, television room, kitchen, dining room, sewing room, study, playroom, family room, home theatre and sunroom; and
- b) Excludes a bathroom, laundry, water closet, pantry, walk in robe, corridor, hallway, lobby, photographic darkroom, clothes drying room, and other spaces of a specialised nature occupied neither frequently nor for extended periods.

c. Conditioned Space

Another marker for determining whether a building or part of a building is to be treated as habitable within the NCC 2019, Volume 1, Amendment 1 is the space is controlled in terms of temperature. The code affords a definition called 'Conditioned Space' and with relation to NCC 2019, Volume 1, Amendment 1 this means–

"a space within a building, including a ceiling or under floor supply air-plenum or return air plenum, where the environment is likely, by the intended use to have its temperature controlled by air-conditioning".

3. Closing Comments

With the above parameters and definitions in mind, a building or part of a building containing space for more than 3x vehicles is a Class 7a building or part of a building within which it is located.

Furthermore, I can confirm that a carpark as defined by NCC 2019, Volume 1, Amendment 1 and based on functions and uses described above, is a 'non-habitable' building or part.

We hope the above advice provides further with regards to a carpark, it's intended use, classification, and functions. However please do not hesitate to contact me if you have any queries you wish to discuss further.

Yours faithfully,

Justiň Saville Director / Building Surveyor Unlimited (BS-U 46347) Saville & Co. ACN 634 336 093