



HYDRAULIC IMPACT ASSESSMENT REPORT

3733-3735 Pacific Highway, Slacks Creek QLD 4127

Prepared for H & G JV Pty Ltd

Ref: SF-25-0675-002

Revision 1

Table of Contents

1	Executive Summary	4
2	Introduction.....	5
2.1	Project Background.....	5
2.2	HIA Objectives.....	5
2.3	Site Background.....	5
2.4	Site Characteristics	6
2.5	Proposed Warehouse Development.....	7
2.6	Planning Requirements.....	7
2.7	Adopted Data.....	12
3	Logan Albert Rivers Flood Assessment	13
3.1	TUFLOW Hydraulic Model.....	13
3.2	Model Truncation and Validation.....	13
3.2.1	Topography.....	13
3.2.2	Pre-Development Scenario	15
3.2.3	Post-Development Scenario.....	16
4	Slacks and Scrubby Creek Flood Assessment.....	18
4.1	TUFLOW Hydraulic Model.....	18
4.2	Model Adoption.....	18
4.3	Post-Development Modifications.....	18
4.4	Peak Flood Map Results.....	19
4.4.1	Pre-Development Scenario	19
4.4.2	Post-Development Scenario	20
4.5	Design Flood Level — Slacks Creek.....	21
5	Overland Flow Assessment.....	22
5.1	Hydrology.....	22
5.2	Hydraulic Model.....	22
5.2.1	Topography.....	22
5.2.2	Boundary Conditions	22
5.2.3	Surface Roughness and Losses	23
5.2.4	Hydraulic Infrastructure	25
5.3	Peak Flood Map Results.....	27
5.3.1	Pre-Development Scenario	27
5.3.2	Post-Development Scenario.....	28
6	Flood Planning Assessment	30
6.1	Overview – Flood Overlay Code	30
6.2	Peak Flood Level Requirements	30
6.3	Flood Immunity and Resilient Building Design.....	31

6.4	Flood Safety.....	33
6.5	Flood Impacts.....	35
7	Conclusion	38
8	Qualifications	38

Figures

Figure 1	Aerial Imagery – Source: LCC PD Hub / Nearmap	5
Figure 2:	Site Topography with 1 m Contours and Council Stormwater Shown	6
Figure 3	Site Frontage from Pacific Highway –South Facing (Source: Google Street View, September 2024) 7	7
Figure 4	LCC Flood Hazard Overlay – Source: LCC Flood Portal.....	8
Figure 5	1% AEP Logan River Flood Depth – Source: LCC Flood Portal (Logan & Albert Rivers Flood Study 2023) 9	9
Figure 6	1% AEP Slacks Creek Flood Depth - Source: LCC Flood Portal (Slacks & Scrubby Creek Flood Study 2023) 10	10
Figure 7	Overland Flow Extent – Source: LCC Flood Portal.....	11
Figure 8	LARFS Model Truncation and Validation	14
Figure 9:	1% AEP 2100 Design Event – LARFS Assessment - Pre-Development Scenario Peak Flow Depth and Peak Flood Level Contours.....	15
Figure 10:	1% AEP 2100 Design Event– LARFS Assessment - Post-Development Scenario - Peak Flow Depth and Peak Flood Level Contours.....	16
Figure 11	1% AEP 2100 Design Event – LARFS Assessment - Change in Peak Flood Level.....	17
Figure 12:	1% AEP 2090 Design Event- Slacks and Scrubby Creek Flood Assessment - Pre-Development Scenario Peak Flow Depth and Peak Flood Level	19
Figure 13:	1% AEP 2090 Design Event- Slacks and Scrubby Creek Flood Assessment - Post-Development Scenario Peak Flow Depth and Peak Flood Level	20
Figure 14	1% AEP 2090 Design Event- Slacks and Scrubby Creek Flood Assessment – Change in Peak Flood Level Assessment.....	21
Figure 15	Overland Flow Model Development – Model Domain and Boundary Conditions with context of the local topography.....	23
Figure 16	Overland Flow Model Development – Pre-Development Scenario - Manning's Layer Delineation and Roughness (n) Values.....	24
Figure 17	Overland Flow Model Development – Post-Development Scenario - Manning's Layer Delineation and Roughness (n) Values.....	24
Figure 18:	Overland Flow Model Development – Stormwater Infrastructure and Topographic Amendments 26	26
Figure 19:	1% AEP 2100 Design Event- Overland Flow Assessment - Pre-Development Scenario Peak Flow Depth 27	27
Figure 20:	1% AEP 2100 Design Event- Overland Flow Assessment - Post-Development Scenario Peak Flow Depth 28	28
Figure 21	High Flow Area (Shaded Red) in context to the Proposed Undercroft and Fill Area	32
Figure 22	1% AEP 2100 Design Event- LARFS (2023) Flood Level Hydrograph– Plot Reporting Line 24.....	34
Figure 23	0.5% AEP 2100 Design Event- LARFS (2023) Flood Level Hydrograph– Plot Reporting Line 24.....	34
Figure 24:	Flood Risk Areas in context to the Proposed Undercroft and Fill Area	35
Figure 25	Overland Flow Hydrograph Comparison (Downstream Boundary)	36
Figure 26:	PMF Design Event- LARFS (2023) Flood Level Hydrograph– Plot Reporting Line 24 – with context of the Lower Level Carpark Inundation Period.....	37

Tables

Table 1	Minimum Flood Planning Levels for the Proposed Use Types	30
Table 2:	Tolerances for Flood Impact Assessment	36

Document Control Record

Version	Date	Description	Author
1.1	29 th June 2026	For Approval Issue	DAE

RPEQ Certification

As a Registered Professional Engineer of Queensland (RPEQ), engaged on behalf of StormFlood Engineering Pty Ltd, I certify that based on the provided data, and/or modelling undertaken as part of this projects requirements, that the assessment has been undertaken in accordance with the relevant assessment authorities, and in accordance with current engineering best practices.

RPEQ Name	RPEQ Number	Document Version	Signature
Martin Roushani-Zarmehri	22549	1.1	 Digitally signed by Martin Roushani-Zarmehri DN: cn=Martin Roushani-Zarmehri, o=StormFlood Engineering Pty Ltd, email=Martin.Roushani-Zarmehri@stormfloodeng.com, c=AU Reason: I am approving this document Date: 2026.06.29 10:35:31+10'00'

Disclaimer: This report in its entirety is copyright and every part of this document belongs to StormFlood Engineering Pty Ltd. The report is to be used only for its intended purpose by the intended recipient, and is not to be copied or used in any other way. The limitations of the report and any associated modelling, analysis or study, is based off specific information provided by the engaged parties and their associated consultants, and any publicly readily available information relevant at time of writing of this report. StormFlood Engineering Pty Ltd does not take responsibility of any errors, omissions or information missing from this report that has not been reasonably provided during preparation of this report. Albeit the above, this report and associated summaries are limited to the extent of accurate information provided to StormFlood Engineering Pty Ltd. This report may not be used, sold, transferred, copied or reproduced in whole or in part in any manner or form or in or on any media to any person without the prior written approval of StormFlood Engineering Pty Ltd.



StormFlood Engineering Pty Ltd
ACN: 92 641 668 484

PO Box 5847
West End QLD 4101

www.stormfloodeng.com

1 Executive Summary

StormFlood Engineering has been engaged by H & G JV Pty Ltd (the 'Client') to complete a Hydraulic Impact Assessment (HIA) for a proposed multi-tenancy warehouse development at 3733-3735 Pacific Highway, Slacks Creek QLD 4127, as part of a development application to Logan City Council (LCC).

The site is located within the Logan River and Slacks Creek catchments and is subject to three (3) sources of flooding: Logan River flooding (the governing flood source), Slacks Creek flooding, and the local overland flow. The site is mapped within LCC's High Flow Area (OM-05.02) and contains High, Moderate and Low flood risk zones under Flood Overlay Map OM-05.04.

This assessment utilises the Logan and Albert Rivers Flood Study 2023 (LARFS 2023) and the Slacks and Scrubby Creek Flood Study 2023 (SSCFS 2023), both approved by LCC, together with an independently developed overland flow model prepared in accordance with Australian Rainfall and Runoff (ARR 2019) guidelines. The Defined Flood Event (DFE) for this assessment is the 1% AEP, assuming a Representative Concentration Pathway (RCP) of 4.5 projected to the year 2100 (LARFS) / 2090 (SSCFS), referred to as the 1% AEP 2100 design event herein. The 1% AEP 2100 flood level is 10.9 m AHD from Logan River flooding and 7.0 m AHD from Slacks Creek flooding.

The risk assessment has been conducted against LCC's Flood Overlay Code and the Flood Planning Scheme Policy (SC6.2.10) under the Logan Planning Scheme 2015 V9.2 with TLPI No. 1/2024. The key outcomes are:

- The proposed structural slab level (SSL) ranges from 11.30 m AHD (lower level carpark) to 13.8 m AHD (upper level warehouse tenancies). The lower level warehouse tenancies (SSL 11.300 m AHD) are approximately 400 mm above the 1% AEP 2100 Logan River level (10.9 m AHD). The upper level tenancies range from SSL 12.8 m AHD (Tenancy 1) to 13.8 m AHD (Tenancies 3, 5, 15 and 17), exceeding the 0.2% AEP level (12.4 m AHD) and 0.05% AEP level (13.0 m AHD).
- The extent of development work contained in the High Flood Risk Area (as part of Flood Overlay OM - 05.04) is limited to the south-western fringe of the proposed pad area where existing ground levels fall below the DFE peak flood level (10.9 m AHD), and the proposed undercroft. The undercroft is designed to be flood-compatible with the undercroft arrangement (column grid, no enclosed walls) maintaining flow conveyance within the High Flood Risk Area. The hydraulic impact assessment confirms the proposed works do not result in any material flood impacts up to and including the DFE across all flood sources.
- Overland flow is to be managed, with the following drainage features to be considered:
 - o To collect and convey local runoff along the north-eastern boundary (near the access ramp to the lower level), a swale should be provided along the perimeter of the ramp, graded to redirect flows towards the overland flow path.
 - o Flows from the trunk line and local catchment to the east of the site are conveyed across the proposed undercroft - a swale or spreader is recommended to mitigate erosion risk at the foundations and piles.
 - o Local runoff is to be managed via the inter-lot stormwater network, with flows routed south-west to the downstream overland flow path.
- Vehicle access via Pacific Highway Service Road (Nujooloo Rd) is assessed to remain trafficable up to and including the Defined Flood Event. Occupants can mobilise safely from the premises, with flooding from the Logan River characterised by a slow rise in the peak flood level for major storm events, with the peak flood level occurring at 120 hours from the commencement of the critical duration storm. This provides adequate lead time for safe evacuation prior to flood onset. In extreme circumstances, patrons and staff can shelter-on-site, with the upper level tenancies (where the SSL is 13.800 m AHD) flood free up to and including the 0.05% AEP 2100 design event (13.0 m AHD).

Based on this assessment, it is concluded that the development poses minimal flood risk to persons and property and therefore should be considered acceptable by LCC.

2 Introduction

2.1 Project Background

StormFlood Engineering Pty Ltd has been commissioned by H & G JV Pty Ltd (herein the Client) to undertake a Hydraulic Impact Assessment (HIA) of a proposed warehouse development at 3733-3735 Pacific Highway, Slacks Creek QLD 4127, to support a Development Application (DA) to Logan City Council (LCC).

2.2 HIA Objectives

This report aims to assess the proposed warehouse development against Council's flood planning requirements by modelling overland flow, creek (Slacks Creek) and river (Logan River) flooding for the Defined Flood Event (DFE), being the 1% AEP 2100 design event. This assessment is to determine flood impacts, flood immunity and hazard across all flood sources.

2.3 Site Background

The subject site is located at 3733-3735 Pacific Highway, Slacks Creek QLD 4127, formally known as Lot 6 RP 839894, which is within Logan City Council (LCC) LGA. The lot is currently zoned as Specialised Centre – Highway Business Precinct and has a total area of approximately 1.16 ha (11,560 m²) (Source: LCC Property Report).

The site is considered 'undeveloped', with no existing buildings. It is understood that a horticultural business operates on the site; however, no material development works (i.e. permanent structures) appear to have been constructed.

An aerial image of the site with surrounding properties and roads is shown in Figure 1. As shown, the site is bound by Pacific Highway to the north-east, with access from Pacific Highway Service Road (Nujooloo Rd). Slacks Creek traverses the south-western boundary of the site.



Figure 1 Aerial Imagery – Source: LCC PD Hub / Nearmap

2.4 Site Characteristics

Based on publicly available 2023 LiDAR topography, Google Street View and QLD Globe aerial imagery:

- The site elevation ranges between approximately RL 3.2 m AHD (minimum, within the Slacks Creek corridor in the southern portion of the site) to RL 12.6 m AHD (maximum, near the Pacific Highway frontage), based on the 2023 LiDAR Digital Elevation Model (1 m grid). This varies from the LCC Flood Portal, as this is understood to adopt the 2021 LiDAR dataset.
- Slacks Creek traverses the southern portion of the subject site.
- An overland flow path runs through the site from the southeast boundary. This commences from the outlet of the 900 mm diameter RCP trunk line (refer to Section 5.2.4), with flows conveyed toward Slacks Creek.
- The site topography directs overland flows southward toward Slacks Creek.
- The site is currently used as a horticultural site, with the area largely preserved.

The site topography is shown in Figure 2 and the site frontage is shown in Figure 3.



Figure 2: Site Topography with 1 m Contours and Council Stormwater Shown



Figure 3 Site Frontage from Pacific Highway –South Facing (Source: Google Street View, September 2024)

2.5 Proposed Warehouse Development

The proposed development consists of a multi-tenancy warehouse development comprising 9 warehouse tenancies across two levels, parking, and maintenance access provided to the undercroft area from the lower level. This includes:

- Upper Level Tenancies: Tenancies 3, 5, 15 and 17 have a structural slab level of 13.800 m AHD, and Tenancy 1, has a structural slab level of 12.800 m AHD. Egress is provided via the Pacific Highway Service Road (Nujooloo Rd);
- Lower Level Tenancies and Parking Level: Tenancies 7, 9, 11 and 13 have a structural slab level of 11.300 m AHD and with the carpark at 10.900 m AHD;
- Undercroft area, with access limited to maintenance only (i.e. not to be used by patrons or staff for parking); and
- Vehicle access for both passenger vehicles and prime mover/semi-trailer movements is permitted, with access provided by the Pacific Highway Service Road (Nujooloo Rd).

The Architectural Drawings for the proposed development, prepared by Gary Grieve Design (Project Number: 477, Revision F, prepared April 2025) are contained in Appendix A.

2.6 Planning Requirements

Council has updated their Planning Scheme (the 'Logan Plan') to include the 2024 Temporary Local Planning Instrument (TLPI) known as TLPI No. 1/2024. This TLPI was specifically created to:

"Suspend the operation of specific flood related provisions of the Logan Planning Scheme 2015 and replace them with new risk-based flood provisions that seek to avoid or mitigate flood risk to an acceptable level, increase the community's resilience to flood risk, and decrease the emergency burden during flood events."

As part of TLPI No. 1/2024, Council updated the flood hazard overlay and created a new table of assessment and code to support the revised overlay. This is reflected in the draft Logan Plan. The main flood hazard overlay is shown in Figure 4.

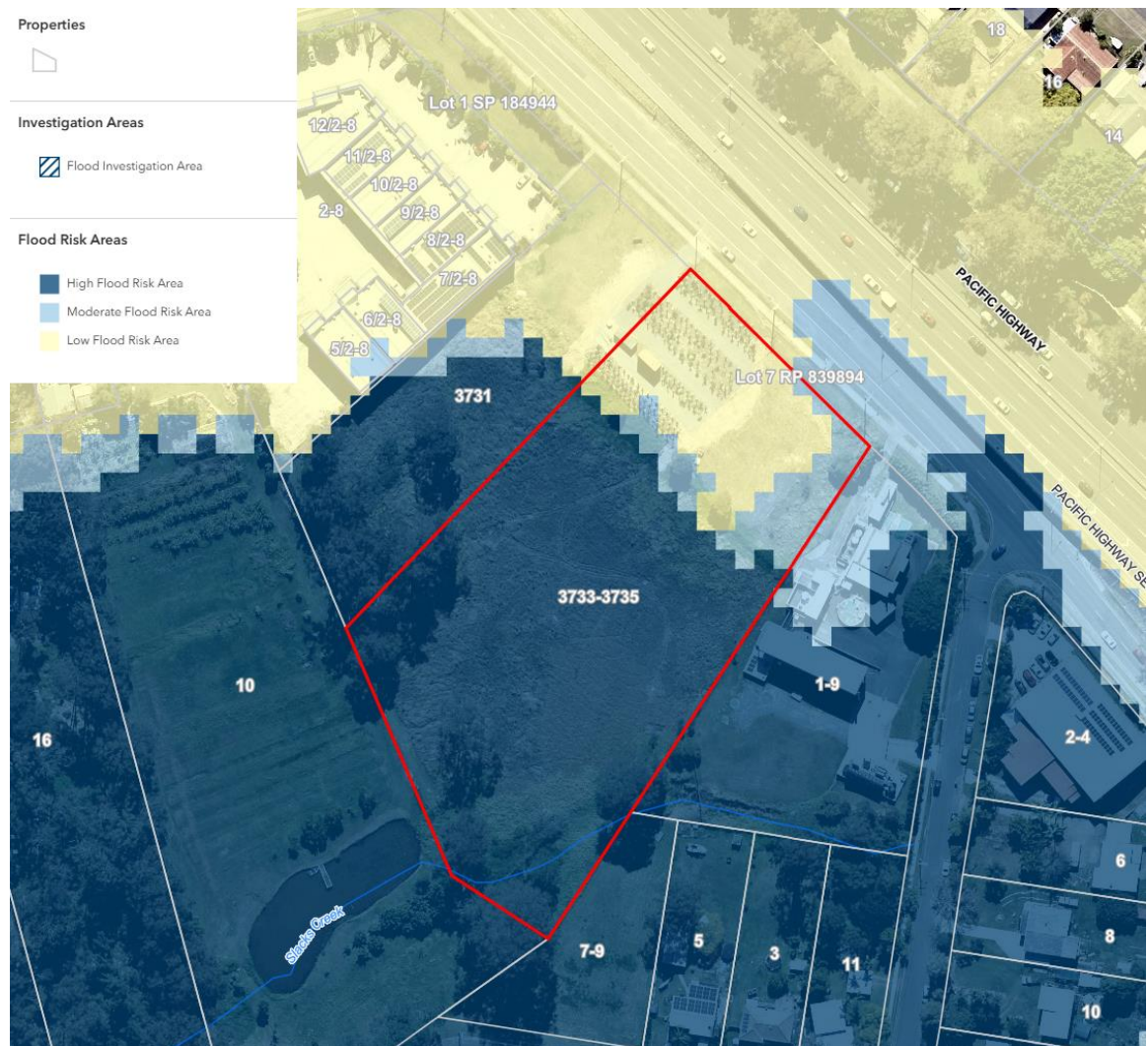


Figure 4 LCC Flood Hazard Overlay – Source: LCC Flood Portal

Given the proposed warehouse development involves a Material Change of Use (MCU) within the high-risk flood area, it is understood that the development is assessable against Council's Flood Overlay Code. As per the Logan Planning Scheme PSP SC6.2.10 Flood, assessment must all three sources of flooding, being local (overland), creek and river flooding, with characteristics explained below:

- Logan River: Regional flooding from long-duration (~multi-day) large-scale weather systems (e.g. ex-tropical cyclones), where Logan River flood levels dominate the site. The Logan River is the governing flood source at the site for the Defined Flood Event, being the 1% AEP 2100 design event, and all rarer design events.
- Slacks Creek: District scale flooding from shorter duration (~multi-hour) weather events over the Slacks Creek catchment. Site will flood via a combination of local runoff and backwater affect, such that conveyance and flood storage needs to be maintained to avoid hydraulic impacts external to the site.
- Overland Flow: Runoff from the local catchment that concentrates toward Slacks Creek during heavy rainfall events. Any proposed warehouse development must maintain existing overland flow paths toward Slacks Creek.

For reference, the Logan River and Slacks Creek 1 % AEP flood depth is shown in Figure 5 and Figure 6 respectively. The Logan Flood Portal does not provide flood characteristics (depth, velocity, etc) for overland flow, only the anticipated extents as shown in Figure 7.

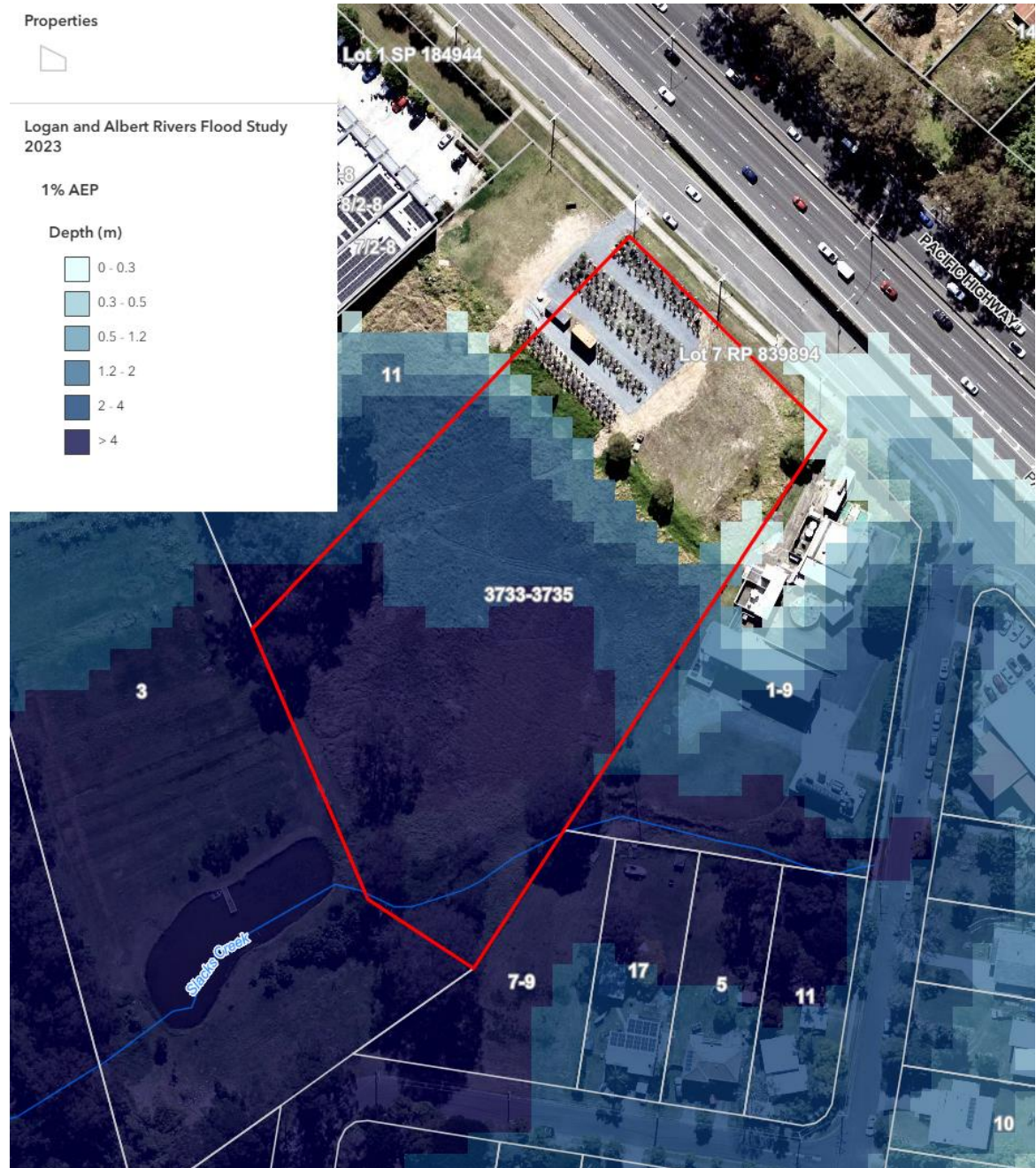


Figure 5: 1% AEP Logan River Flood Depth – Source: LCC Flood Portal (Logan & Albert Rivers Flood Study 2023)

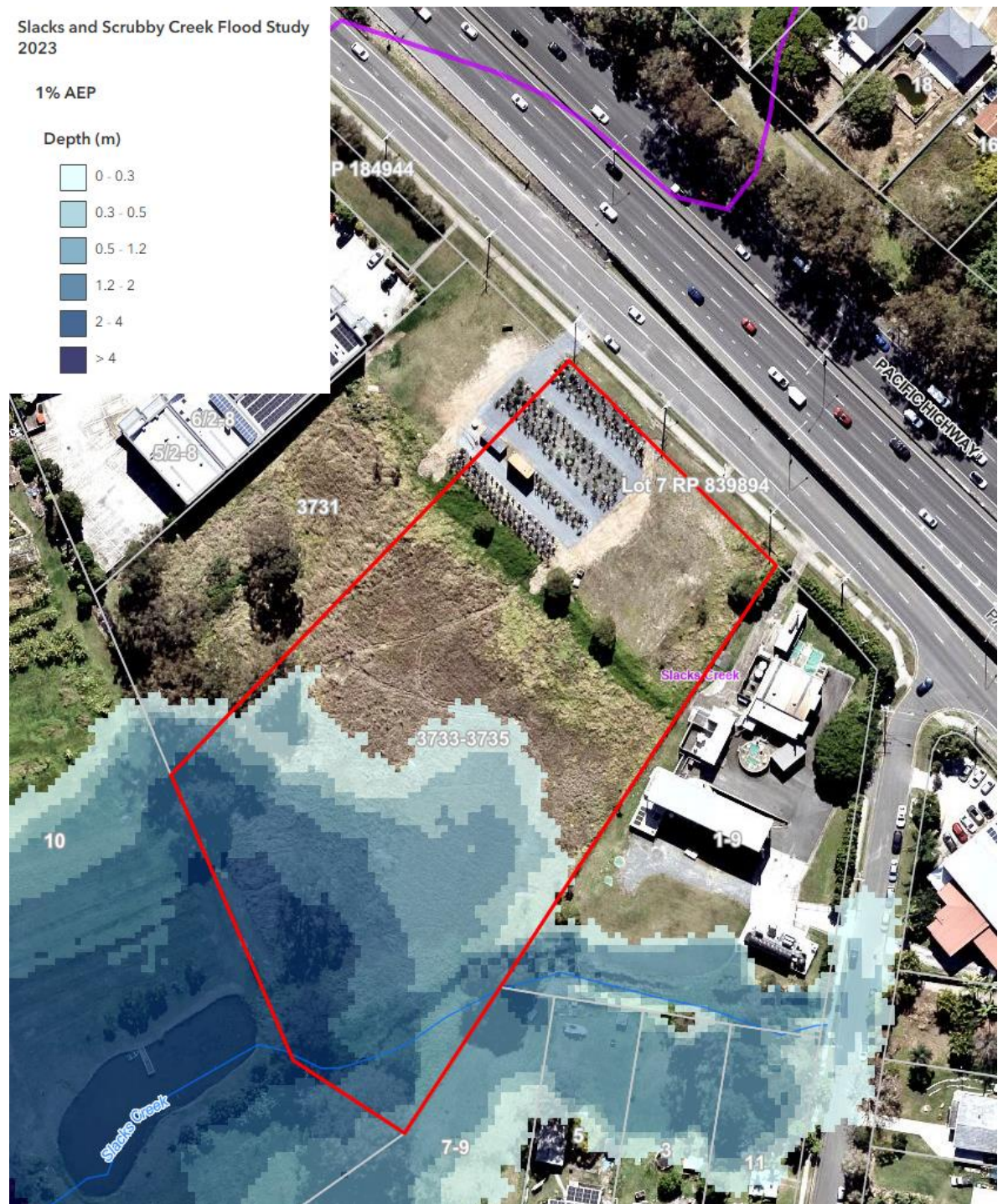


Figure 6: 1% AEP Slacks Creek Flood Depth - Source: LCC Flood Portal (Slacks & Scrubby Creek Flood Study 2023)



Figure 7: Overland Flow Extent – Source: LCC Flood Portal

Therefore, to support this assessment, all three (3) types of flooding will be considered. Whilst LCC has developed flood models for both Slacks Creek and the Logan River, supported by comprehensive studies, a model is not available for the overland flow flood source. StormFlood have independently developed a site-specific model to determine overland flow behaviour within the local catchment.

Regarding coincident flooding, within larger regional weather systems, it is highly improbable for short duration storms to occur locally at the exact time the regional flood wave arrives and therefore coincident flooding will not be considered for overland flow. Coincident flooding will only be considered for Slacks Creek per the most recent flood study.

The LCC Property Flood Report for the site is contained in Appendix B.

2.7 Adopted Data

This assessment is limited to the information provided by the Client and other publicly available datasets obtained through Government agencies, including:

- Slacks and Scrubby Creek Flood Study 2023 (SSCFS 2023) – WRM Water & Environment;
- Logan and Albert Rivers Flood Study 2023 (LARFS 2023) – WRM Water & Environment;
- LCC Planning Scheme 2015 (Version 9.2, with TLPI No. 1/2024);
- LCC PD Hub Property Report for Lot 6 on RP 839894;
- LCC Property Flood Report for Lot 6 on RP 839894;
- 2023 LiDAR Digital Elevation Model (1 m grid), obtained via ELVIS portal;
- Proposed development layout plan, by Gary Grieve Design (Project Number: 477, Revision F, prepared April 2025)
- Stormwater datasets (pit, drain, culverts) from LCC's GIS Stormwater portal;
- Australian Rainfall and Runoff DataHub 2019 (temporal patterns, losses, etc); and
- BOM 2020 LIMB Intensity-Frequency-Duration (IFD) rainfall datasets;

3 Logan Albert Rivers Flood Assessment

3.1 TUFLOW Hydraulic Model

The existing TUFLOW model developed as part of the 2023 *Logan Albert River Flood Study* (LARFS) was adopted as the basis for the model development. The hydraulic model applies local inflow hydrographs developed from the XP-RAFTS runoff routing hydrological model. The TUFLOW model simulates two-dimensional (2D) hydrodynamic flow behaviour across the floodplain, providing spatially distributed outputs of flood extent, peak flood levels, and flow velocities.

3.2 Model Truncation and Validation

The TUFLOW model was truncated for the purposes of this assessment. This involved:

- Nullification of the downstream reaches;
- Truncation of the local inflow hydrographs (source area polygons) to those contained in the revised model domain; and
- Downstream boundary condition applied as a dynamic tailwater level (water level hydrograph), derived from Reporting Line LR25 of the 2023 LARFS TUFLOW model.

Validation was undertaken against the LARFS flood extent, as peak flood level rasters were not available for comparison. Whilst the model domain and boundary conditions are considered representative of the LARFS outputs, some minor uncertainty in absolute flood levels may exist.

The peak flood level along the northern boundary of the proposed development area from the truncated model is 10.87 m AHD – aligned with the 10.9 m AHD recorded in the Property Flood Report for the site. Therefore, the truncated model is considered to provide an appropriate representation of flood conditions at the site and is therefore appropriate for the purposes of establishing Flood Planning Levels and assessing hydraulic impacts.

Following validation, modifications were made to represent post-development conditions, as described below.

3.2.1 Topography

The 2021 LiDAR adopted for the 2023 LARFS TUFLOW Model was retained as the baseline model topography.

Post-Development Modifications

The proposed development works were incorporated in the model, comprising:

- The proposed fill area delineated in accordance with the development plans, with the finished surface level set to 12.8 m AHD (Tenancy 1 Structural Slab Level of 12.8 m AHD, refer to DA-010 of Appendix A). This was represented as a topographic amendment.
- The proposed undercroft area delineated in accordance with the development plans, assuming:
 - o Obvert level of 10.5-10.9 m AHD, assuming a 0.4 m slab, informed the SSL of the Lower Level (refer to DA-020 of Appendix A)
 - o 500 mm diameter column piles, with approximately 16 proposed across Cross-Section E, spanning east-west chainage (refer to DA-020 of Appendix A); assuming approximately 12.5% blockage. This was represented as a 2D Layered Flow Constriction shapefile.

Figure 8 shows the delineation and placement of model elements developed as part of the truncation and validation against the 2023 LARFS Flood Model Extent.

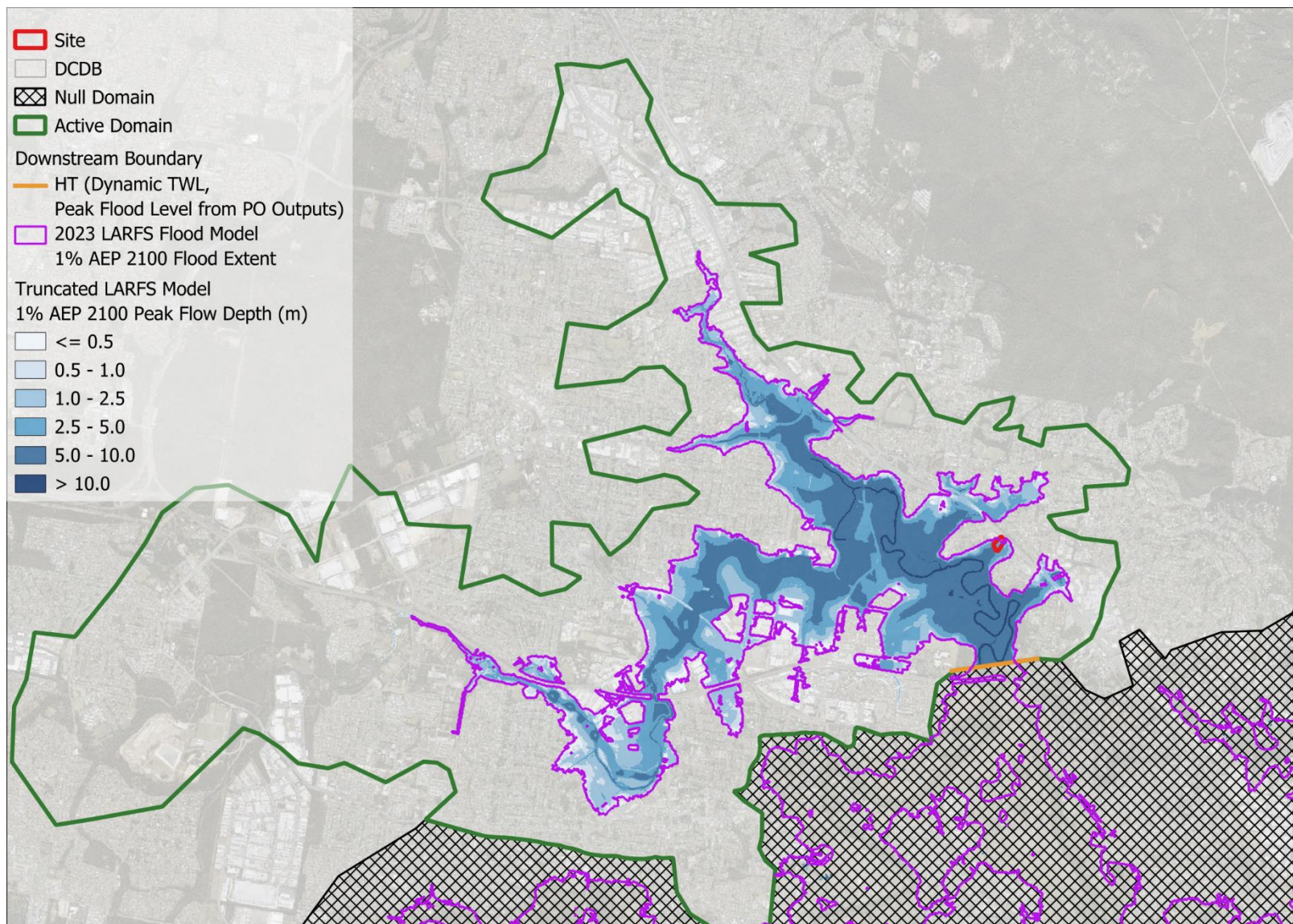


Figure 8 LARFS Model Truncation and Validation

3.2.2 Pre-Development Scenario

The modelling indicates that under pre-development conditions during the Defined Flood Event:

- Flows from the Logan River pool in the Slacks Creek drainage corridor. This suggests that flooding is due to Logan River backwater inundation rather than localised Slacks Creek catchment runoff.
- The peak flood level across the site is 10.873 m AHD, with minimal oscillations in the peak flood level observed across the floodplain, reinforcing the notion that flooding is due to backwater inundation. The peak flood level is consistent with that noted in the LCC Property Flood Report for the site (10.900 m AHD for the 1% AEP 2100 event).
- The peak flow depth along the western boundary of the subject site exceeds 5 m, with the eastern boundary of the site (Pacific Highway frontage) flood free. This confirms the flood storage function of the site and supports the use of an open undercroft arrangement as a flood-compatible design within the High Flood Risk Area

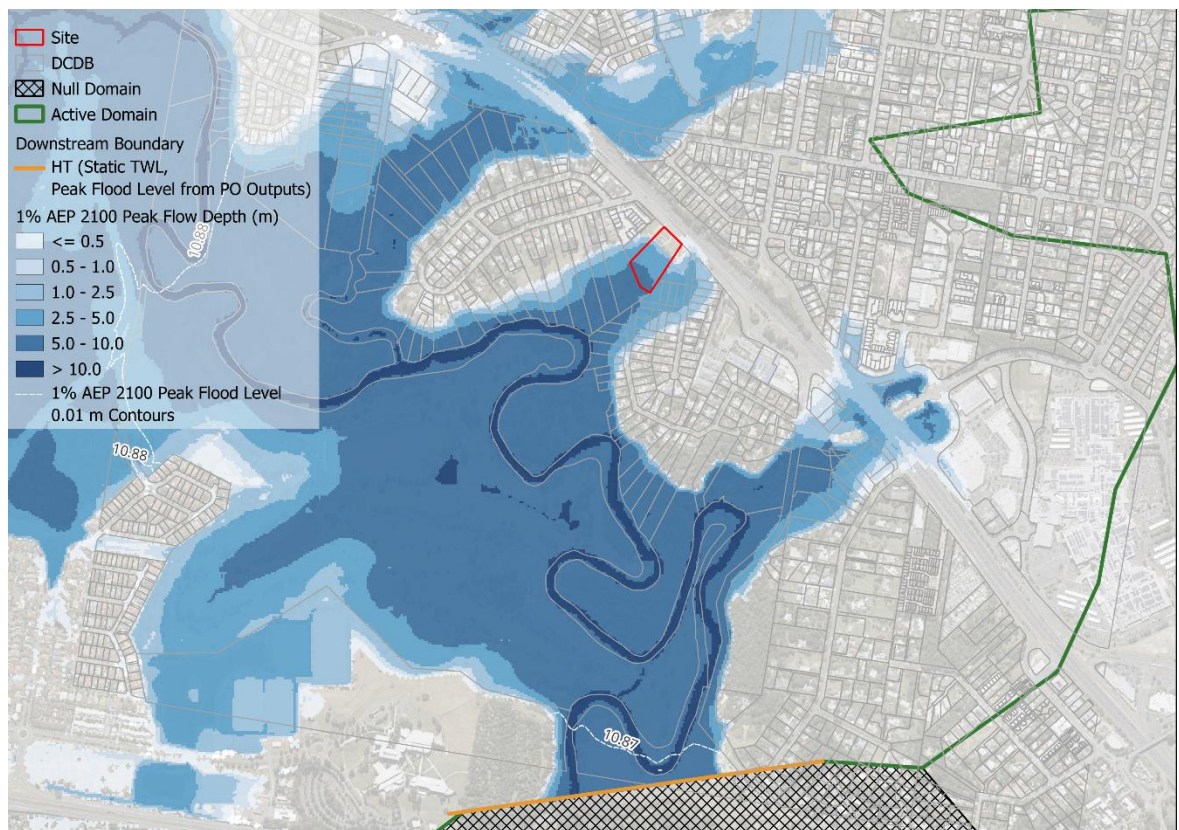


Figure 9: 1% AEP 2100 Design Event – LARFS Assessment - Pre-Development Scenario Peak Flow Depth and Peak Flood Level Contours

3.2.3 Post-Development Scenario

The modelling indicates that under post-development conditions:

- The raised pad achieves flood immunity up to and including the defined flood event, with the development envelope confirmed as not inundated during the 1% AEP 2100 design event;
- No change in the peak flood level is modelled, with the peak flood level across the site at 10.873 m AHD.
- Deep inundation exceeding 6.0 m is concentrated within the Slacks Creek drainage corridor to the east of the raised pad, consistent with pre-development conditions and reflecting the natural conveyance function of the tributary.

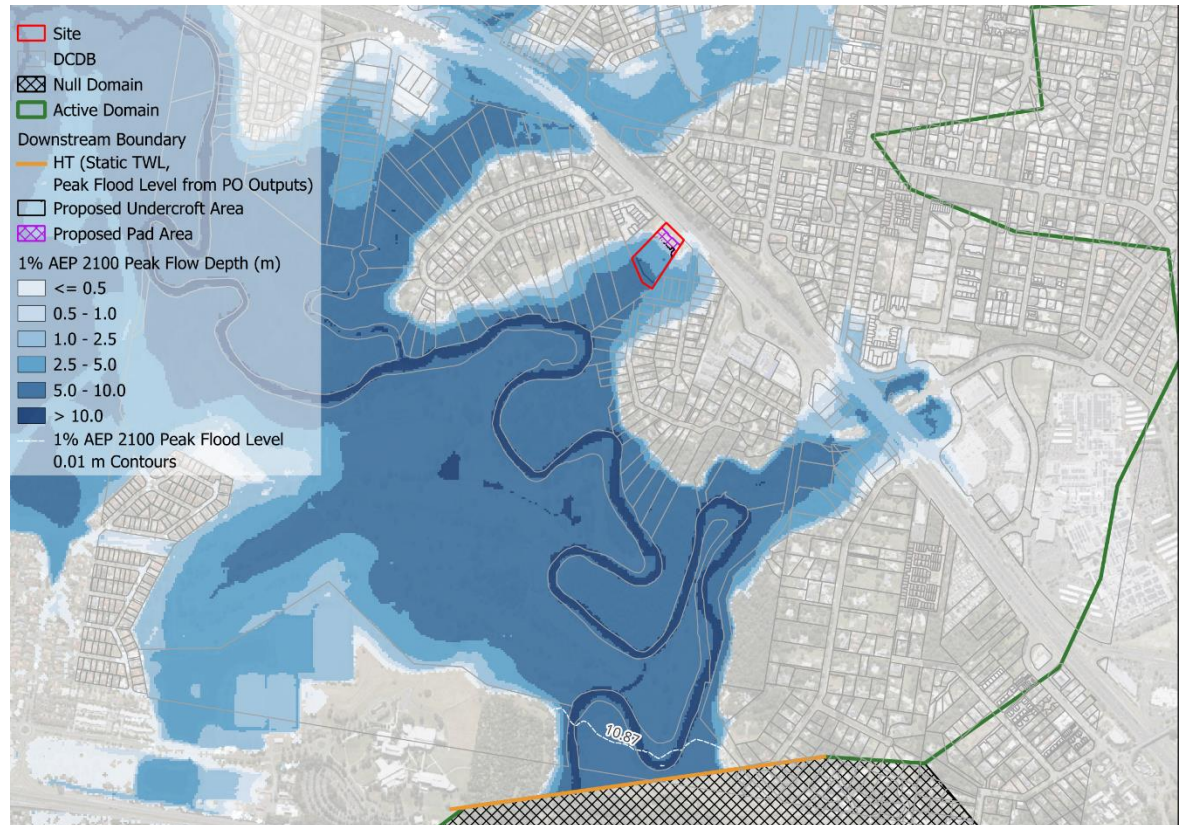


Figure 10: 1% AEP 2100 Design Event– LARFS Assessment - Post-Development Scenario - Peak Flow Depth and Peak Flood Level Contours

The Change in Peak Flood Level Assessment demonstrates that no material increase in the peak flood level is modelled across the floodplain, with impacts limited to 2 mm. This is anticipated given the density of the column arrangement, yielding no material losses and maintaining flow conveyance during the DFE. Figure 11 below presents the spatial distribution of afflux resulting from the proposed development under the 1% AEP 2100 design event, with the 2023 LARFS Flood Extent overlaid.

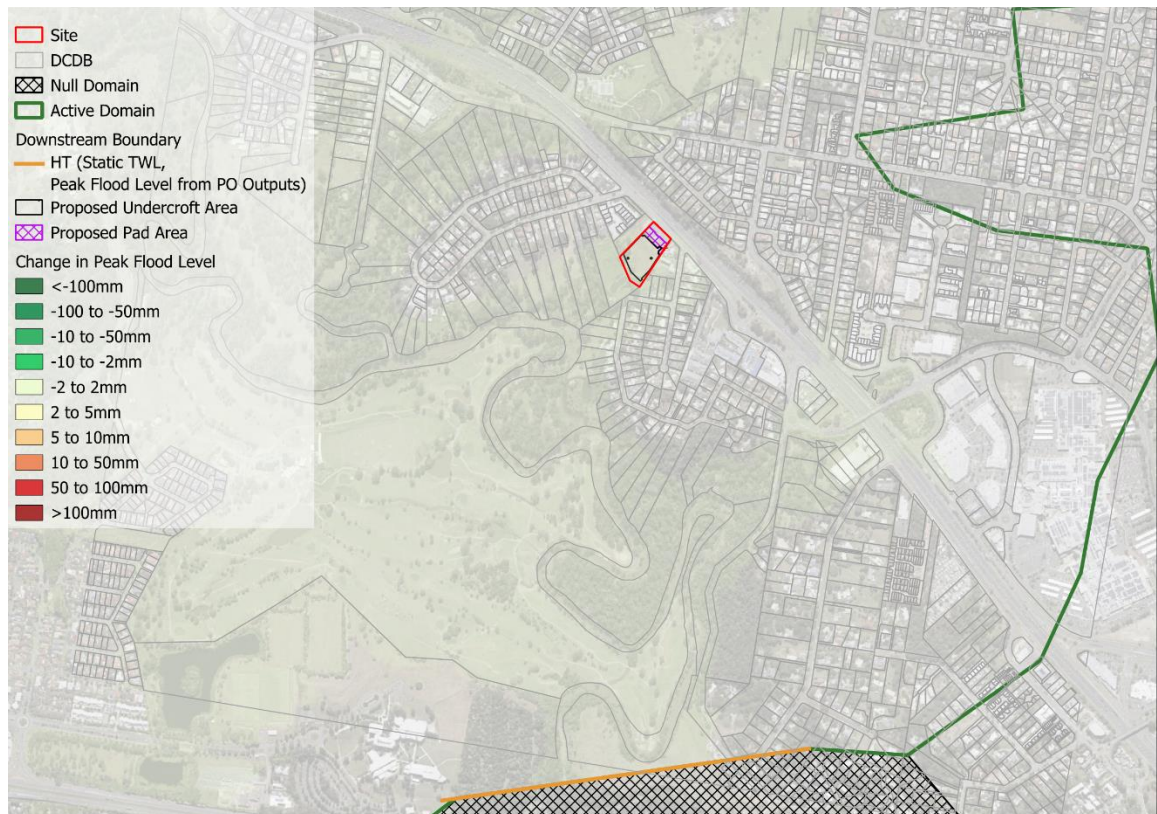


Figure 11 1% AEP 2100 Design Event – LARFS Assessment - Change in Peak Flood Level

Overall, the outcomes of the impact assessment are considered acceptable and are consistent with the non-worsening and nuisance flooding performance outcomes of the LCC Planning Scheme (2015, Version 9.2) Flood Hazard Overlay Code.

Flood maps detailing the peak flow depth, peak flow velocity, peak flood hazard (depth–velocity product) and hazard rating (Australian Institute of Emergency Management) for both the pre-development and post-development scenarios during the Defined Flood Event for the Logan River flood source are contained in Appendix C.

4 Slacks and Scrubby Creek Flood Assessment

4.1 TUFLOW Hydraulic Model

The existing TUFLOW model developed as part of the Slacks and Scrubby Creek Flood Study 2023 (SSCFS 2023) was adopted as the basis for the assessment of Slacks Creek flooding at the subject site. The hydraulic model simulates two-dimensional (2D) hydrodynamic flow behaviour across the Slacks Creek floodplain, providing spatially distributed outputs of flood extent, peak flood levels, and flow velocities.

4.2 Model Adoption

The SSCFS 2023 TUFLOW model was adopted as-is for the purposes of this assessment, without truncation of the model domain or modification of the boundary conditions. This approach was considered appropriate given the extent of the SSCFS 2023 model domain relative to the subject site, ensuring the model accurately represents Slacks Creek flood behaviour under both pre- and post-development conditions.

Validation was undertaken by comparison against the 1% AEP 2090 Slacks Creek flood levels published in the LCC Flood Portal Property Report for the site (Property Key 186729). The peak flood level derived from the SSCFS 2023 model for the 1% AEP design event is consistent with the LCC Portal value of 7.0 m AHD, confirming the model provides an appropriate representation of Slacks Creek flood conditions at the subject site.

4.3 Post-Development Modifications

Post-development modifications to the SSCFS 2023 model were applied consistent with those described in Section 3.2.1, comprising the proposed fill area and undercroft arrangement as delineated in the architectural drawings (Gary Grieve Design, Project 477, Rev. F, April 2025).

4.4 Peak Flood Map Results

4.4.1 Pre-Development Scenario

The modelling indicates that under pre-development conditions during the Slacks Creek Defined Flood Event:

- The site is largely flood-free or subject to shallow inundation (≤ 0.5 m) under the 1% AEP 2090 (RCP4.5) Slacks Creek design event, consistent with the elevated ground levels across the developed portion of the site (RL ~ 12.6 m AHD near the Pacific Highway frontage). Inundation of 1.0–2.5 m is observed in the southern portion of the site.
- The peak flood level across the site is 7.03 m AHD, consistent with the LCC Flood Portal Property Report value of 7.0 m AHD. The near-uniform flood level contours (7.03–7.06 m AHD) across the broader floodplain reinforce the conclusion that inundation at the site is driven by Logan River backwater rather than localised Slacks Creek catchment runoff.
- The peak Slacks Creek flood level of 7.03 m AHD is 3.87 m below the Logan River DFE (10.9 m AHD) and 4.27 m below the proposed lower level warehouse tenancies (SSL ~ 11.300 m AHD). This confirms that Slacks Creek flooding does not govern the design flood level at the subject site.

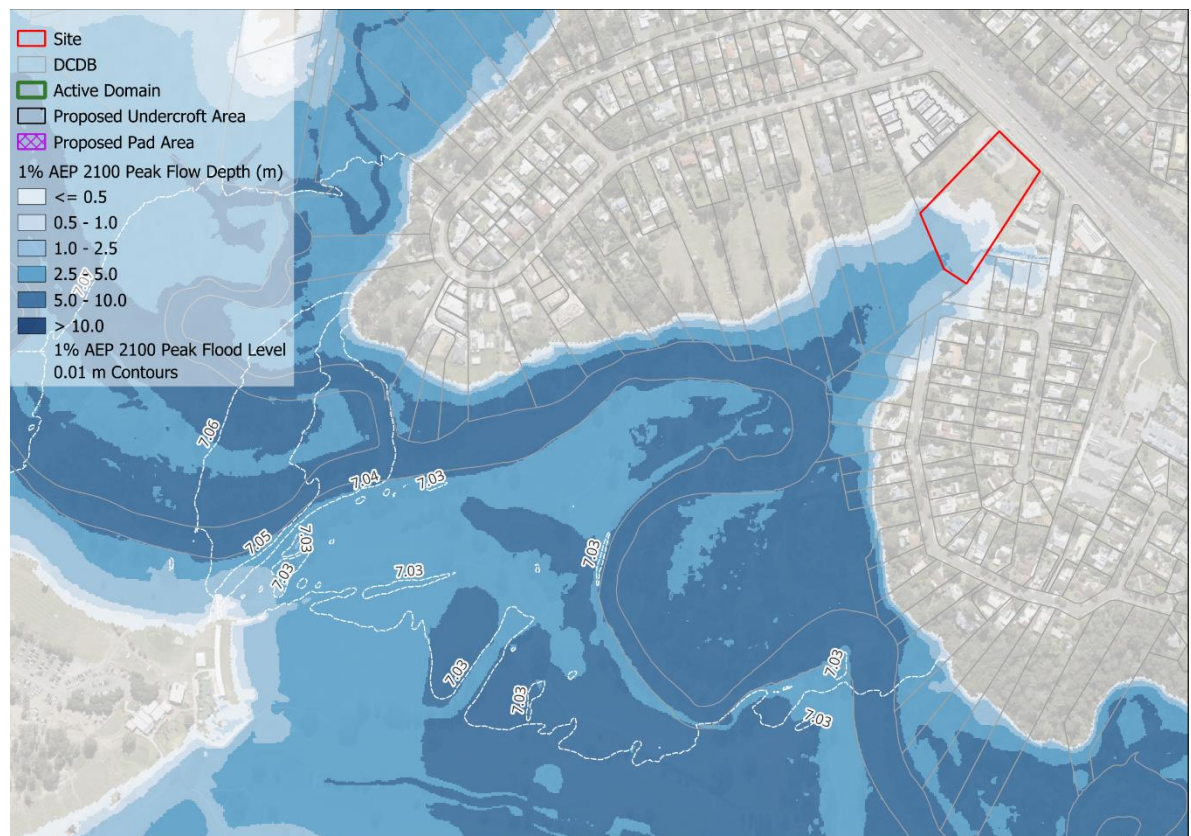


Figure 12: 1% AEP 2090 Design Event- Slacks and Scrubby Creek Flood Assessment - Pre-Development Scenario Peak Flow Depth and Peak Flood Level

4.4.2 Post-Development Scenario

The modelling indicates that under post-development conditions:

- The proposed pad area is confirmed flood-free under the 1% AEP 2090 (RCP4.5) Slacks Creek design event, consistent with the pad SSL exceeding the Slacks Creek DFE by a substantial margin (~4.27 m for the lower level warehouse tenancies).
- Flood depths within the proposed undercroft area are consistent with pre-development conditions. No material change in the peak flood level or flood depth distribution is observed across the site or the broader Slacks Creek floodplain.
- Slacks Creek flow conveyance is maintained under post-development conditions, confirming the undercroft arrangement does not impede Slacks Creek flood behaviour at the DFE.

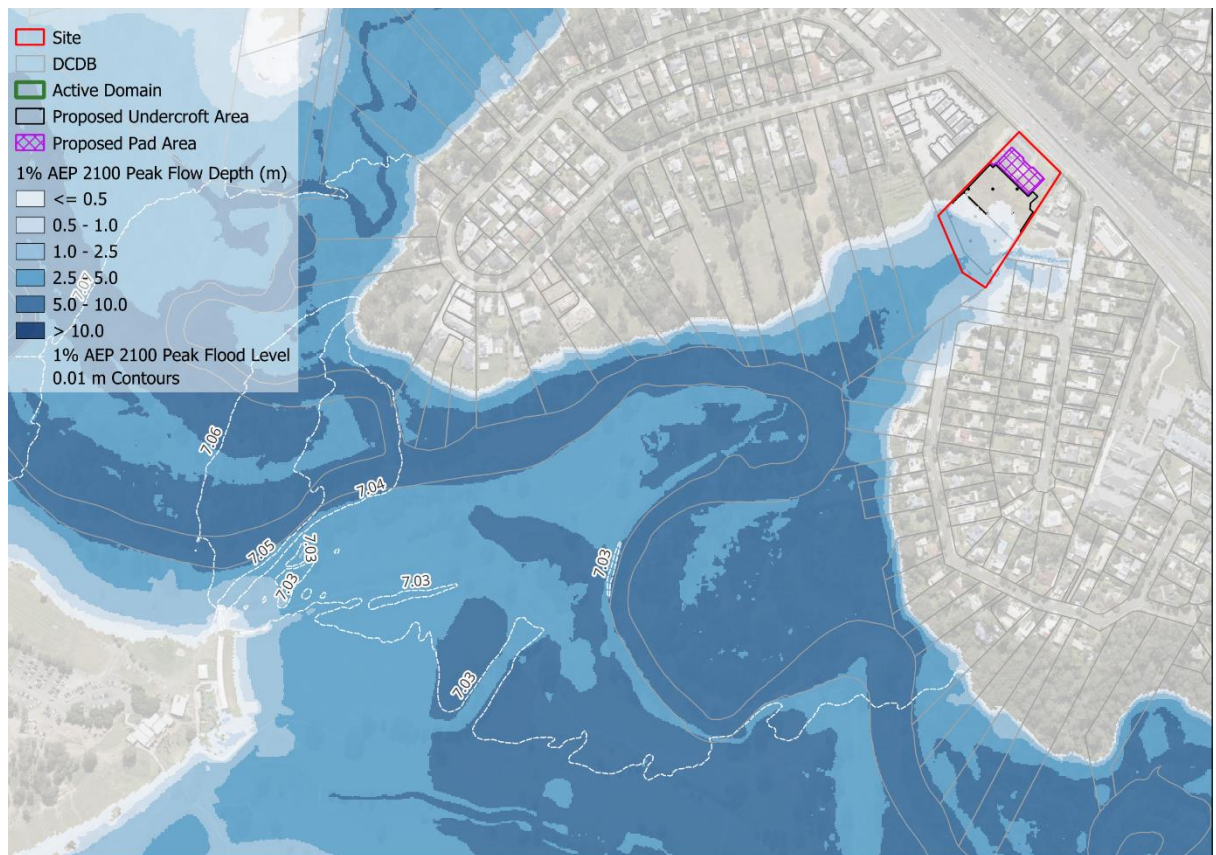


Figure 13: 1% AEP 2090 Design Event- Slacks and Scrubby Creek Flood Assessment - Post-Development Scenario Peak Flow Depth and Peak Flood Level

The Change in Peak Flood Level Assessment demonstrates that no material increase in the peak Slacks Creek flood level is modelled across the floodplain up to and including the DFE, with all changes within the acceptable threshold of 10 mm (refer to Figure 14).



Figure 14 1% AEP 2090 Design Event- Slacks and Scrubby Creek Flood Assessment – Change in Peak Flood Level Assessment

Flood maps detailing the peak flow depth, peak flow velocity, peak flood hazard (depth–velocity product) and hazard rating (Australian Institute of Emergency Management) for both the pre-development and post-development scenarios during the Defined Flood Event for the Slacks and Scrubby Creek flood source are contained in Appendix D.

4.5 Design Flood Level — Slacks Creek

The Defined Flood Event is governed by Logan River flooding (1% AEP 2100 peak flood level: 10.9 m AHD), which exceeds the corresponding Slacks Creek peak flood level (7.0 m AHD) by 3.9 m.

Accordingly, the Slacks Creek flood levels do not form the basis of design for the proposed development. The proposed structural slab levels for the warehouse tenancies (SSL 11.300–13.800 m AHD), are designed to achieve flood immunity at or above the Logan River DFE, and inherently provide substantial flood immunity above the Slacks Creek DFE.

5 Overland Flow Assessment

The modelling methodology pertaining to the hydraulic model development to represent overland flow behaviour within the local catchment has been captured in the sections below.

5.1 Hydrology

Rainfall-On-Grid (ROG) modelling has been adopted as the preferred method, given the topography of the region, and ability to demonstrate concentration of flows within the area of interest.

LIMB 2020 Intensity–Frequency–Duration (IFD) design rainfall data was extracted using the ARR TUFLOW Plugin and prepared into hyetographs for a range of durations and temporal events from 10 mins to 2-hour durations. All temporal pattern and duration storm events were run via a coarse-grid fast model, and post-processed to determine the peak median event to adopt for assessment. The 20-minute duration (Temporal Pattern 6) in the 1% AEP 2100 design event dominated the site and hence was adopted as the critical duration moving forward.

The Logan & Albert River Flood Study was prepared in 2023, preceding the latest update to Australian Rainfall and Runoff (Version 4.2, 2024). This update shifts the representation of climate change pathways from Representative Concentration Pathways (RCPs) to Shared Socioeconomic Pathways (SSPs). RCP 4.5 aligns with SSP2-4.5 – this was adopted as the climate change pathway, with rainfalls projected to a 2100-time horizon.

5.2 Hydraulic Model

A hydraulic model was developed in TUFLOW (Version 2025.01.02) to determine the flood characteristics through the site. The modelling methodology and assumptions are consistent with industry standards and local planning requirements. The modelling parameters and assumptions have been summarised in the sections below.

5.2.1 Topography

The site has adopted 2023 LCC LiDAR data as the baseline model topography, with a grid cell size of 2m adopted.

A topographic amendment was applied along the Pacific Motorway to represent the bund along the western frontage of the northbound lane, to ensure local flows from the road were conveyed appropriately along the frontage of the site.

A topographic amendment, in the form of drop pits at the inlet and outlet of the stormwater trunk line, conveying flows from the local catchment north-east of the Pacific Motorway; and reinforcement of the overland flow path south-west of the site, has been incorporated. This is consistent with the '2d_zsh_M1_Waterway_Inverts_01_[Pts/Line/poly]' shapefile from the Slacks and Scrubby Creek Flood Model 2021 (0936-14 Slacks Scrubby Creeks Finalisation, February 2023). Topographic amendments extracted from the SSCFM are limited to those contained in the model domain.

Stormwater basins and ponds located in the vicinity of the site were assumed full.

Post development modifications are consistent with Section 3.2.1.

5.2.2 Boundary Conditions

The model adopted a Rainfall-On-Grid (ROG) approach, which has been iteratively adjusted, until a suitable ROG boundary was established for the contributing overland flow catchment. Design rainfall inputs were generated via the ARR TUFLOW plugin, which extracts IFD rainfall depths and converts these to event hyetographs for application to the hydraulic model.

The downstream model adopts a static tailwater level along the low-lying reaches of the model domain. A static tailwater level of 0.82 m AHD has been adopted – the MHWS level at the Slacks Creek Mouth (Logan River) (QLD Semidiurnal Tidal Tables – 2026). The balance of the model domain assumes a free-draining HQ boundary of 0.1.

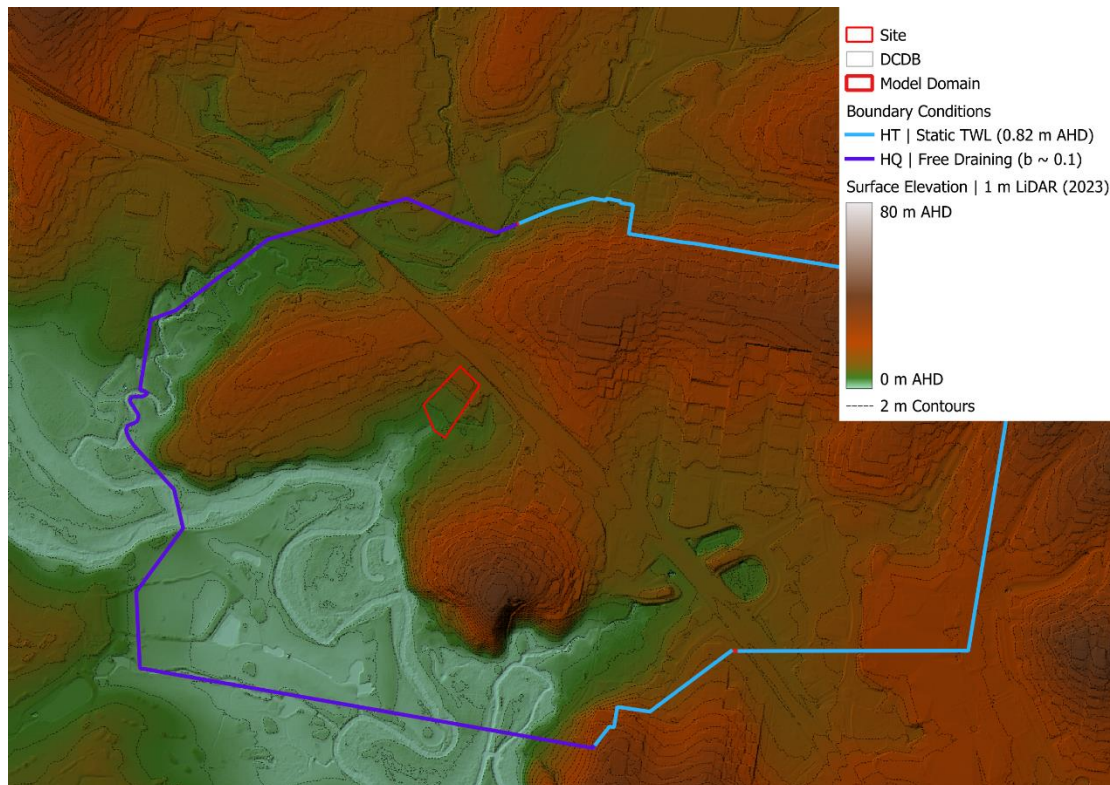


Figure 15 Overland Flow Model Development – Model Domain and Boundary Conditions with context of the local topography

5.2.3 Surface Roughness and Losses

Manning's 'n' roughness values were applied across the 2D grid based on land use. The study area was delineated based on the following land uses, manning's values and adopted infiltration values (Initial Losses and Continuing Losses):

• Road/Concrete	n = 0.025	IL = 0mm	CL=0mm/hr
• Light Vegetation	n = 0.035	IL = 0mm	CL=1.6mm/hr
• Rural Areas	n = 0.070	IL = 0mm	CL=1.6mm/hr
• Dense Veg/Woodlands	n = 0.080	IL = 0mm	CL=1.6mm/hr
• Urban Areas (default)	n = 0.100	IL = 0mm	CL=1.6mm/hr

The manning's (n) roughness values adopted are consistent with the LCC Flood Planning Scheme Policy and ARR requirements.

For an appreciation of the adopted manning's 'n' roughness values applied, refer to Figure 16 for the pre-development scenario, and Figure 17 for the post-development scenario. For the post-development scenario, a concrete surface was applied across the proposed undercroft area and road.

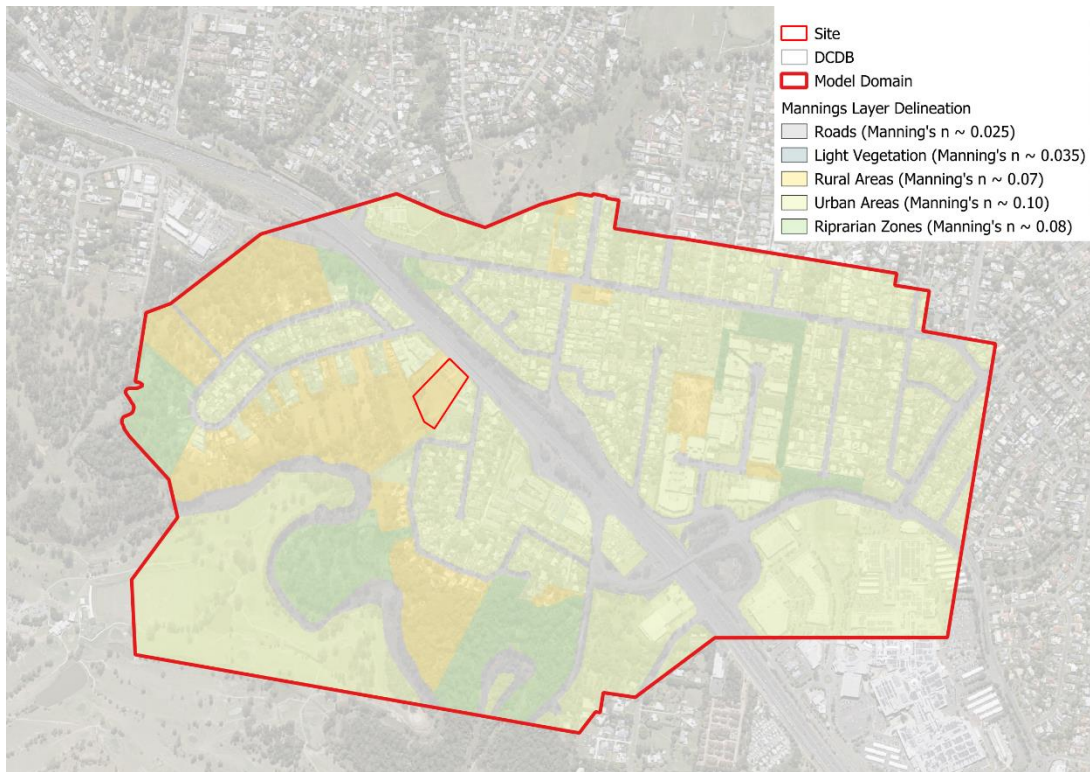


Figure 16 Overland Flow Model Development – Pre-Development Scenario - Manning's Layer Delineation and Roughness (n) Values

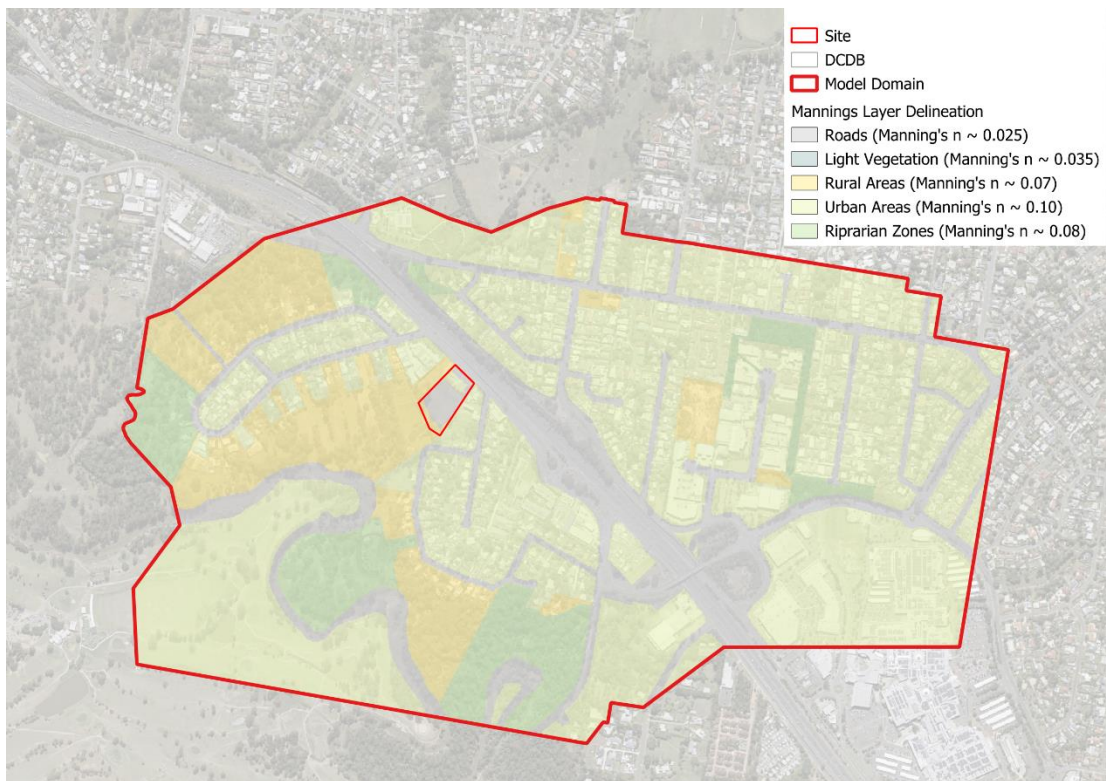


Figure 17 Overland Flow Model Development – Post-Development Scenario - Manning's Layer Delineation and Roughness (n) Values

5.2.4 Hydraulic Infrastructure

Hydraulic infrastructure pertinent to the study area was included in the hydraulic model, comprising the existing LCC trunk drainage and stormwater network surrounding the site:

- LCC stormwater pipes were represented as 1D ESTRY elements dynamically linked to the 2D domain via gully pits and/or manholes. Pipe invert levels were obtained from the LCC GIS database where available, or otherwise back-calculated as appropriate.
- Stormwater pits were represented as 1D nodes connected to the 2D surface via SXZ connections. Kerb and grated inlets were modelled as Type 'Q' nodes to apply stage–discharge relationships, adopted with reference to LCC design data to better represent surface capture into the drainage network.
- The trunk line, conveying flows from the local catchment north-east of the subject site, is 1 no. 900 mm diameter RCP, with this discharging into the overland flow path south east of the site. This is consistent with '1d_nwkb_Sck_2022_02_DE_culverts' estry shapefile from the Slacks and Scruby Creek Flood Model; however, the files adopted are limited to those shown in Figure 18.

An overview of the model development - including estry elements, boundary conditions and the model domain is captured in Figure 18.



Figure 18: Overland Flow Model Development – Stormwater Infrastructure and Topographic Amendments

5.3 Peak Flood Map Results

Overland flood mapping results have been provided in Appendix E. It is noted that depths have been filtered to >50mm, to ensure an appropriate representation of overland flooding, given the ROG approach adopted.

5.3.1 Pre-Development Scenario

The modelling indicates that under pre-development conditions:

- Flows from the local catchment north of the Pacific Highway are routed via the trunk line before discharging to the overland flow path south-east of the site. The peak flow rate in the overland flow channel is approximately 7m³/s. The application of a swale or spreader along the boundary is to be considered to mitigate the potential for erosion across the foundations and piles.
- Flows along the Pacific Highway Service Road are contained to the kerb and channel. Egress is maintained along the service road, with peak flow depths less than 0.3m.
- Some shallow flooding (0.05–0.30 m, light blue) is visible around the site boundary in the north-western portion of the site.
- Flows from the local catchments east and west of the subject site form a confluence, with peak flow depths along the south-western boundary in the vicinity of 0.8m-1.0 m. Flows are routed to Slacks Creek, prior to discharging in Logan River.

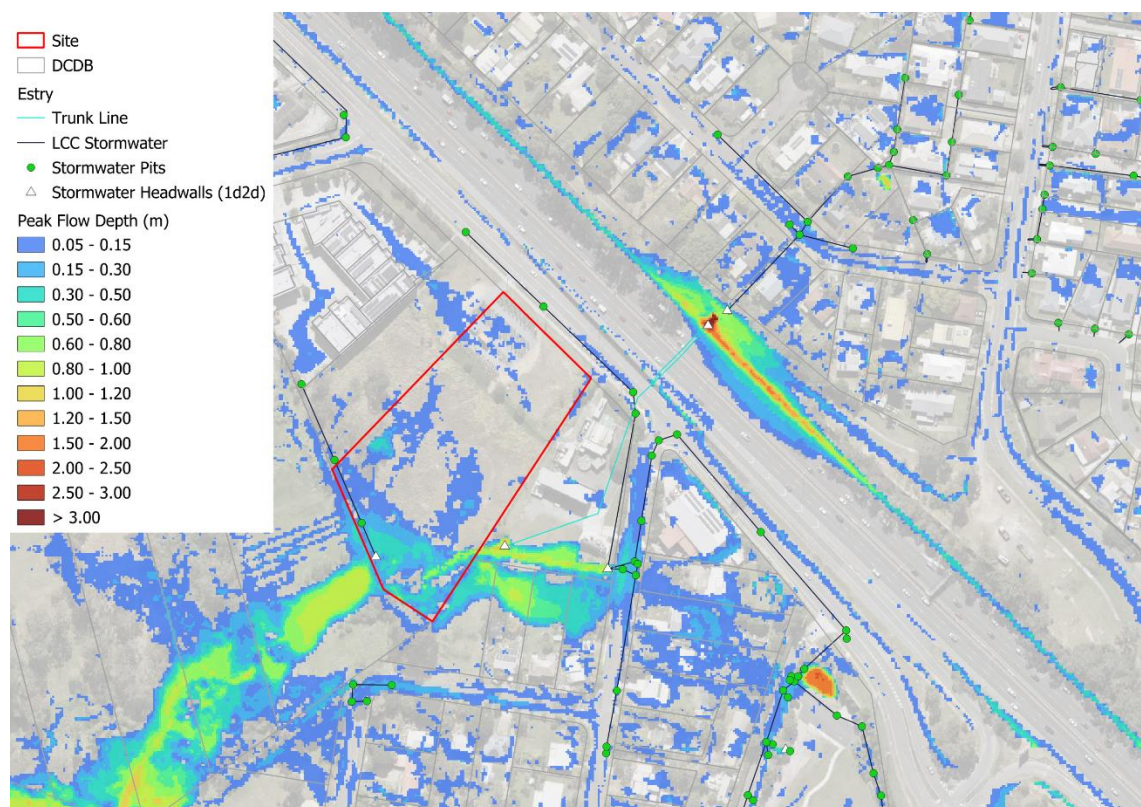


Figure 19: 1% AEP 2100 Design Event- Overland Flow Assessment - Pre-Development Scenario Peak Flow Depth

5.3.2 Post-Development Scenario

The modelling indicates that under post-development conditions:

- Flows from the trunk line and local catchment to the east of the site are conveyed across the proposed undercroft, resulting in no material increase in the peak flood level within and adjacent to the proposed development footprint. A swale or spreader is recommended to mitigate erosion risk at the foundations and piles.
- Flows along the Pacific Highway Service Road are contained to the kerb and channel. Vehicular access is maintained along the service road, with peak flow depths less than 0.3 m.
- Some shallow flooding depths of 0.05–0.30 m are present around the site boundary and proposed development area (Tenancy 1). These flows are to be managed via the inter-lot stormwater network, with flows routed south-west to the downstream overland flow path.
- To collect and convey local runoff along the north-eastern boundary (near the access ramp to the lower level), a swale should be provided along the perimeter of the ramp, graded to redirect flows towards the overland flow path.
- Peak flow depths along the south-western boundary are maintained, with the peak flow depth in the vicinity of 0.8m-1.0 m. Flows are routed to Slacks Creek, prior to discharging in Logan River.

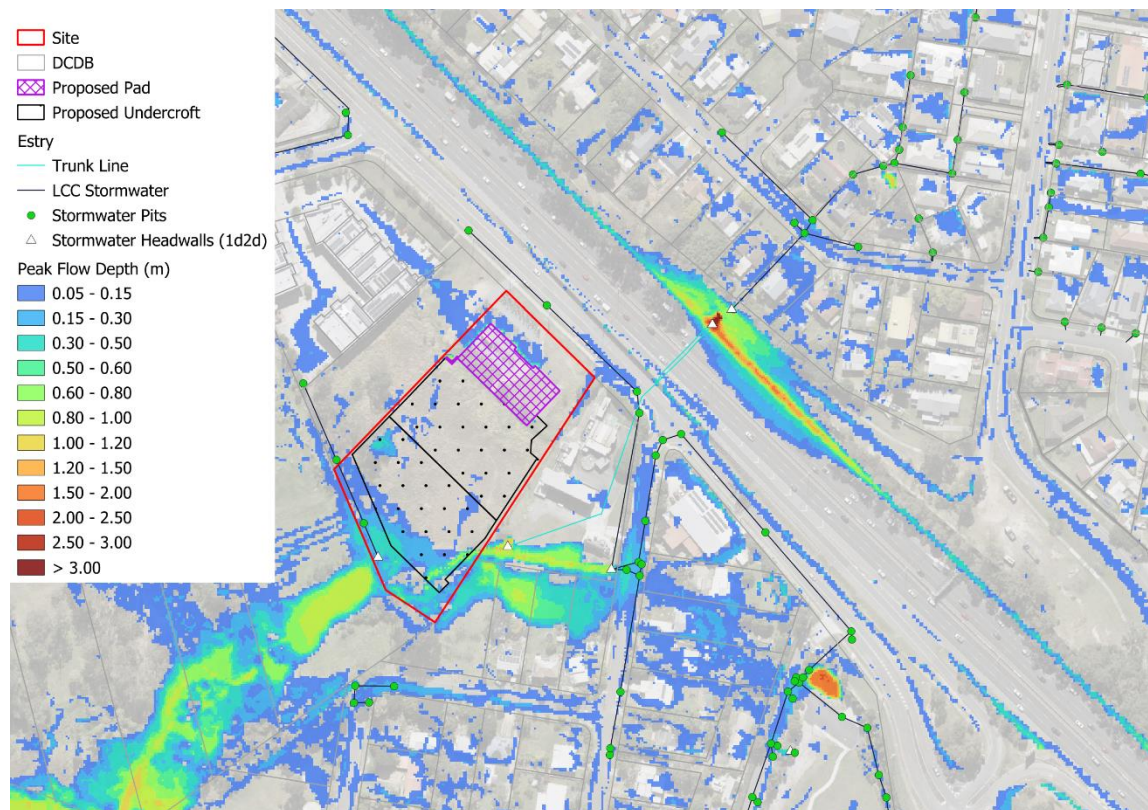


Figure 20: 1% AEP 2100 Design Event- Overland Flow Assessment - Post-Development Scenario Peak Flow Depth

The Change in Peak Flood Level Assessment (as shown in Appendix E) demonstrates that:

- Changes in peak flood level across the downstream tributary and broader catchment are within the acceptable threshold (less than 10 mm), confirming no material adverse impact on the wider floodplain.
- Increases in the peak flood level between 10 – 20 mm are limited to the kerb and channel along the Pacific Highway service road. These increases are anticipated to be alleviated through provision of the inter lot stormwater network, with flows to be collected and conveyed to the overland flow path along the southern boundary. There is no change in the flood hazard modelled along the Pacific Highway Service Road, with egress rendered as H1, as per the AEMI Hazard Ratings.
- Increases in the peak flood level are observed near the confluence of the overland flow paths along the southern boundary. This is considered acceptable, with no material increase in the peak flood level observed downstream.

Overall, the outcomes of the impact assessment are considered acceptable and are consistent with the non-worsening and nuisance flooding performance outcomes of the LCC Planning Scheme (2015, Version 9.2) Flood Hazard Overlay Code.

Flood maps detailing the peak flow depth, peak flow velocity, peak flood hazard (depth–velocity product) and hazard rating (Australian Institute of Emergency Management) for both the pre-development and post-development scenarios during the Defined Flood Event for the Overland Flow flood source are contained in Appendix E.

6 Flood Planning Assessment

6.1 Overview – Flood Overlay Code

As highlighted in Section 2.6 of this report, the proposed warehouse development triggers assessment against the Flood Overlay Code as it involves a proposed MCU within the High Flood Risk Area. The purpose of the Flood Overlay Code is to ensure development does not expose people, property and infrastructure to an intolerable level of flood risk. This is normally addressed by ensuring a certain level of flood immunity for buildings and infrastructure, (limiting risk to property); ensuring persons likely to be on-site or evacuating during a flood event are not exposed to high flood hazard (limiting risk to persons); and by ensuring the development does not create any offsite impacts which might worsen flood risk elsewhere.

Therefore, this assessment will discuss the key assessment benchmarks of the Flood Overlay Code in terms of flood immunity, safety and impacts. To support the assessment, flood depth and afflux maps are provided for the 1 % AEP 2100 design flood events in Appendices C, D and E for river, creek and overland flooding, respectively; and a full set of responses to the Code is also provided in Appendix F.

6.2 Peak Flood Level Requirements

The peak flood level for the 1% AEP 2100 design event is 10.9 m AHD, as derived from the LARFS 2023 Flood model, and the LCC Property Flood Report for the site. Table 8.2.5.3.3 of the Flood Hazard Overlay Code in the LCC Planning Scheme (Version 9.2, 2015) defines the minimum flood planning levels (FPL), building flood levels (BFL) and position for Essential Building services for the potential use types as a part of the proposed development, captured in Table 1.

Table 1 Minimum Flood Planning Levels for the Proposed Use Types

Proposed Use Type	Proposed Element	Minimum Flood Planning Level (m AHD)
Warehouse Development Involving the Use of a Class 7(b) or 8 building, other than specified above	<i>Building Floor Level</i>	10.90 (1% AEP 2100 Peak Flood Level)
	<i>Essential Building Services</i>	11.40 (1% AEP 2100 Peak Flood Level + 500 mm freeboard)
Retail Development Involving the Use of a Class 5, 6 & 9b building, other than specified above	<i>Building Floor Level</i>	11.40 (1% AEP 2100 Peak Flood Level + 500 mm freeboard)
SU1: Warehouse* *Food Storage Warehouse	<i>Minimum Flood Planning Level</i>	11.50 (0.5% AEP 2100 Peak Flood Level)
SU2: Warehouse <i>Minimum Flood Planning Level</i>	Development involving the manufacture or storage of noxious or hazardous materials (e.g. a regional fuel storage facility)	12.40 (0.2% AEP 2100 Peak Flood Level)

The lower level tenancies have a proposed structural slab level of 11.3 m AHD – permitting ‘warehouse’ function (refer to Table 1), on the provision that Essential Building Services are positioned above 11.4 m AHD. In accordance with the LCC Planning Scheme, a ‘warehouse’ is defined as the:

- a) *Storing or distributing goods, whether carried out in a building; or the,*
- b) *Wholesale of goods, if the use is ancillary to the use in (a).*

The upper-level tenancies (RL 12.8 m AHD – 13.8 m AHD) are suitable to function as retail outlets, and for several special use (SU) instances, such as:

- SU1: Warehouse, being a food storage warehouse
- SU2: An industry activity involving the manufacture or storage of noxious or hazardous materials (e.g. a regional fuel storage facility)

The upper level tenancies have a proposed structural slab level ranging from 12.8 m AHD – 13.8 m AHD – this is positioned above the 0.5% peak flood level (11.5 m AHD), with Tenancies 3, 5, 15 and 17 above the 0.2% AEP peak flood level.

Adoption of SU2 will require responses to the performance outcomes pertaining to the storage, manufacturing or handling of hazardous materials. For the purposes of this assessment, it is assumed that the proposed development tenancies will adopt either a ‘Warehouse’, ‘Retail’ or SU1: Warehouse (Food Storage Warehouse)’ use.

6.3 Flood Immunity and Resilient Building Design

The main benchmarks for flood immunity (minimum flood planning levels) are discussed as follows:

PO1: A development envelope area is located outside of a High Flood Risk Area identified on Flood Overlay Map OM-05.04 unless complying with the requirements identified in Table 8.2.5.3.2 (Land Use Compatibility in a High Flood Risk Area).

The proposed enclosed building footprint (SSL $\geq$ 11.3 m AHD) and vehicle manoeuvring area (SSL $\geq$ 10.9 m AHD) is located at or above the Defined Flood Event (DFE) level (10.9 m AHD).

The only structures located below the DFE peak flood level are the flood-compatible open undercroft arrangement and the south-western boundary of the proposed pad area. The hydraulic impact assessment undertaken – across river, creek and overland flood sources - demonstrates that flow conveyance is maintained, with no material increase in the peak flood level observed.

In addition to this, the following risk mitigation measures have and can be adopted to demonstrate compatibility with the level of risk:

- Elevated floor levels: All occupied areas have an SSL between 11.3 m AHD - 13.8 m AHD - above the DFE peak flood level of 10.9 m AHD.
- Flood-compatible built form: Open column undercroft (no enclosed walls) allows free passage of floodwater; with flood-resilient materials proposed below the DFE.
- Evacuation route: Low flood hazard vehicle access maintained via the Pacific Highway Service Road at ~12.2 m AHD (above DFE).
- FEMP: A Flood Emergency Management Plan can be prepared upon request from LCC.

Resilient Building Design is to be considered to ameliorate the cost of flood damages and for the building to maintain its functionality, before, during, and after a major storm event. The main benchmarks for Resilient Building Design are discussed below.

AO8.1: New buildings and structures, other than fences, are located outside of a High flow area identified on Flood hazard overlay map OM-05.02.

Complies with AO8.1. The only structure within the High Flow Area is the flood-compatible open undercroft (column arrangement, no enclosed walls), which does not constitute an increase in the building footprint in the

High Flow Area. This is considered an acceptable outcome. The High Flow Area, in context to the proposed pad area and development works is illustrated in Figure 21.



Figure 21 High Flow Area (Shaded Red) in context to the Proposed Undercroft and Fill Area

PO10: Buildings are designed to account for the potential risk of inundation during flood events by complying with the minimum flood planning levels identified in Table 8.2.5.3.3.

Under Table 8.2.5.3.3, the minimum flood planning level for the 'Warehouse' use type – defined as General Industry (BCA Class 7(b)) – is the peak flood level of the Defined Flood Event, being 10.9 m AHD. The architectural drawings acknowledge that the structural slab level of the lower-level tenancies is 11.3 m AHD, and upper-level tenancies from 12.8 m AHD – 13.8 m AHD. This satisfies the minimum flood planning level requirements. Other use types, including retail or food storage, will need to consider the minimum flood planning level in context with the proposed structural slab level, as per Section 6.2

AO11: Vehicle manoeuvring areas and car parking (other than a Parking station) are located above the defined flood event.

Complies with AO11. The vehicle manoeuvring areas and carpark areas (SSL $\geq$ 10.9 m AHD) are positioned at or above the DFE Peak Flood Level (10.9 m AHD).

AO13: The function of essential building services and infrastructure is maintained during a flood event by:

- a) locating the services and infrastructure outside of a High flood risk area identified on Flood hazard overlay map OM-05.04;
- b) locating the services and infrastructure above the flood planning level in accordance with Table 8.2.5.3.3 - Minimum flood planning levels; or
- c) designing and constructing essential services and infrastructure to exclude water infiltration for flood events up to and including:

- i) *the defined flood event where not involving Essential community infrastructure activities or Vulnerable use activities;*
- ii) *the probable maximum flood where for Essential community infrastructure activities or Vulnerable use activities.*

Complies with AO13. Essential building services and infrastructure are proposed to be positioned above the DFE Peak Flood Level (satisfying (b) and (c)); and therefore, outside of the High Flood Risk Area (as identified on OM-05.04) (satisfying (a)).

PO14: Screening the understorey of a building:

- a) *does not impede the passage of floodwater or overland flow in a High flood risk area identified on Flood hazard overlay map OM-05.04;*
- b) *maintains an attractive streetscape interaction and interface as intended by the zone, precinct or local plan.*

No screening of the understorey is proposed. The undercroft arrangement is generally unstructured with substantial gaps between the column piles to enable the passage of flow through and to limit debris. Flood-resilient construction materials are proposed to be used, with this to be confirmed at detailed design. The hydraulic impact assessment carried out for the three defined flood sources, establishes that there is no material change in the peak flood level external to the site.

PO15: Development protects public safety and the environment from release of hazardous materials into floodwaters by:

- a) *locating hazardous materials and chemicals outside of a High flood risk area or High flow area identified on Flood hazard overlay map OM-05.04 and OM-05.02;*
- b) *ensuring hazardous materials are stored to prevent the release or hazardous reaction of hazardous materials during flood events, including events rarer than the defined flood event.*

It is assumed that the proposed development does not involve the manufacture or bulk storage of hazardous chemicals or liquid waste.

Where individual tenancies may handle materials incidental to general warehouse operations, appropriate bunding and containment measures will be incorporated as part of detailed design, in accordance with relevant environmental and building code requirements. No hazardous chemical release into floodwaters is anticipated as a result of this MCU.

6.4 Flood Safety

Flood safety can be understood in terms of flood risk presented to road users (drivers, cyclists and pedestrians) trying to access or evacuate the site or persons who may be in buildings subject to unsafe conditions. The main benchmarks for flood safety (Part C – Access and Evacuation) are discussed as follows:

PO16–PO19: Not applicable. The proposed use is a multi-tenancy warehouse (BCA Class 7b), a non-vulnerable, non-accommodation use. Performance Outcomes PO16–PO19 apply to vulnerable land uses including residential dwellings, retirement facilities, and short-term accommodation. These uses are not proposed as part of this development.

AO20: Where AO16-AO19 is not applicable, development has flood-free vehicle access to a road that is above the flood level during the defined flood event.

Complies with AO20. The proposed development provides a low flood hazard vehicle access, with Pacific Highway Service Road access positioned at 12.2 m AHD. Access to the carpark is maintained up to and including the defined flood event, with the carpark positioned at 10.9 m AHD.

The Defined Flood Event for the Logan River is characterised by a slow rise in the peak flood level for major storm events, with the peak flood level occurring at 120 hours from the commencement of the storm - providing substantial lead times to allow for self-evacuation (refer to Figure 22). The lower-level tenancies are impacted from events rarer than and including the 0.5% AEP design event (refer to Figure 23).

If occupants or staff are on site during a rare storm event, occupants can mobilise to higher ground to the upper upper-level tenancies and shelter-in-place. The upper-level tenancies (BFL of 12.8 m -13.8 m AHD) are positioned above the 0.2% AEP design event peak flood level (12.4 m AHD). Vertical evacuation to the road will need to be considered in the instance of a PMF event.

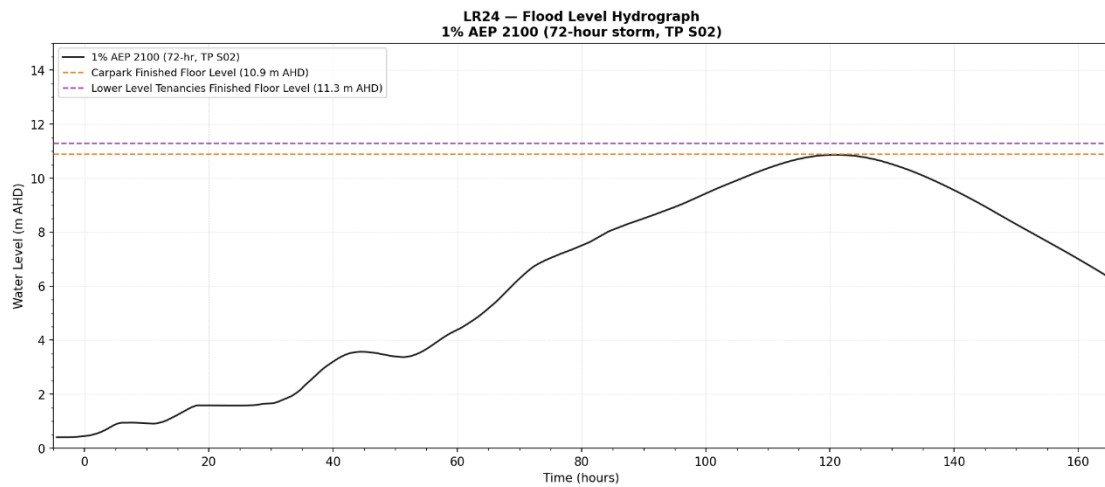


Figure 22 1% AEP 2100 Design Event- LARFS (2023) Flood Level Hydrograph– Plot Reporting Line 24

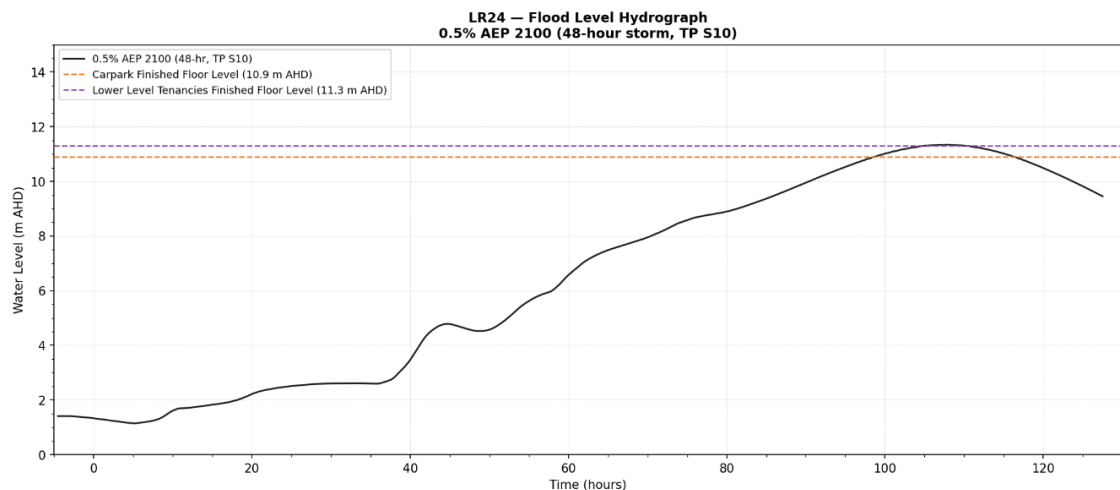


Figure 23 0.5% AEP 2100 Design Event- LARFS (2023) Flood Level Hydrograph– Plot Reporting Line 24

PO21: Development identified in Table 8.2.5.3.5 - Development requiring a flood emergency management plan appropriately plans for its safe operation and evacuation during a flood event to ensure there is no burden on emergency services, including during a probable maximum flood where involving Vulnerable use activities.

A FEMP can be prepared in accordance with the Planning Scheme Specification for Flood Emergency Management Plans (SC6.2.10) and submitted as a condition of development approval. The FEMP will address site-specific flood response procedures including evacuation triggers, roles and responsibilities, occupant notification, and communication protocols aligned with the lead times demonstrated in this assessment.

6.5 Flood Impacts

The main benchmarks for flood impacts (Part D – Preservation of Floodplain Function and Overland Flow Paths) are discussed as follows:

PO22: Filling and excavation ensures the conveyance function of a High flood risk area and Flood investigation area identified on Flood hazard overlay map OM-05.04 is maintained.

The south-western boundary of the proposed pad area occupies the fringe of the High Flood Risk Area as part of the Flood Overlay Map OM-05.04 (refer to Figure 24). The balance of the site contained in the High Flood Risk Area is the undercroft, where it is anticipated that site remediation works may occur as part of the construction. The hydraulic impact assessment demonstrates that there is no change in the conveyance function of the site, across the river, creek and overland flow flood sources.

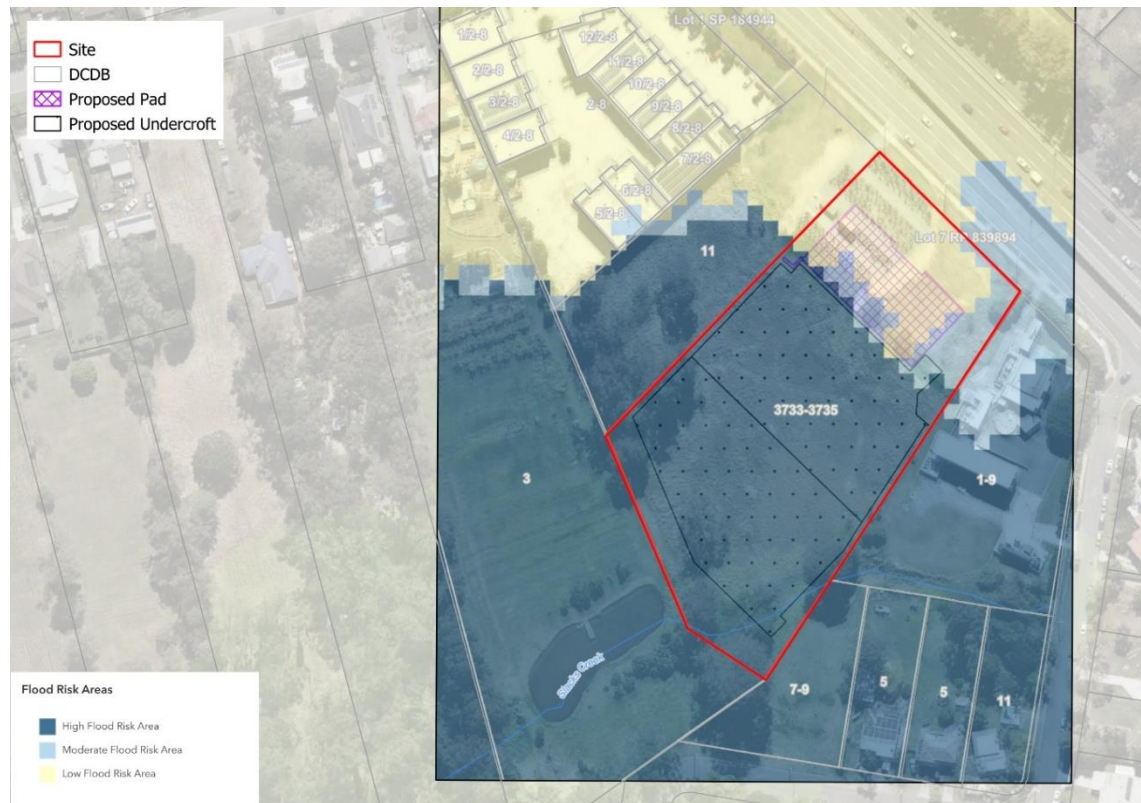


Figure 24: Flood Risk Areas in context to the Proposed Undercroft and Fill Area

PO23 Development does not involve earthworks that would either directly, indirectly or cumulatively cause a loss of floodplain storage below the defined flood event.

To meet AO23 it is required that the development ensures the total volume of fill is equal to or less than the total volume of cut where earthworks are below the level of the defined flood level.

A quantitative cut-fill balance below the DFE has been confirmed by the civil engineer, with a cut surplus of 31m³ below the DFE. Reference should be made to the civil engineering plans.

PO24: Development does not involve works that would either directly, indirectly or cumulatively:

- concentrate, intensify or divert floodwater or overland flow paths onto upstream, downstream or adjacent properties;*
- result in an increase in flood levels or flood hazard on upstream, downstream or adjacent properties;*
- result in a loss of floodplain storage up to and including the defined flood event;*
- adversely impact the role and function of waterways and areas of ecological significance;*
- adversely affect adjoining premises, infrastructure and the environment.*

Council's definition of acceptable impacts are shown in Table 2, based on Table 3.2.1 of the Flood PSP (SC6.2.10).

Table 2: *Tolerances for Flood Impact Assessment*

Flood Level	Flood Velocity	Flood Hazard
+ 10 mm up to the defined flood event	+ 0.25 m/s up to the defined flood event	No increase in hazard classification up to the defined flood event
No rapid or unexpected increase in safety risks or flood damage for an event larger than the defined flood event	No rapid or unexpected increase in safety risks or flood damage for an event larger than the defined flood event	No rapid or unexpected increase in safety risks or flood damage for an event larger than the defined flood event

The modelling demonstrates that there is no change in the peak flood level in the event of Slacks Creek or Logan River flooding up to and including the DFE. For overland flow, there is a minor increase in the peak flood level along the south-western boundary; however, these impacts are contained to the boundary and thus do not translate to a material impact. Therefore, the proposed warehouse development is considered to meet sub-items a) to e), as per PO24.

The detailed design is to consider the overland flow traversing the site from the south-eastern boundary, with a drainage channel to be constructed to convey flows from the upstream local catchment. The peak flow rate in the drainage channel during the DFE is approximately 7 m³/s.

PO25: Development does not adversely change the following flood characteristics for all flood events up to and including the defined flood event:

- peak flow;
- flow of any part of the flood before the peak;
- flood flow velocity;
- level of flooding;
- flood time to peak.

Items b), c) and d) are addressed in the response to PO24. Regarding peak flow (a) and time to peak (e), comparison of overland flow hydrographs at the downstream boundary show there is no change in peak flow or time to peak (refer to Figure 25).

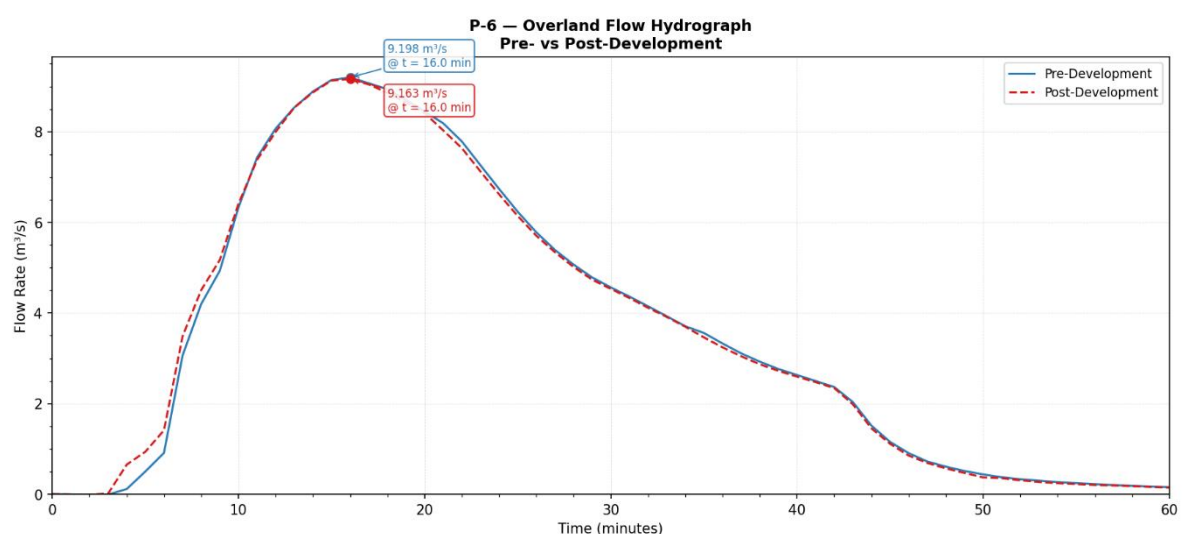


Figure 25 *Overland Flow Hydrograph Comparison (Downstream Boundary)*

P026: Development does not cause a rapid or unexpected increase in safety risks or flood damage during a flood event larger than the defined flood event, including flood events up to and including the probable maximum flood.

Occupants can shelter-on-site, with Tenancies 3, 5, 15 and 17 (SSL ≥ 13.800 m AHD) flood free up to and including the 0.05% AEP 2100 Logan River flood event (13.0 m AHD).

The Pacific Motorway service road access, positioned at 12.2 m AHD, provides a flood-free evacuation route substantially above the DFE. Flooding from Logan River is characterised by a gradual rise in flood levels for major storm events, with a minimum of 24 hours advance warning available through the Queensland Flood Warning Network. This advance lead time enables safe evacuation of the site, well ahead of Probable Maximum Flood conditions, consistent with the objectives of this performance outcome.

Figure 26 demonstrates that the inundation period for the lower level is approximately ~54 hours, with the lower level inundated in approximately 24 hours from the commencement of the PMF design storm event. Noting that this lead time is based on the adopted design storm, S06, the critical design storm as per Table 10.5 of the LARFS (2023) Report. The time and period of inundation may alter depending on the nature of the storm event – for instance, a storm where the majority of the rainfall is front-loaded may lead to a shorter window to evacuate.

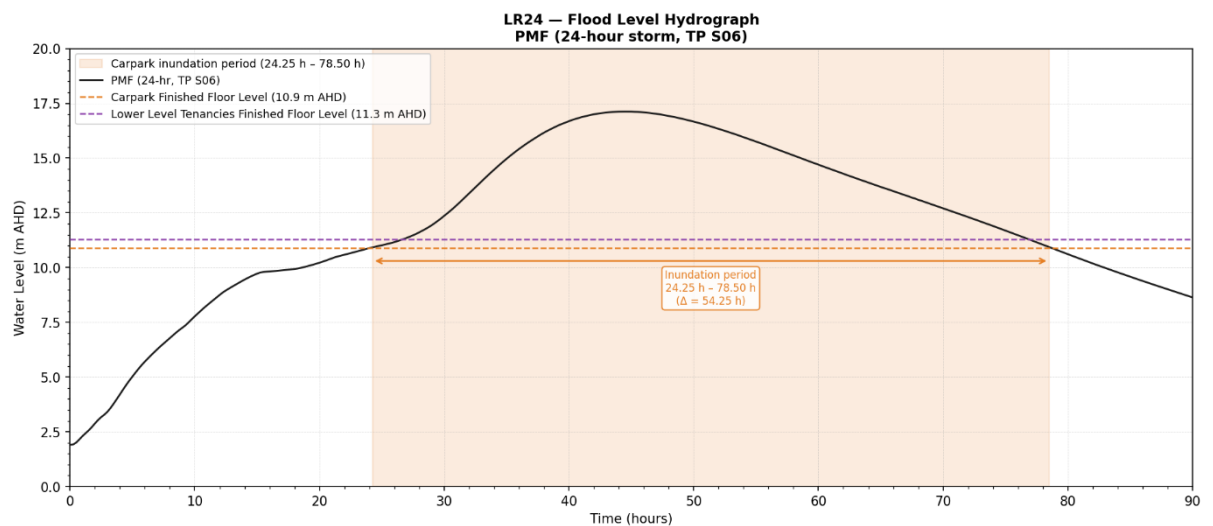


Figure 26: PMF Design Event- LARFS (2023) Flood Level Hydrograph– Plot Reporting Line 24 – with context of the Lower Level Carpark Inundation Period.

7 Conclusion

This hydraulic impact assessment has been conducted against LCC's Flood Overlay Code and the Flood Planning Scheme Policy (SC6.2.10) under the Logan Planning Scheme 2015 V9.2 with TLPI No. 1/2024. The key outcomes are:

- The proposed structural slab level (SSL) ranges from 11.3 m AHD (lower-level carpark) to 13.8 m AHD (upper-level warehouse tenancies). The lower-level warehouse tenancies (SSL 11.300 m AHD) are approximately 400 mm above the 1% AEP 2100 Logan River level (10.9 m AHD). The upper-level tenancies range from SSL 12.8 m AHD (Tenancy 1) to 13.8 m AHD (Tenancies 3, 5, 15 and 17), exceeding the 0.2% AEP level (12.4 m AHD) and 0.05% AEP level (13.0 m AHD).
- The extent of development work contained in the High Flood Risk Area (as part of Flood Overlay OM - 05.04) is limited to the south-western fringe of the proposed pad area where existing ground levels fall below the DFE peak flood level (10.9 m AHD), and the proposed undercroft. The undercroft is designed to be flood-compatible with the undercroft arrangement (column grid, no enclosed walls) maintaining flow conveyance within the High Flood Risk Area. The hydraulic impact assessment confirms the proposed works do not result in any material flood impacts up to and including the DFE across all flood sources.
- Overland flow is to be managed, with the following drainage features to be considered:
 - o To collect and convey local runoff along the north-eastern boundary (near the access ramp to the lower level), a swale should be provided along the perimeter of the ramp, graded to redirect flows towards the overland flow path.
 - o Flows from the trunk line and local catchment to the east of the site are conveyed across the proposed undercroft - a swale or spreader is recommended to mitigate erosion risk at the foundations and piles.
 - o Local runoff is to be managed via the inter-lot stormwater network, with flows routed south-west to the downstream overland flow path.
- Vehicle access via Pacific Highway Service Road (Nujooloo Rd) is assessed to remain trafficable up to and including the Defined Flood Event. Occupants can mobilise safely from the premises, with flooding from the Logan River characterised by a slow rise in the peak flood level for major storm events, with the peak flood level occurring at 120 hours from the commencement of the storm. This provides adequate lead time for safe evacuation prior to flood onset. Patrons and staff can shelter on-site, with the upper-level tenancies (where the SSL is 13.800 m AHD) flood free up to and including the 0.05% AEP 2100 design event (13.0 m AHD).

Based on this assessment, it is concluded that the development poses minimal flood risk to persons and property and therefore should be considered acceptable by Council.

8 Qualifications

Our analysis and overall approach have been specifically catered for the requirements of H & G JV Pty Ltd and may not be applicable beyond this scope. This report should not be read in isolation and for this reason, any other third parties are not authorised to utilise this Report without further input and advice from StormFlood Engineering.

StormFlood Engineering has relied on the information as outlined in Section 2.7 of this Report, and therefore any information provided within this Report is limited to the data provided.

While StormFlood Engineering's Report assesses peak flows from design storms in accordance with best-practice and current industry standards and guidelines, future observed flows may vary from that predicted. For these reasons appropriate freeboards should be adopted.

Appendices

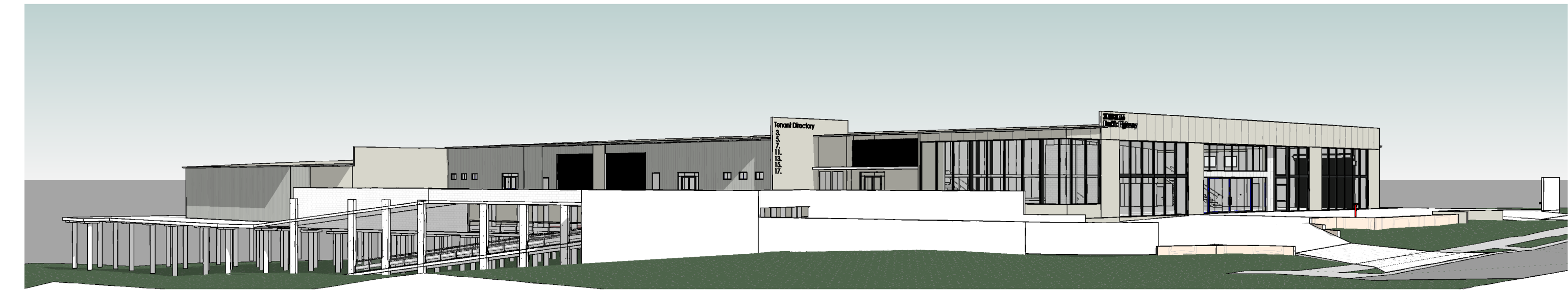
Appendix A	Proposed Layout Plan
Appendix B	LCC Property Flood Report
Appendix C	LARFS Flood Maps
Appendix D	SSCFA Flood Maps
Appendix E	OFA Flood Maps
Appendix F	Flood Overlay Code Responses

Appendix A

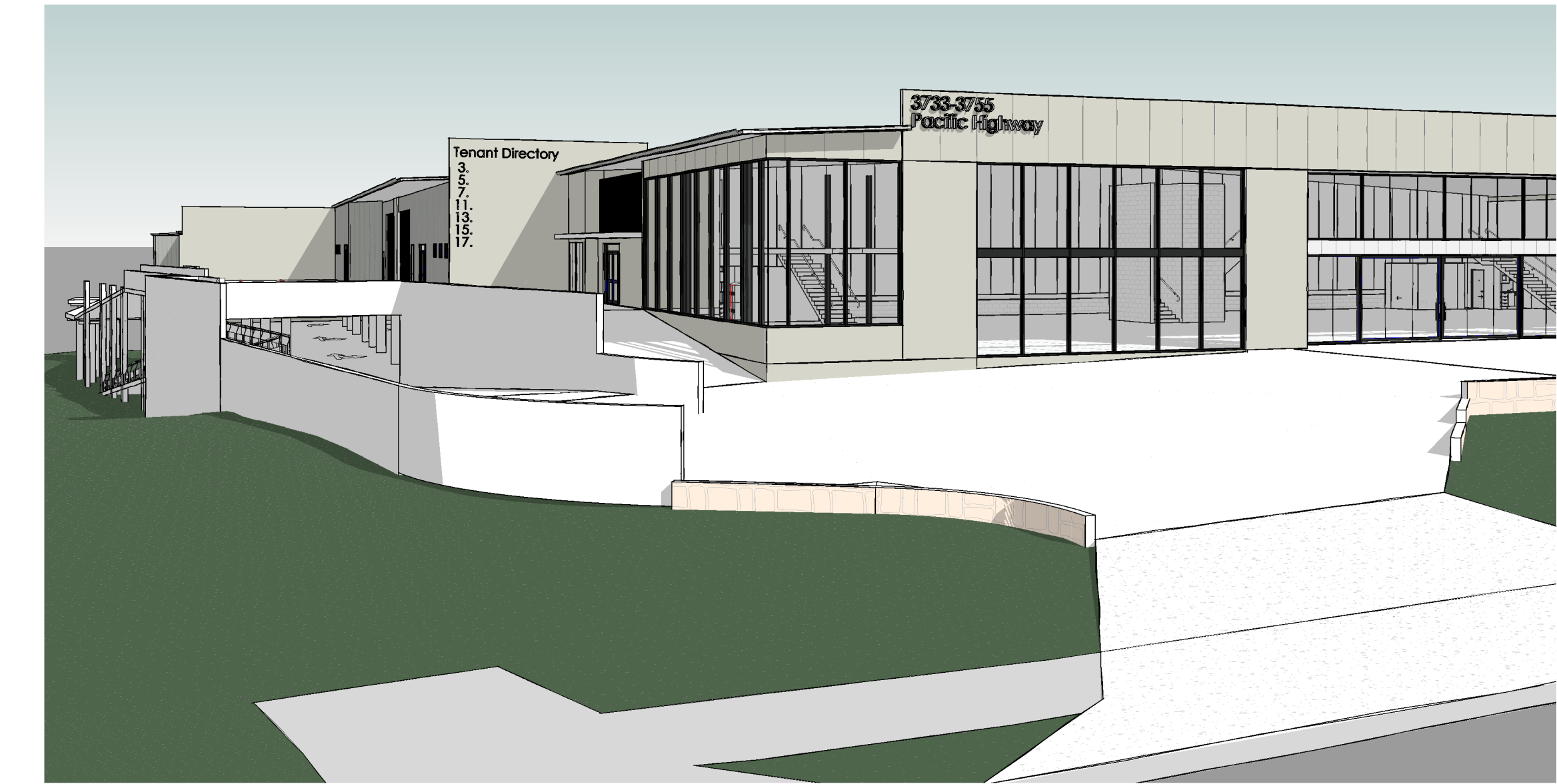
Proposed Layout Plan



1 Street View



2 Eastern Street view



3 Drive entry view

Drawing Schedule			
sheet No.	Sheet Name	Rev	Rev Date
DA-001	Cover Sheet	C	21.10.25
DA-002	Site Plan	C	21.10.25
DA-010	Floor Plan	F	21.10.25
DA-011	Tenancy 1 Office level	B	21.10.25
DA-012	Lower warehouse & parking level plan	D	21.10.25
DA-013	Undercroft plan	C	21.10.25
DA-020	Elevations - 1-200	C	21.10.25
DA-040	12m Height limit view	C	21.10.25
DA-041	Gross floor area schedules	A	21.10.25

Rev.	Description	Date	BY
C	Consultants discussions	21.10.25	GJG
B	Revised discussions	22.07.25	GJG
A	Discussions	30.05.25	GJG
Revision Schedule			

- DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, WHEN PROVIDED
- ANY RELEVANT CONSULTANTS DOCUMENTATION(SPECIFICATION, SHOULD COMPLY WITH THE
DOCUMENTATION. THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION
BEFORE CONSULTING WITH THE PROJECT SUPERINTENDANT.
- CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES, IF A
REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE
DESIGN FOR CLARIFICATION.
- ALL DESIGNS & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO
COPYRIGHT & MAY NOT BE REPRODUCED/REPLICATED IN ANY WAY WITHOUT PRIOR
PERMISSION.
- ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED
ONLY FOR THE PURPOSES OF THIS PROJECT.

GARY GRIEVE DESIGN
BUILDING
DESIGN
& DRAFTING

m 0410 414 094
e gary@ggd-design.net.au
QBCC Licence No. 11060966
VBA Practitioner No. 202191
Cm3 ID 81946
Office - Southport QLD 4215

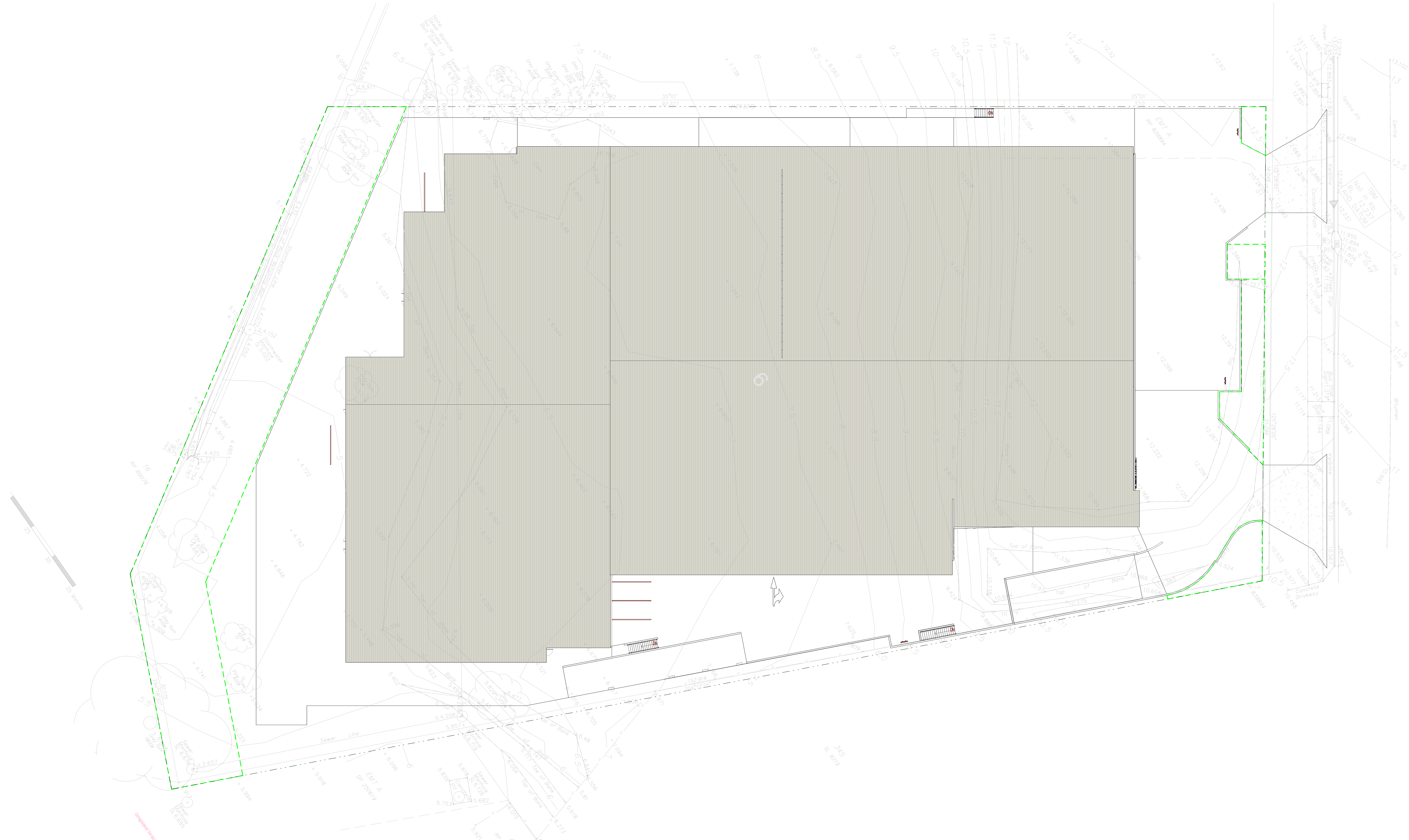
NORTH:

CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
Cover Sheet

DATE: April 2025	SCALE:	DRAWING No: DA-001	REV: C
DRAWN BY: GJG	PROJECT NO: 477	PRELIMINARY ISSUE	
C:\Users\gary\Synology\Drive\PROJECTS\477_Kevin Gong - Slacks Creek - Warehouse\project\477_DA.rvt			



1 Site Plan
1 : 250

Rev.	Description	Date	BY
C	Consultants discussions	21.10.25	GJG
B	Revised discussions	22.07.25	GJG
A	Discussions	30.05.25	GJG

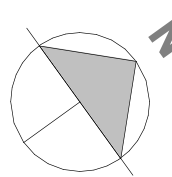
* DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION. WHEN PROVIDED BY ANY RELEVANT CONSULTANTS DOCUMENTATION SPECIFICATION SHOULD COMPLY WITH DOCUMENTATION ARISE. THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION BEFORE CONSULTING WITH THE PROJECT SUPERINTENDANT.			
* CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES, IF A REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE DESIGN FOR CLARIFICATION.			
* ALL PERSONS & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO COPYRIGHT & MAY NOT BE REPRODUCED/REPLICATED IN ANY WAY WITHOUT PRIOR PERMISSION.			
* ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED ONLY FOR THE PURPOSES OF THIS PROJECT.			

GARY GRIEVE DESIGN

m 0410 414 094
e gary@ggdesign.net.au
QBCC Licence No. 11069666
VBA Practitioner No. 202191
Cm3 ID 81946
Office - Southport QLD. 4215

**BUILDING
DESIGN
& DRAFTING**

NORTH:



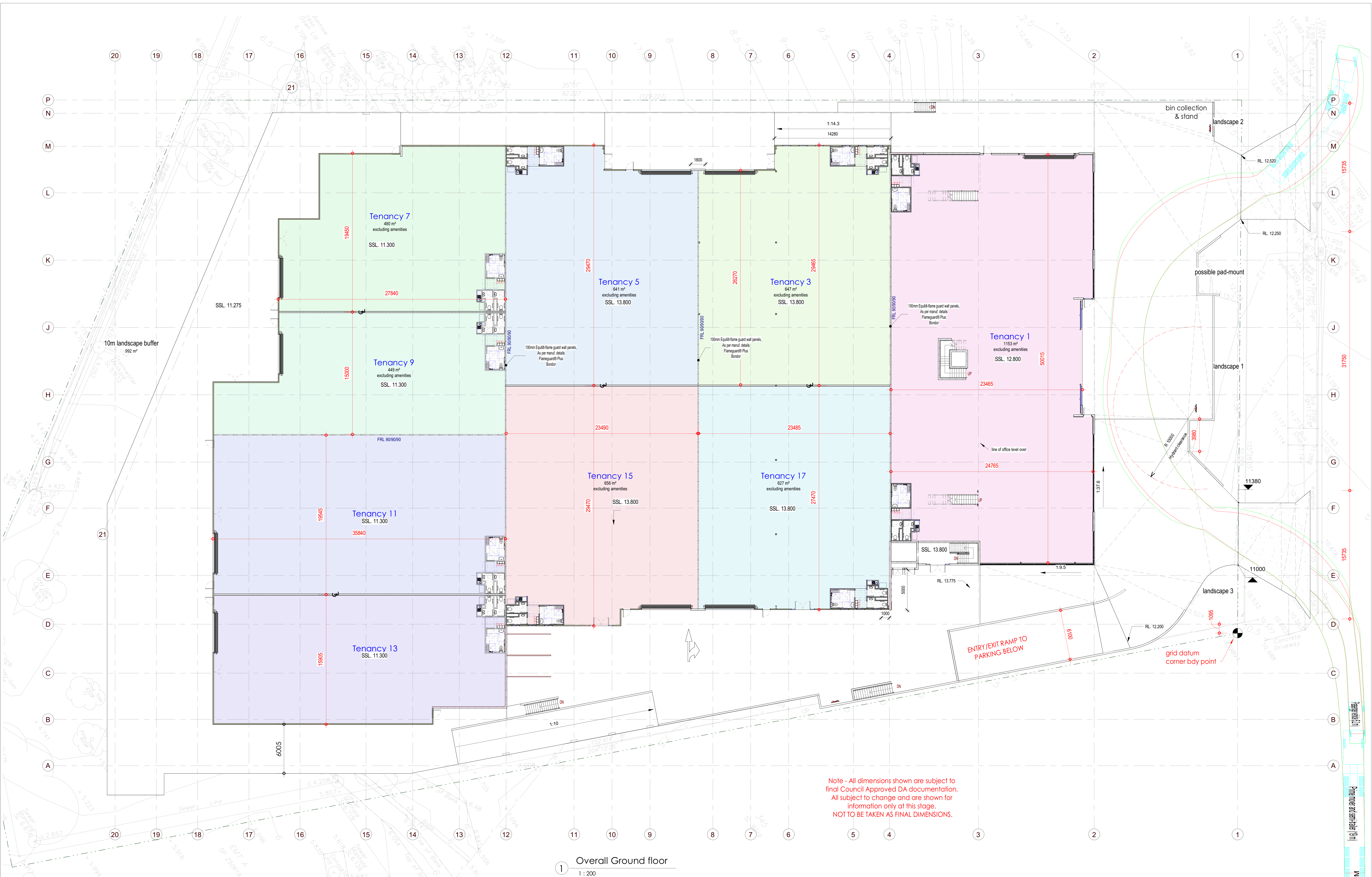
CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
Site Plan

DATE: April 2025	SCALE: 1 : 250	DRAWING No: DA-002	REV: C
DRAWN BY: Author	PROJECT NO: 477	PRELIMINARY ISSUE	
C:\Users\gary\Synology\Drive\PROJECTS\477_Kevin Gong - Slacks Creek - Warehouse\project477_DA.rvt			

... PACIFIC HIGHWAY ...



Overall Ground floor
1 : 200

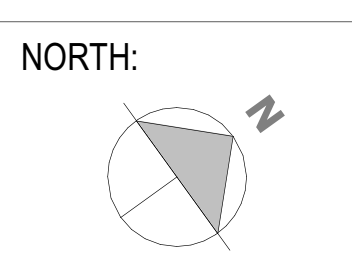
Rev.	Description	Date	BY
F	Consultants discussions	21.10.25	GJG
E	Internal dimensions shown	01.09.25	GJG
D	Revised discussions	22.07.25	GJG
C	Discussions	30.05.25	GJG
B	Discussions	15.05.25	GJG
A	Discussions	10.04.25	GJG
Rev.	Description	Date	BY
Revision Schedule			

DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, WHEN PROVIDED.
ANY RELEVANT CONSULTANTS DOCUMENTATION SPECIFICATION SHOULD COMPLY WITH THE SPECIFICATION.
CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES, IF A REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE.
DESIGN FOR CLARIFICATION.
ALL DIMENSIONS AND DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO COPYRIGHT AND MAY NOT BE REPRODUCED OR REPLICATED IN ANY WAY WITHOUT PRIOR PERMISSION.
ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED ONLY FOR THE PURPOSES OF THIS PROJECT.

GARY GRIEVE DESIGN

m 0410 414 094
e gary@ggdesign.net.au
OBCC Licence No. 1006966
VBA Practitioner No. 202191
Cm3 ID 81946
Office - Southport QLD 4215

BUILDING DESIGN & DRAFTING

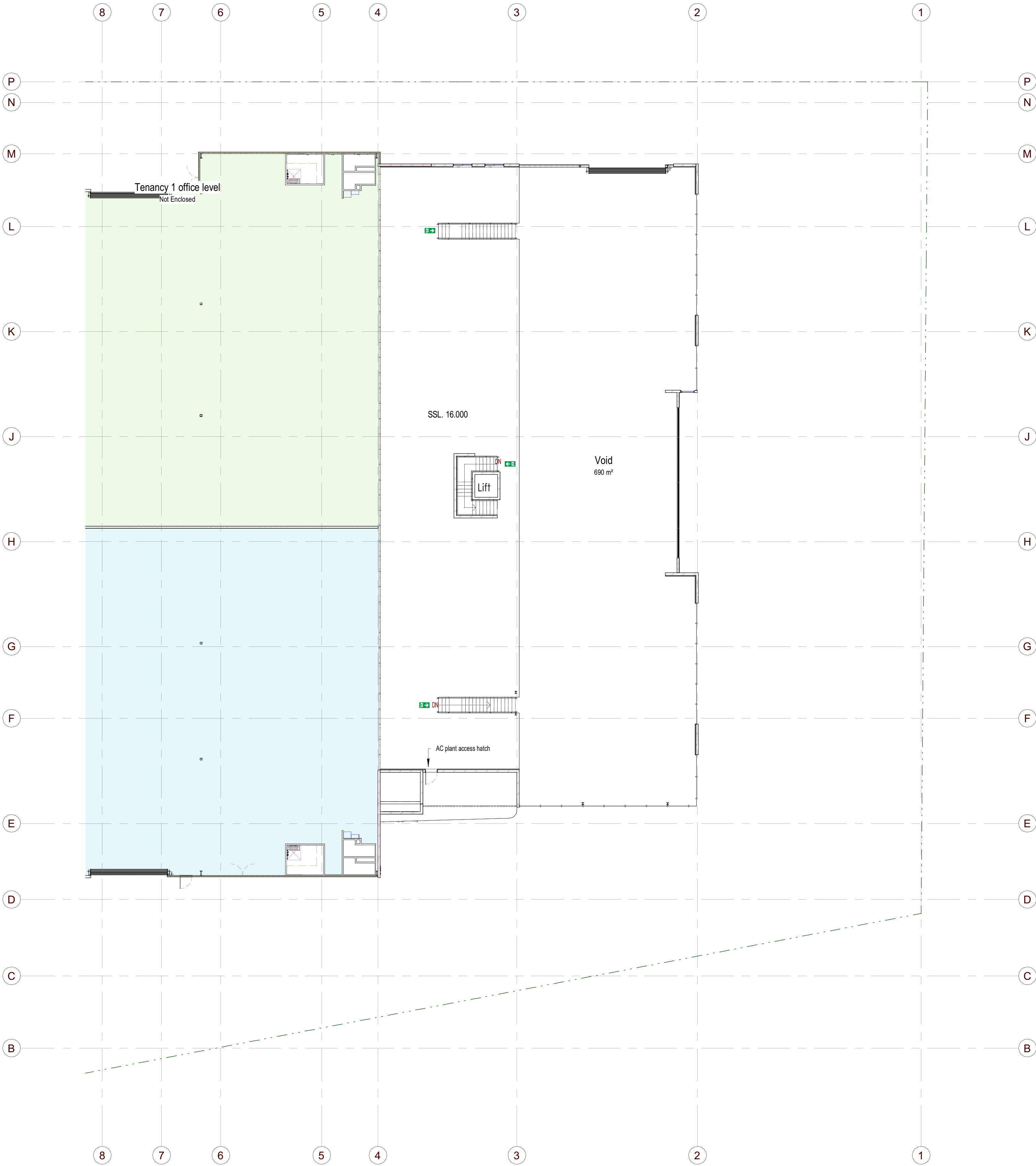


CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
Floor Plan

DATE:	SCALE:	DRAWING No:	REV:
April 2025	As indicated	DA-010	F
DRAWN BY:	PROJECT NO:		
Author	477	DA ISSUE C:\Users\gary\SynologyDrive\PROJECTS\477_Kevin Gong - Slacks Creek - Warehouse\project\477_DA.rvt	



1 Tenancy 1 Office level
1 : 200

- General Note
- Plans are provided for general tenancy configuration and are illustrative only.
 - Lessee to ensure that all Fitout must be design to comply with local Council standards as well as the current edition of NCC & Relevant Australian standards.
 - ALL DIMENSIONS TO BE CONFIRMED BY LESSEE PRIOR TO CONSTRUCTION.
 - DO NOT SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES.
 - Elements of the previous tenants fit out that have since been removed may be shown in these plans.
 - As the Lessee's responsibility to ensure that your designers and/or contractors undertake a site measure prior to commencement of your fit out.
 - Prior to construction clarify the extent of the site conditions.
 - When suspended and/or reinforced concrete floors and ceilings exist, structural engineers details and approvals are required prior to any core hole penetrations. Copies of all details to be forwarded to the Lessee prior to site works.
 - All plumbing, fire and/or electrical services are approx only. Lessee to confirm all locations prior to construction.
 - When shown, all existing shop front glazing etc. shown, is illustrative only. Lessee to confirm on site prior to design & construction.
 - Intercom and/or security systems are not to be guaranteed.
 - Emergency lighting and exit signs to be certified by the Lessee's contractor.
 - Modification to existing sprinkler systems, if installed, to be certified by the contractor.
 - Install portable fire extinguishers in accordance with NCC.
 - All floor coverings and finishes are to comply with AS 4586 2013 & AS/NZS 3981.1, installer to certify upon completion.
 - Applied finishes - materials and substrates selected for use during the fitout, must ensure that they are non-toxic or non-hazardous for use in a confined space. Contractor to provide full MSD for viewing if requested.
 - Inspect site and inspect conditions, comparing drawings with as-built conditions before commencement of design and construction.
 - Commencement of works on site means total acceptance of all as drawn and as constructed conditions.
 - Ensure the method of delivery, unloading, storage, installation of works is compliant with relevant occupational health, safety and environmental requirements.

Rev.	Description	Date	BY
B	Consultant's discussions	21.10.25	GJG
A	Revised discussions	22.07.25	GJG
Revision Schedule			

• DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION. WHEN PROVIDED & ANY RELEVANT CONSULTANT'S DOCUMENTATION SPECIFICATION, SHOULD COMPLY WITH DOCUMENTATION ARISE. THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION BEFORE CONSULTING WITH THE PROJECT SUPERINTENDANT.
• CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES. IF A REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE DESIGN FOR CLARIFICATION.
• ALL DIMENSIONS & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO COPYRIGHT & MAY NOT BE REPRODUCED/REPLICATED IN ANY WAY WITHOUT PRIOR PERMISSION.
• ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED ONLY FOR THE PURPOSES OF THIS PROJECT.

GARY GRIEVE DESIGN

m 0410 414 094

e gary@ggdgdesign.net.au

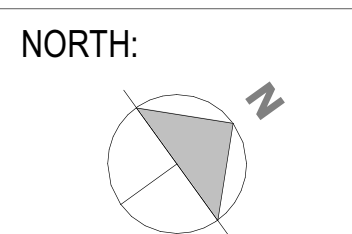
QBCC Licence No. 1006966

VBA Practitioner No. 202191

Cm3 ID 81946

Office - Southport QLD 4215

BUILDING
DESIGN
& DRAFTING

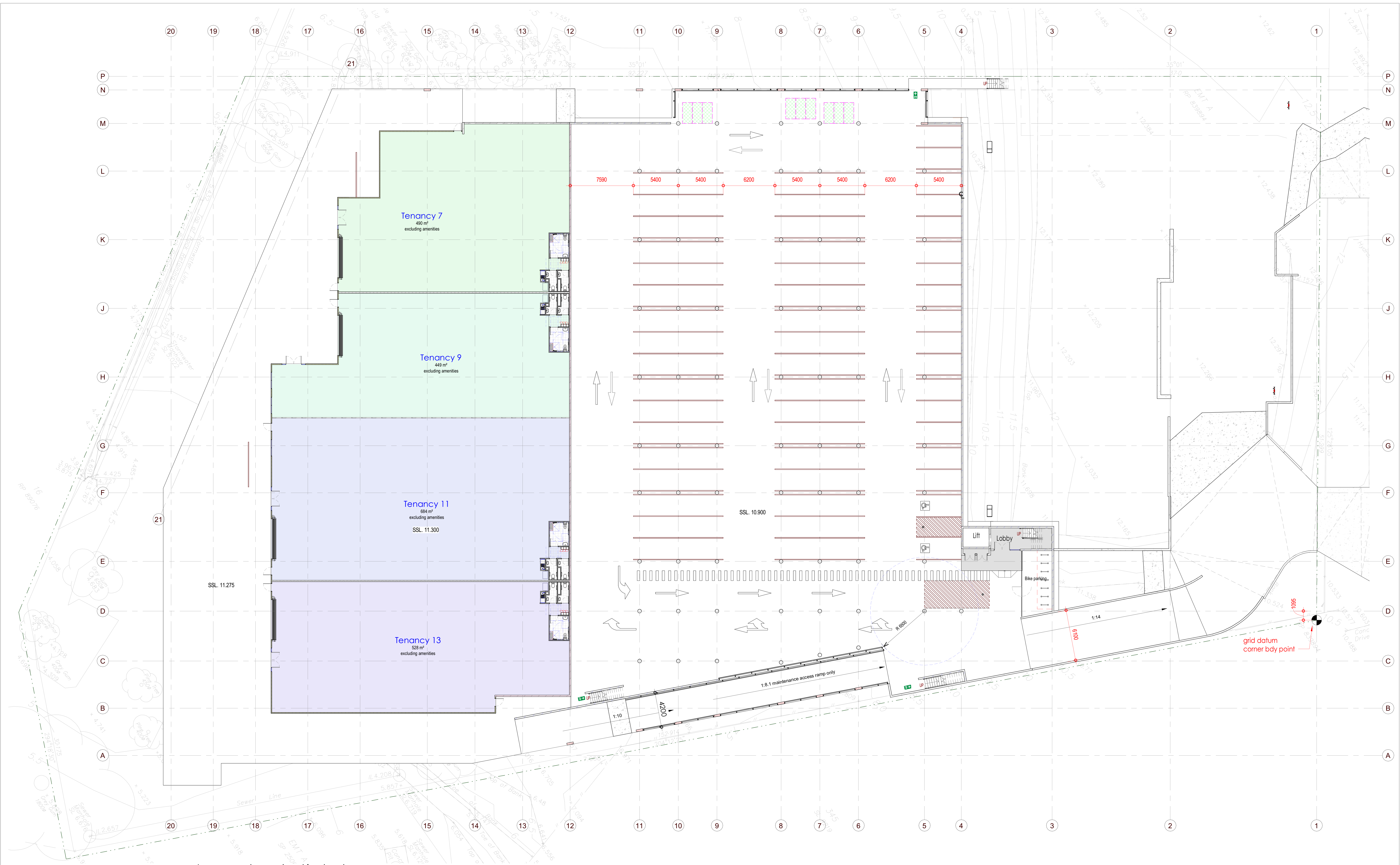


CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
Tenancy 1 Office level

DATE: April 2025	SCALE: 1 : 200	DRAWING No: DA-011	REV: B
DRAWN BY: Author	PROJECT NO: 477	DA ISSUE	
C:\Users\gary\SynologyDrive\PROJECTS\477_Kevin Gong - Slacks Creek - Warehouse\project\477_DA.rvt			



1 Lower warehouse / parking level
1 : 200

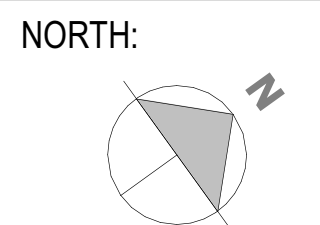
Rev.	Description	Date	BY
D	Consultants discussions	21.10.25	GJG
C	Revised discussions	22.07.25	GJG
B	Discussions	30.05.25	GJG
A	Discussions	15.05.25	GJG
Revision Schedule			

• DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION WHEN PROVIDED
• ANY RELEVANT CONSULTANTS DOCUMENTATION SPECIFICATION SHOULD COMPLY WITH DOCUMENTATION
• THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION BEFORE CONSULTING WITH THE PROJECT SUPERINTENDENT
• CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES, IF A REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE
• DESIGN FOR CLARIFICATION
• ALL PERSONS & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO COPYRIGHT & MAY NOT BE REPRODUCED/REPLICATED IN ANY WAY WITHOUT PRIOR PERMISSION
• ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED ONLY FOR THE PURPOSES OF THIS PROJECT

GARY GRIEVE DESIGN

m 0410 414 094
e gary@ggdgdesign.net.au
QBCC Licence No. 11069666
VBA Practitioner No. 202191
Cm3 ID 81946
Office - Southport QLD 4215

BUILDING
DESIGN
& DRAFTING

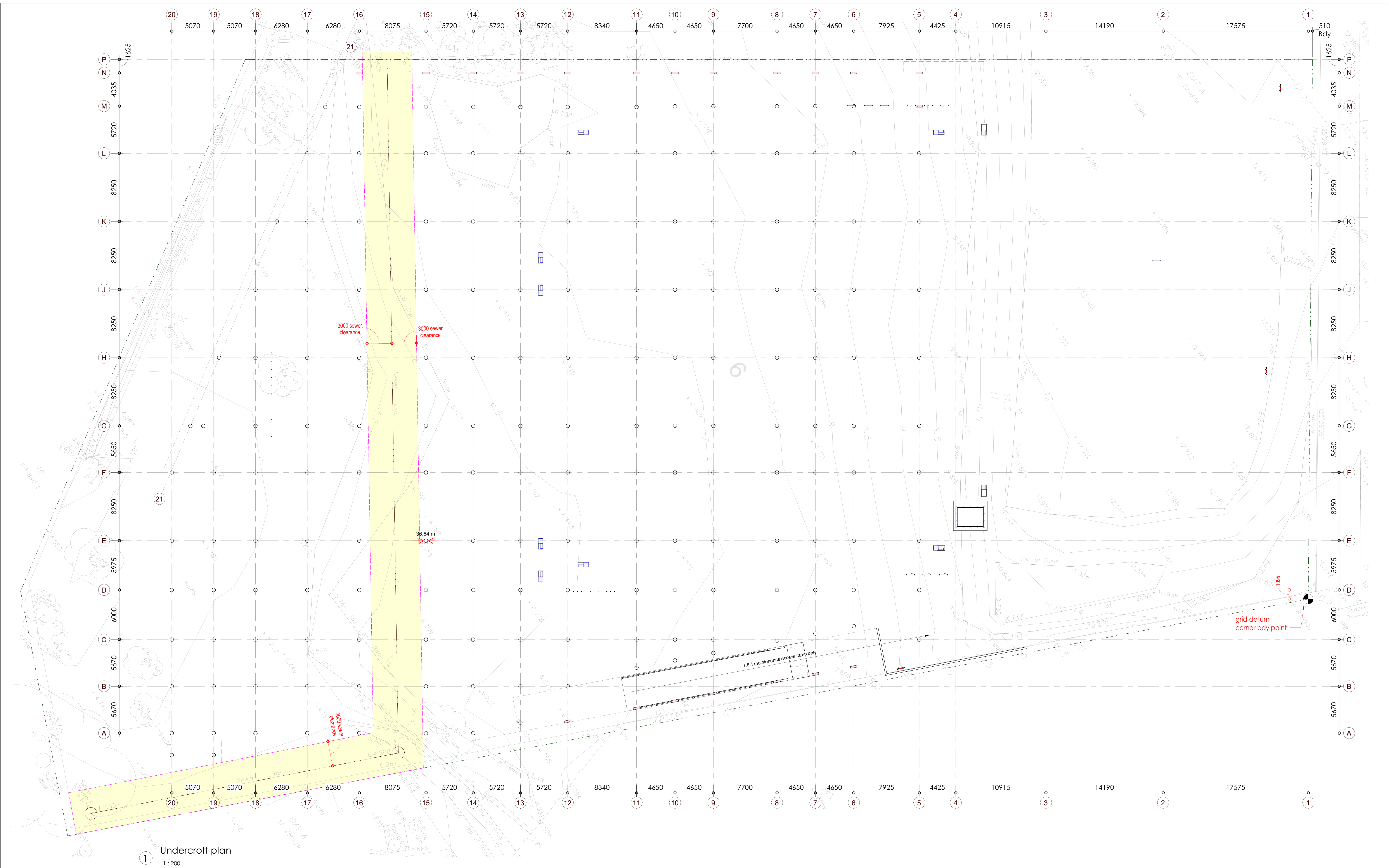


CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
**Lower warehouse &
parking level plan**

DATE:	SCALE:	DRAWING No:	REV:
April 2025	1 : 200	DA-012	D
DRAWN BY:	PROJECT NO:		
Author	477		
PRELIMINARY ISSUE			
C:\Users\gary\SynologyDrive\PROJECTS\477_Kevin Gong - Slacks Creek - Warehouse\project\477_DA.rvt			



1 Undercroft plan
1 : 200

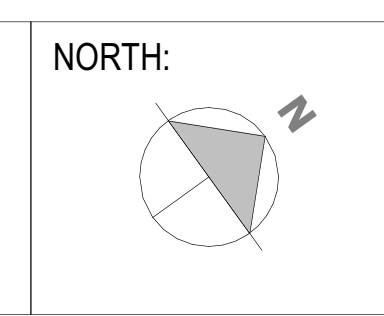
Rev.	Description	Date	BY
C	Consultants discussions	21.10.25	GJG
B	Revised discussions	22.07.25	GJG
A	Discussions	30.05.25	GJG

DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION WHEN PROVIDED & ANY RELEVANT CONSULTANTS DOCUMENTATION. SPECIFICATION SHOULD COMPLY WITH DOCUMENTATION. THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION BEFORE CONSULTING WITH THE PROJECT SUPERINTENDENT.
CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES. IF A REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE DESIGN FOR CLARIFICATION.
ALL DESIGNS & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO COPYRIGHT & MAY NOT BE REPRODUCED OR REPLICATED IN ANY WAY WITHOUT PRIOR PERMISSION.
ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED ONLY FOR THE PURPOSES OF THIS PROJECT.

GARY GRIEVE DESIGN

m 0410 414 094
e gary@ggdgdesign.net.au
QBCC Licence No 11069666
VBA Practitioner No 202191
Cm3 ID 81946
Office - Southport QLD 4215

**BUILDING
DESIGN
& DRAFTING**

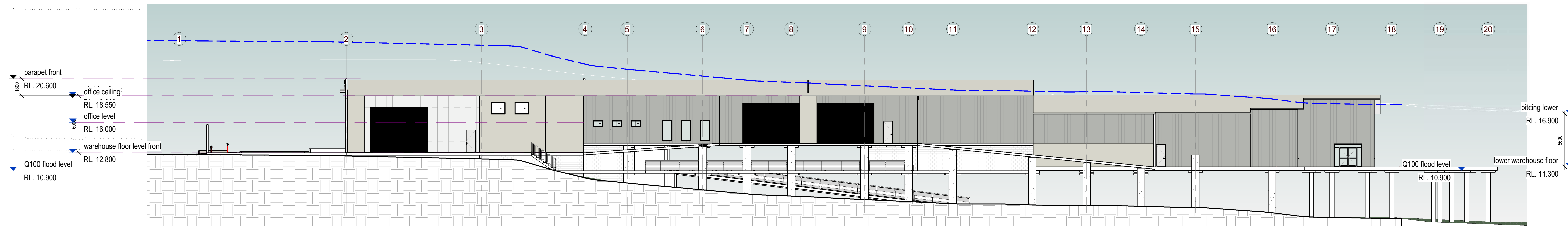


CLIENT
H&G JV Pty Ltd.

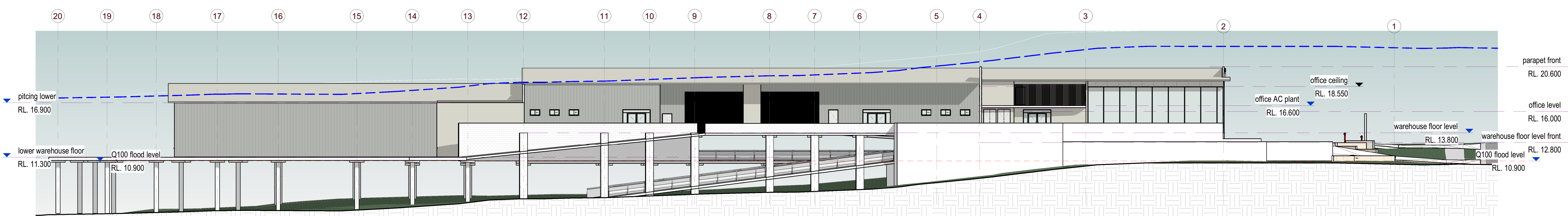
PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
Undercroft plan

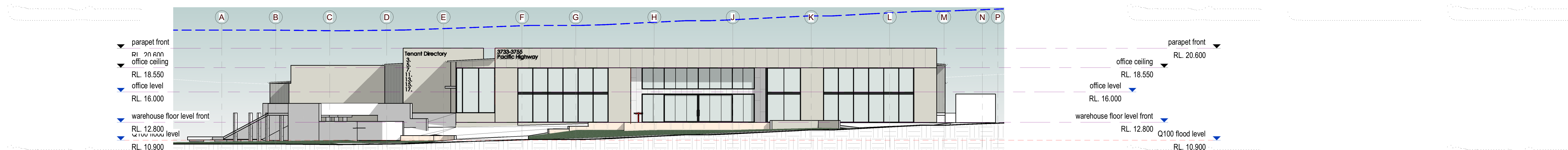
DATE:	SCALE:	DRAWING No:	REV:
April 2025	1 : 200	DA-013	C
DRAWN BY: Author	PROJECT NO: 477		
PRELIMINARY ISSUE			
C:\Users\gary\Synology\Drive\PROJECTS\477_Kevin Gong - Slacks Creek - Warehouse\project\477_DA.rvt			



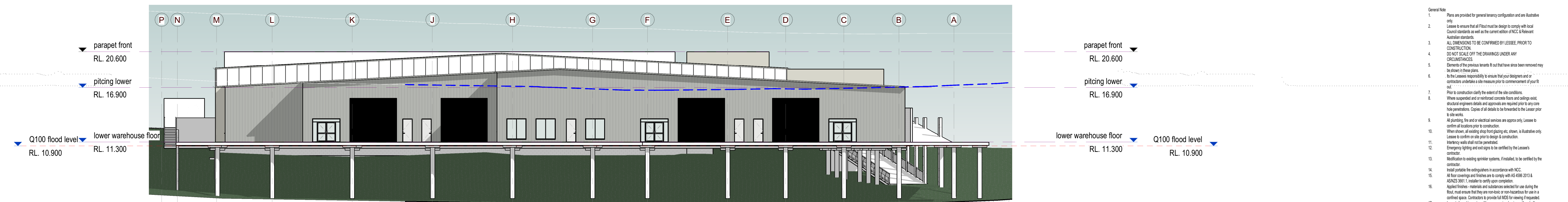
1 North-West Elevation
1 : 200



2 South-East Elevation
1 : 200



3 Street Elevation
1 : 200



4 South-West Elevation
1 : 200

- General Note
- Plans are provided for general tenancy configuration and are illustrative only.
 - Lessee to ensure that all Fitout must be design to comply with local Council standards as well as the current edition of NCC & Relevant Australian standards.
 - ALL DIMENSIONS TO BE CONFIRMED BY LESSEE PRIOR TO CONSTRUCTION. DO NOT SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES.
 - Elements of the previous tenants fit out that have since been removed may be shown in these plans.
 - As the Lessee's responsibility to ensure that your designers and/or contractors undertake a site measure prior to commencement of your fit out.
 - Prior to construction clarify the extent of the site conditions.
 - When suspended and or reinforced concrete floor and ceilings exist, structural engineers details and approvals are required prior to any core hole penetrations. Copies of all details to be forwarded to the Lessee prior to site works.
 - All plumbing, fire and or electrical services are approx only. Lessee to confirm all locations prior to construction.
 - When shown, all existing shop front glazing etc. shown, is illustrative only. Lessee to confirm on site prior to design & construction.
 - Fire safety details shall not be generated.
 - Emergency lighting and exit signs to be certified by the Lessee's contractor.
 - Modification to existing sprinkler systems, if installed, to be certified by the contractor.
 - Install portable fire extinguishers in accordance with NCC.
 - All floor coverings and finishes are to comply with AS 4586 2013 & AS/NZS 3881.1, installer to certify upon completion.
 - Applied finishes - materials and substrates selected for use during the flood, must ensure that they are non-toxic or non-hazardous for use in a confined space. Contractors to provide full MSD for viewing if requested. Inspect site and inspect conditions, comparing drawings with as-built conditions before commencement of design and construction.
 - Commencement of works on site means total acceptance of all as drawn and as constructed conditions.
 - Ensure the method of delivery, unloading, storage, installation of works is compliant with relevant occupational health, safety and environmental requirements.

Rev.	Description	Date	BY
C	Consultants discussions	21.10.25	G/G
B	Revised discussions	22.07.25	G/G
A	Discussions	30.05.25	G/G
Revision Schedule			

*DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, WHEN PROVIDED & ANY RELEVANT CONSULTANTS DOCUMENTATION (SPECIFICATION, SHOULD COMPLY WITH DOCUMENTATION) THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION BEFORE CONSULTING WITH THE PROJECT SUPERINTENDENT.
- CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES, IF A REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE DESIGN FOR CLARIFICATION.
- ALL DIMENSIONS & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO COPYRIGHT & MAY NOT BE REPRODUCED/REPLICATED IN ANY WAY WITHOUT PRIOR PERMISSION.
- ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED ONLY FOR THE PURPOSES OF THIS PROJECT.

GARY GRIEVE DESIGN
m 0410 414 094
e gary@ggdesign.net.au
QBCC Licence No. 1306966
VBA Practitioner No. 202191
Cm3 ID 81946
Office - Southport QLD 4215
BUILDING DESIGN & DRAFTING

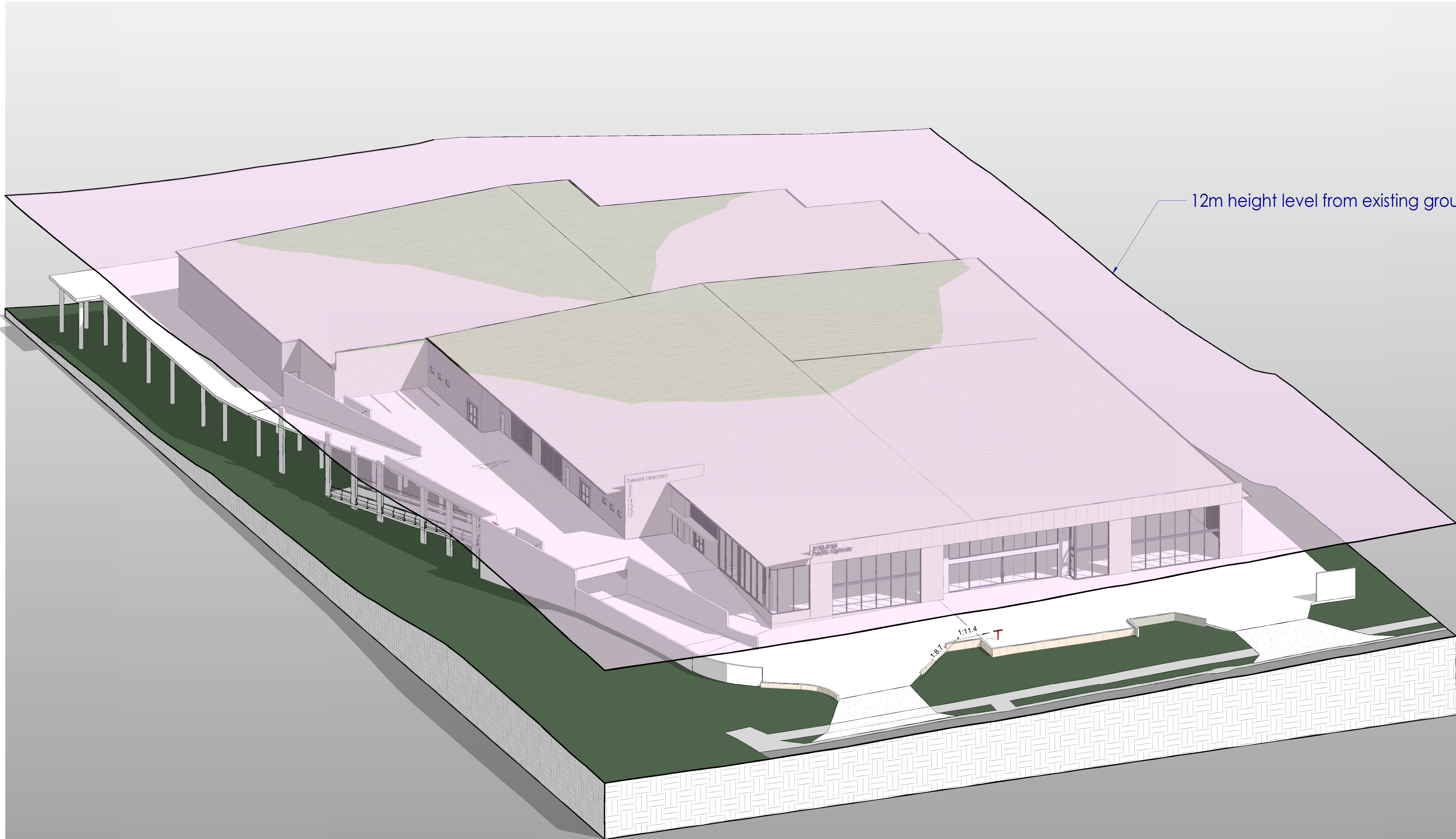
NORTH:

CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
Elevations - 1-200

DATE:	SCALE:	DRAWING No:	REV:
April 2025	1 : 200	DA-020	C
DRAWN BY:	PROJECT NO:		
Author	477		
PRELIMINARY ISSUE			
C:\Users\gary\SynologyDrive\PROJECTS\477_Kevin Gong - Slacks Creek - Warehouse\project\477_DA.rvt			



① 12m hieght limit view

- General Note
- Plans are provided for general tenancy configuration and are illustrative only.
 - Lessee to ensure that all Fitout must be design to comply with local Council standards as well as the current edition of NCC & Relevant Australian standards.
 - ALL DIMENSIONS TO BE CONFIRMED BY LESSEE PRIOR TO CONSTRUCTION. DO NOT SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES.
 - Elements of the previous tenants fit out that have since been removed may be shown in these plans.
 - As the Lessee is responsible to ensure that your designers and/or contractors undertake a site measure prior to commencement of your fit out.
 - Prior to construction clarify the extent of the site conditions.
 - When suspended and or reinforced concrete floors and ceilings exist, structural engineers details and approvals are required prior to any core hole penetrations. Copies of all details to be forwarded to the Lessee prior to site works.
 - All plumbing, fire and/or electrical services are approx only. Lessee to confirm all locations prior to construction.
 - When shown, all existing shop front glazing etc. shown, is illustrative only. Lessee to confirm on site prior to design & construction.
 - Fire/smoke walls shall not be penetrated.
 - Emergency lighting and exit signs to be certified by the Lessee's contractor.
 - Modification to existing sprinkler systems, if installed, to be certified by the contractor.
 - Install portable fire extinguishers in accordance with NCC.
 - All floor coverings and finishes are to comply with AS 4586 2013 & AS/NZS 3881.1, installer to certify upon completion.
 - Applied finishes - materials and substances selected for use during the fitout, must ensure that they are non-toxic or non-hazardous for use in a confined space. Contractors to provide full MSD for viewing if requested. Inspect site and inspect conditions, comparing drawings with as-built conditions before commencement of design and construction.
 - Commencement of works on site means total acceptance of all as drawn and as constructed conditions.
 - Ensure the method of delivery, unloading, storage, installation of works is compliant with relevant occupational health, safety and environmental requirements.

Rev.	Description	Date	BY
C	Consultants discussions	21.10.25	GJG
B	Revised discussions	22.07.25	GJG
A	Discussions	30.05.25	GJG
Revision Schedule			

- DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, WHEN PROVIDED & ANY RELEVANT CONSULTANTS DOCUMENTATION/SPECIFICATION, SHOULD COMPLY WITH DOCUMENTATION/ARISE THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION BEFORE CONSULTING WITH THE PROJECT SUPERINTENDANT.

- CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES, IF A REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE DESIGN FOR CLARIFICATION.

- ALL DESIGN & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO COPYRIGHT & MAY NOT BE REPRODUCED/REPLACED IN ANY WAY WITHOUT PRIOR PERMISSION.

- ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED ONLY FOR THE PURPOSES OF THIS PROJECT.

GARY GRIEVE DESIGN

m 0410 414 094
e gary@ggdesign.net.au
QBCC Licence No. 11069666
VBA Practitioner No. 202191
Cm3 ID 81946
Office - Southport QLD 4215

BUILDING DESIGN & DRAFTING

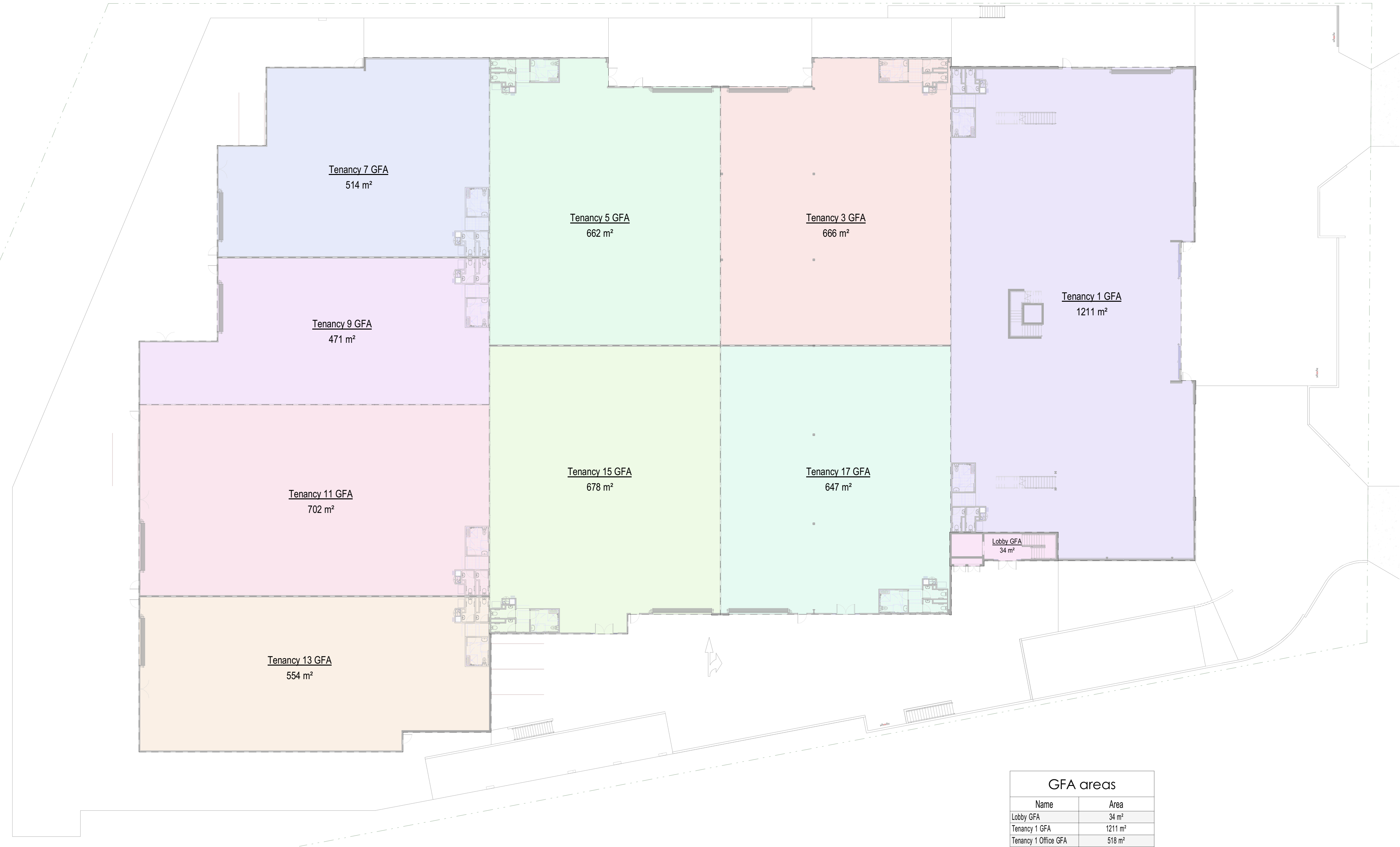
NORTH:

CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

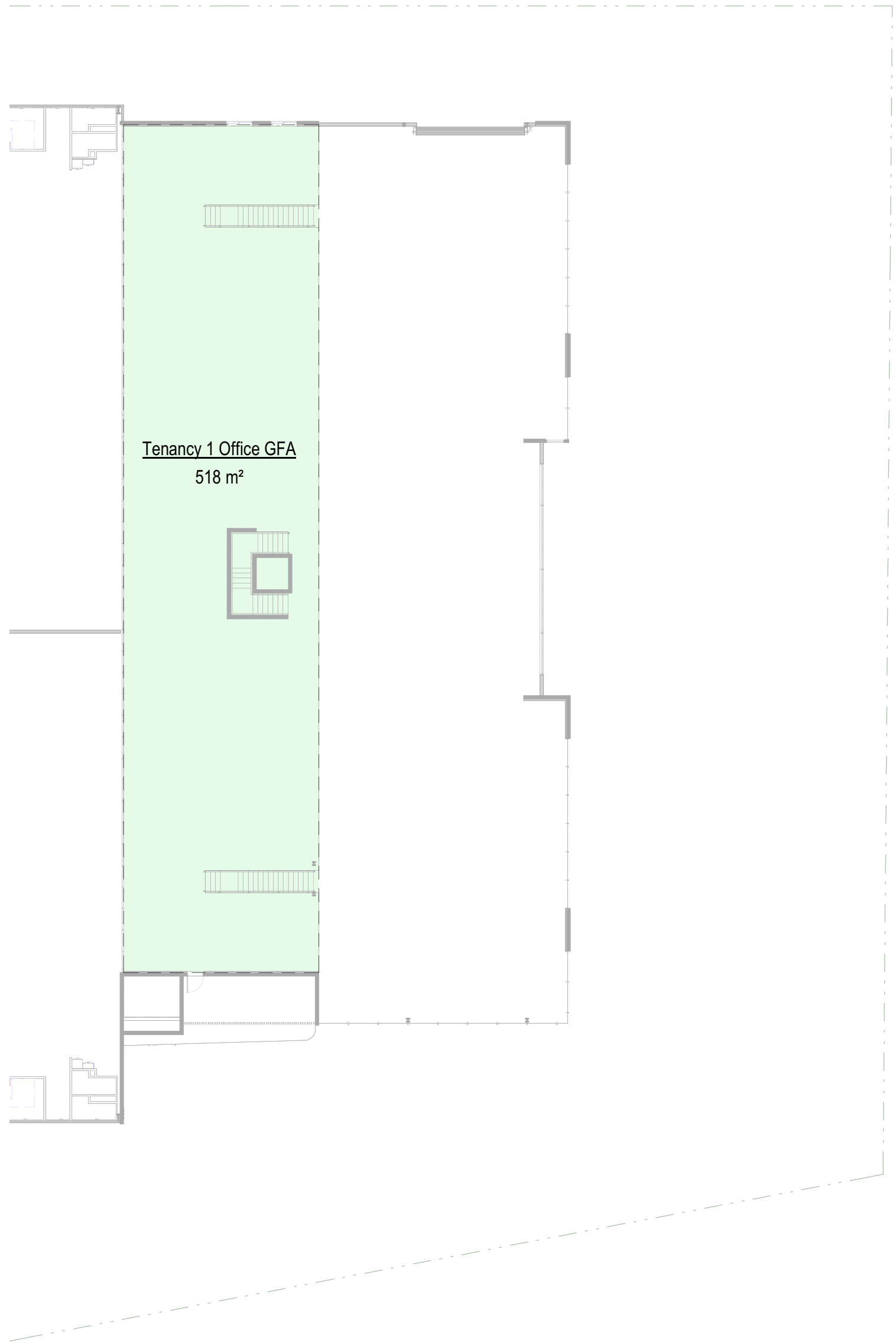
DRAWING TITLE:
12m Height limit view

DATE:	SCALE:	DRAWING No:	REV:
April 2025		DA-040	C
DRAWN BY: Author	PROJECT NO: 477		
PRELIMINARY ISSUE			
C:\Users\gary\SynologyDrive\PROJECTS\477_ Kevin Gong - Slacks Creek - Warehouse\project\477_DA.rvt			



1 GFA area plan
1 : 250

GFA areas	
Name	Area
Lobby GFA	34 m²
Tenancy 1 GFA	1211 m²
Tenancy 1 Office GFA	518 m²
Tenancy 3 GFA	666 m²
Tenancy 5 GFA	662 m²
Tenancy 7 GFA	514 m²
Tenancy 9 GFA	471 m²
Tenancy 11 GFA	702 m²
Tenancy 13 GFA	554 m²
Tenancy 15 GFA	678 m²
Tenancy 17 GFA	647 m²
Grand total	6657 m²



2 GFA Office level
1 : 250

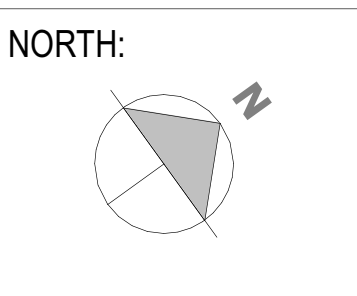
Rev.	Description	Date	BY
A	Consultants discussions	21.10.25	GJG
Revision Schedule			

• DOCUMENTATION TO BE READ IN CONJUNCTION WITH THE SPECIFICATION, WHEN PROVIDED
• ANY RELEVANT CONSULTANTS DOCUMENTATION/SPECIFICATION, SHOULD COMPLY WITH
DOCUMENTATION/ARISE THE CONTRACTOR SHOULD NOT PROCEED WITH CONSTRUCTION
BEFORE CONSULTING WITH THE PROJECT SUPERINTENDANT.
• CONTRACTORS ARE NOT TO SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES, IF A
REQUIRED DIMENSION IS NOT INDICATED ON THE DOCUMENTATION CONTACT GARY GRIEVE
DESIGN FOR CLARIFICATION.
• ALL DESIGNS & DOCUMENTATION PROVIDED BY GARY GRIEVE DESIGN ARE SUBJECT TO
COPYRIGHT & MAY NOT BE REPRODUCED/REPLICATED IN ANY WAY WITHOUT PRIOR
PERMISSION.
• ALL ELECTRONIC FILES REMAIN THE PROPERTY OF GARY GRIEVE DESIGN AND MAY BE USED
ONLY FOR THE PURPOSES OF THIS PROJECT.

GARY GRIEVE DESIGN

m 0410 414 094
e gary@ggdgdesign.net.au
QBCC Licence No. 11069666
VBA Practitioner No. 202191
Cm3 ID 81946
Office - Southport QLD 4215

**BUILDING
DESIGN
& DRAFTING**



CLIENT
H&G JV Pty Ltd.

PROJECT:
Proposed Warehouse Development
3733-3755 Pacific Highway,
Slacks Creek, QLD

DRAWING TITLE:
**Gross floor area
schedules**

DATE:
April 2025
DRAWN BY:
GJG

SCALE:
1 : 250
PROJECT NO.:
477

DRAWING No.:
DA-041
REV.:
A

DA ISSUE

C:\Users\gary\SynologyDrive\PROJECTS\477_Kevin Gong - Slacks Creek
- Warehouse\project\477_DA.rvt

- General Note
- Plans are provided for general tenancy configuration and are illustrative only.
 - Lessee to ensure that all Fitout must be design to comply with local Council standards as well as the current edition of NCC & Relevant Australian standards.
 - ALL DIMENSIONS TO BE CONFIRMED BY LESSEE PRIOR TO CONSTRUCTION. DO NOT SCALE OFF THE DRAWINGS UNDER ANY CIRCUMSTANCES.
 - Elements of the previous tenants fit out that have since been removed may be shown in these plans.
 - Lessee to confirm all locations prior to construction.
 - When suspended and reinforced concrete floors and ceilings exist, structural engineers details and approvals are required prior to any core hole penetrations. Copies of all details to be forwarded to the Lessee prior to site works.
 - All plumbing, fire and/or electrical services are approx only. Lessee to confirm all locations prior to construction.
 - When shown, all existing shop front glazing etc, shown, is illustrative only. Lessee to confirm on site prior to design & construction.
 - Fire alarm and detection systems, if installed, to be certified by the Lessee's contractor.
 - Modification to existing sprinkler systems, if installed, to be certified by the contractor.
 - Install portable fire extinguishers in accordance with NCC.
 - All floor coverings and finishes are to comply with AS 4586 2013 & AS/NZS 3981.1, installer to certify upon completion.
 - Applied finishes - materials and substances selected for use during the fitout, must ensure that they are non-toxic or non-hazardous for use in a confined space. Contractors to provide full MSD for viewing if requested. Inspect site and inspect conditions, comparing drawings with as-built conditions before commencement of design and construction.
 - Commencement of works on site means total acceptance of all as drawn and as constructed conditions.
 - Ensure the method of delivery, unloading, storage, installation of works is compliant with relevant occupational health, safety and environmental requirements.

Appendix B

LCC Property Flood Report

PROPERTY FLOOD REPORT



Property Details

Address: 3733-3735 Pacific Highway SLACKS CREEK QLD 4127

Lot/Plan: Lot 6 RP 839894

Size/Area: 11,545 m²

Property Key: 186729

Catchment(s): Logan River, Slacks Creek

View Logan's [catchments and waterways map](#) (PDF)



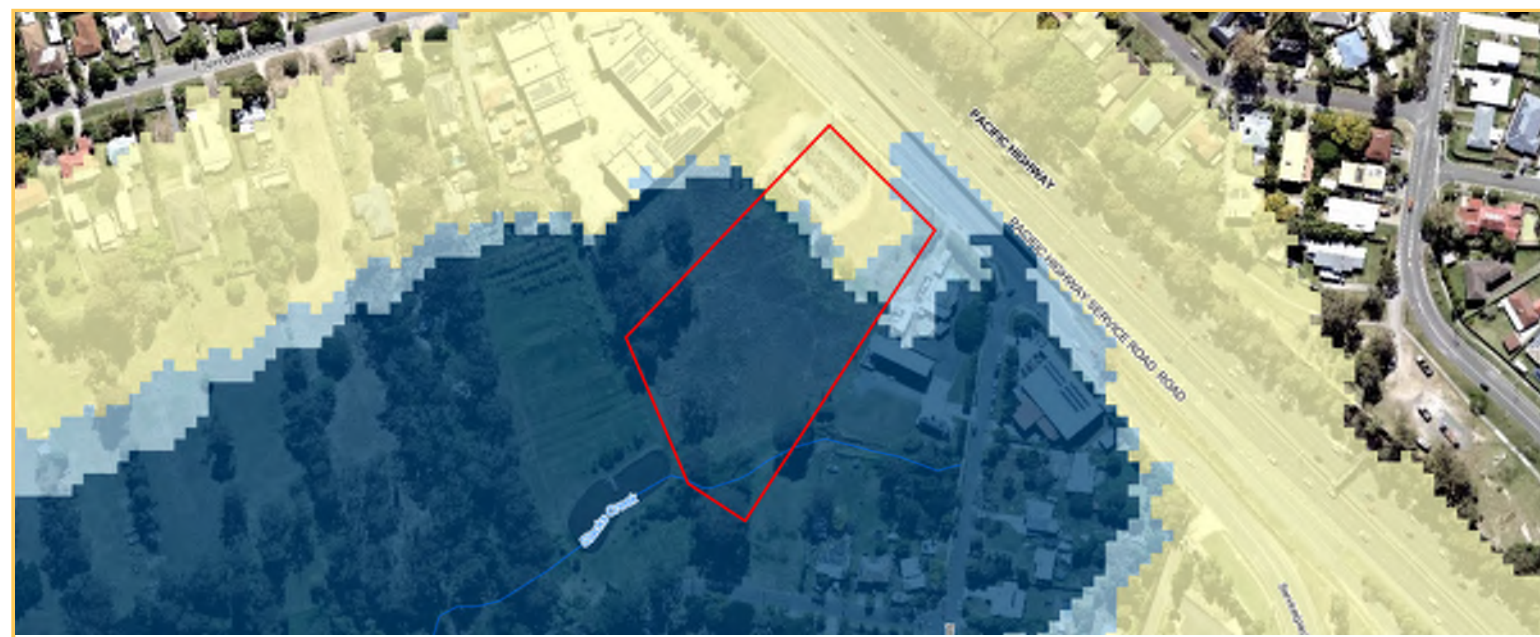
Summary Flood Assessment

The table below presents the flood risks applicable to the selected property. There may be multiple studies and flood scenarios affecting the property, particularly for larger sites.

Assessment	Details
Risk area(s)	High, Moderate, Low
Investigation area	Not applicable
Isolation risk	Not applicable
River flooding	20% chance of a flood this size or larger happening in any given year
Creek flooding	20% chance of a flood this size or larger happening in any given year
Overland flow	Applies. It is possible that flooding from a local waterway which has not yet been studied may also impact the property. Please contact Council for further advice. Overland flow is water (stormwater run-off) that travels over land during heavy rainfall events. It generally occurs quickly and for short durations.

Latest Flood Risk

The extract below comes from the flood risk map based on the latest (most recent) flood studies accepted by Council applicable for this property.



LEGEND



High

Floodwaters may be deep or fast flowing, or have a relatively high chance of occurrence (e.g. 80% chance in 30 years). Conditions may pose a risk to life and cause damage to buildings, possibly severe. Limited development may be considered if not increasing the flood risk exposure for people or property. These areas are generally better suited to environmental, recreational and some agricultural uses.



Moderate

Less frequently affected by flooding or if more frequent, with shallow or slower moving floodwater. Conditions may pose an unacceptable risk to people or property if not mitigated. Development may be tolerable if measures are taken to address flood impacts, protect people and limit damage.



Low

Extremely unlikely chance of flooding (1% chance or less over a 30 year period) and/or relatively shallow or benign flooding conditions. Development is generally acceptable except for essential community infrastructure (e.g. emergency services). Vulnerable uses (e.g. childcare, aged care) may be ok subject to building, site access and safe shelter mitigation measures. Shows the full floodplain under the largest flood that could conceivably occur.



Investigation area

Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Development should avoid these areas until further investigation (updated flood study or localised risk assessment) is completed.



The flood studies this map is based on consider the impacts of climate change, as required by Queensland's planning legislation and policies. The map considers the whole floodplain for Logan and reflects a risk-based approach that takes into account:

- How likely a flood of a given size is in any given year, and
- What the impact or level of danger of that flood is.

Flood Levels

The table below displays flood levels from the most recently accepted flood studies affecting this property. To view the flood study documents please see the [Flood page](#) on Council's website. The levels are measured in Australian Height Datum (AHD), where sea level is approximately zero (0) metres. The level displayed in the table below is the maximum flood level on the property for that event (likelihood). For some properties, particularly large properties or those on a significant slope, flood levels can vary significantly.

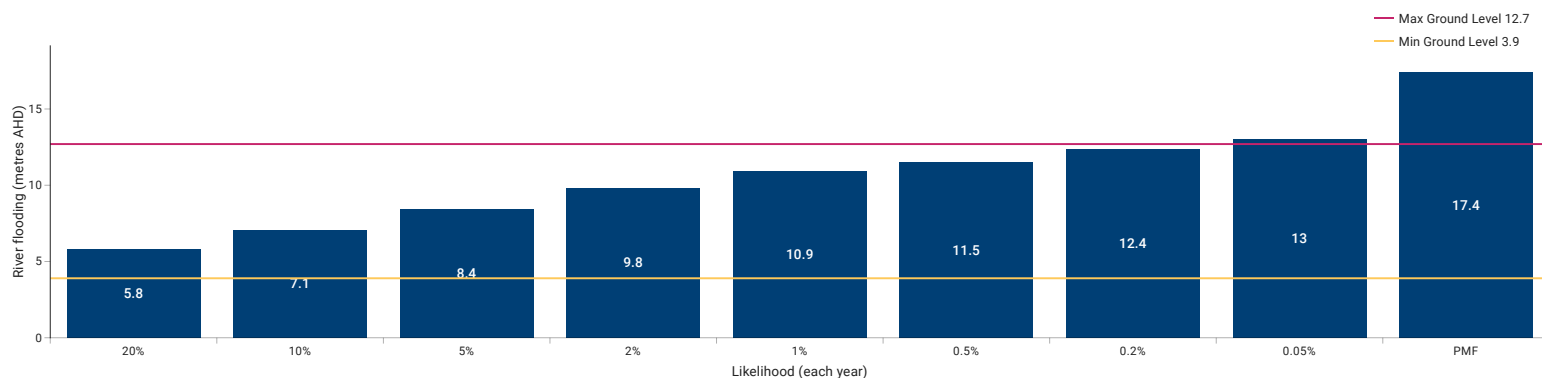
The most likely flood scenarios is shown at the top of the table, with the Probable Maximum Flood (PMF) at the bottom, being the least likely but most serious flood scenario.

Some properties may be impacted by only river flooding or only creek flooding, and some may be impacted by both. There may also be other sources of inundation that may impact the property and affect flood levels, based on overland flow or local creeks where studies have not yet been completed.

Study: Logan and Albert Rivers Flood Study 2023

Likelihood (each year)	River flooding
20% chance	5.8 metres AHD
10% chance	7.1 metres AHD
5% chance	8.4 metres AHD
2% chance	9.8 metres AHD
1% chance	10.9 metres AHD
0.5% chance	11.5 metres AHD
0.2% chance	12.4 metres AHD
0.05% chance	13.0 metres AHD
PMF	17.4 metres AHD

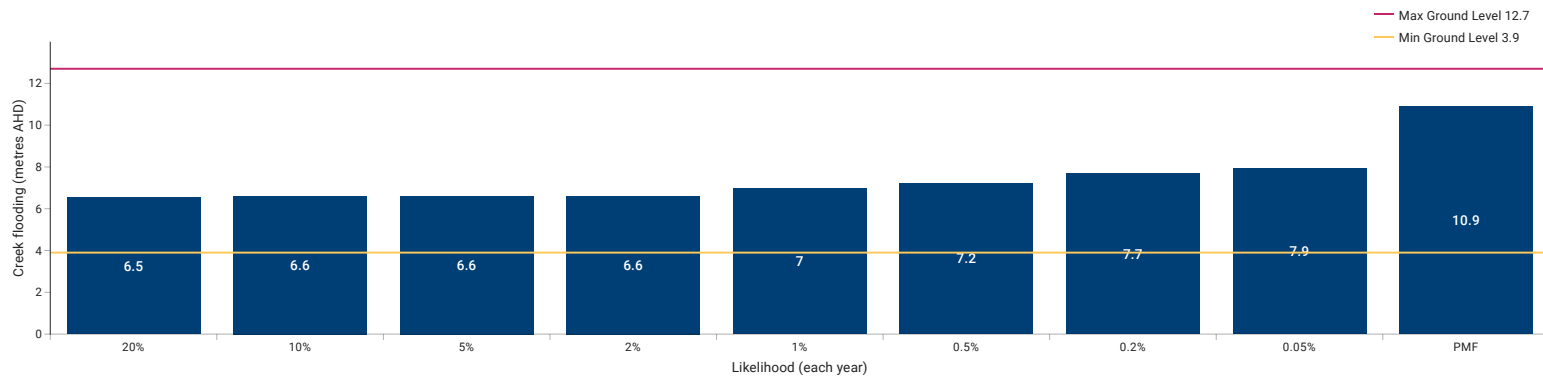
Flood and Ground Levels in metres AHD



Study: Slacks and Scrubby Creek Flood Study 2023

Likelihood (each year)	Creek flooding
20% chance	6.5 metres AHD
10% chance	6.6 metres AHD
5% chance	6.6 metres AHD
2% chance	6.6 metres AHD
1% chance	7.0 metres AHD
0.5% chance	7.2 metres AHD
0.2% chance	7.7 metres AHD
0.05% chance	7.9 metres AHD
PMF	10.9 metres AHD

Flood and Ground Levels in metres AHD



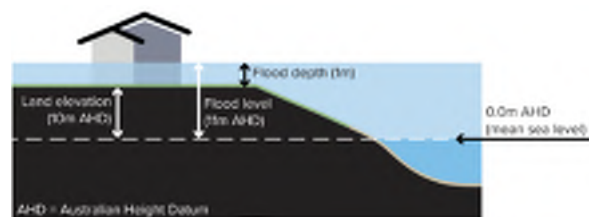
Ground Levels

Ground levels are based on an aerial LiDAR (Light Detection and Ranging) survey, which uses millions of laser point measurements to build a model of the ground surface. The source of the data is displayed in the table below so that you know when the survey was conducted.

Ground level	Details
Minimum ground level	3.9 metres AHD
Maximum ground level	12.7 metres AHD

Source: 2021 Digital elevation model (1 metre grid)

The projected flood depth (how deep the water may be above ground, in metres) is the difference between the flood levels in the section above and the ground levels in this table. The diagram below provides an example (land elevation is ground level).



Overland Flow

Overland flow is water (stormwater/rainfall run-off) that exceeds the capacity of drains, pipes and channels during heavy rainfall events and travels over land towards waterways. It generally occurs quickly and for shorter periods of time. The impact of overland flow is dependent on local conditions, so the mapping is a guide only. It is possible that flooding from a local waterway which has not yet been studied may also impact the property. Please contact Council for further advice.

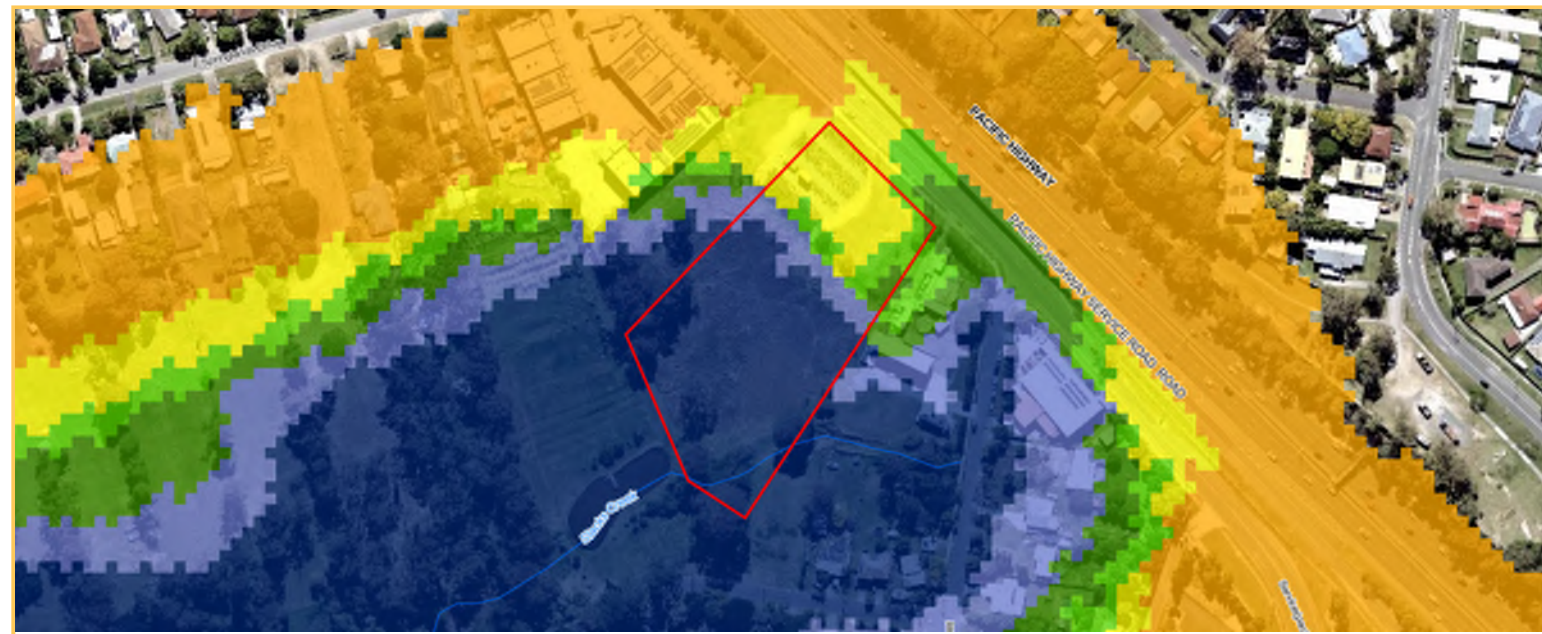


LEGEND

 Overland flow extent (areas possibly impacted)

Future Climate Scenarios

This extract comes from the map showing the projected extent of flooding (affected areas) for multiple flood scenarios for all relevant flood studies, **including the projected impacts of climate change**. This map corresponds with the flood levels provided in the table above for the 5%, 2%, 1%, 0.5%, 0.05% and Probable Maximum Flood (PMF) scenarios.



LEGEND

5% chance

The areas modelled to be impacted by a flood that has a 5% (or 1 in 20) chance of happening in any given year, or 80% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

2% chance

The areas modelled to be impacted by a flood that has a 2% (or 1 in 50) chance of happening in any given year, or 45% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

1% chance

The areas modelled to be impacted by a flood that has a 1% (or 1 in 100) chance of happening in any given year, or 25% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

0.5% chance

The areas modelled to be impacted by a flood that has a 0.5% (or 1 in 200) chance of happening in any given year, or 15% chance over a 30 year period, which is the common term of a mortgage. This modelling **includes the impacts of climate change** and represents our understanding of future risk.

0.05% chance

The areas modelled to be impacted by a flood that has a 0.05% (or 1 in 2000) chance of happening in any given year. This is an extremely unlikely flood event with a 1% chance of happening over a 30 year period, not including the impacts of climate change.

PMF

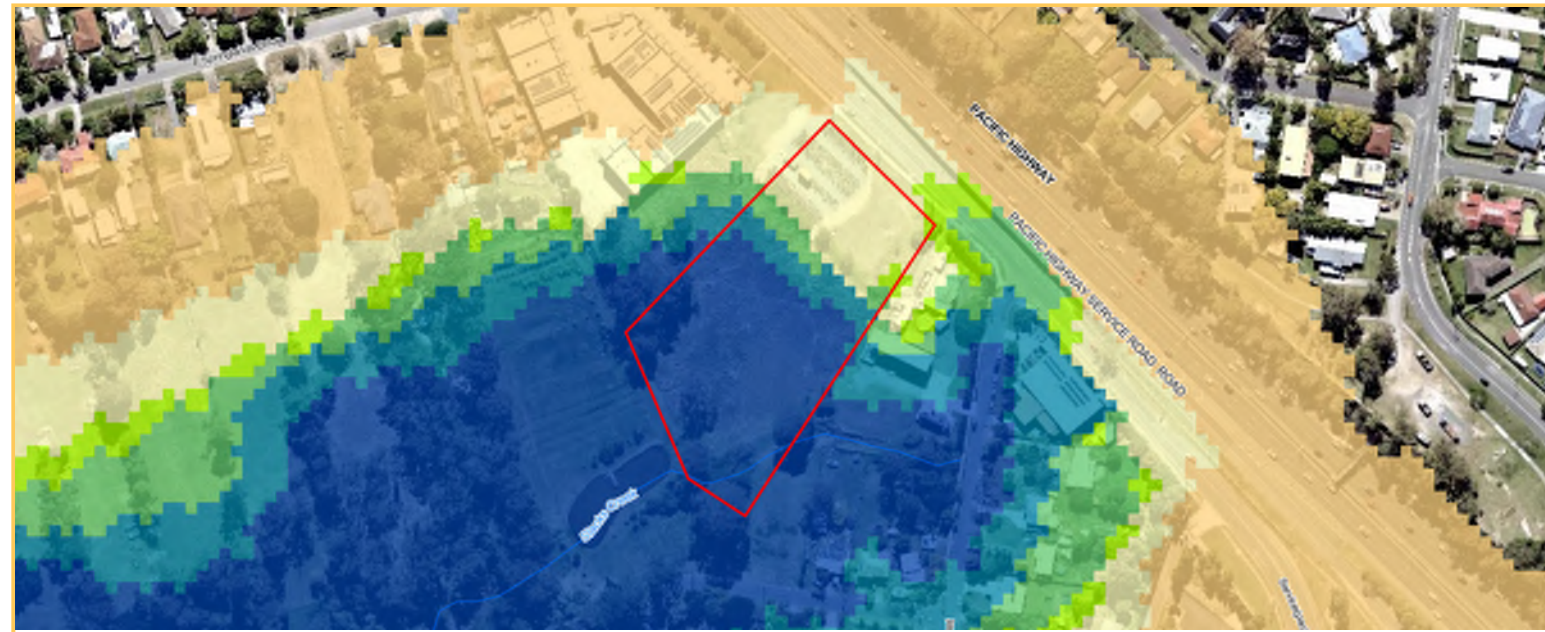
The PMF or probable maximum flood scenario represents the full extent of the floodplain, or the most serious flood that could be expected to occur. This is usually estimated based on the probable maximum rainfall, not including the impacts of climate change.

Investigation area

Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Further investigation is needed.

Current Climate Scenarios

This extract comes from the map showing flood affected areas **without** considering the impacts of climate change. This map represents modelled flooding under current conditions, and can be used for insurance purposes.



LEGEND

 5% chance

The areas modelled to be impacted by a flood that has a 5% (or 1 in 20) chance of happening in any given year, or 80% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 2% chance

The areas modelled to be impacted by a flood that has a 2% (or 1 in 50) chance of happening in any given year, or 45% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 1% chance

The areas modelled to be impacted by a flood that has a 1% (or 1 in 100) chance of happening in any given year, or 25% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 0.5% chance

The areas modelled to be impacted by a flood that has a 0.5% (or 1 in 200) chance of happening in any given year, or 15% chance over a 30 year period, which is the common term of a mortgage. This modelling is based on **current (present day) conditions** and does not take into account the impacts of climate change.

 0.05% chance

The areas modelled to be impacted by a flood that has a 0.05% (or 1 in 2000) chance of happening in any given year. This is an extremely unlikely flood event with a 1% chance of happening over a 30 year period, not including the impacts of climate change.

 PMF

The PMF or probable maximum flood scenario represents the full extent of the floodplain, or the most serious flood that could be expected to occur. This is usually estimated based on the probable maximum rainfall, not including the impacts of climate change

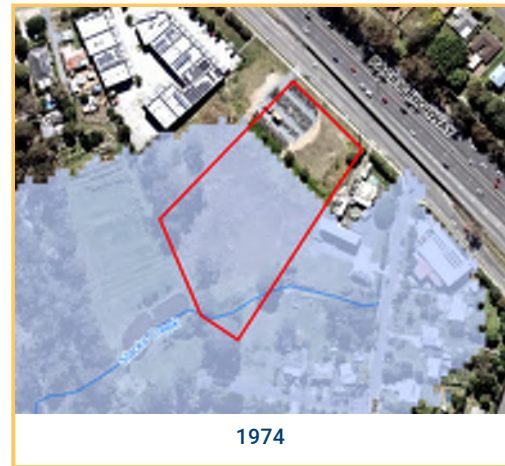
 Investigation area

Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Further investigation is needed.

Historic Flood Events

Based on the best information available to Council, the table below indicates whether or not the selected property may have been impacted by significant historic flood events. It is possible that other creek flooding or overland flow, which is not included in Council's mapping of these events, may have impacted the property.

Flood event	Property impacted
1974	Yes
2017 (after ex Tropical Cyclone Debbie)	Yes
2022 (late February / early March)	Yes



Planning Scheme Maps

The selected property is shown below on an extract of the Flood Overlay Maps from the Logan Planning Scheme 2015 V9.2 with TLPI No. 1/2024. Various provisions of the planning scheme which refer to properties affected by the Flood Overlay Maps will apply to the flood affected areas for the purposes of planning and development. This may include, for example, raised building floor levels and achieving safe vehicle access to the road network.

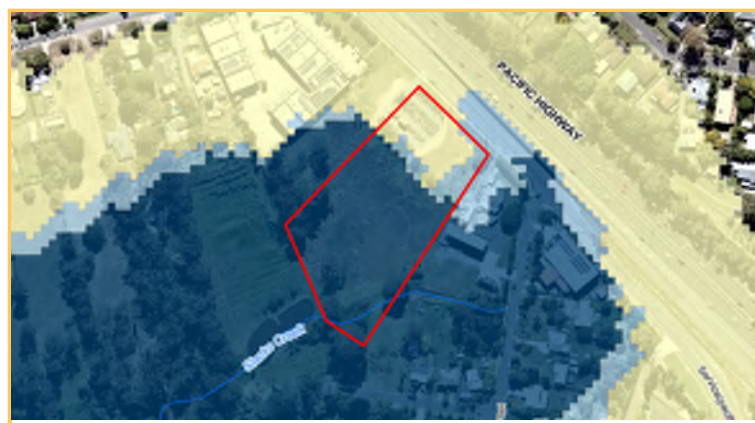
OM-05.01 Isolated islands



OM-05.02 High flow area



OM-05.04 Flood risk areas



MAP LEGEND

High

Floodwaters may be deep or fast flowing, or have a relatively high chance of occurrence (e.g. 80% chance in 30 years). Conditions may pose a risk to life and cause damage to buildings, possibly severe. Limited development may be considered if not increasing the flood risk exposure for people or property. These areas are generally better suited to environmental, recreational and some agricultural uses.

Moderate

Less frequently affected by flooding or if more frequent, with shallow or slower moving floodwater. Conditions may pose an unacceptable risk to people or property if not mitigated. Development may be tolerable if measures are taken to address flood impacts, protect people and limit damage.

Low

Extremely unlikely chance of flooding (1% chance or less over a 30 year period) and/or relatively shallow or benign flooding conditions. Development is generally acceptable except for essential community infrastructure (e.g. emergency services). Vulnerable uses (e.g. childcare, aged care) may be ok subject to building, site access and safe shelter mitigation measures. Shows the full floodplain under the largest flood that could conceivably occur.

Investigation area

Locations where a current flood study has not been delivered and information to determine flood risk is not available. The approximation of the floodplain in these areas is based on a citywide overland flow study. Development should avoid these areas until further investigation (updated flood study or localised risk assessment) is completed.

MAP LEGEND



High flow area

High hazard areas of flooding where significant (deeper, faster) flow of water occurs and in which a building is vulnerable to structural damage or failure from floodwater. Classified as H5 or H6 in the Australian Institute of Disaster Resilience (AIDR) Guideline 7-3 'Flood Hazard'.



High flood island

Areas which are isolated from flood-free land (surrounded by floodwater) but retain a portion of the area as flood free in a probable maximum flood (PMF).



Low flood island

Areas which are surrounded by floodwater and at first isolated from flood-free land, then completely inundated by floodwater (submerged) as the flood continues to rise.



Meadowbrook flood assessment area

Area where the function of important community infrastructure needs to be maintained. Flood mitigation measures and comprehensive emergency management planning is required to adequately manage the risk for flood events.



If more recent flood studies have been completed and accepted by Council, the Latest Flood Risk Map shown at the top of this report may be different from the planning scheme map. The latest flood information should be used to inform development decisions and will be incorporated into the planning scheme in a future amendment.

Further Information

1. Floods are highly unpredictable and variable, and properties may be affected by other sources of potential flooding. Each flood and its impact is different. Areas that were not flooded previously may be affected by future events. Areas that have been previously flooded may be impacted in different ways. This online report cannot take all of this into account.
2. The flood mapping and levels in this report are based on data from flood studies undertaken at a particular time and are subject to change. For example, if the method for calculating flood levels is updated, industry guidelines are updated or more recent information becomes available, this may result in changes to the information in this report. In areas where development is ongoing, the flood mapping and levels may not reflect developed conditions.
3. Flood studies do not create risk. They help us to understand the risk, based on relevant legislation and Queensland Government policies and guidelines. Flood studies also consider a range of other factors such as rainfall and river level information from recent events, climate change and trends, the impacts of development, changes to catchment conditions, new technologies and industry best practice (which help to improve accuracy).
4. Flood studies and models are developed from the best information available at the time. They do not tell you how the flood waters might behave, how quickly they may rise, or how dangerous the flooding will be. The models also cannot represent changes that have occurred since they were developed which may impact flood behaviour, such as earthworks, new developments or road infrastructure.
5. This report is not a substitute for independent professional advice. You should engage the services of a Registered Professional Engineer of Queensland (RPEQ) to get site specific information regarding the flood risk to your property, and how that might affect any proposed building or development work.
6. While Logan City Council takes reasonable care in producing this report, it does not guarantee that the information is accurate, complete or current. Logan City Council does not accept any responsibility for any loss or damage (however it was caused) in connection with the use of or reliance on the information in this report.

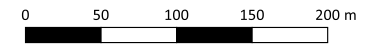
Contact Information

Where to go for further information depends on the type of information you need. Please refer to the [Flood Risk Fact Sheet](#) or contact Council using the details below.

Topic	Contact Details
Flood studies and modelling information, and the flood risk on your property	Contact Council on 07 3412 3412 or email council@logan.qld.gov.au . Further information about flooding and flood studies is available on the Flood page on Council's website.
Planning and development enquiries or proposals	Contact Council on 07 3412 3412 or email development@logan.qld.gov.au . Before lodging a development application, pre-lodgement advice is recommended.
Building information	Contact Council on 07 3412 3412 or email council@logan.qld.gov.au . You can also contact a private building certifier .
Properties in Priority Development Areas	Contact Economic Development Queensland . Council is not the planning authority for these properties.
Independent advice about flooding on your property	Contact a registered engineer through the Board of Professional Engineers of Queensland: Phone: 07 3210 3100 Email: admin@bpeq.qld.gov.au Web: Home - Board of Professional Engineers Queensland (bpeq.qld.gov.au)

Appendix C

LARFS Flood Maps



Legend

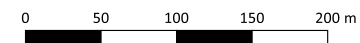
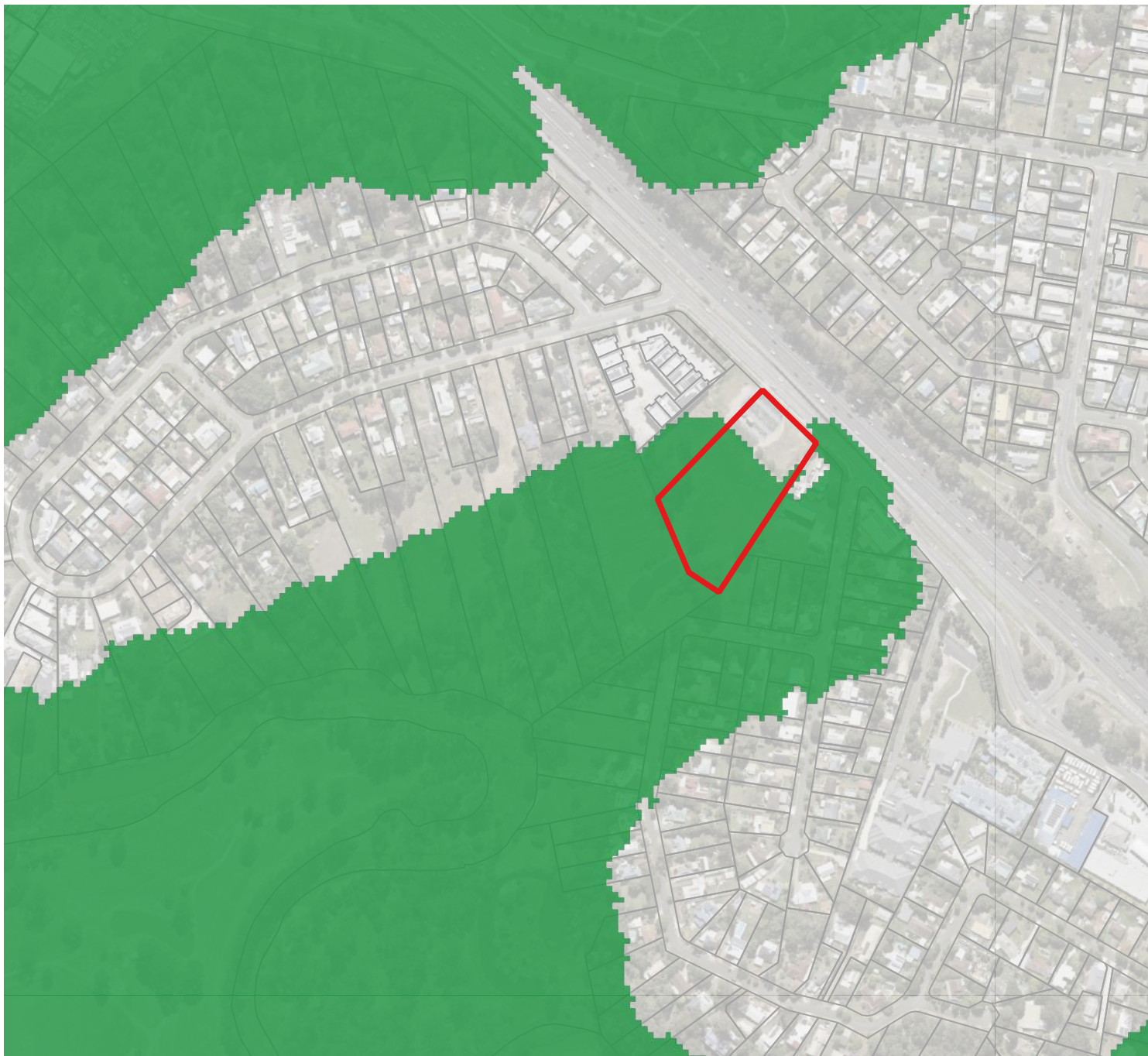
- Site
- DCDB
- Flood Depth (m)
 - ≤ 0.5
 - 0.5 - 1.0
 - 1.0 - 2.5
 - 2.5 - 5.0
 - 5.0 - 10.0
 - > 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Depth and Peak Flood Level | Pre-Development
Scenario (C-1 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D01
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

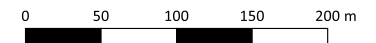
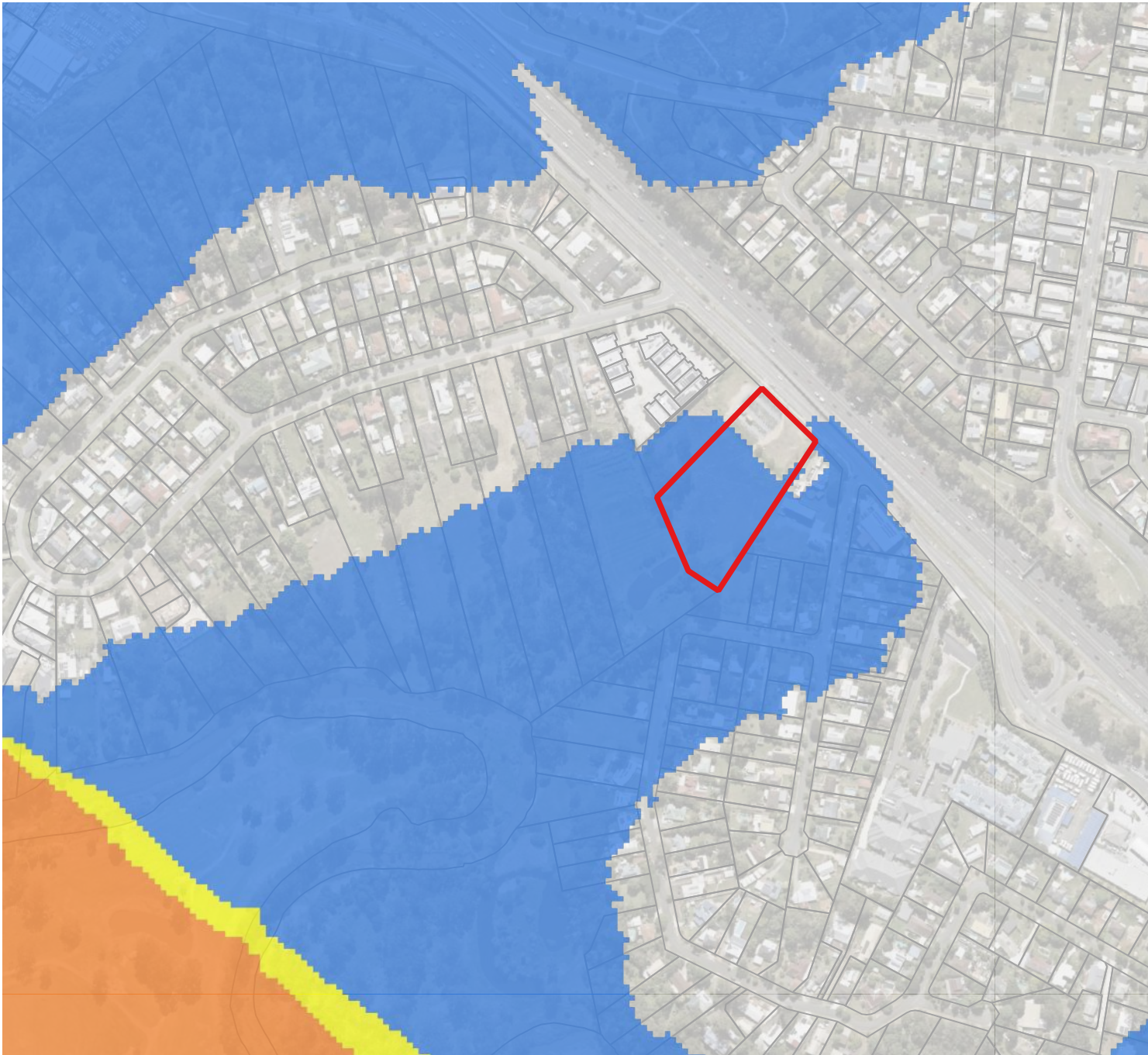
- Site
- DCDB
- Flood Velocity (m/s)
 - 0-0.5
 - 0.5-1.0
 - 1.0-2.0
 - 2.0-3.0
 - >3.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Velocity | Pre-Development Scenario (C-2 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D01
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

Site

DCDB

Vel. Depth Product (m^2/s)

≤ 0.0

$0.0 - 0.4$

$0.4 - 0.6$

$0.6 - 1.2$

$1.2 - 10.0$

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Hazard (Depth x Velocity Product) | Pre-Development
Scenario (C-3 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

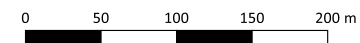
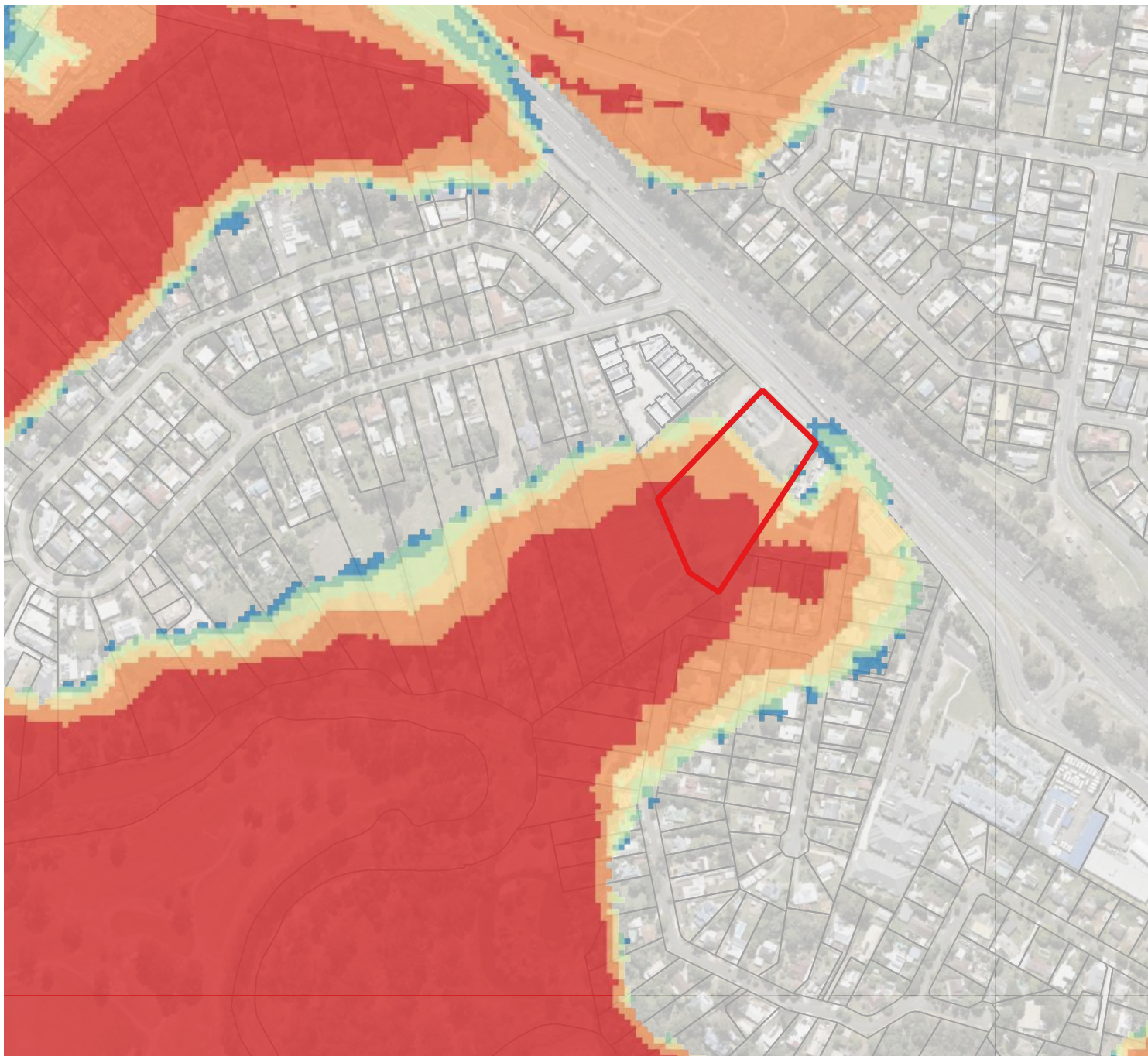
MODEL NAME: E01/D01

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Flood Hazard (AEMI)
 - H1
 - H2
 - H3
 - H4
 - H5
 - H6

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Australian Emergency Management Institute Hazard Category |
Pre-Development Scenario (C-4 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

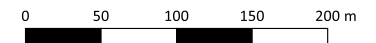
MODEL NAME: E01/D01

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area

Flood Depth (m)

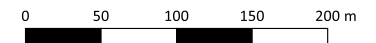
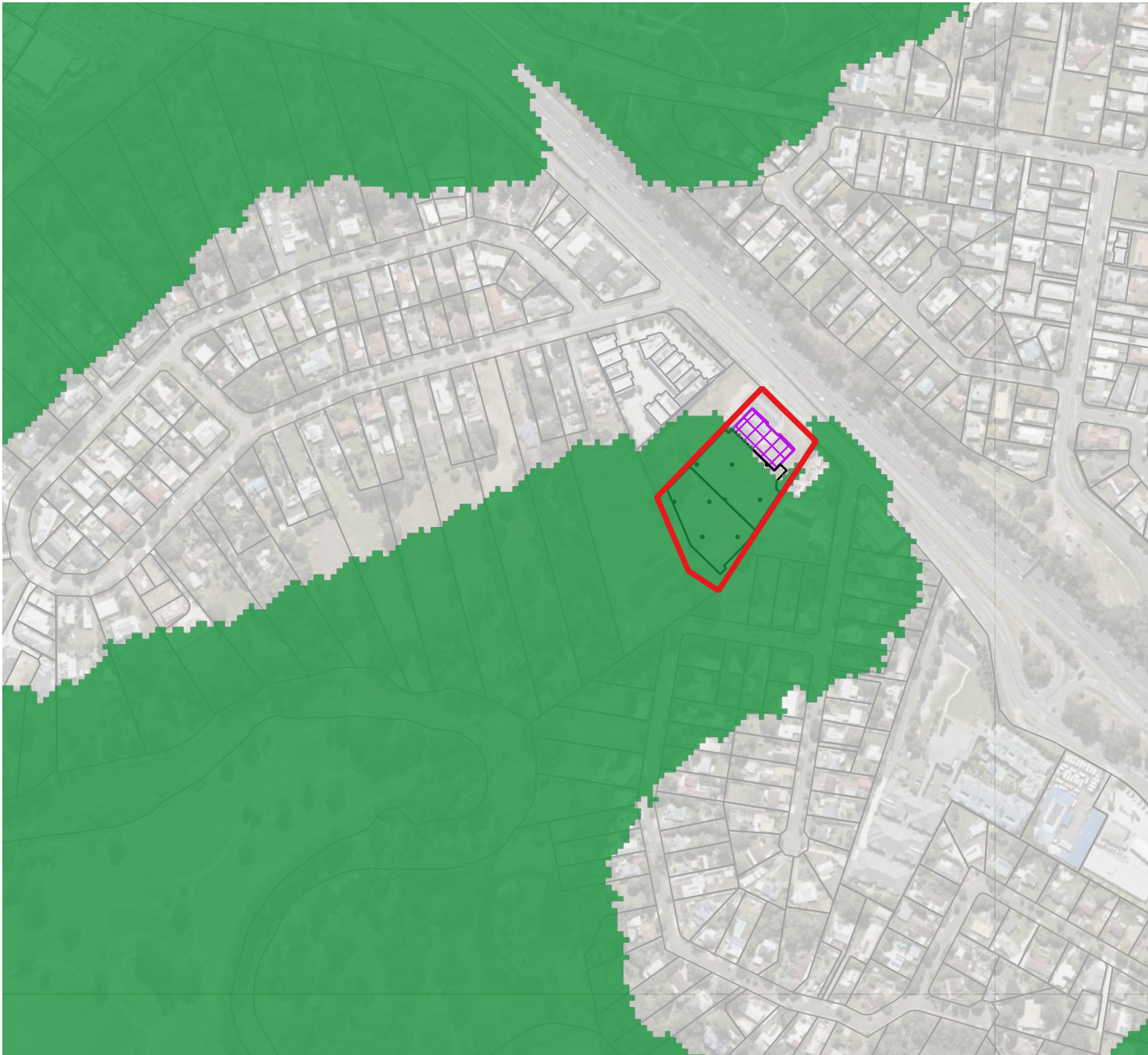
- ≤ 0.5
- 0.5 - 1.0
- 1.0 - 2.5
- 2.5 - 5.0
- 5.0 - 10.0
- > 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Depth | Post-Development Scenario (C-5 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D01
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area

Flood Velocity (m/s)

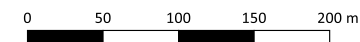
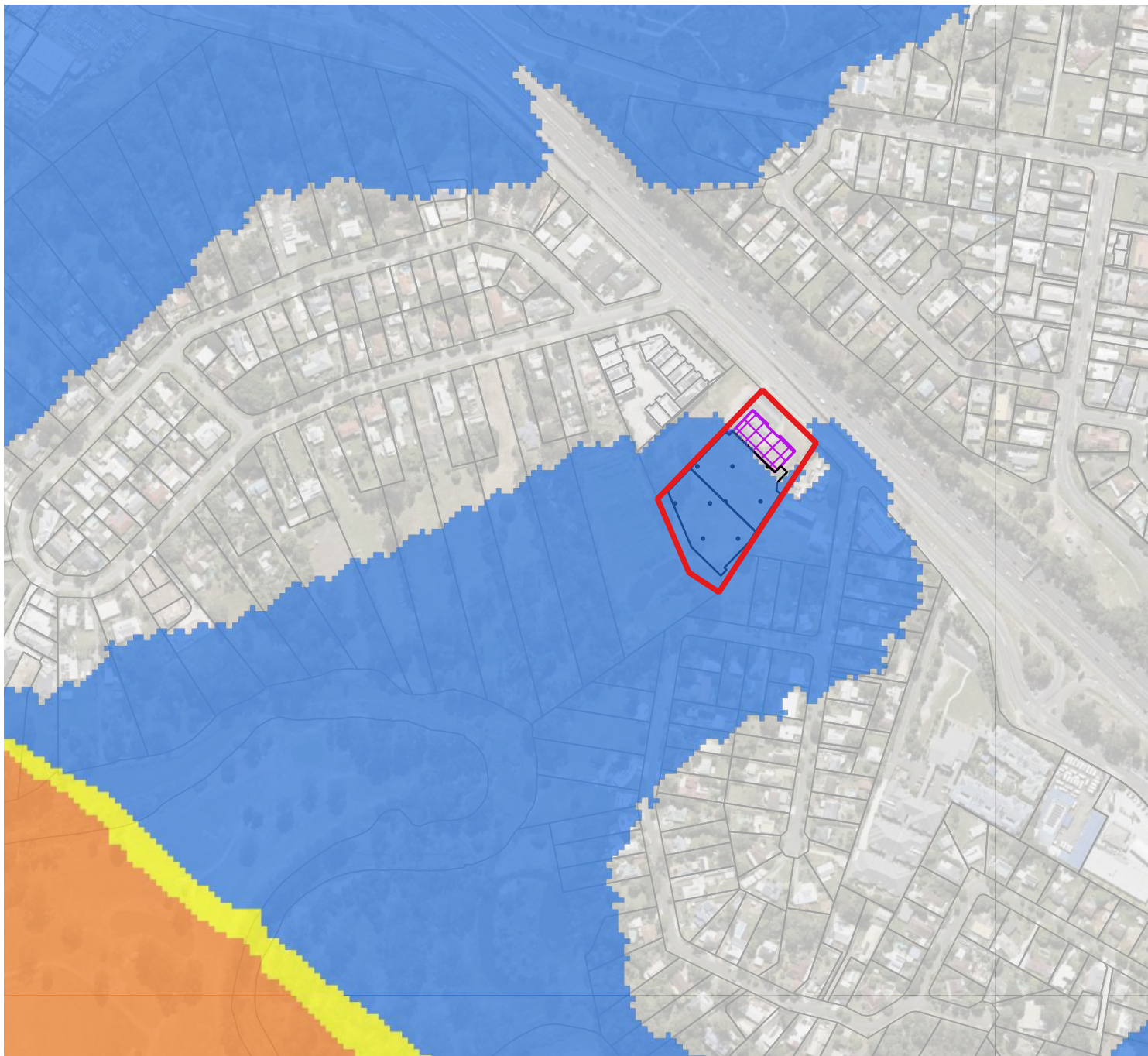
- 0-0.5
- 0.5-1.0
- 1.0-2.0
- 2.0-3.0
- >3.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Velocity | Post-Development Scenario (C-6 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D01
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area

Vel. Depth Product (m^2/s)

- ≤ 0.0
- 0.0 - 0.4
- 0.4 - 0.6
- 0.6 - 1.2
- 1.2 - 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Hazard (Depth x Velocity Product) | Post-Development Scenario (C-7 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway (SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

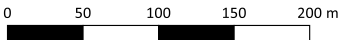
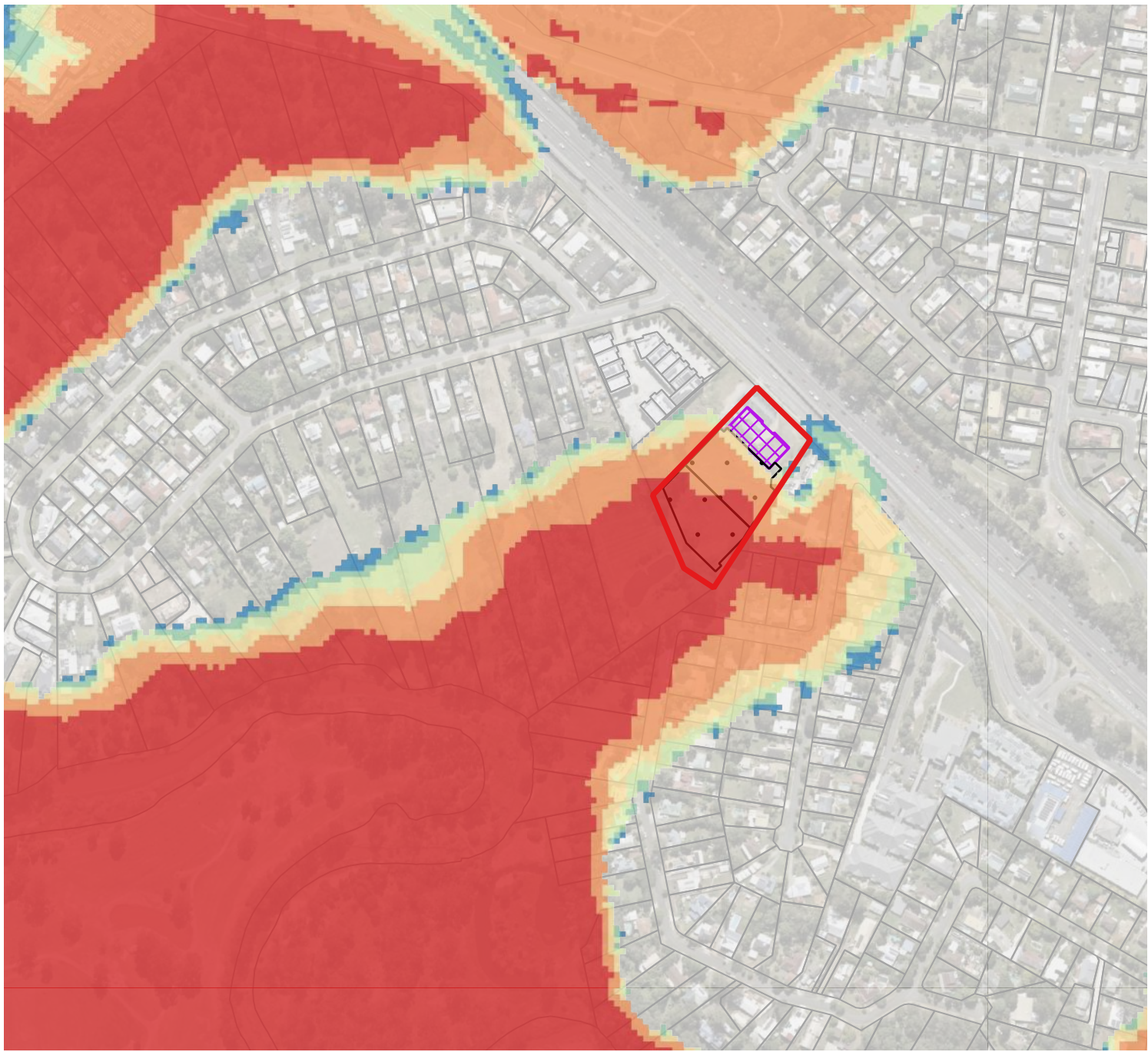
MODEL NAME: E01/D01

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

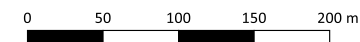
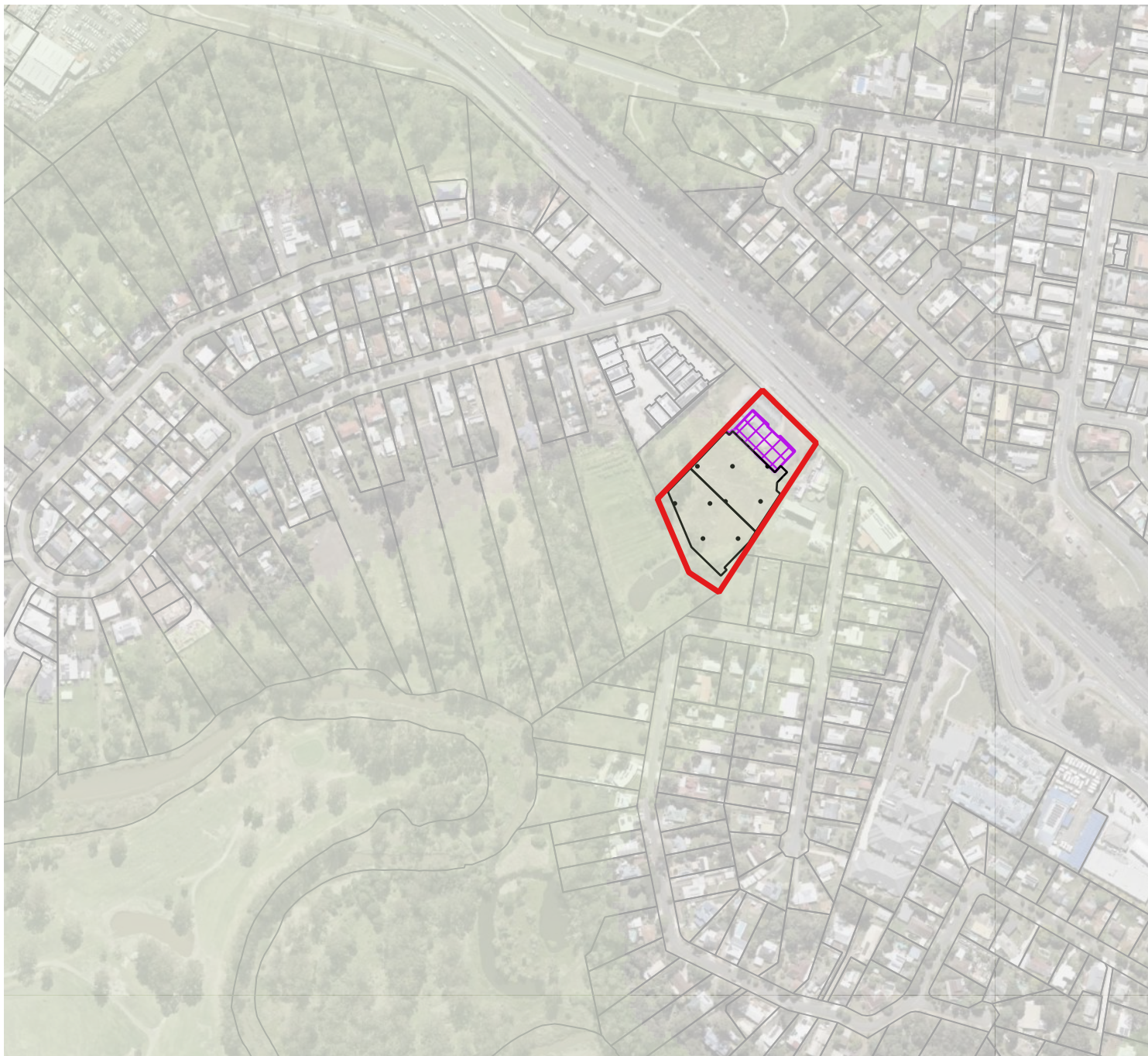
-  Site
-  DCDB
-  Proposed Pad Area
-  Proposed Undercroft Area

Flood Hazard (AEMI)

-  H1
-  H2
-  H3
-  H4
-  H5
-  H6

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
Australian Emergency Management Institute Hazard Category |
Post-Development Scenario (C-8 of 9)
PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D01
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area
- Change in Peak Flood Level
 - <-100mm
 - 100 to -50mm
 - 10 to -50mm
 - 10 to -2mm
 - 2 to 2mm (Model Noise)
 - 2 to 5mm
 - 5 to 10mm
 - 10 to 50mm
 - 50 to 100mm
 - >100mm

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Change in Peak Flood Level | Hydraulic Impact Assessment
(Post-Pre) (C-9 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

MODEL NAME: E01/D01

MAP REVISION: 01

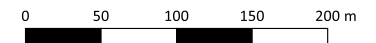
DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri

Appendix D

SSCFA Flood Maps



Legend

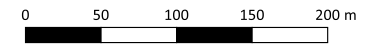
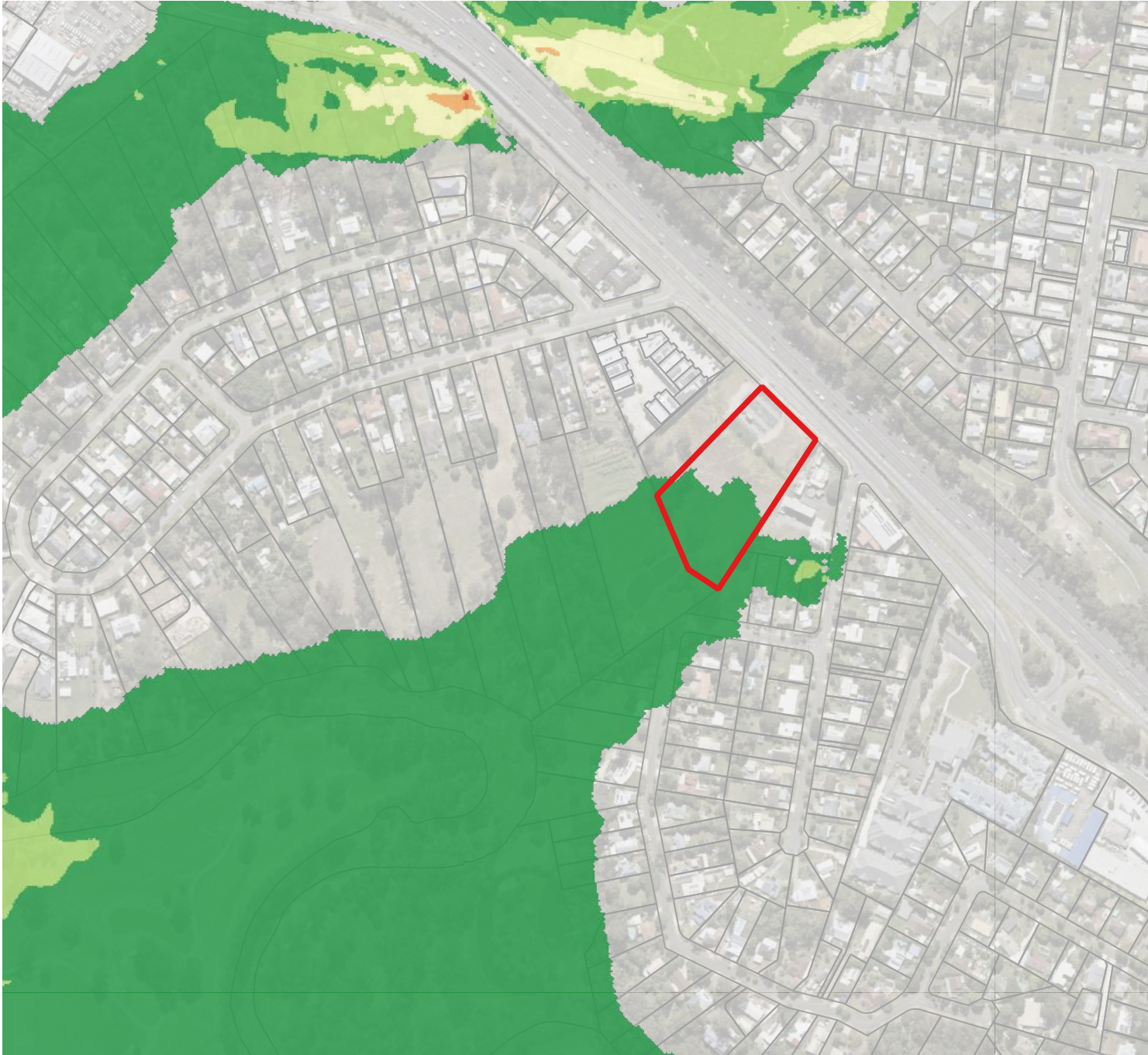
-  Site
-  DCDB
- Flood Depth (m)
 -  ≤ 0.5
 -  0.5 - 1.0
 -  1.0 - 2.5
 -  2.5 - 5.0
 -  5.0 - 10.0
 -  > 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Depth and Peak Flood Level |
Pre-Development Scenario (D-1 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D1
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Flood Velocity (m/s)
 - 0-0.5
 - 0.5-1.0
 - 1.0-2.0
 - 2.0-3.0
 - >3.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Velocity |

Pre-Development Scenario (D-2 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

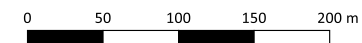
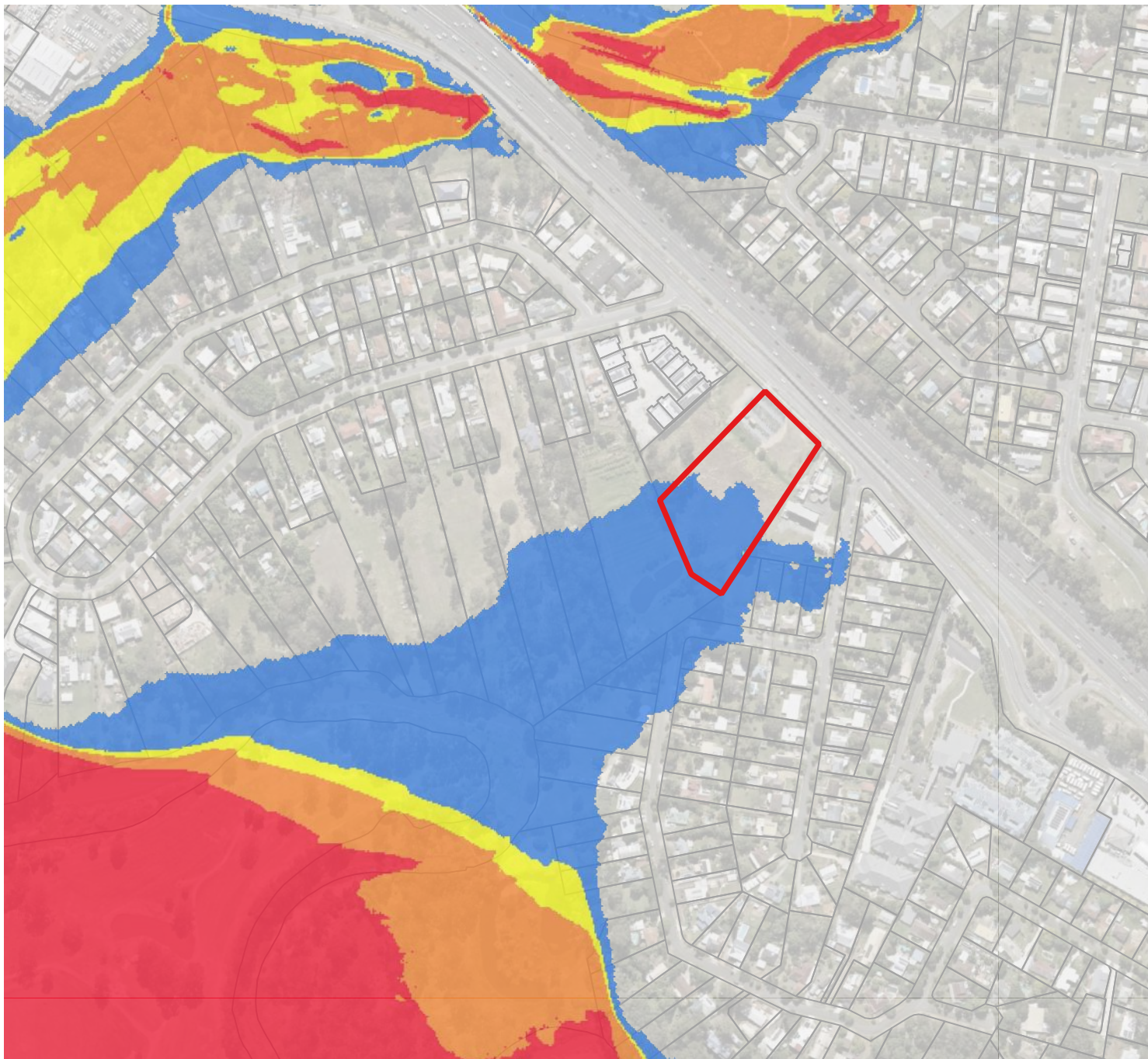
MODEL NAME: E01/D1

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

 Site

 DCDB

Vel. Depth Product (m^2/s)

 ≤ 0.0

 0.0 - 0.4

 0.4 - 0.6

 0.6 - 1.2

 1.2 - 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Hazard (Depth x Velocity Product) |
Pre-Development Scenario (D-3 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

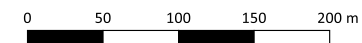
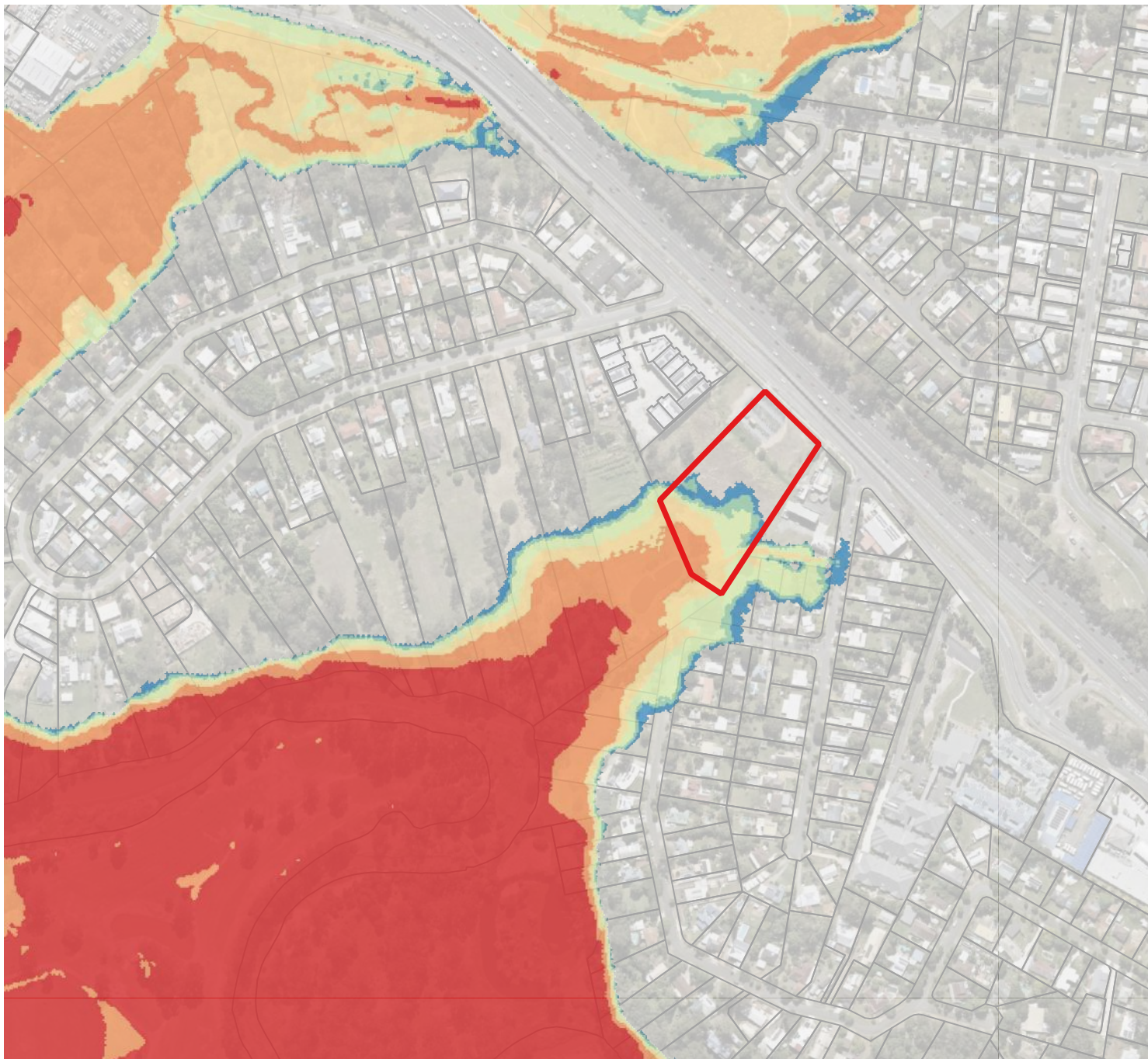
MODEL NAME: E01/D1

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Flood Hazard (AEMI)
 - H1
 - H2
 - H3
 - H4
 - H5
 - H6

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Australian Emergency Management Institute Hazard Category |
Pre-Development Scenario (D-4 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

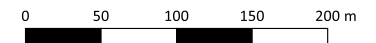
MODEL NAME: E01/D1

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area

Flood Depth (m)

- ≤ 0.5
- 0.5 - 1.0
- 1.0 - 2.5
- 2.5 - 5.0
- 5.0 - 10.0
- > 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Depth |

Post-Development Scenario (D-5 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

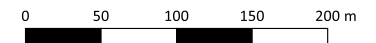
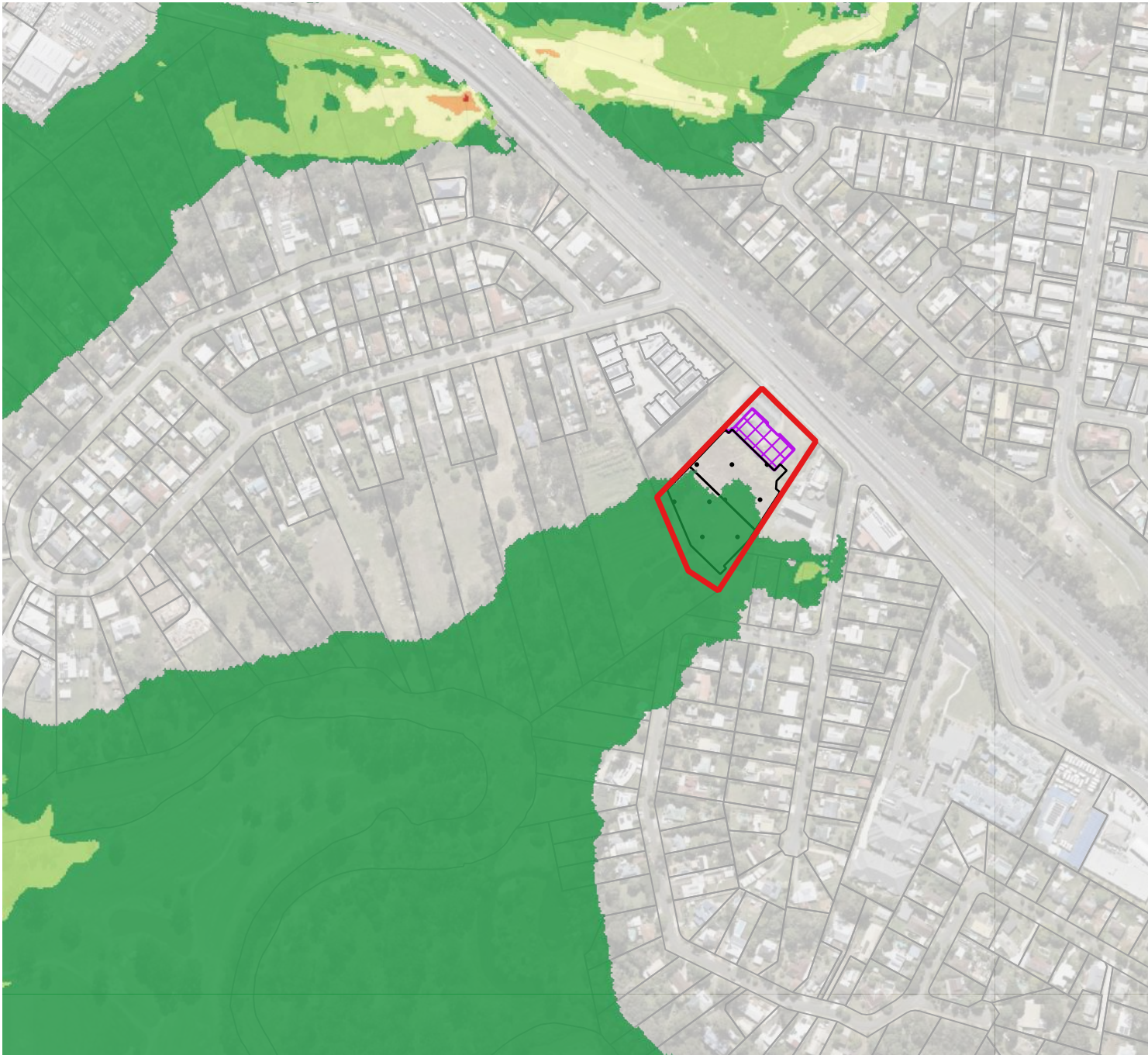
MODEL NAME: E01/D1

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area

Flood Velocity (m/s)

- 0-0.5
- 0.5-1.0
- 1.0-2.0
- 2.0-3.0
- >3.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Velocity |

Post-Development Scenario (D-6 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

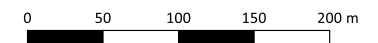
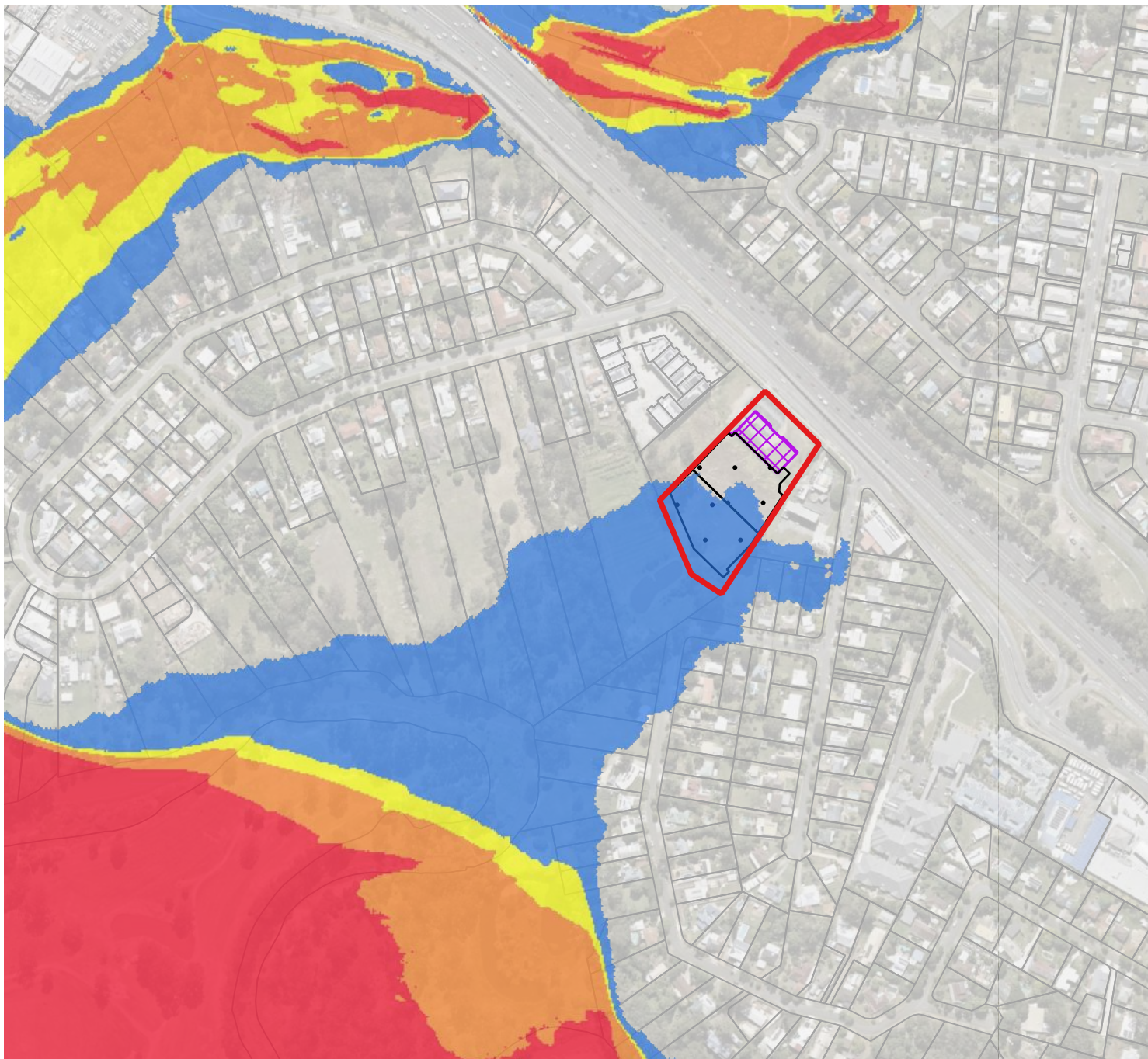
MODEL NAME: E01/D1

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area

Vel. Depth Product (m^2/s)

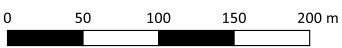
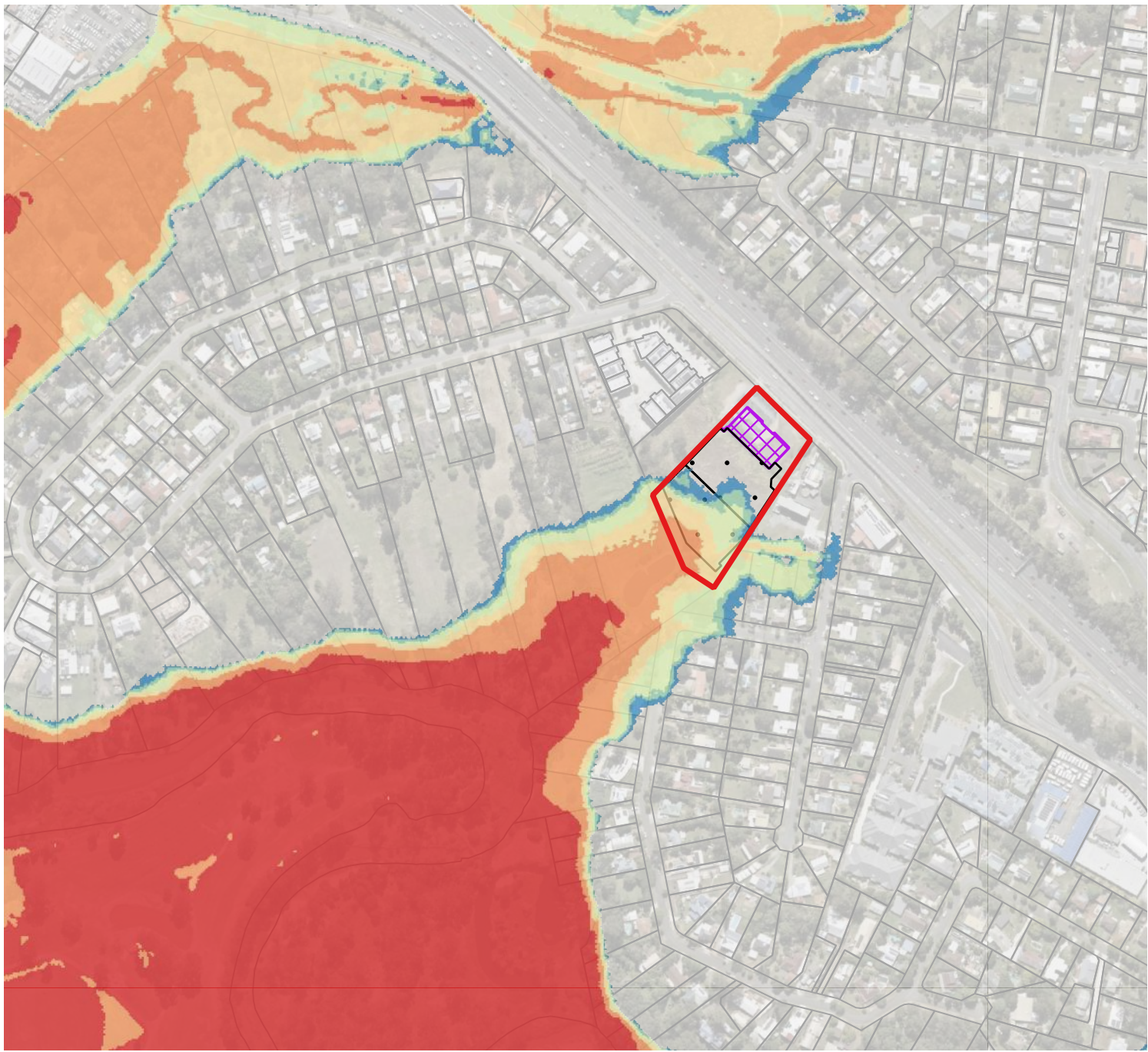
- ≤ 0.0
- 0.0 - 0.4
- 0.4 - 0.6
- 0.6 - 1.2
- 1.2 - 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Hazard (Depth x Velocity Product) |
Post-Development Scenario (D-7 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D1
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri

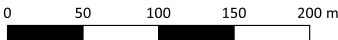
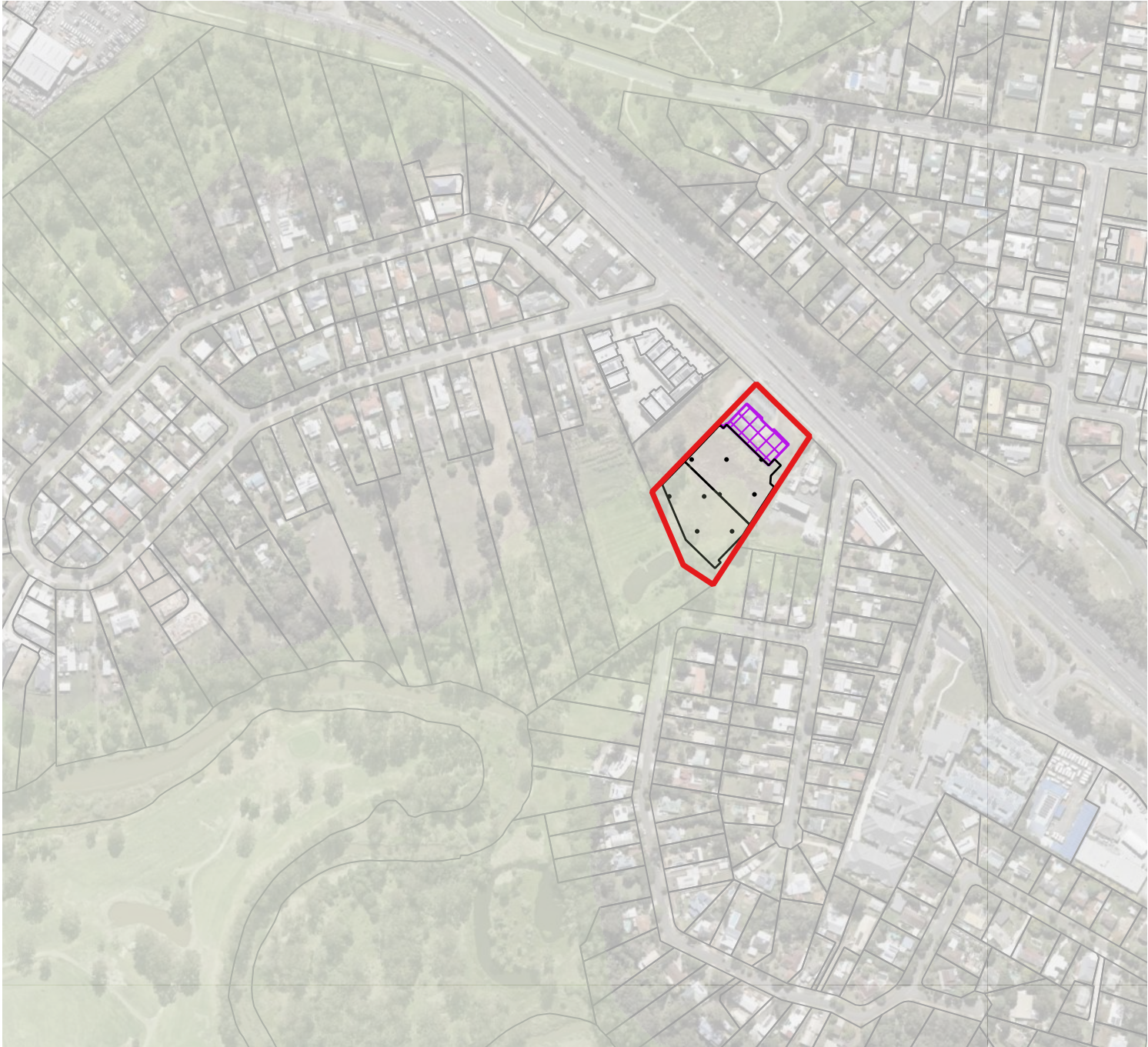


Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area
- Flood Hazard (AEMI)
 - H1
 - H2
 - H3
 - H4
 - H5
 - H6

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
Australian Emergency Management Institute Hazard Category |
Post-Development Scenario (D-8 of 9)
PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D1
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Proposed Pad Area
- Proposed Undercroft Area
- Change in Peak Flood Level
 - <-100mm
 - 100 to -50mm
 - 10 to -50mm
 - 10 to -2mm
 - 2 to 2mm (Model Noise)
 - 2 to 5mm
 - 5 to 10mm
 - 10 to 50mm
 - 50 to 100mm
 - >100mm

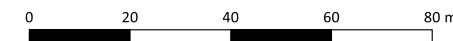
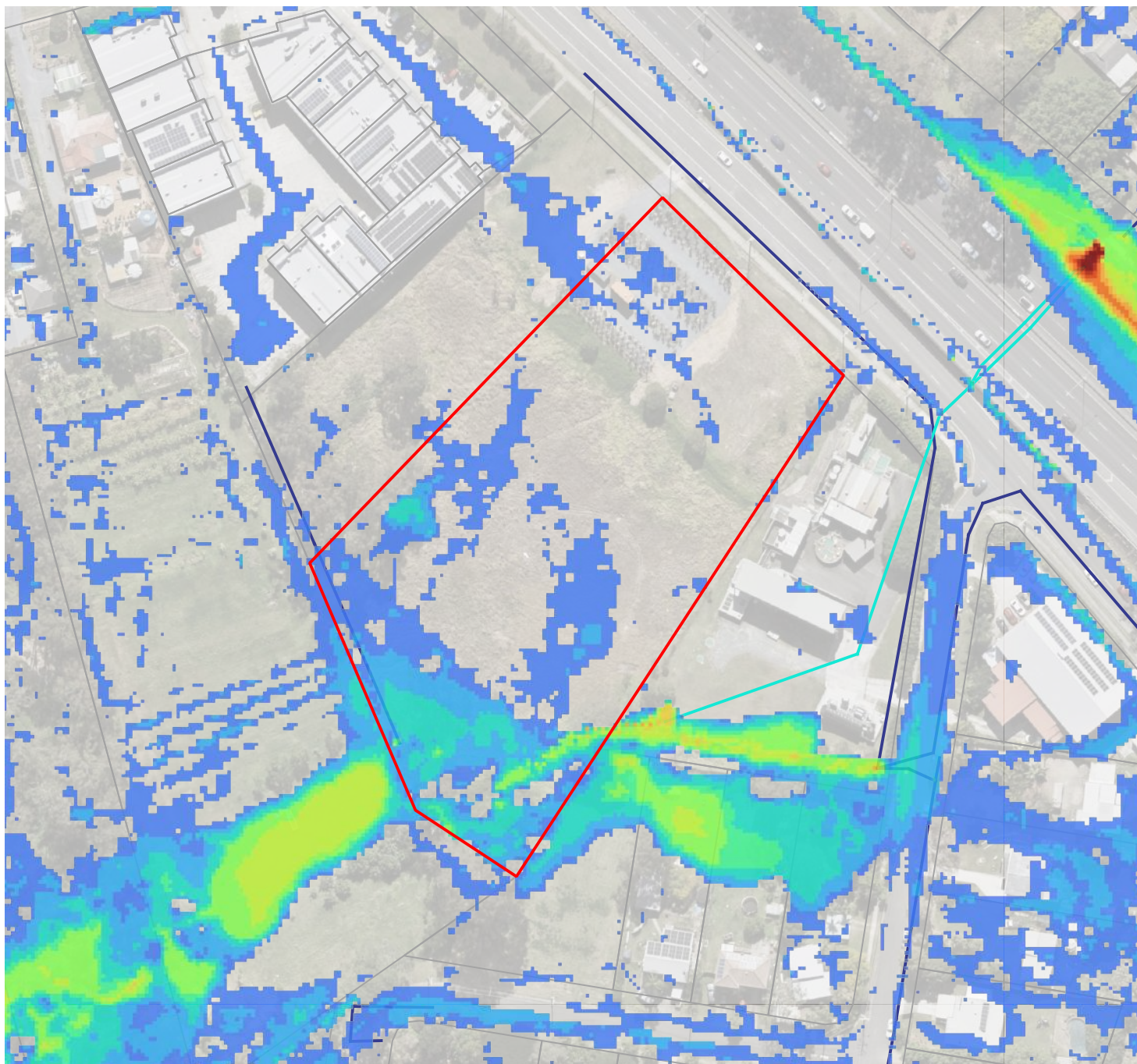
Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Change in Peak Flood Level |
Hydraulic Impact Assessment (Post-Pre) (D-9 of 9)
PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E01/D1
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri

Appendix E

OFA Flood Maps



Legend

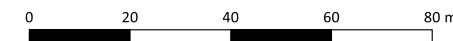
- DCDB
- Site
- Stormwater
 - Trunk Line
 - LCC Stormwater
- Peak Flow Depth (m)
 - 0.05 - 0.15
 - 0.15 - 0.30
 - 0.30 - 0.50
 - 0.50 - 0.60
 - 0.60 - 0.80
 - 0.80 - 1.00
 - 1.00 - 1.20
 - 1.20 - 1.50
 - 1.50 - 2.00
 - 2.00 - 2.50
 - 2.50 - 3.00
 - > 3.00

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Depth | OF | Pre-Development Scenario (E-1 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway (SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

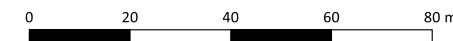
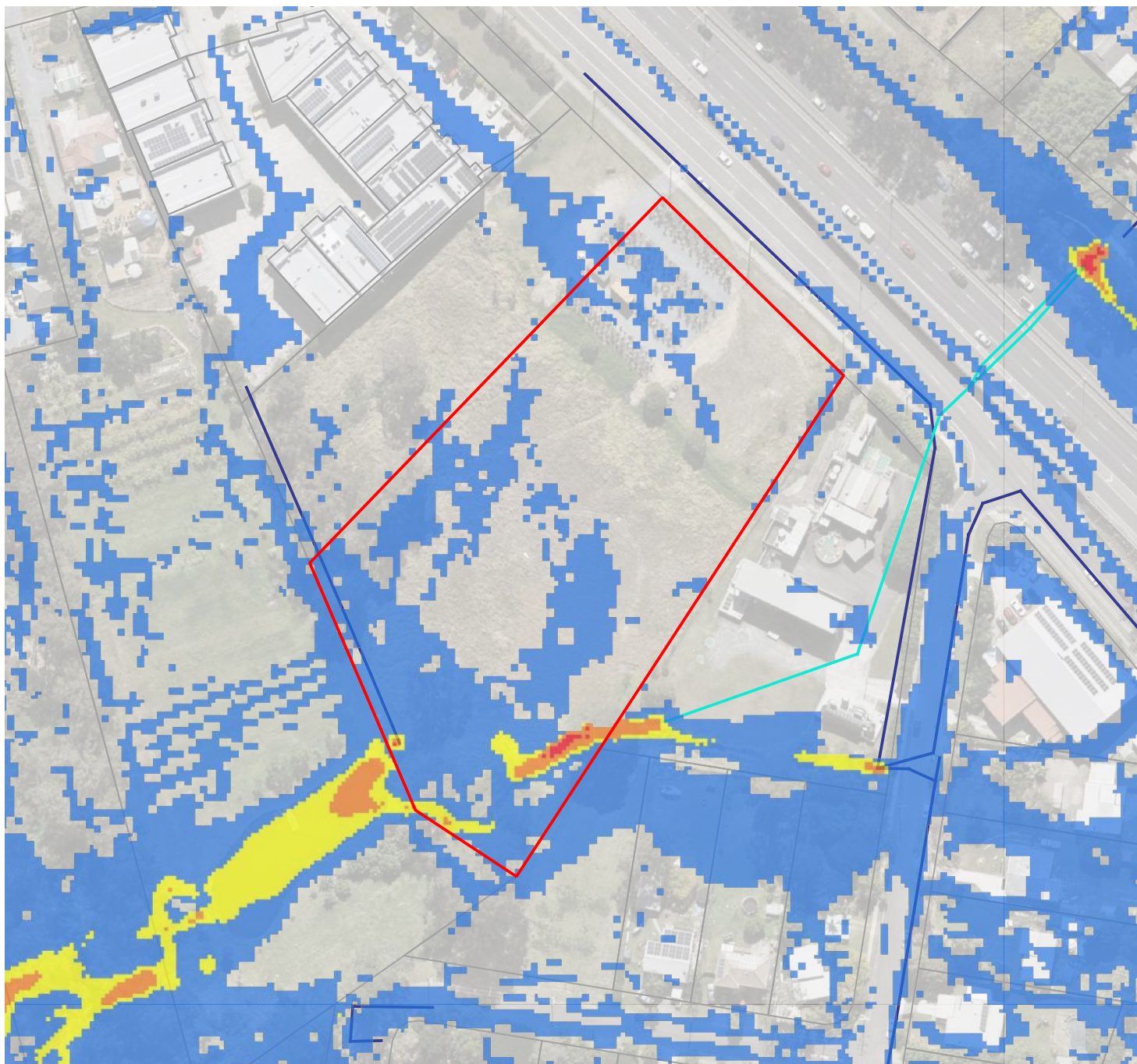
- Site
- DCDB
- Stormwater
 - Trunk Line
 - LCC Stormwater
- Flood Velocity (m/s)
 - 0-0.5
 - 0.5-1.0
 - 1.0-2.0
 - 2.0-3.0
 - >3.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Velocity | OF | Pre-Development Scenario (E-2 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

Site

DCDB

Stormwater

Trunk Line

LCC Stormwater

Vel. Depth Product (m^2/s)

≤ 0.0

0.0 - 0.4

0.4 - 0.6

0.6 - 1.2

1.2 - 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flood Hazard | OF | Pre-Development Scenario (E-3 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)

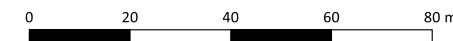
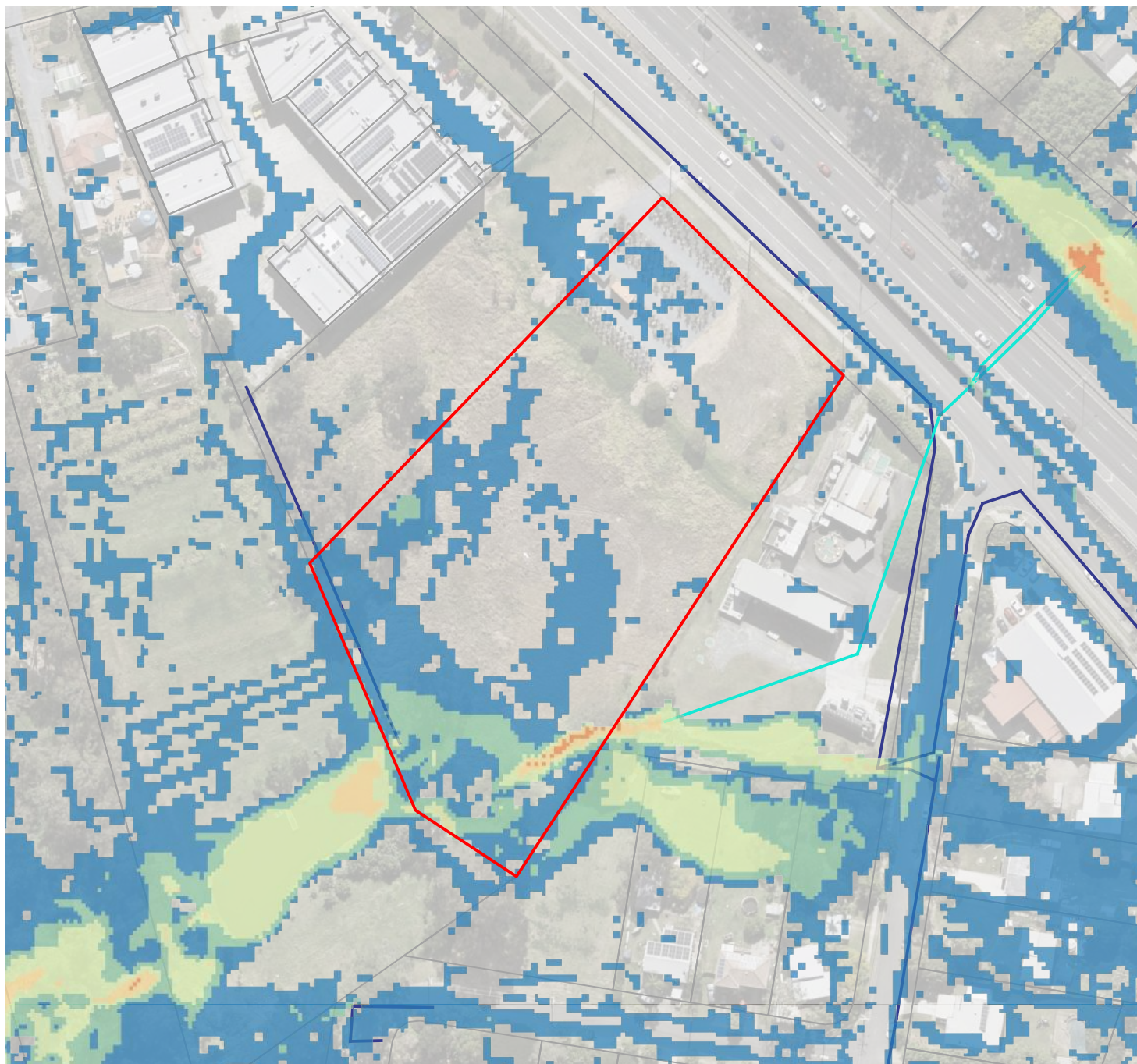
MODEL NAME: E02/D02

MAP REVISION: 01

DATE: 12/06/26

AUTHOR: D.E.

CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Stormwater
 - Trunk Line
 - LCC Stormwater
- Flood Hazard (AEMI)
 - H1
 - H2
 - H3
 - H4
 - H5
 - H6

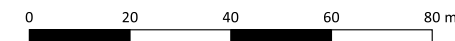
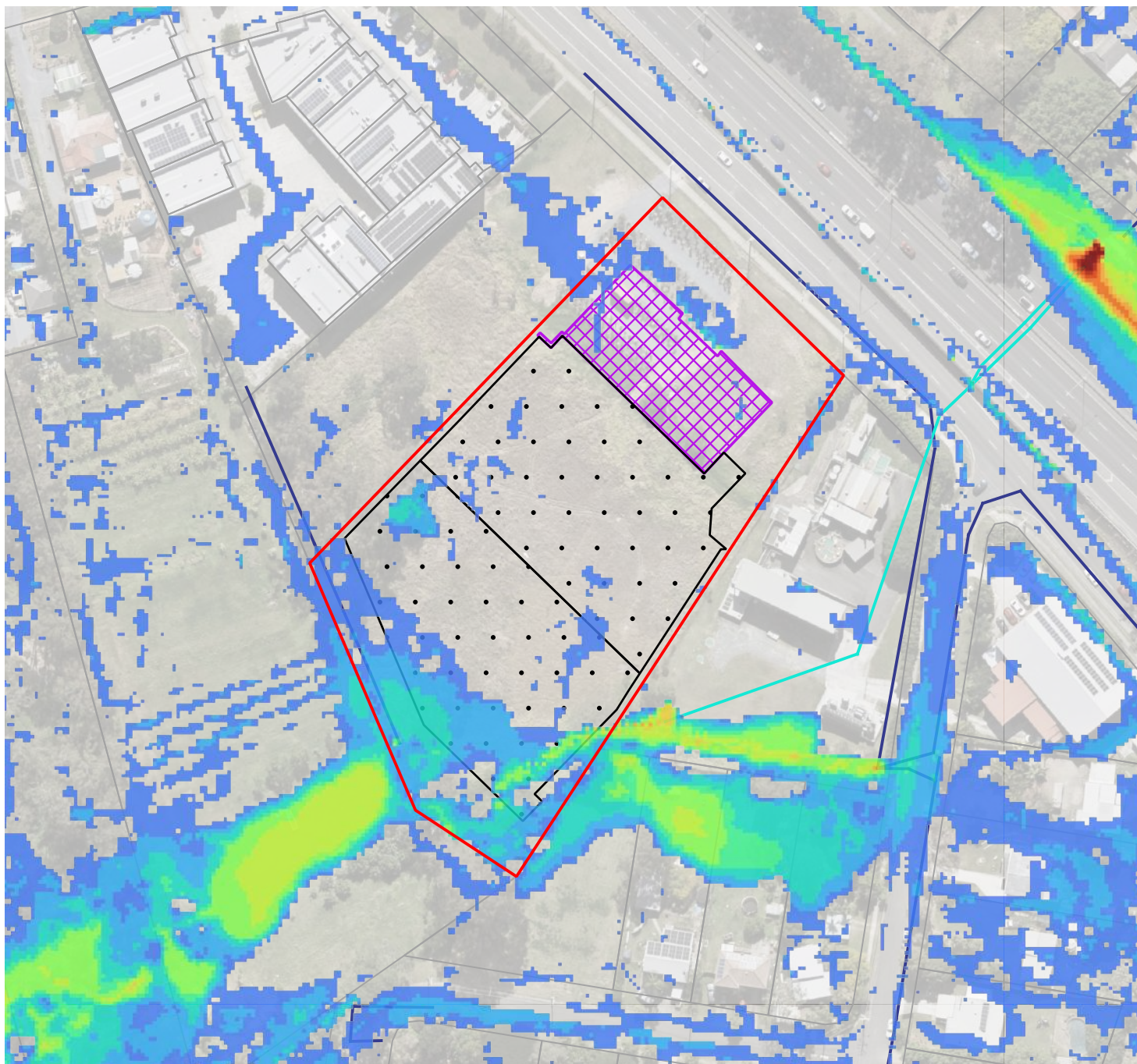
Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Australian Emergency Management Institute Hazard Category |
OF | Pre-Development Scenario (E-4 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

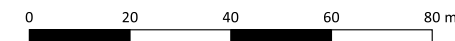
- DCDB
- Site
- Stormwater
 - Trunk Line
 - LCC Stormwater
- Proposed Undercroft Area
- Proposed Pad Area
- Peak Flow Depth (m)
 - 0.05 - 0.15
 - 0.15 - 0.30
 - 0.30 - 0.50
 - 0.50 - 0.60
 - 0.60 - 0.80
 - 0.80 - 1.00
 - 1.00 - 1.20
 - 1.20 - 1.50
 - 1.50 - 2.00
 - 2.00 - 2.50
 - 2.50 - 3.00
 - > 3.00

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

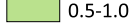
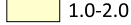
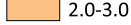
Peak Flow Depth | OF | Post-Development Scenario (E-5 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway (SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

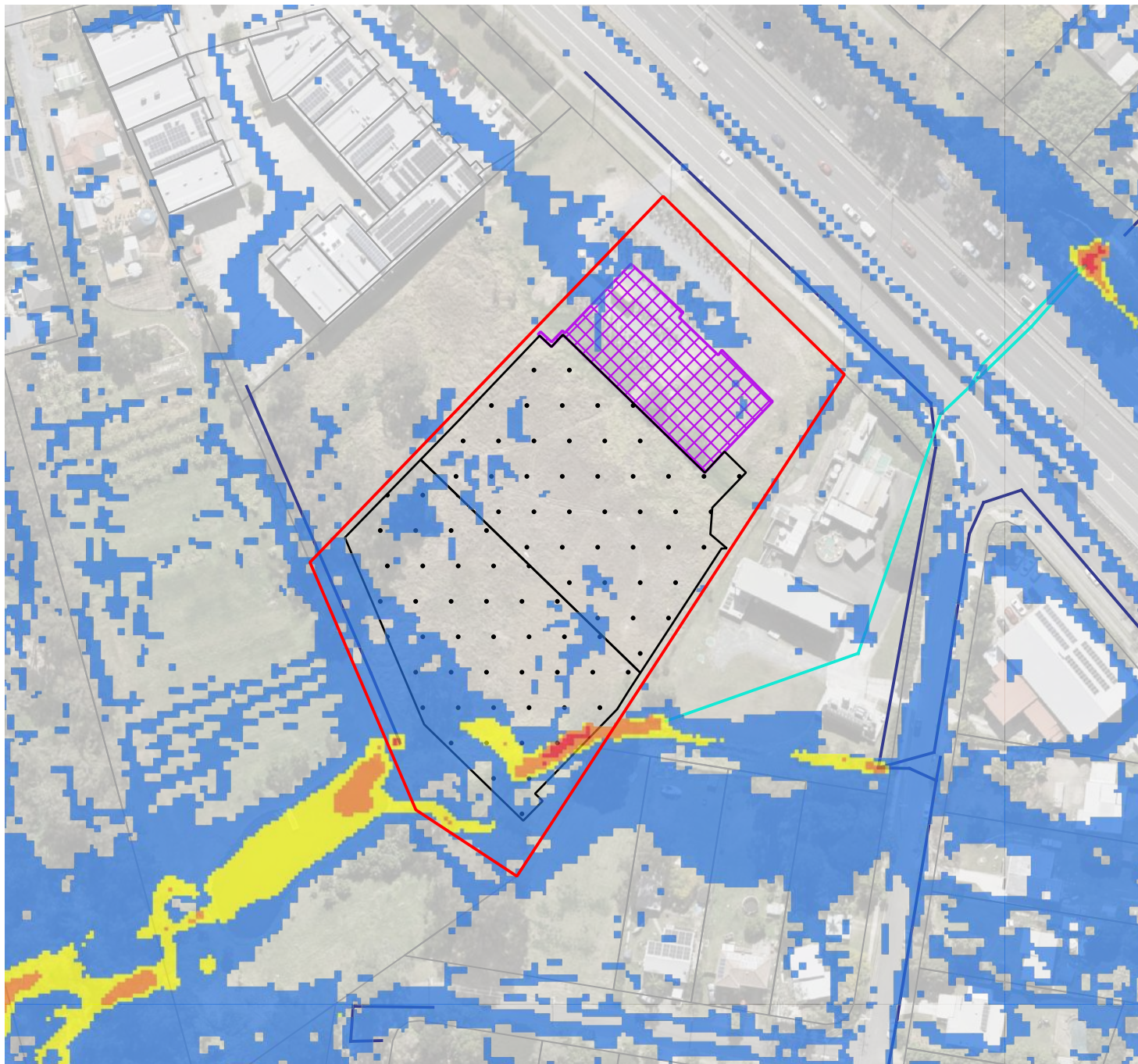
-  Site
-  DCDB
- Stormwater
 -  Trunk Line
 -  LCC Stormwater
-  Proposed Undercroft Area
-  Proposed Pad Area
- Flood Velocity (m/s)
 -  0-0.5
 -  0.5-1.0
 -  1.0-2.0
 -  2.0-3.0
 -  >3.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flow Velocity | OF | Post-Development Scenario (E-6 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

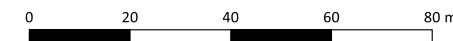
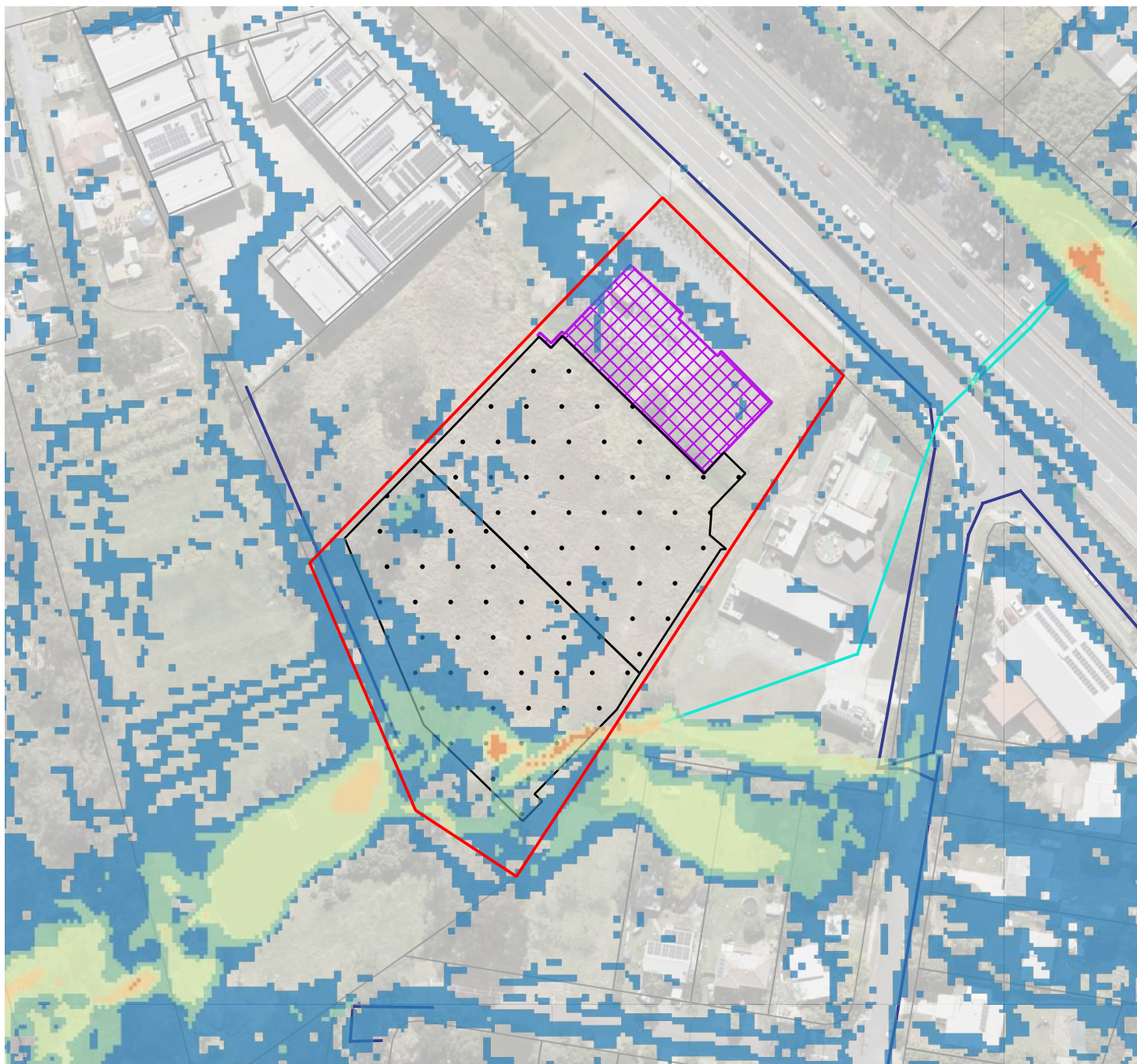
- Site
- DCDB
- Stormwater
 - Trunk Line
 - LCC Stormwater
- Proposed Pad Area
- Proposed Undercroft Area
- Vel. Depth Product (m^2/s)
 - ≤ 0.0
 - 0.0 - 0.4
 - 0.4 - 0.6
 - 0.6 - 1.2
 - 1.2 - 10.0

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Peak Flood Hazard | OF | Post-Development Scenario (E-7 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway (SF-25-0675)
CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Stormwater
 - Trunk Line
 - LCC Stormwater
- Proposed Undercroft Area
- Proposed Pad Area
- Flood Hazard (AEMI)
 - H1
 - H2
 - H3
 - H4
 - H5
 - H6

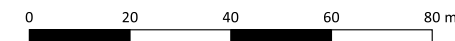
Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Australian Emergency Management Institute Hazard Category |
OF | Post-Development Scenario (E-8 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri



Legend

- Site
- DCDB
- Stormwater
 - Trunk Line
 - LCC Stormwater
- Proposed Undercroft Area
- Proposed Pad Area
- Change in Peak Flood Level
 - <-100mm
 - 100 to -50mm
 - 50 to -20mm
 - 20 to -10mm
 - 10 to 10mm
 - 10 to 20mm
 - 20 to 30mm
 - 30 to 50mm
 - 50 to 100mm
 - >100mm

Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway

Change in Peak Flood Level | Hydraulic Impact Assessment
(Post-Pre) (E-9 of 9)

PROJECT: Hydraulic Impact Assessment (HIA) | 3733-3755 Pacific Highway
(SF-25-0675)

CLIENT: H & G JV Pty Ltd

SOURCES: Queensland Globe (C)
MODEL NAME: E02/D02
MAP REVISION: 01
DATE: 12/06/26
AUTHOR: D.E.
CHECKED: M. Roushani-Zarmehri

Appendix F

Flood Overlay Code Responses

8.2.5 Flood hazard overlay code – StormFlood Responses

8.2.5.3 Assessment benchmarks for assessment development and requirements for accepted development

Part A - Requirements for accepted development (subject to requirements) and assessment benchmarks for assessable development

Table 8.2.5.3.1 - Flood hazard overlay code: accepted development (subject to requirements) and assessable development

Performance outcomes	Acceptable outcomes	Comments
For accepted development (subject to requirements) and assessable development		
Part A - Risk compatibility (other than a Home-based business)		
Material change of use		
PO1 A development envelope area is located outside of a High flood risk area identified on Flood hazard overlay map OM-05.04 unless complying with the requirements identified in Table 8.2.5.3.2 - Land use compatibility in a high flood risk area. Note - Planning scheme policy 10 - Flood includes guidance on demonstrating the qualifying criteria in Table 8.2.5.3.2 - Land use compatibility in a high flood risk area.	AO1 Development is contained in a development envelope area located outside of a High flood risk area identified on Flood hazard overlay map OM-05.04.	<u>PO1 has been adopted.</u> The proposed enclosed building footprint (SSL ≥ 11.3 m AHD) and vehicle manoeuvring area (SSL ≥ 10.9 m AHD) are located at or above the Defined Flood Event (DFE) level (10.9 m AHD). The only structures located below the DFE peak flood level are the flood-compatible open undercroft arrangement and the south-western boundary of the proposed pad area. The Hydraulic Impact Assessment (HIA) demonstrates that flow conveyance is maintained, with no material increase in the peak flood level across the assessed flood sources.

		In addition to this, the following risk mitigation measures have been, and can be, adopted to demonstrate compatibility with the level of risk: - Elevated floor levels: All occupied areas have an SSL between 11.3 m AHD to 13.8 m AHD - above the DFE peak flood level of 10.9 m AHD. - Flood-compatible built form: Open column undercroft (no enclosed walls) allows free passage of floodwater; with flood-resilient materials proposed below the DFE. - Evacuation route: Low flood hazard vehicle access maintained via the Pacific Highway Service Road at ~12.2 m AHD (above DFE). - FEMP: A Flood Emergency Management Plan can be prepared upon request from LCC.
PO2 Vulnerable use activities: - are not located in a High flood island identified on Flood hazard overlay map OM-05.01; - are located outside of the floodplain unless located in: - a Low flood risk area identified on Flood hazard overlay map OM-05.04; or - the Meadowbrook flood assessment area identified on	AO2 No acceptable outcome provided.	N/A – The proposed development use case is not classified as a ‘Vulnerable Use Activity’.

Flood hazard overlay map OM-05.03 and involving a Hospital.		
PO3 Essential community infrastructure activities are not located in the floodplain unless: a. there is an overriding planning need for the use; b. there is no alternative site located outside of the floodplain that would address the identified need; c. development maintains functionality during and after all flood events, including the probable maximum flood; d. where for Emergency services, the development remains accessible during and after all flood events, including the probable maximum flood. Note - Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome.	AO3 No acceptable outcome provided.	N/A – The proposed development use case is not classified as an ‘Essential Community Infrastructure Activity’.
PO4 Development is located outside of a Flood investigation area identified on Flood hazard overlay map OM-05.04, unless it: a. is demonstrated to be compatible with the level of flood risk; b. delivers the relevant outcomes for the flood risk area, including a: i. High flood risk area; ii. Moderate flood risk area; iii. Low flood risk area and High flood island where involving Essential	AO4 No acceptable outcome provided.	N/A – The site is not contained in the ‘Flood Investigation Area’ as per OM-05.04.

community infrastructure activities or Vulnerable use activities. Note - Planning scheme policy 10 - Flood provides guidelines on how to prepare a detailed localised flood risk assessment to assist with achieving this performance outcome. It also includes guidance on how to demonstrate compliance with this performance outcome.		
Reconfiguring a lot		
PO5 Development provides a development envelope area that is: a. above the flood level during the defined flood event; b. of an area and dimensions to accommodate the activities associated with the intended use.	AO5 Development provides a development envelope area above the flood level during the defined flood event with a minimum size and dimension specified in Table 8.2.5.3.4 - Development envelope area.	N/A
PO6 Each lot has a development envelope area located outside a High flood risk area identified on Flood hazard overlay map OM-05.04, except where limited to: a. the rearrangement of boundaries and flood risk is not materially increased on new lots; or b. creating an additional lot for the purpose of a drainage or environmental reserve.	AO6 No acceptable outcome provided.	N/A
PO7 Reconfiguring a lot involving a development envelope area located in a Flood investigation area identified on Flood hazard overlay map OM-05.04 is limited to:	AO7 Each lot has a development envelope area located outside of a Flood investigation area identified on Flood hazard overlay map OM-05.04.	N/A

a. the realignment of boundaries where the development envelope area is located outside a High flow area identified on Flood hazard overlay map OM-05.02; or b. the development is demonstrated to be compatible with the level of flood risk, including delivering the relevant outcomes for a: i. High flood risk area; ii. Moderate flood risk area; iii. Low flood risk area and High flood island where involving Essential community infrastructure activities or Vulnerable use activities. Note - Planning scheme policy 10 - Flood provides guidelines on how to prepare a detailed localised flood risk assessment to assist with achieving Performance Outcome 7(b).		
Part B - Resilient building location, design and operations (other than a Home-based business)		
PO8 Buildings and structures are located outside of a High flow area. Note - Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome where located in a Flood investigation area and it is proposed to undertake a detailed localised flood risk assessment.	AO8.1 New buildings and structures, other than fences, are located outside of a High flow area identified on Flood hazard overlay map OM-05.02. AO8.2 Enclosure of existing structures or areas underneath an existing building, such as an undercroft, does not occur in a High flow area identified on Flood hazard overlay map OM-05.02.	<u>Complies with AO8.1</u> The proposed enclosed building footprint (SSL ≥ 11.3 m AHD) and vehicle manoeuvring area (SSL ≥ 10.9 m AHD) are located above the High Flow Area. Structures contained in the High Flow Area are limited to the flood-compatible undercroft (column arrangement, no enclosed walls, permeable, flood-resilient materials proposed). <u>AO8.2 does not apply.</u> No existing structures are on the site, with the site considered 'undeveloped'.

PO9 A Hospital in the Meadowbrook flood assessment area identified on Flood hazard overlay map OM-05.03 ensures that the location, design and operation of development: a. mitigates the risk of flooding to buildings and structures; b. minimises risk of injury to life and damage to property and infrastructure; c. maintains functionality during and after all flood events, including the probable maximum flood. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO9 No acceptable outcome provided.	N/A
PO10 Buildings are designed to account for the potential risk of inundation during flood events by complying with the Minimum flood planning levels identified in Table 8.2.5.3.3 - Minimum flood planning levels. Editor's note - Planning scheme policy 10 - Flood provides guidance on obtaining available flood level information for a property from Council, and resilient design.	AO10 No acceptable outcome prescribed.	<u>Satisfies the Intent of PO10.</u> Under Table 8.2.5.3.3, the minimum flood planning level for the 'Warehouse' use type - defined as General Industry (BCA Class 7b)- is the peak flood level of the Defined Flood Event, being 10.9 m AHD. The architectural drawings demonstrate that the structural slab level of the lower-level tenancies is 11.3 m AHD, with the upper-level tenancies ranging from 12.8 m AHD to 13.8 m AHD. This satisfies the minimum flood planning level requirements. Other use types, including retail or food storage, will need to consider the minimum flood planning level in context with the proposed

		structural slab level, as per Section 6.2 of the HIA Report.
PO11 Vehicle manoeuvring areas and car parking (other than a Parking station) are only located below the defined flood event where there is no increase in risk to: a. pedestrian and vehicular safety; b. a building or other structure. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO11 Vehicle manoeuvring areas and car parking (other than a Parking station) are located above the defined flood event.	<u>Complies with AO11.</u> The vehicle manoeuvring areas and carpark areas (SSL $\geq$ 10.9 m AHD) are positioned at or above the DFE Peak Flood Level (10.9 m AHD).
PO12 Basement access and openings are designed and located to: a. ensure safety during a flood event; b. improve resilience to flood events; c. reduce recovery time after flooding; d. minimise economic loss to individual and public assets stored in the basement. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO12 All entry points and openings to a basement are located at or above the Minimum flood planning levels identified in Table 8.2.5.3.3 - Minimum flood planning levels.	N/A – The lower level is not classified as a basement.
PO13 Essential building services and infrastructure is located or designed to ensure their continued function during and immediately after flood events that are up to and including the: a. defined flood event for uses other than Essential community infrastructure activities or Vulnerable use activities; or	AO13 The function of essential building services and infrastructure is maintained during a flood event by: a. locating the services and infrastructure outside of a High flood risk area identified on Flood hazard overlay map OM-05.04; b. locating the services and infrastructure above the flood planning level in	<u>Complies with AO13.</u> Essential building services and infrastructure are proposed to be positioned above the DFE Peak Flood Level (satisfying (b) and (c)); and therefore, outside of the High Flood Risk Area (as identified on OM-05.04) (satisfying (a)).

b. probable maximum flood for Essential community infrastructure activities or Vulnerable use activities. Note - Essential building services and infrastructure may include air conditioning ducts, communication equipment, charging units, pumps, motors, sensitive electrical equipment such as transformers, low voltage switch gear, high voltage switch gear, battery charges, and communal assets and materials (such as waste bins or chemicals). Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	accordance with Table 8.2.5.3.3 - Minimum flood planning levels; or c. designing and constructing essential services and infrastructure to exclude water infiltration for flood events up to and including: i. the defined flood event where not involving Essential community infrastructure activities or Vulnerable use activities; ii. the probable maximum flood where for Essential community infrastructure activities or Vulnerable use activities.	
PO14 Screening the understorey of a building: a. does not impede the passage of floodwater or overland flow in a High flood risk area identified on Flood hazard overlay map OM-05.04; b. maintains an attractive streetscape interaction and interface as intended by the zone, precinct or local plan. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO14 No acceptable outcome provided.	<u>Satisfies the intent of PO14.</u> No screening of the understorey is proposed. The undercroft arrangement is unobstructed with substantial gaps between the column piles to enable the passage of flow through and to limit debris. Flood-resilient construction materials are proposed to be used, with this to be confirmed at detailed design. The hydraulic impact assessment carried out for the three defined flood sources, establishes that there is no material change in the peak flood level external to the site; thus, the passage of flow is maintained.
Storage, manufacturing or handling of hazardous materials		
PO15	AO15.1	N/A – It is assumed that the use case(s) for the proposed development will not involve the

Development protects public safety and the environment from release of hazardous materials into floodwaters by: a. locating hazardous materials and chemicals outside of a High flood risk area or High flow area identified on Flood hazard overlay map OM-05.04 and OM-05.02; b. ensuring hazardous materials are stored to prevent the release or hazardous reaction of hazardous materials during flood events, including events rarer than the defined flood event.	Development involving the manufacturing or storage of hazardous materials, or involving hazardous chemicals at a hazardous chemical facility is located outside of a: a. High flood risk area identified on Flood hazard overlay map OM-05.04; b. High flow area identified on Flood hazard overlay map OM-05.02. AO15.2 Development in a Moderate flood risk area identified on Flood hazard overlay map OM-05.04: a. does not involve the manufacturing or storage of hazard materials or hazardous chemicals at a hazardous chemical facility; or b. ensures the storage of hazardous materials is located above the 0.2% AEP at 2100 flood event.	storage, manufacturing or handling of hazardous materials.
Part C - Access and evacuation (other than a Home-based business)		
PO16 Development involving Vulnerable use activities, other than a Hospital in the Meadowbrook flood assessment area identified on Flood hazard overlay map OM-05.03, has a low flood hazard vehicle evacuation route that leads outside the floodplain to a suitable area that supports the needs of evacuees. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO16 No acceptable outcome provided.	N/A

PO17 Development involving an accommodation land use has a low flood hazard vehicle route to a suitable flood-free area that contains essential goods to serve the needs of people. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO17 During the defined flood event, development for an accommodation land use has a: a. flood-free vehicle access to a road above the flood level; b. flood-free vehicle route that leads to a suitable flood-free area that contains essential goods.	N/A
PO18 Development has a low flood hazard vehicle route from dwellings to a flood-free or low flood hazard road.	AO18 During the defined flood event, development involving a new dwelling or an increase in bedrooms, has a flood-free vehicle route from dwellings to the flood-free road. Editor's note - Figure 8.2.5.3.1 - Compliant dwelling with flood-free vehicle route illustrates an example of a development complying with this acceptable outcome. Figure 8.2.5.3.2 - Non-compliant dwelling with no flood-free vehicle route illustrates an example of a development that does not comply with this acceptable outcome.	N/A
Figure 8.2.5.3.1 - Compliant dwelling with flood-free vehicle route		

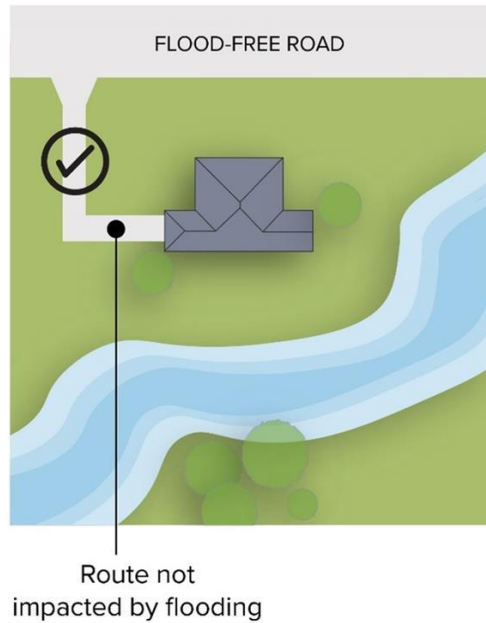
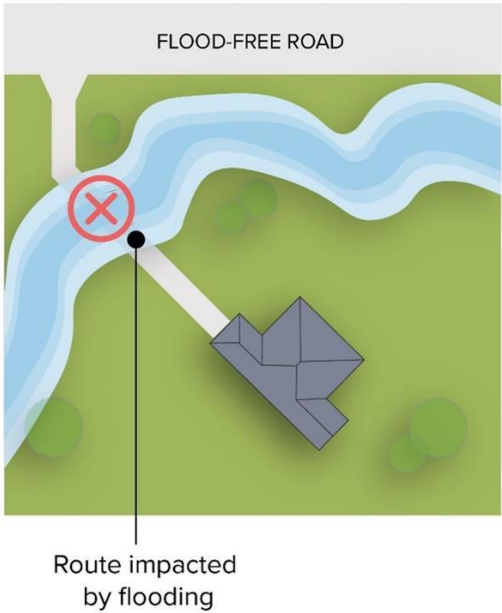


Figure 8.2.5.3.2 - Non-compliant dwelling with no flood-free vehicle route

 Route impacted by flooding		
PO19 Reconfiguring of a lot intended for a future dual occupancy (auxiliary unit), dwelling house or accommodation land use ensures each lot has internal low flood hazard vehicle access to a road and a low flood hazard vehicle route to a suitable flood-free area that contains essential goods to serve the needs of people. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO19 Reconfiguring of a lot in a residential zone category or Emerging community zone, or intended for a future dual occupancy (auxiliary unit), dwelling house or accommodation land use, ensures each lot during the defined flood event has a: a. flood-free vehicle access to a road above the flood level; b. flood-free vehicle route that leads to a suitable flood-free area that contains essential goods.	N/A

PO20 Development, other than where PO16-PO19 is applicable: a. ensures safe self-evacuation by having, for a period of at least 10 hours, low flood hazard vehicle access to a low flood hazard road; or b. is only isolated for a period of less than 4 hours from a low flood hazard road and there is a suitable area on site that is: i. above the defined flood event; ii. not a Low flood island identified on Flood hazard overlay map OM-05.01 or an area impacted by flash flooding during the defined flood event. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO20 Where AO16-AO19 is not applicable, development has flood-free vehicle access to a road that is above the flood level during the defined flood event.	<u>Complies with AO20.</u> The proposed development provides a low flood hazard vehicle access, with the Pacific Highway Service Road access positioned at 12.2 m AHD. Access to the carpark is maintained up to and including the DFE (SSL $\geq$ 10.9 m AHD).
PO21 Development identified in Table 8.2.5.3.5 - Development requiring a flood emergency management plan appropriately plans for its safe operation and evacuation during a flood event to ensure there is no burden on emergency services, including during a probable maximum flood where involving Vulnerable use activities.	AO21 No acceptable outcome provided.	<u>Satisfies the Intent of PO21.</u> FEMP can be prepared upon request by LCC.

Note - Planning scheme policy 10 - Flood provides guidance preparing a flood emergency management plan to achieve this performance outcome. Note - Flood emergency management plans do not alter the land use tolerability to a flood risk area, nor act as an alternative to achieving other specified mitigation measures required to ensure risk is mitigated to a tolerable or acceptable level. Flood emergency management plans should be utilised to assist in managing residual risk of development and should be implemented as a tool to plan for safe evacuation where an active management entity exists for the development.		
Part D - Preservation of floodplain function and overland flow paths (other than a Home-based business)		
PO22 Filling and excavation ensures the conveyance function of a High flood risk area and Flood investigation area identified on Flood hazard overlay map OM-05.04 is maintained. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	AO22 Where located in a High flood risk area or Flood investigation area identified on Flood hazard overlay map OM-05.04, filling and excavation, other than for stormwater quantity and quality infrastructure, does not exceed: a. a total volume of 20m³; b. a total area of 2,000m².	<u>Satisfies the Intent of PO22.</u> The south-western boundary of the proposed pad area occupies the fringe of the High Flood Risk Area as part of the Flood Hazard Overlay Map OM-05.04. The balance of the site contained in the High Flood Risk Area is the undercroft. Earthworks are limited to site remediation works that may occur as part of the construction. The hydraulic impact assessment demonstrates that there is no change in the conveyance function of the site, across the river, creek and overland flow flood sources.
PO23 Development does not involve earthworks that would either directly, indirectly or cumulatively	AO23 The total volume of fill is equal to or less than the total volume of cut where earthworks are below the level of the defined flood event in a Moderate	<u>Complies with AO23.</u> To meet AO23, the proposed development will yield a total volume of fill equal to or less than

cause a loss of floodplain storage below the defined flood event. Note - Planning scheme policy 10 - Flood provides guidance on achieving this performance outcome.	flood risk area identified on Flood hazard overlay map OM-05.04.	the total volume of cut where earthworks are below the level of the defined flood event. A quantitative cut-fill balance below the DFE has been confirmed by the civil engineer, with a cut surplus of 31m³ below the DFE.
PO24 Development does not involve works that would either directly, indirectly or cumulatively: a. concentrate, intensify or divert floodwater or overland flow paths onto upstream, downstream or adjacent properties; b. result in an increase in flood levels or flood hazard on upstream, downstream or adjacent properties; c. result in a loss of floodplain storage up to and including the defined flood event; d. adversely impact the role and function of waterways and areas of ecological significance; e. adversely affect adjoining premises, infrastructure and the environment. Note - Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome.	AO24 No acceptable outcome provided.	<u>Satisfies the Intent of PO24.</u> The modelling demonstrates that there is no change in the peak flood level in the event of Slacks Creek or Logan River flooding up to and including the DFE. For overland flow, there is an increase in the peak flood level along the south-western boundary; however, these impacts are contained to the boundary and thus do not translate to a material impact. Therefore, the proposed development is considered to meet a) to e).
PO25 Development does not adversely change the following flood characteristics for all flood events up to and including the defined flood event: a. peak flow; b. flow of any part of the flood before the peak; c. flood flow velocity;	AO25 No acceptable outcome provided.	<u>Satisfies the Intent of PO25.</u> Items b), c) and d) are addressed in the response to PO24. Regarding peak flow a) and time to peak (e), comparison of overland flow hydrographs at the downstream boundary show there is no change in peak flow or time to peak (refer to Figure 26 of the HIA).

d. level of flooding; e. flood time to peak. Note - Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome.		
PO26 Development does not cause a rapid or unexpected increase in safety risks or flood damage during a flood event larger than the defined flood event, including flood events up to and including the probable maximum flood. Note - Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome.	AO26 No acceptable outcome provided.	<u>Satisfies the Intent of PO26.</u> Occupants can shelter-on-site, with the upper level tenancies (where the SSL $\geq$ 13.800 m AHD) flood free up to and including the 0.05% AEP 2100 Logan River flood event (13.0 m AHD). Patrons and staff can evacuate safely from the premises, given the 'slow-moving' flood characteristic of the Logan River, with an adequate lead time for safe evacuation prior to flood onset.
PO27 A stormwater quality improvement device is located to retain existing floodplain storage capacity and ensure functionality of the stormwater quality improvement device. Note - Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome.	AO27 A stormwater quality improvement high flow outlet device is located: - above the 5% AEP flood event caused by local flooding; - above the 5% AEP flood event caused by regional flooding.	<u>Complies with AO27.</u> Stormwater Quality Devices (if any) will be located above the 5% AEP flood event caused by river flooding ($\geq$ 8.4 m AHD). River flooding governs, relative to local flooding.
PO28 A stormwater quantity management device is located to retain existing floodplain storage capacity and ensure functionality of the stormwater quantity management device.	AO28 A stormwater quantity management outlet device is located above the 2% AEP flood event.	<u>Complies with AO28.</u> Stormwater Quantity Management devices (if any) will be located above the 2% AEP flood event caused by river flooding ($\geq$ 9.8 m AHD).

Note - Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome.		
PO29 Stormwater infrastructure does not result in a loss of floodplain storage below the defined flood event. 	AO29 Filling and excavation associated with stormwater quantity and quality infrastructure has a total volume of fill equal to or less than the total volume of cut where below the defined flood event. Note - Planning scheme policy 10 - Flood provides guidance on stormwater management detention basins.	<u>Complies with AO29.</u> To meet AO29, earthworks associated with stormwater infrastructure will yield a total volume of fill equal to or less than the total volume of cut, for earthworks below the level of the defined flood event. A quantitative cut-fill balance below the DFE has been confirmed by the civil engineer, with a cut surplus of 31m ³ below the DFE.
Part E - A Home-based business		
PO30 A Home-based business does not put additional people at risk of flooding during the defined flood event. Note - Where detailed flood information does not exist to determine the defined flood event, a Registered Professional Engineer of Queensland with expertise in flood studies may be required to determine the relevant defined flood event and demonstrate compliance with this outcome. Planning scheme policy 10 - Flood provides guidance on how to demonstrate compliance with this performance outcome.	AO30.1 In a High flood risk area or Flood investigation area identified on Flood hazard overlay map OM-05.04, a Home-based business does not involve: a. non-resident staff or visitors to the premises; b. new buildings or structures associated with the home-based business. AO30.2 Buildings, structures and storage of items associated with a Home-based business are located outside of a High flow area identified on Flood hazard overlay map OM-05.02.	N/A
PO31	AO31	N/A

A Home-based business being a bed and breakfast or farm stay has: a. low flood hazard vehicle manoeuvring areas; b. low flood hazard vehicle access to a low flood hazard road.	A Home-based business being Short-term accommodation where a bed and breakfast or farm stay has: a. flood-free vehicle manoeuvring areas during a defined flood event; b. flood-free vehicle access to a road above the flood level during a defined flood event.	
--	--	--