PLANS AND DOCUMENTS
referred to in the PDA
DEVELOPMENT APPROVAL

Approval no: DEV2022/1337

Date: 22 December 2023

Queensland Government

15th November 2023

Our Ref: SF-21-0149-003-L1

**Economic Development Queensland (EDQ)**
**GPO Box 2202**
Brisbane, QLD 4001

**ATT:** **R.Kwok – Director**
**CC:** **P.McCulloch – Manager – Development Assessment**

**RE:** **Technical Memorandum – Response to Further Issues Flooding Matters**
**PDA Development Application No. DEV2022/1337**
**15 Anderson Street, Fortitude Valley**

Dear Robert,

StormFlood Engineering Pty Ltd (here within 'StormFlood'), had been commissioned by Property Projects Australia (PPA) to undertake a flood impact assessment of a proposed Material Change of Use (MCU) application for Multiple Dwelling and Shop and Food and Drink Outlets at 15 Anderson Street, Fortitude Valley.

A Flood Impact Assessment Report was initially prepared by StormFlood (Rev 1.2 dated 5th August 2022), utilising the Brisbane City Council (BCC) Overland sub-catchment flood model (purchased via data agreement) as a baseline.

This report concluded that that no material flood impacts were envisaged given the existing building within the site is built to boundary via block wall, and therefore the proposed development would only provide additional flood storage and conveyance (thus retaining or reducing peak flooding). Additionally, a blockage scenario was adopted as a conservative approach, which is in accordance with Brisbane City Council's Flood Planning Scheme requirements.

Post submission of the initial report, a Further Issues Information Request (IR) under Priority Development Area (PDA) Development Application No: DEV2022/1337 had been provided by the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP), dated 1st December 2022, requesting additional review of the Stormwater matters (ie. Overland Flooding), as per Item 3. The report was updated to include an updated flood model, flood impact assessment mapping, as well as remove the blockage considerations (as per EDQ's comments).

EDQ has since then requested the outcomes of the initial report be considered, whereby the qualitative justification of no adverse impacts being deemed appropriate. StormFlood can confirm that **no adverse impacts** are anticipated from the proposal, given the increase in overland flow conveyance and flood storage area, as demonstrated in the sections within this letter.

**Flood Impact Assessment**

The existing building footprint is shown below in Figure 1 to highlight the sites built-to-boundary form, thereby not allowing the main overland flow conveyance path to extend into the site.

*Figure 1: Site Frontage (Source: Google Street View)*

The proposed development's ground floor plan shown in Figure 2 below demonstrates an on-ground frontage and adjoining interface to Water Street, which will allow some level of additional overland flow conveyance and short-duration flood storage to occur during and up to all design overland flow flood events. Accordingly, this would quantitatively, retain or reduce the peak flood levels within and around the site.

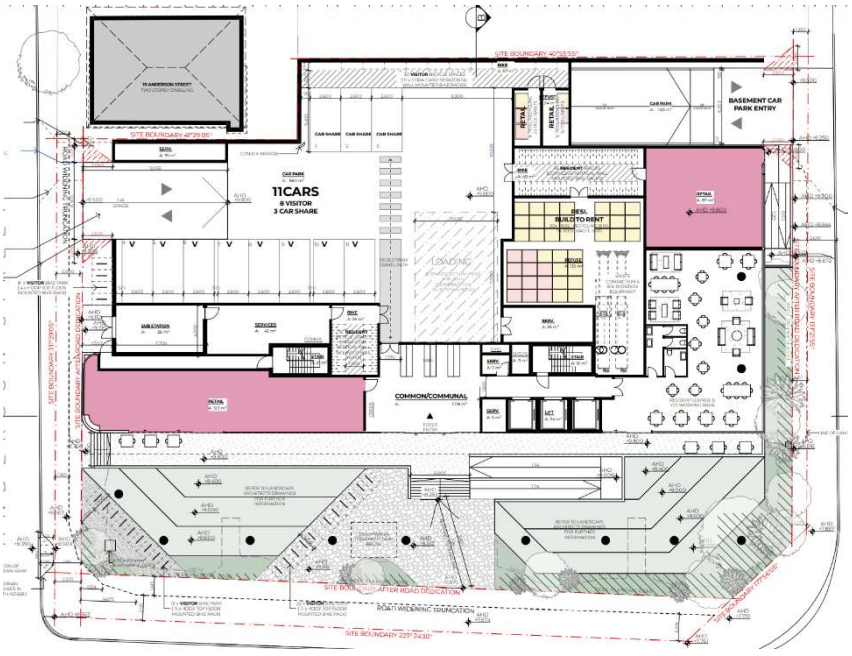


*Figure 2: Proposed Ground Floor Plan – dated 10/11/23 (Source: Telha Clarke)*

**Minimum Flood Planning Levels**

As a conservative approach, the pre-development scenario peak flood levels have been adopted (given a post-development scenario peak flood level would produce a lower peak flood level).

In the 2% AEP peak overland flow flood event (ie. the BCC Defined Flood Event), the peak flood levels at the critical locations are as per Table 1 below.

*Table 1: Minimum Design Level for Subject Site*

| Defined Flood Type | Applicable Defined Level (mAHD) |
|---|---|
| DFE<br>(For Proposed Building/Entrance on Costin Street) | 8.76 |
| DFE<br>(For Proposed Building/Entrance on Anderson St) | 9.00 |

In accordance with Table 8.2.11.3.D of the BCC Flood Overlay Code, the applicable minimum Flood Planning level requirements for the proposed development is shown below in Table 2, based off the BCA Classes 1-4, 5, 6-8 building classification. The highest of each category has been adopted for the flood planning level, as per BCC requirements.

It is noted that the building and driveway access levels can vary across the site, given the change in flood levels down the chainage. Two sets of levels have been provided for the Costin Street and Anderson Street sides, given the change in topography across the site.

It is deemed reasonable to adopt the carpark basement entrance level + freeboard, based on the road entrance side, being Costin Street (as per provided Architectural plans).

*Table 2: Minimum Level Requirements (Based off BCC Flood Overlay Code Table 8.2.11.3.D)*

| Development Type | Category (Table 8.2.11.3.L of the BCC Flood Overlay Code) | Minimum Level Required (mAHD) |
|---|---|---|
| BCA Class 1 -4 Habitable Room | A | 9.50 |
| BCA Class 1 -4 Non-Habitable Room | B | 9.30 |
| Class 5, 6, 8 Building Floor Level | C | 9.00 (Anderson St) 8.76 (Costin St) |
| Garage or car park located in the building undercroft | C | 9.00 (Anderson St) 8.76 (Costin St) |
| Vehicular access and manoeuvring areas, or Unroofed Carpark | D | 9.00 (Anderson St) 8.76 (Costin St) |
| Basement Parking Entry (Higher Class 1-4 Applies) | C + 300mm | 9.06 (Costin St) |
| Essential Electrical Services | A | 9.50 |

It is confirmed that the proposed plans by Telha Clarke (Drawing Set Revision 14 dated 10/11/2023) are shown to comply with the above minimum flood planning levels.

**Summary**
This technical memorandum has been prepared at the request of EDQ, to confirm the potential for flood impact and minimum flood planning level requirements for the proposed development at 15 Anderson Street, Fortitude Valley.

It is confirmed that the proposed development:

- Will improve potential for overland flow flood conveyance and short term flood storage given the change in building form, and therefore **not result in adverse flood impacts** up to the BCC defined flood event;
- Will comply with the minimum flood planning levels as required in accordance with the Brisbane City Council Planning Scheme and associated Flood Overlay Code requirements.

If there are any further questions regarding the content or outcomes noted within this tech memo, please do not hesitate to contact the undersigned,

Kind Regards,

Martin Roushani-Zarmehri
Senior Hydraulic Engineer and Director
*CPEng MIEAust NER RPEQ*

RPEQ 22549

Martin Roushani-Zarmehri

Digitally signed by Martin Roushani-Zarmehri
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Reason: I am approving this document
Date: 2023.11.15 11:38:23+10'00'