



DEVELOPMENT APPLICATION

PDPLANPMTD-2026/061759

PROPOSAL: Dwelling

LOCATION: 10 Achaderry Court, Howrah

RELEVANT PLANNING SCHEME: Tasmanian Planning Scheme - Clarence

ADVERTISING EXPIRY DATE: 10/08/2026

The relevant plans and documents can be inspected at the Council offices, 38 Bligh Street, Rosny Park, during normal office hours until 10/08/2026. In addition to legislative requirements, plans and documents can also be viewed at www.ccc.tas.gov.au during these times.

Any person may make representations about the application to the Chief Executive Officer, by writing to PO Box 96, Rosny Park, 7018 or by electronic mail to clarence@ccc.tas.gov.au. Representations must be received by Council on or before 10/08/2026.

To enable Council to contact you if necessary, would you please also include a day time contact number in any correspondence you may forward.

Any personal information submitted is covered by Council's privacy policy, available at www.ccc.tas.gov.au or at the Council offices.

Planning Application

Use this form to obtain planning approval for the use and development of land, including change of use, subdividing land into smaller lots, lot consolidation, or signage.

Please refer to the Planning Application checklist on the following pages to determine what documentation must be submitted with your application.

Proposal: New dwelling

Personal Information Removed

Is the property on the Tasmanian Heritage Register?

Yes ☐ No ☒

If yes, we recommend you discuss your proposal with Heritage Tasmania prior to lodgement as



exemptions may apply which may save you time on your proposal.

If you had pre-application discussions with City of Clarence, please provide planner's name:

Current use of site: **Vacant Land**

Does the proposal involve land administered or owned by the Crown or Council? Yes ☐ No ☒

Declaration

- I have read the Certificate of Title and Schedule of Easements for the land and am satisfied that this application is not prevented by any restrictions, easements or covenants.
- I authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation. I agree to arrange for the permission of the copyright owner of any part of this application to be obtained. I have arranged permission for Council's representatives to enter the land to assess this application
- I declare that, in accordance with Section 52 of the Land Use Planning and Approvals Act 1993, that I have notified the owner of the intention to make this application. Where the subject property is owned or controlled by Council or the Crown, their signed consent is attached.
- I declare that the information in this declaration is true and correct.

Acknowledgement

- I acknowledge that the documentation submitted in support of my application will become a public record held by Council and may be reproduced by Council in both electronic and hard copy format in order to facilitate the assessment process; for display purposes during public consultation; and to fulfil its statutory obligations. I further acknowledge that following determination of my application, Council will store documentation relating to my application in electronic format only.

Date: **29/05/2026**



Planning Application checklist

Mandatory Documents

This information is required for the application to be valid. We are unable to proceed with an application without these documents.

- ☐ Details of the location of the proposed use or development.
- ☐ A copy of the current Certificate of Title, Sealed Plan, Plan or Diagram and Schedule of Easements and other restrictions for each parcel of land on which the use or development is proposed.
- ☐ Full description of the proposed use or development.
- ☐ Description of the proposed operation. May include where appropriate: staff/student/customer numbers; operating hours; truck movements; and loading/unloading requirements; waste generation and disposal; equipment used; pollution, including noise, fumes, smoke or vibration and mitigation/management measures.
- ☐ Declaration the owner has been notified if the applicant is not the owner.
- ☐ Crown or Council consent (if publically-owned land).
- ☐ Any reports, plans or other information required by the relevant zone or code.
- ☐ Fees prescribed by the City of Clarence.

Application fees (please phone 03 6217 9550 to determine what fees apply). An invoice will be emailed upon lodgement.

Additional Documents

In addition to the mandatory information required above, Council may, to enable it to consider an application, request further information it considers necessary to ensure that the proposed use or development will comply with any relevant standards and purpose statements in the zone, codes or specific area plan, applicable to the use or development.

- ☐ Site analysis and site plan, including where relevant:
 - Existing and proposed use(s) on site.
 - Boundaries and dimensions of the site.
 - Topography, including contours showing AHD levels and major site features.
 - Natural drainage lines, watercourses and wetlands on or adjacent to the site.
 - Soil type.
 - Vegetation types and distribution, and trees and vegetation to be removed.
 - Location and capacity of any existing services or easements on/to the site.
 - Existing pedestrian and vehicle access to the site.
 - Location of existing and proposed buildings on the site.
 - Location of existing adjoining properties, adjacent buildings and their uses.
 - Any natural hazards that may affect use or development on the site.
 - Proposed roads, driveways, car parking areas and footpaths within the site.
 - Any proposed open space, communal space, or facilities on the site.
-



- Main utility service connection points and easements.
 - Proposed subdivision lot boundaries.
- ☐ Where it is proposed to erect buildings, detailed plans with dimensions at a scale of 1:100 or 1:200 showing:
- Internal layout of each building on the site.
 - Private open space for each dwelling.
 - External storage spaces.
 - Car parking space location and layout.
 - Major elevations of every building to be erected.
 - Shadow diagrams of the proposed buildings and adjacent structures demonstrating the extent of shading of adjacent private open spaces and external windows of buildings on adjacent sites.
 - Relationship of the elevations to natural ground level, showing any proposed cut or fill.
 - Materials and colours to be used on rooves and external walls.
- ☐ Where it is proposed to erect buildings, a plan of the proposed landscaping showing:
- Planting concepts.
 - Paving materials and drainage treatments and lighting for vehicle areas and footpaths.
 - Plantings proposed for screening from adjacent sites or public places.
- ☐ Any additional reports, plans or other information required by the relevant zone or code.
-

This list is not comprehensive for all possible situations. If you require further information about what may be required as part of your application documentation, please contact City of Clarence Planning team on (03) 6217 9550.



SEARCH OF TORRENS TITLE

VOLUME 183097	FOLIO 30
EDITION 3	DATE OF ISSUE 27-Oct-2025

SEARCH DATE : 26-May-2026

SEARCH TIME : 01.32 pm

DESCRIPTION OF LAND

City of CLARENCE

Lot 30 on Sealed Plan [183097](#)

Derivation : Part of 730 Acres Gtd. to Frances Butler & Justin

McCarthy Browne

Prior CT [179035/200](#)SCHEDULE 1

[N281859](#) TRANSFER to NEETHU SADANANDAN Registered
27-Oct-2025 at 12.01 pm

SCHEDULE 2

Reservations and conditions in the Crown Grant if any

[SP183097](#) COVENANTS in Schedule of Easements[SP183097](#) FENCING PROVISION in Schedule of Easements

[E34443](#) AGREEMENT pursuant to Section 71 of the Land Use
Planning and Approvals Act 1993 Registered
23-Feb-2016 at 12.02 pm

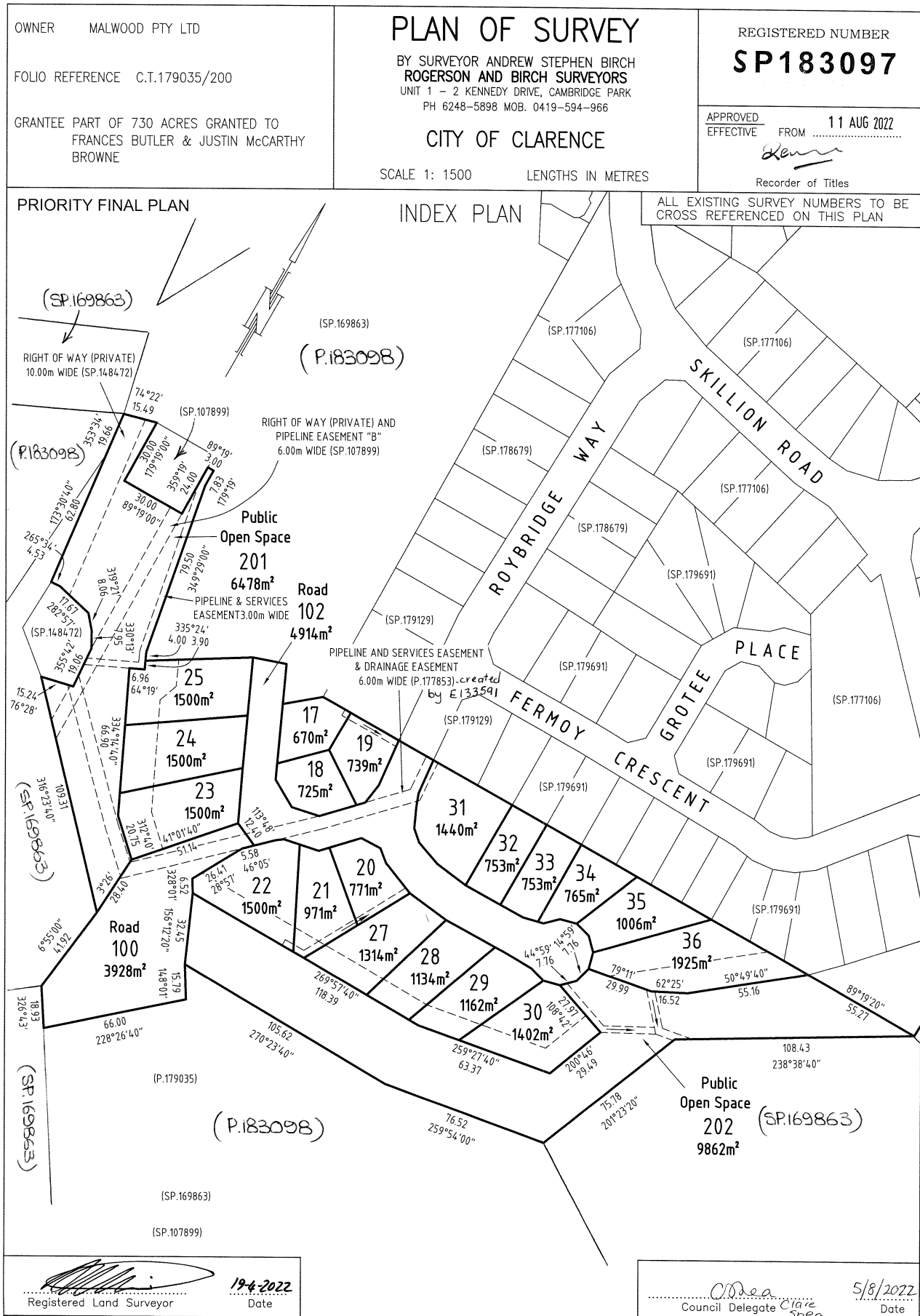
[E34444](#) AGREEMENT pursuant to Section 71 of the Land Use
Planning and Approvals Act 1993 Registered
23-Feb-2016 at 12.03 pm

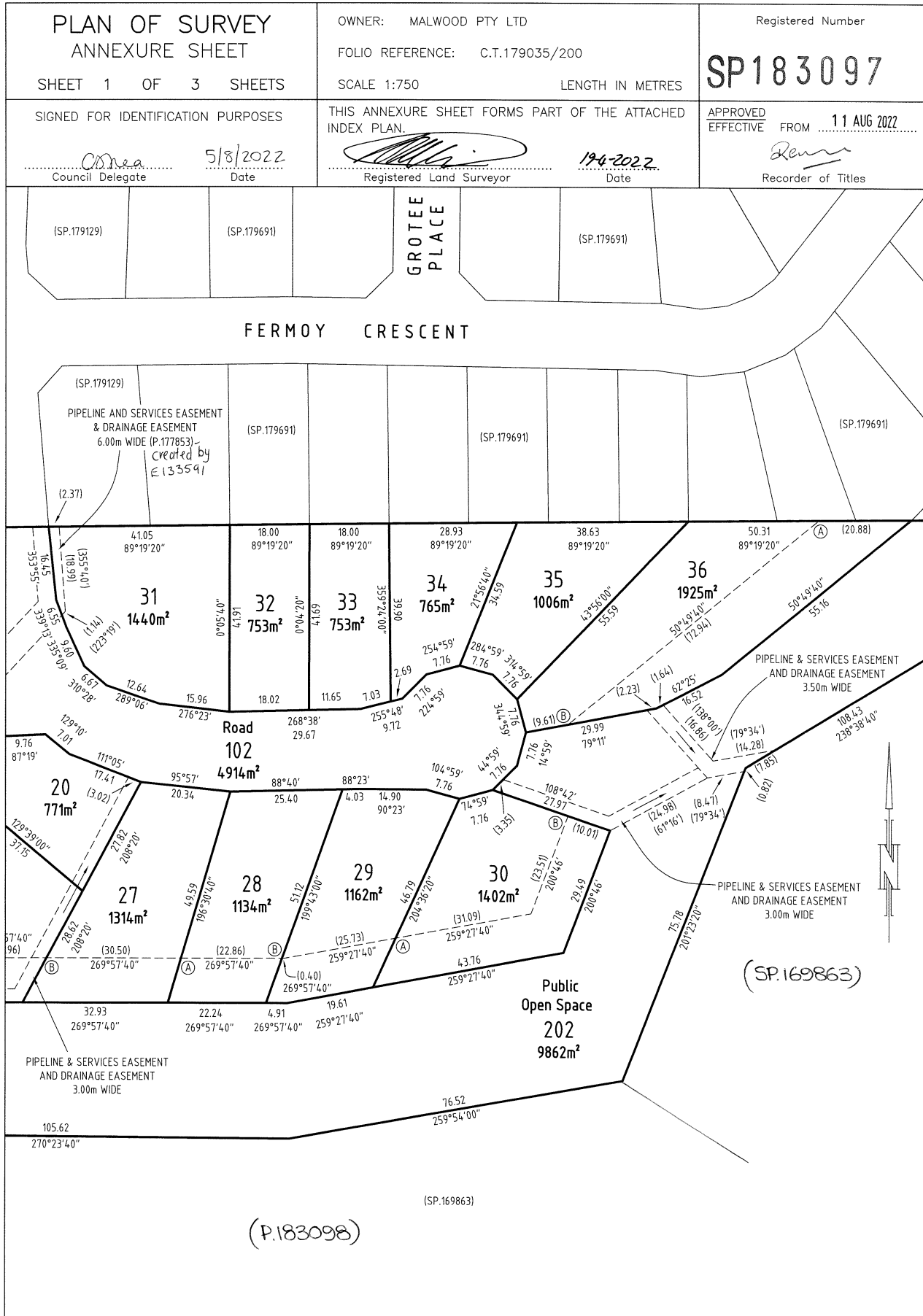
[E303086](#) AGREEMENT pursuant to Section 78 of the Land Use
Planning and Approvals Act 1993 Registered
11-Aug-2022 at 12.02 pm

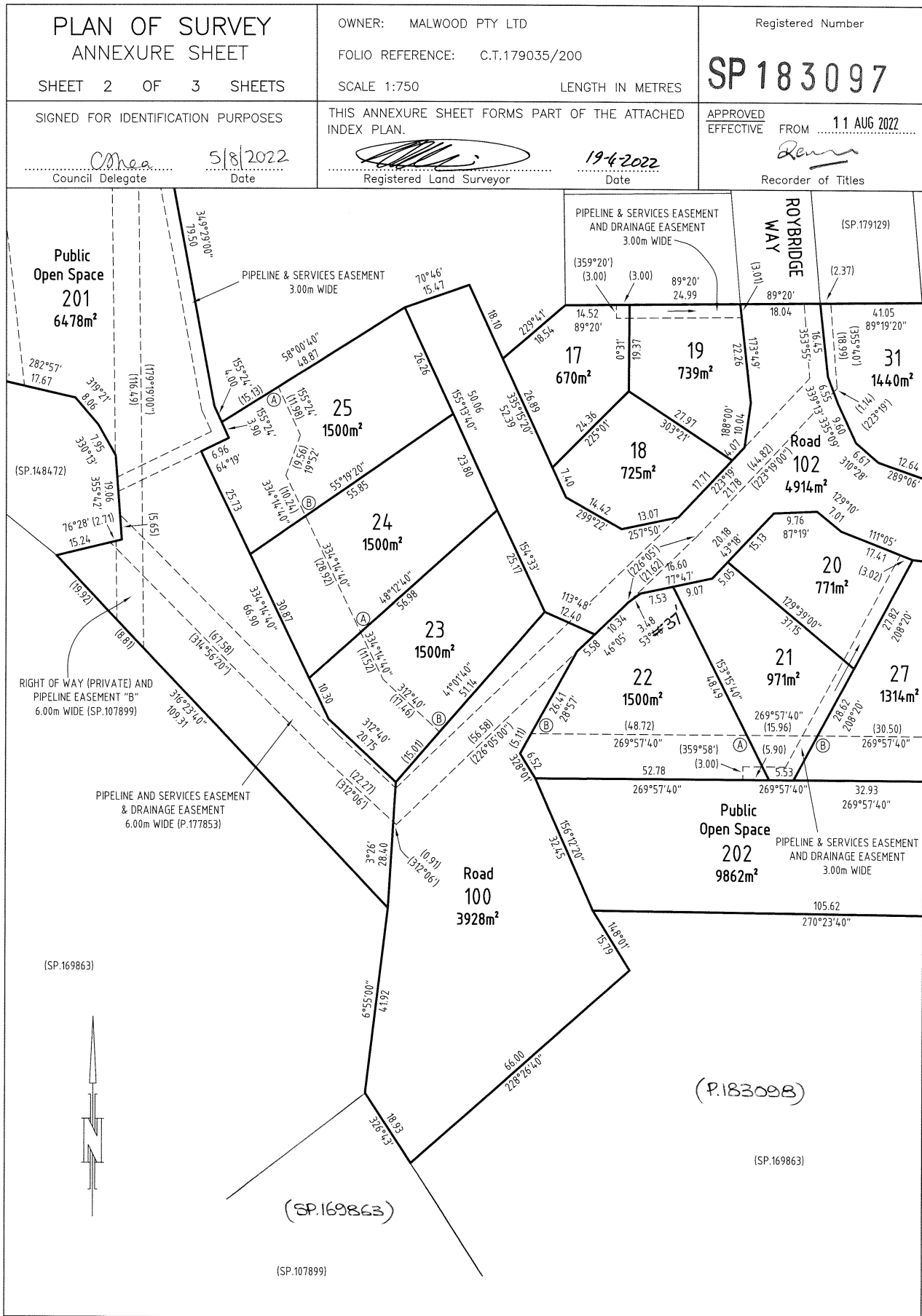
[E432821](#) MORTGAGE to National Australia Bank Limited
Registered 27-Oct-2025 at 12.02 pm

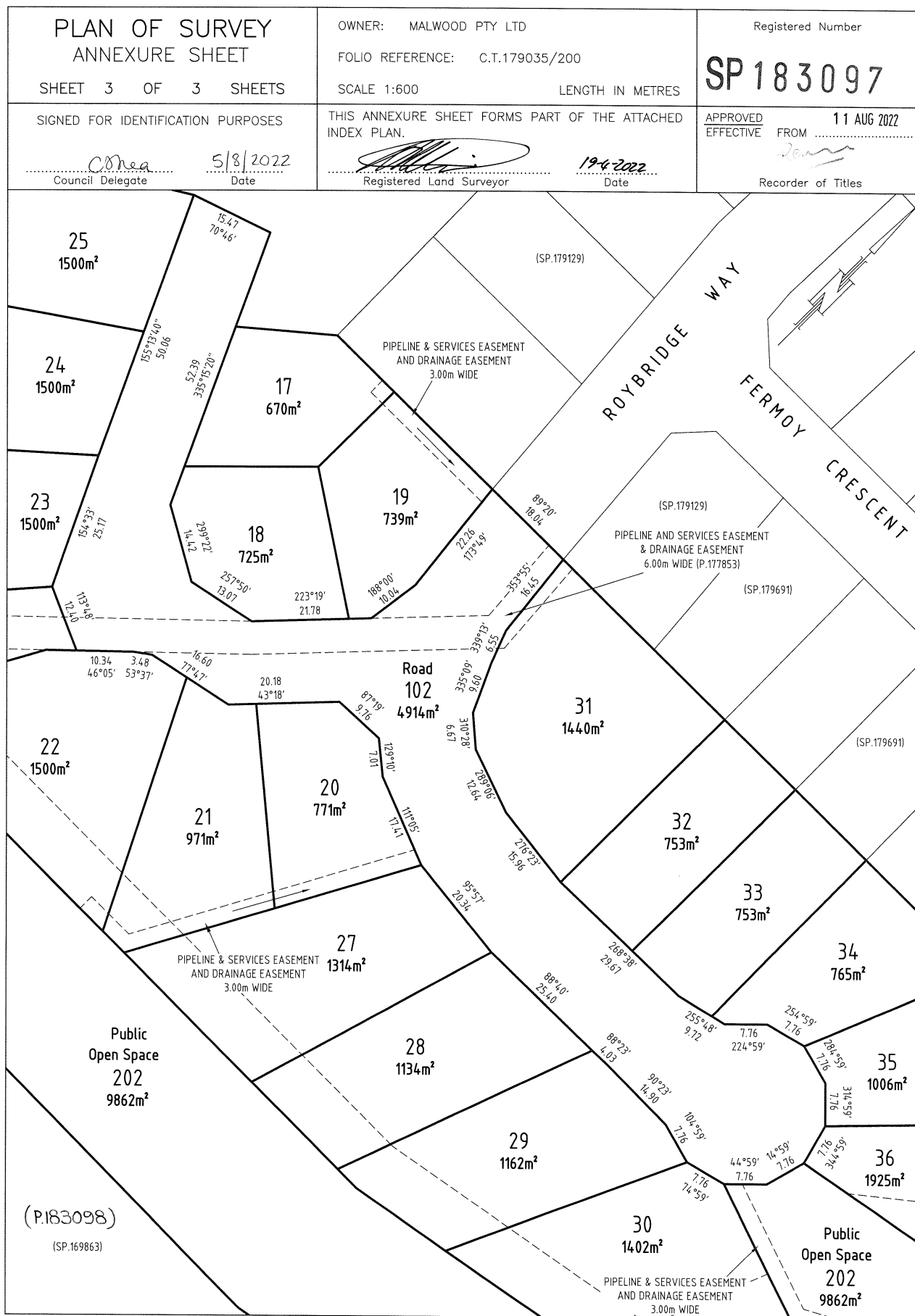
UNREGISTERED DEALINGS AND NOTATIONS

No unregistered dealings or other notations









SCHEDULE OF EASEMENTS	Registered Number
NOTE: THE SCHEDULE MUST BE SIGNED BY THE OWNERS & MORTGAGEES OF THE LAND AFFECTED. SIGNATURES MUST BE ATTESTED.	SP, 183097

PAGE 1 OF 5 PAGES
6EASEMENTS AND PROFITS

Each lot on the plan is together with:-

- (1) such rights of drainage over the drainage easements shown on the plan (if any) as may be necessary to drain the stormwater and other surplus water from such lot; and
- (2) any easements or profits a prendre described hereunder.

Each lot on the plan is subject to:-

- (1) such rights of drainage over the drainage easements shown on the plan (if any) as passing through such lot as may be necessary to drain the stormwater and other surplus water from any other lot on the plan; and
- (2) any easements or profits a prendre described hereunder.

The direction of the flow of water through the drainage easements shown on the plan is indicated by arrows.

Lot 17 is subject to a right of drainage in gross (in favour of Clarence City Council) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE passing through that lot on the plan

Lot 17 is subject to a pipeline and services easement in gross as defined herein (in favour of TasWater) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE ("the Easement Land") passing through that lot on the plan

Lot 19 is subject to a right of drainage in gross (in favour of Clarence City Council) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE passing through that lot on the plan

Lot 19 is subject to a pipeline and services easement in gross as defined herein (in favour of TasWater) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE ("the Easement Land") passing through that lot on the plan

Lots 20-22 are each subject to a right of drainage in gross (in favour of Clarence City Council) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE passing through such lot on the plan

Lots 20-22 are each is subject to a pipeline and services easement in gross as defined herein (in favour of TasWater) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE ("the Easement Land") passing through such lot on the plan

(USE ANNEXURE PAGES FOR CONTINUATION)

SUBDIVIDER: MALWOOD PTY LTD	PLAN SEALED BY: CLARENCE CITY COUNCIL
FOLIO REF: 179035-200	DATE: 5 Aug 2022
SOLICITOR: MURDOCH CLARKE (Ben Dance)	SUB-2011-30 REF NO. SD-2010/44
Council Delegate <i>C. Mea</i> Clare Shea	
NOTE: The Council Delegate must sign the Certificate for the purposes of identification.	

ANNEXURE TO SCHEDULE OF EASEMENTS PAGE 2 OF 6 PAGES 6	Registered Number SP 183097
SUBDIVIDER: MALWOOD PTY LTD FOLIO REFERENCE: 179035-200	

Lot 31 is subject to a right of drainage in gross (in favour of Clarence City Council) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 6.00 WIDE passing through that lot on the plan

Lot 31 is subject to a pipeline and services easement in gross as defined herein (in favour of TasWater) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 6.00 WIDE ("the Easement Land") passing through that lot on the plan

Lots 100 & 102 are each subject to a right of drainage in gross (in favour of Clarence City Council) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 6.00 WIDE passing through such lot on the plan

Lots 100 & 102 are each subject to a pipeline and services easement in gross as defined herein (in favour of TasWater) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 6.00 WIDE ("the Easement Land") passing through such lot on the plan

Lot 201 is subject to a right of drainage in gross (in favour of Clarence City Council) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 6.00 WIDE passing through that lot on the plan

Lot 201 is subject to a pipeline and services easement in gross as defined herein (in favour of TasWater) over the land marked RIGHT OF WAY (PRIVATE) AND PIPELINE EASEMENT "B" 6.00 WIDE, PIPELINE & SERVICES EASEMENT 3.00 WIDE and PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 6.00 WIDE ("the Easement Land") passing through that lot on the plan

Lot 201 is subject to a right of carriageway (appurtenant to lot 5 on Sealed Plan 107899) over the land marked RIGHT OF WAY (PRIVATE) AND PIPELINE EASEMENT "B" 6.00 WIDE passing through that lot on the plan

Lot 201 is subject to a right of carriageway (appurtenant to lot 1 on Sealed Plan 148472) over the land marked RIGHT OF WAY (PRIVATE) 10.00 WIDE passing through that lot on the plan

Lot 202 is subject to a right of drainage in gross (in favour of Clarence City Council) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE and PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.50 WIDE passing through that lot on the plan

Director:

Director:

Director:

Director:

NOTE: Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

ANNEXURE TO SCHEDULE OF EASEMENTS PAGE 3 OF 5 PAGES 6	Registered Number SP183097
SUBDIVIDER: MALWOOD PTY LTD FOLIO REFERENCE: 179035-200	

Lot 202 is subject to a pipeline and services easement in gross as defined herein (in favour of TasWater) over the land marked PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.00 WIDE and PIPELINE & SERVICES EASEMENT AND DRAINAGE EASEMENT 3.50 WIDE ("the Easement Land") passing through that lot on the plan

Easements continued Page 6

COVENANT A

The owners of lots 23-25 on the plan covenant with Clarence City Council to the intent that the burden of this covenant may run with and bind the covenantors lot and every part thereof and that the benefit thereof may devolve with Clarence City Council to observe the following stipulations-

1. Not to develop any part of a habitable building within the hazard management area delineated on the Bushfire Hazard Management Plan (Onto it Solutions 12 April 2022) unless constructed to a higher BAL, where the hazard management area on each lot is west of the line marked "AB" on the plan
2. Not to develop a habitable building to a higher BAL level within the hazard management area unless accompanied by a Bushfire Hazard Management Plan

COVENANT B

The owners of lots 21, 22, 27-30 & 36 on the plan covenant with Clarence City Council to the intent that the burden of this covenant may run with and bind the covenantors lot and every part thereof and that the benefit thereof may devolve with Clarence City Council to observe the following stipulations-

3. Not to develop any part of a habitable building within the hazard management area delineated on the Bushfire Hazard Management Plan (Onto it Solutions 12 April 2022) unless constructed to a higher BAL, where the hazard management area on each lot is south of the line marked "AB" on the plan
4. Not to develop a habitable building to a higher BAL level within the hazard management area unless accompanied by a Bushfire Hazard Management Plan

FENCING PROVISION

In respect to the lots on the plan the vendor (Malwood Pty Ltd) shall not be required to fence

Director:

Director:

Director: *[Signature]*

Director: *[Signature]*

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ANNEXURE TO SCHEDULE OF EASEMENTS PAGE 4 OF 5 PAGES 6	Registered Number SP 183097
SUBDIVIDER: MALWOOD PTY LTD FOLIO REFERENCE: 179035-200	

INTERPRETATION

"TasWater" means Tasmanian Water & Sewerage Corporation Pty Ltd (ACN 162 220 653) its successors and assigns

"Pipeline and Services Easement" means:-

FIRSTLY, the full and free right and liberty for TasWater and its employees, contractors, agents and all other persons duly authorised by it, at all times to:

- (1) enter and remain upon the Easement Land with or without machinery, vehicles, plant and equipment;
- (2) investigate, take soil, rock and other samples, survey, open and break up and excavate the Easement Land for any purpose or activity that TasWater is authorised to do or undertake;
- (3) install, retain, operate, modify, relocate, maintain, inspect, cleanse, repair, remove and replace the Infrastructure;
- (4) run and pass sewage, water and electricity through and along the Infrastructure;
- (5) do all works reasonably required in connection with such activities or as may be authorised or required by any law:
 - (a) without doing unnecessary damage to the Easement Land; and
 - (b) leaving the Easement Land in a clean and tidy condition;
- (6) if the Easement Land is not directly accessible from a highway, then for the purpose of undertaking any of the preceding activities TasWater may with or without employees, contractors, agents and any other persons authorised by it, and with or without machinery, vehicles, plant and equipment enter the Lot from the highway at any vehicle entry and cross the Lot to the Easement Land; and
- (7) use the Easement Land as a right of carriageway for the purpose of undertaking any of the preceding purposes on other land, TasWater reinstating any damage that it causes in doing so to any boundary fence of the Lot

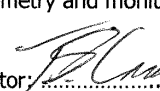
SECONDLY, the benefit of a covenant in gross for TasWater with the registered proprietor/s of the Easement Land and their successors and assigns not to erect any building, or place any structures, objects, vegetation, or remove any thing that supports, protects or covers any Infrastructure on or in the Easement Land, without the prior written consent of TasWater to the intent that the burden of the covenant may run with and bind the servient land and every part thereof and that the benefit thereof may be annexed to the easement herein described

"Infrastructure" means infrastructure owned or for which TasWater is responsible and includes but is not limited to:

- (a) sewer pipes and water pipes and associated valves;
- (b) telemetry and monitoring devices;
- (c) inspection and access pits;
- (d) electricity assets and other conducting media (excluding telemetry and monitoring devices);

Director:

Director:

Director: 

Director: 

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CD

ANNEXURE TO SCHEDULE OF EASEMENTS PAGE 5 OF 6 PAGES 6	Registered Number SP 183097
SUBDIVIDER: MALWOOD PTY LTD FOLIO REFERENCE: 179035-200	

- (e) markers or signs indicating the location of the Easement Land or any other Infrastructure or any warnings or restrictions with respect to the Easement Land or any other Infrastructure;
- (f) anything reasonably required to support, protect or cover any other Infrastructure;
- (g) any other infrastructure whether of a similar nature or not to the preceding which is reasonably required for the piping of sewage or water, or the running of electricity, through the Easement Land or monitoring or managing that activity; and
- (h) where the context permits, any part of the Infrastructure.

Signed for and on behalf of MALWOOD PTY LTD (ACN 009 577 931)

being the registered proprietor of Folio 179035-200 in accordance

with section 127 Corporations Act 2001 by-

Director: *[Signature]*

Print Full Name: **TERENCE SCOTT CROMEN**

Director: **DIRECTOR**

Print Full Name:

[Signature]
**FREDERICK JAMES GRANT
 DIRECTOR**

Signed for and on behalf of MURDOCH CLARKE MORTGAGE MANAGEMENT LIMITED

(ACN 115 958 560) as mortgagee in Mortgage No B613235, Mortgage No B686336

and Mortgage No B853252 pursuant to Transfer of Mortgage No C796934

in accordance with section 127 Corporations Act 2001 by-

Director: *[Signature]*

Print Full Name: **FREDERICK JAMES GRANT**

Director: **DIRECTOR**

Print Full Name:

EXECUTED by MURDOCH CLARKE MORTGAGE MANAGEMENT LIMITED ACN 115 958 560 as Responsible Entity of the MURDOCH CLARKE MORTGAGE FUND ARSN 093 255 559 by its duly authorised Attorney **PAUL KJZIS** pursuant to Power of Attorney registered on 15 January 2018 Registered Number PA 109270 having received no notice of the revocation thereof

WITNESS: *[Signature]*

NAME:

ADDRESS:

OCCUPATION:

Andrea Marie Thomas
 10 Victoria Street,
 Hobart Tas 7000
 Legal Secretary

*AMH 26/04/2022
 George Harris Mortgage
 handed to mortgagee*

[Signature]

NOTE: Every annexed page must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.

ANNEXURE TO SCHEDULE OF EASEMENTS		SP183097
PAGE 6 OF 6 PAGES		
SUBDIVIDER: - MALWOOD PTY LTD		
FOLIO REFERENCE: - 179035/200		
EASEMENTS CONTINUED		
Lots 31, 100, 102 & 201 are each subject to a pipeline and services easement in favour of Tasmanian Water and Sewerage Corporation Pty Ltd over the land marked Pipeline & Services Easement & Drainage Easement 6.00 wide on the plan and as created by and more fully set forth in E133591. Lot 201 is subject to a pipeline and services easement in favour of Tasmanian Water and Sewerage Corporation Pty Ltd over the land marked Right of Way (private) & Pipeline Easement 'B' 6.00 wide (SP107899) on the plan and as created by and more fully set forth in Sealed Plan 169863.		
NOTE: - Every annexed sheet must be signed by the parties to the dealing or where the party is a corporate body be signed by the persons who have attested the affixing of the seal of that body to the dealing.		

H1417 - PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

TH

TASSIE HOMES

Unit 4/37 Ascot Drive, Huntingfield, Tasmania. 7055

Ph. (03) 62 833 273 www.tassiehomes.com.au

Architectural Drawing No.		Description	Architectural Drawing No.		Description
01	C	SITE PLAN	09	C	LIGHTING CALCULATIONS, INSULATION & WINDOW SCHEDULE
02	B	DRAINAGE PLAN	10		COMPLIANCE NOTES
03	C	FLOOR PLAN	10a		LIVABLE HOUSING NOTES 1 of 3
04	C	ELEVATIONS SHEET 1	10b		LIVABLE HOUSING NOTES 2 of 3
04a	C	ELEVATIONS SHEET 2	10c		LIVABLE HOUSING NOTES 3 of 3
04b		PERSPECTIVES	11		WET AREA SPECIFICATIONS
05		SECTION	11a		STAIR NOTES
06		ROOF PLAN	11b		BALUSTRADE NOTES
07	C	ELECTRICAL PLAN	12		B.A.L. CONSTRUCTION REQUIREMENTS
08		FLOORING LAYOUT PLAN			

Drainage note:
Due to Class P soil
classification, refer
to Verto Engineers'
documentation for
full site drainage
specifications &
design.



Structural Drawing No.		Description
S01	C	FLOOR STRUCTURE
S02		BRACING PLAN
S03		BRACING DETAILS
S04	C	DETAILS SHEET 1
S05		DETAILS SHEET 2
S06	C	DETAILS SHEET 3

PROTECTIVE COATINGS FOR STEELWORK			
ENVIRONMENT	LOCATION	MINIMUM PROTECTION COATING	
		General structural steel members	Lintels in masonry
LOW mild steel corrosion rate 1.3 to 25 µm/year Typically remote inland areas or more than 1 km from sheltered bays	INTERNAL	No protection required	
	EXTERNAL	Option 1	Hot dip galvanising - HDG75
		Option 2	Duplex system. See N.C.C. Table 6.3.9c
		Option 3	Paint. See N.C.C. Table 6.3.9b - ALC2, ACC2, IZS1, PUR2A

NOTES:
1. Heavy industrial areas means industrial environments around major industrial complexes. There are only a few such regions in Australia, examples of which occur around Port Pirie and Newcastle.
2. The outer leaf and cavity of an external masonry wall of a building, including walls under open carports are considered to be external environments. A part of an internal leaf of an external masonry wall which is located in the roof space is considered to be in an internal environment.
3. Where a paint finish is applied the surface of the steel work must be hand or power tool cleaned to remove any rust immediately prior to painting.
4. All zinc coatings (including inorganic zinc) require a barrier coat to stop conventional domestic enamels from peeling.
5. Refer to the paint manufacturer where decorative finishes are required on top of the minimum coating specified in the table for protection of the steel against corrosion.
6. Internal locations subject to moisture, such as in close proximity to kitchen or bathroom exhaust fans are not considered to be in a permanently dry location and protection as specified for external locations is required.
7. For applications outside the scope of this table, seek specialist advice.

REVISION	DATE	SHEETS	DESCRIPTION
A	26 May 2026	01, 03	Floor plan revisions
B	17 June 2026	01, 02, 04a	Council RFI (17 June 2026): Show additional information relating to heights above natural ground to address privacy concerns. TasWater RAI (17 June 2026): Show additional symbol location of water meter obtained from detail survey.
C	13 July 2026	01, 03 - 04a, 07, 09, S01, S04, S06	Screen parking area, niches to showers, pendant lights to kitchen servery, extend bench seat, indicate installation of bidet sprayers to Bath and Ens, note installation of RPZD. Engineer revisions: indicate footings embedded into rock.

THIS PLAN IS ACCEPTED BY:

PLEASE NOTE: no variations will be permitted after plans are signed by the client (with exception of Council requirements / approvals).
SIGNATURE:

DATE:

Climate Zone - 7
C.T. No. 183097/30
Wind Speed - N3
Soil Classification - P (see report)
Corrosion Environment - LOW

FLOOR AREA = 133.1m²
= 14.3 sq

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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Drafted by Cem Kali, Licence Number: 627300775

DRAWING: COVER SHEET

DATE: 27 April 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

COVER SHEET

- 13 May 2026

● Preliminary drawings
- 27 May 2026

● Development application drawings (DA)
- 08 June 2026

● Preliminary construction drawings
Engineer not to sign this copy, only provide notes, additions & amendments
- Final construction drawings (BA)
- Approved by Engineer
- Approved by Building Surveyor

GENERAL NOTES:

1. THIS PLAN HAS BEEN PREPARED BY SURVEY PLUS FROM A COMBINATION OF EXISTING RECORDS AND FIELD SURVEY FOR THE PURPOSES OF SHOWING THE PHYSICAL FEATURES OF THE LAND AND SHOULD NOT BE USED FOR ANY OTHER PURPOSE.
2. TITLE BOUNDARIES SHOWN WERE NOT VERIFIED OR MARKED BY SURVEY PLUS AT THE TIME OF THIS SURVEY.
3. SERVICES SHOWN ON THIS PLAN WERE LOCATED WHERE POSSIBLE BY FIELD SURVEY. THEY ARE NOT A COMPLETE PICTURE OF SERVICES ON SITE. ALL SERVICE LOCATIONS ARE TO BE VERIFIED BEFORE COMMENCEMENT OF ANY WORK ON SITE, IN PARTICULAR THOSE SERVICES NOT PREVIOUSLY LOCATED THROUGH FIELD SURVEY.
4. SURVEY PLUS CAN NOT ACCEPT LIABILITY WHATSOEVER FOR LOSS OR DAMAGE CAUSED TO ANY UNDERGROUND SERVICE WHETHER SHOWN BY OUR SURVEY OR NOT.
5. THIS NOTE IS AN INTEGRAL PART OF THIS PLAN/DATA. REPRODUCTION OF THIS PLAN OR ANY PART OF IT WITHOUT THIS NOTE BEING INCLUDED IN FULL WILL RENDER THE INFORMATION SHOWN ON SUCH A REPRODUCTION INVALID AND NOT SUITABLE FOR USE WITHOUT PRIOR AUTHORITY OF SURVEY PLUS.
6. HORIZONTAL DATUM IS MGA (GDA94).
7. VERTICAL DATUM IS AHD.
8. CONTOUR INTERVAL IS 0.2 METRES, INDEX IS 1.0 METRES.
9. SURVEY BY ROBOTIC TOTAL STATION AND GPS.
10. IMPORTED DATA SHOWN ON THIS PLAN WAS OBTAINED FOR PUBLIC AVAILABLE DATA FROM VARIOUS GOVERNMENT AUTHORITIES. THIS INFORMATION IS PROVIDED FOR GUIDANCE ONLY. THE ACCURACY OF ANY IMPORTED DATA IS PER THE ACCURACY QUOTED BY THE SOURCE AND IS IN NO WAY GUARANTEED BY SURVEY PLUS. USERS MUST NOT RELY ON THIS DATA FOR ON-GROUND LOCATION OF BOUNDARIES AND/OR SERVICES.
11. BOUNDARIES ARE COMPILED ONLY FROM SP183097 AND RELEVANT SURVEY INFORMATION OBTAINED FROM LAND TITLES OFFICE AND ARE APPROXIMATE AND SUBJECT TO SURVEY.

LIST DATA IMPORT

- TasWater-SewerLateralLine
- TasWater-SewerMain
- TasWater-SewerMaintenanceHole
- TasWater-SewerPressurisedMain
- TasWater-WaterHydrant
- TasWater-WaterLateralLine
- TasWater-WaterMain

12. 3D DATA TURNED OFF IN LAYER CONTROL.

- 3D TIN
- MAJOR CONTOUR 3D
- MINOR CONTOUR 3D

LEGEND

- ET = Electrical Turret
- ELC = Electricity Lot Connection
- CLC = Communication Lot Connection
- LP = Light Pole
- SV = Stop Valve
- WM = Water Meter

CM1 = EX. CORNER MARK

RL:99.81

MH1 = Sewer Manhole

Top RL:98.83
In Inv1 RL:96.43
In Inv2 RL:96.40
Out Inv RL:96.29

MH2 = Sewer Manhole

Top RL:93.04
In Inv RL:92.11

MHA = Stormwater Manhole

Top RL:98.80
In Inv RL:96.89
Out Inv RL:96.82

MHB = Stormwater Manhole

Top RL:93.02
In InvA RL:91.95
In InvB RL:91.84

SWLC = Stormwater Lot
Connection

Top RL:93.35
Inv. RL:92.27

SLC = Sewer Lot Connection

Top RL:93.34
Inv. RL:92.69

GPS DATA SCALE LOCATION
JOB CONTROL POINT
POINT NO: #1
DESCRIPTION: R/S IN PATH
GPS SCALE FACTOR =
1.000401147
E: 534640.448
N: 5250809.177
RL: 100.268
EPU = 0.04±

BOY A - COMPILED BOUNDARY 74°59' 7.76m

PLUMBING NOTE:
A RPZD is to be installed.

TH

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REVISION	DATE	DESCRIPTION
A	26 May 2026	Changes as per Cover Sheet
B	17 June 2026	Changes as per Cover Sheet
C	13 July 2026	Changes as per Cover Sheet



THIS PLAN IS ACCEPTED BY:

PLEASE NOTE: no variations will be permitted after plans are signed by the client (with exception of Council requirements / approvals).
SIGNATURE:

DATE:

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: SITE PLAN

DATE: 27 April 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale 1 : 200

FFL 99.50

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

Livable Housing Design (H8):
820* - Part 3: Ensure CSD installed flush when open to allow for a clear opening width of 820mm

- Part 4: 900 x 1200 circulation space

IMPORTANT NOTE:
External wall dimension of 115mm includes battens and cladding thickness.
Internal walls dimensioned to stud frame only.

BAL 19 NOTES (refer to sheet 12 for full details):
1. W03*, W07* & W15* to be min. 5mm toughened glass (external pane)
2. ** Refer to Sheet 12 for timber deck BAL requirements

Note:
1. If no openable windows, "Make-up air" is required for this space as per AS1668.2

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DATE:

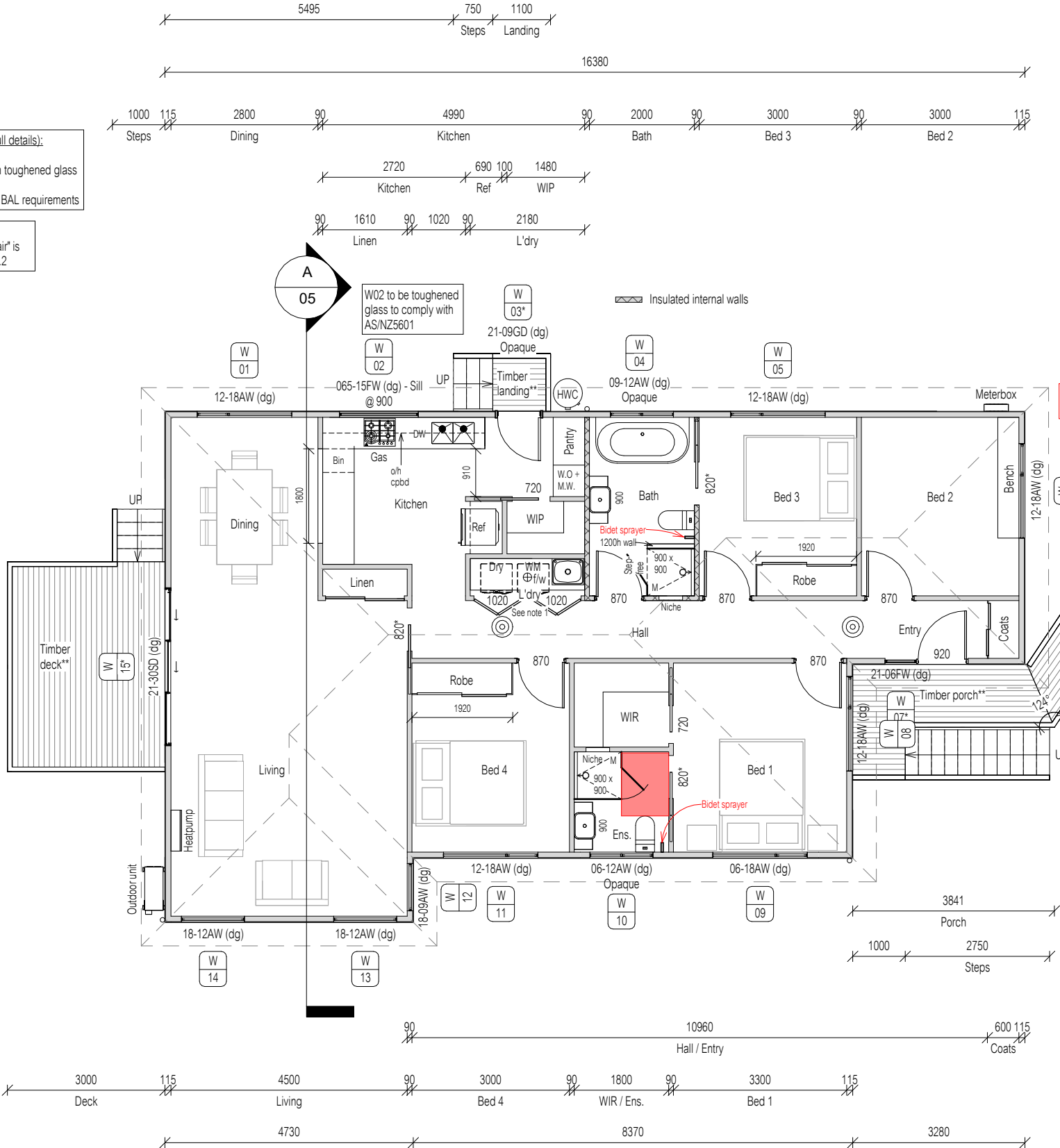
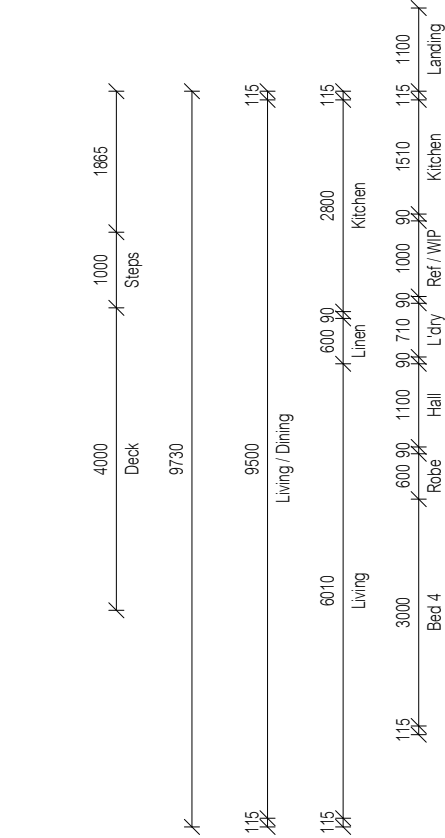
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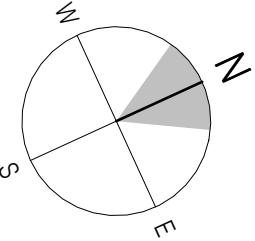
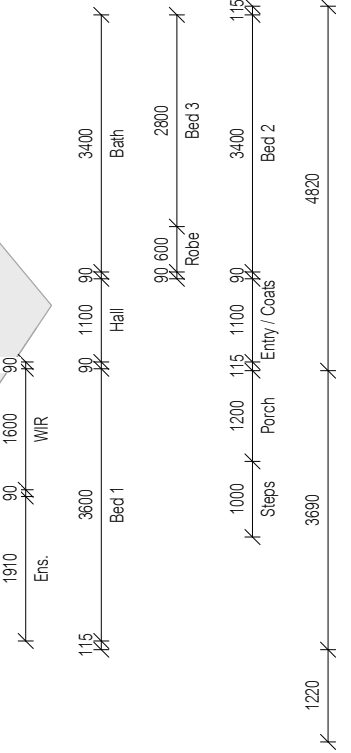
FLOOR AREA = 133.1m²

Landing/Deck Areas = 14.8m²
Porch/Ramp Area = 15.1m²



PLUMBING NOTE:
A RPZD is to be installed.

1700h privacy screening. Max. 25% transparency



Scale 1 : 100

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

REVISION	DATE	DESCRIPTION
A	26 May 2026	Changes as per Cover Sheet
C	13 July 2026	Changes as per Cover Sheet

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DRAWING: FLOOR PLAN

DATE: 27 April 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

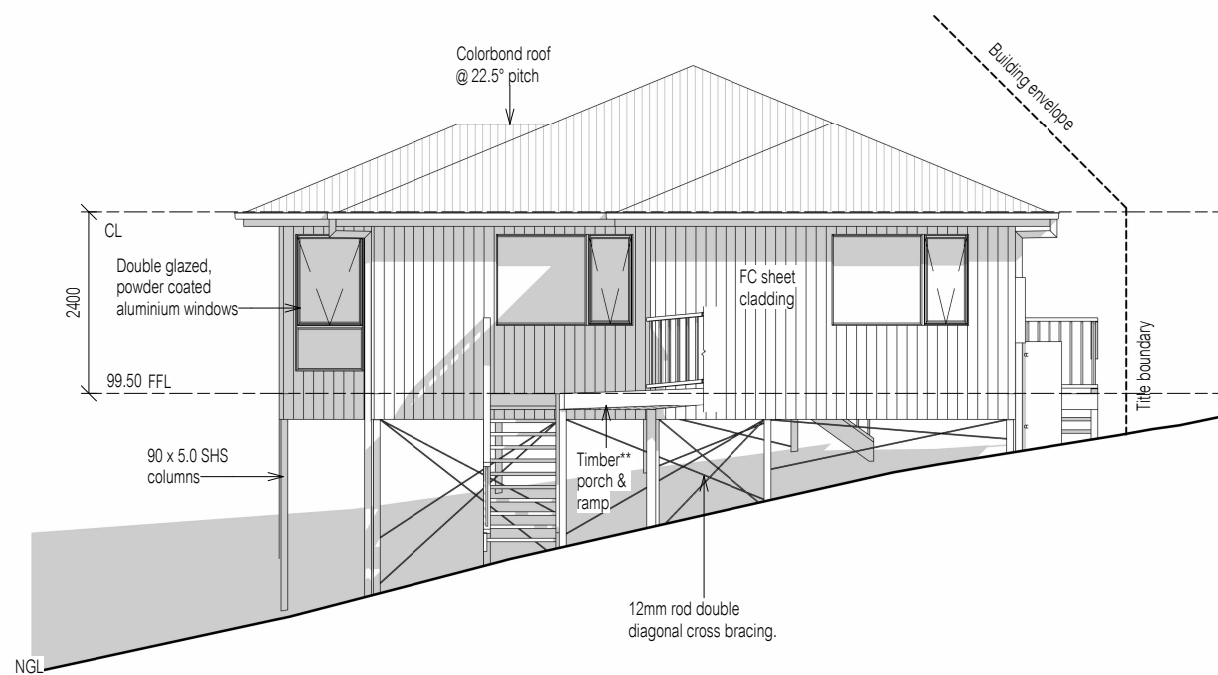
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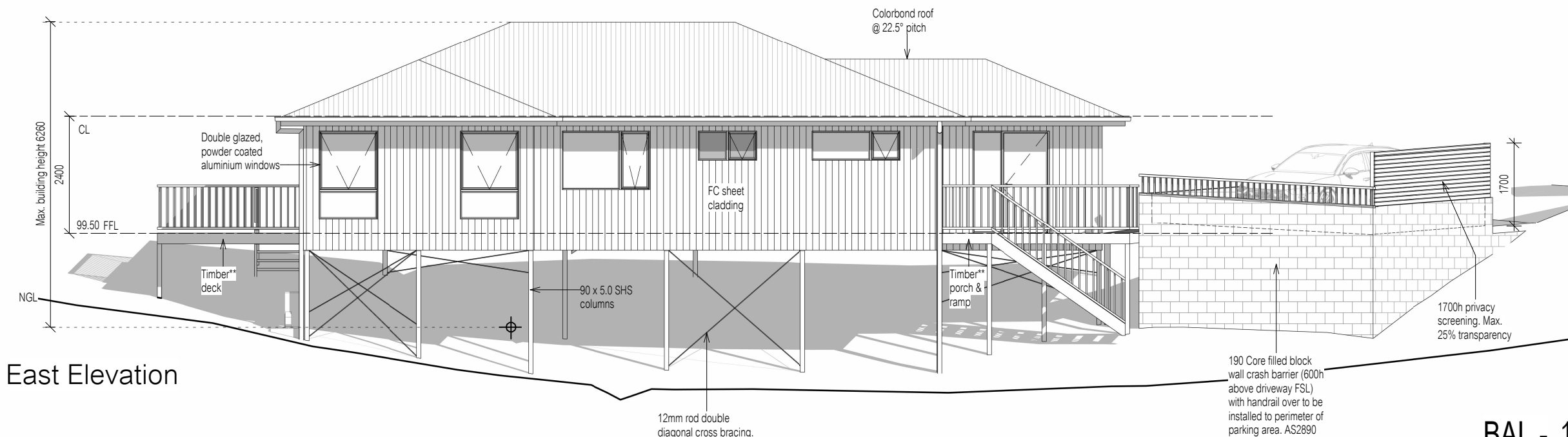
DATE:

BAL 19 NOTES (refer to sheet 12 for full details):

** Refer to Sheet 12 for timber deck BAL requirements



North Elevation



East Elevation

TH

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BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

REVISION	DATE	DESCRIPTION
C	13 July 2026	Changes as per Cover Sheet

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DRAWING: ELEVATIONS SHEET 1

DATE: 13 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale 1 : 100

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AT 10 ACHADERRY COURT, HOWRAH

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DATE:

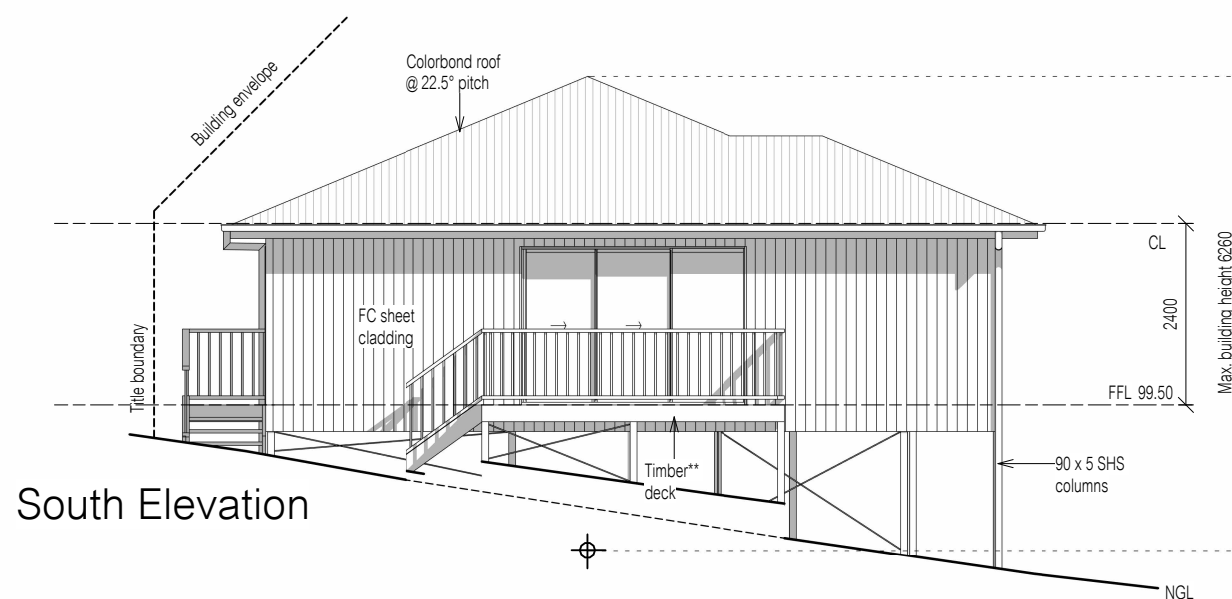
BAL 19 NOTES (refer to sheet 12 for full details):

** Refer to Sheet 12 for timber deck BAL requirements

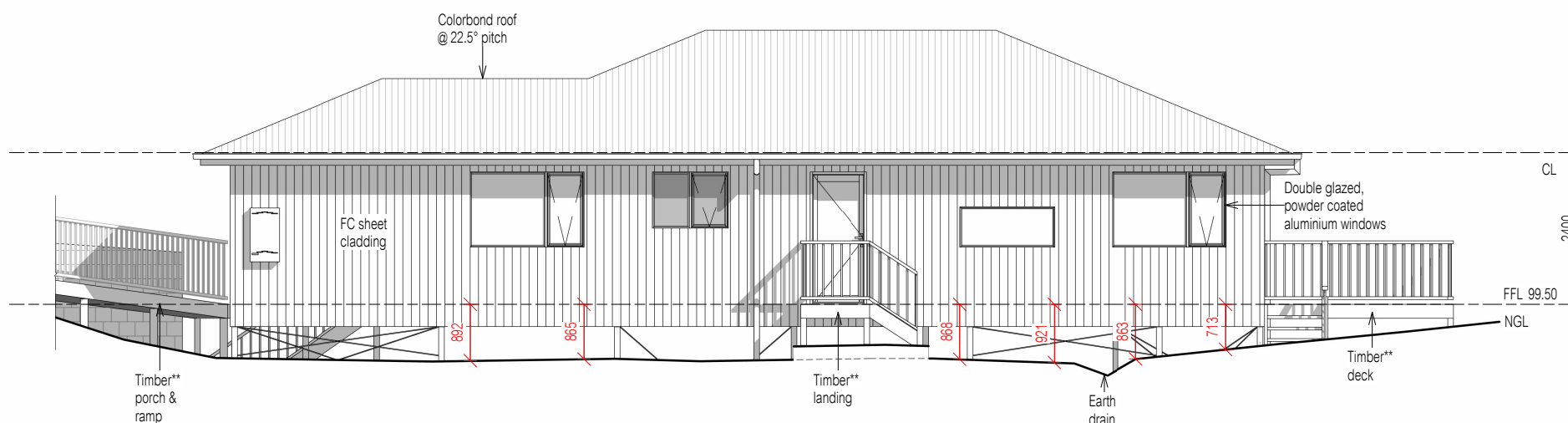


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South Elevation



West Elevation

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

REVISION	DATE	DESCRIPTION
B	17 June 2026	Changes as per Cover Sheet
C	13 July 2026	Changes as per Cover Sheet

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DRAWING: ELEVATIONS SHEET 2

DATE: 13 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

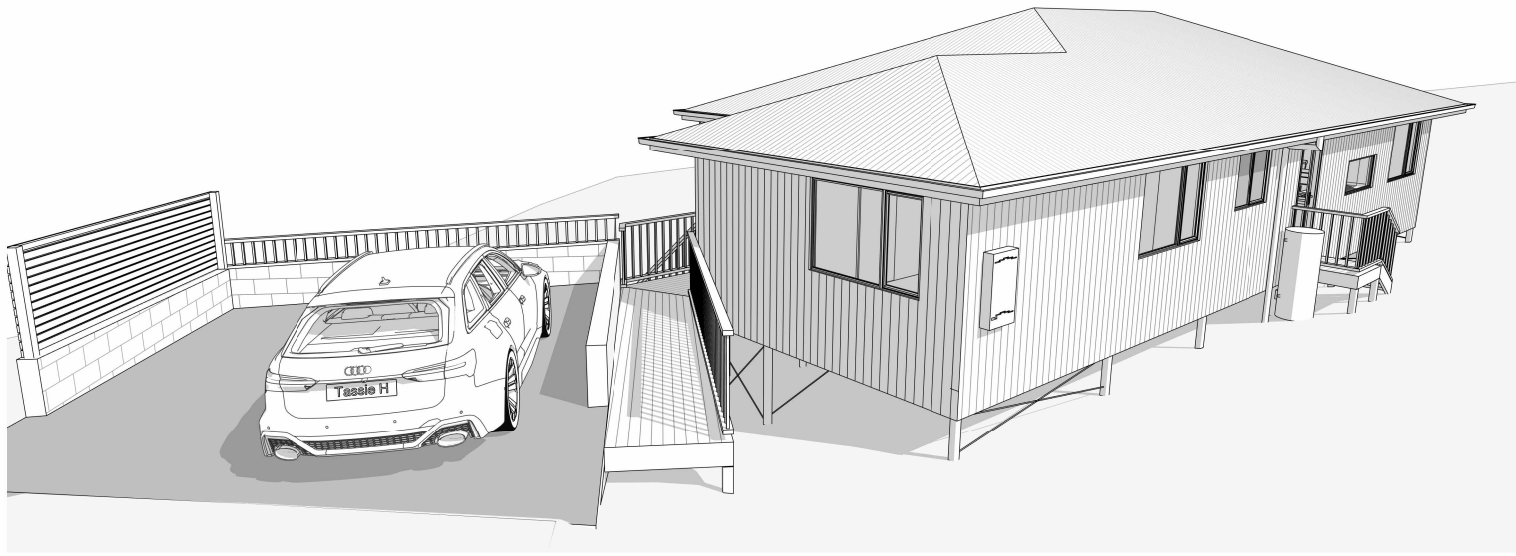
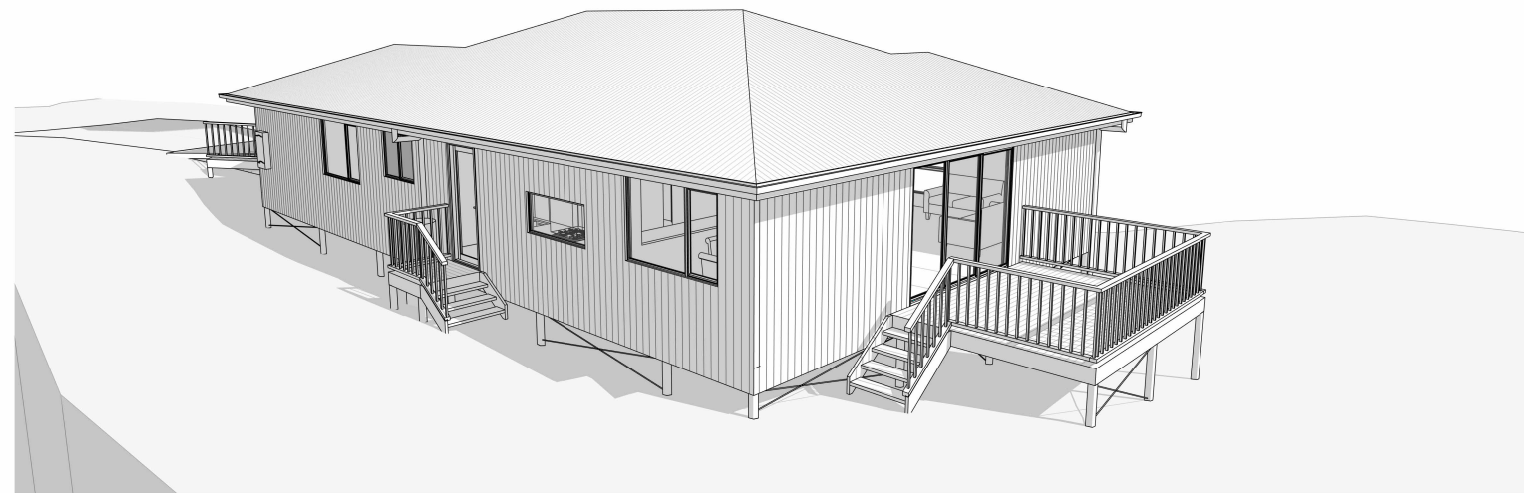
Scale 1 : 100

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH



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BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

REVISION	DATE	DESCRIPTION
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DRAWING: PERSPECTIVES

DATE: 27 April 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

04b

THIS PLAN IS ACCEPTED BY:

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SIGNATURE:

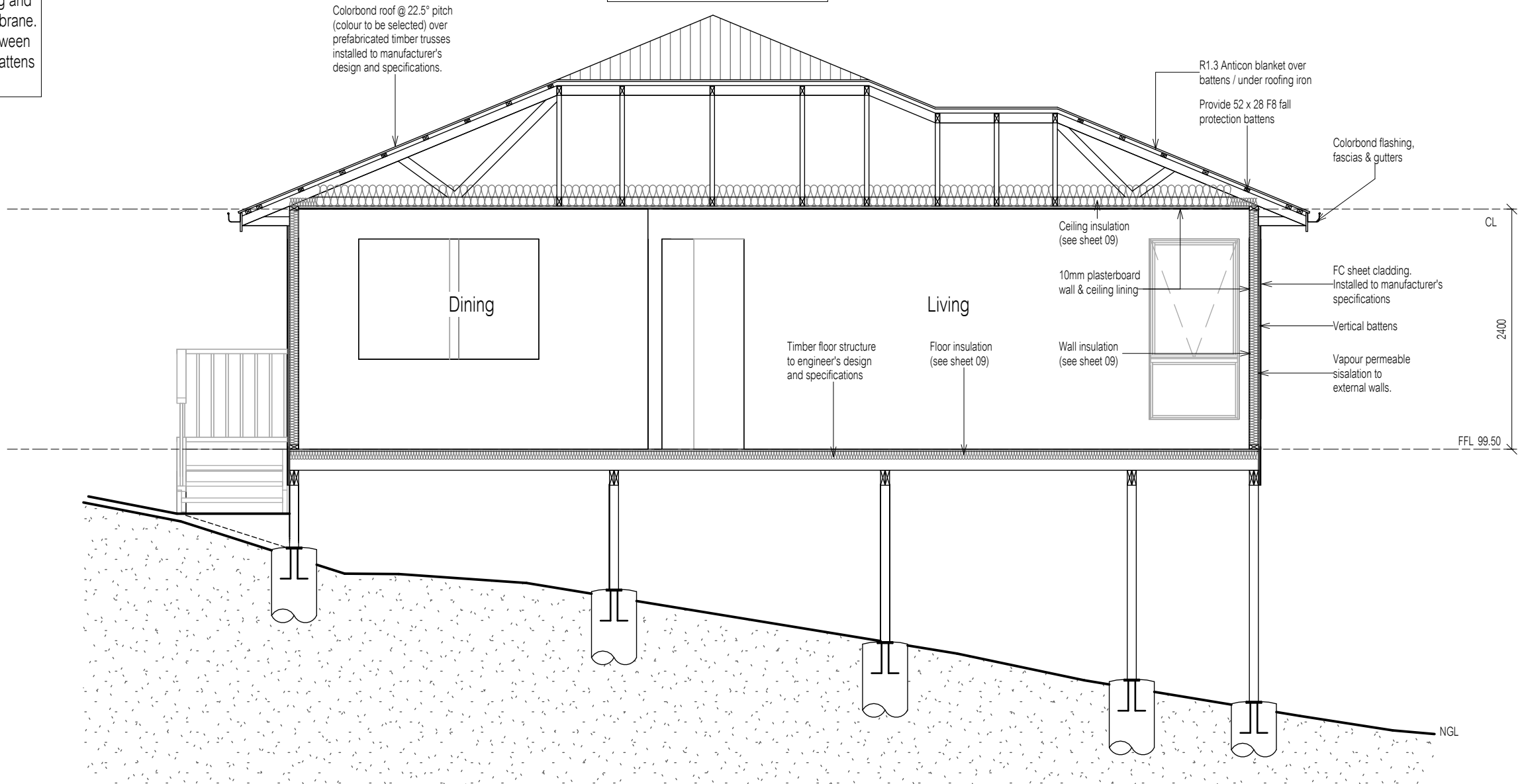
DATE:

IMPORTANT NOTES:

Cladding to be installed over min. 10mm battens to provide airflow between cladding and vapour permeable membrane. Provide 10mm gaps between horizontal and vertical battens to allow for air flow.

NOTE:

Ensure continuous gap in sarking at ridge to provide required ridge ventilation. BAL compliant mesh (or other approved system) used at ridge to ensure ember protection (if BAL 12.5 & over).



Section A

Scale 1 : 50

A

03

REVISION	DATE	DESCRIPTION
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BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: SECTION

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale 1 : 50

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

THIS PLAN IS ACCEPTED BY:

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SIGNATURE:

DATE:

ROOF VENTILATION CALCULATIONS
(22.5° Hip Roof - Flat ceiling)

200 x 400 eave vents (0.08m²)
Ceiling area = 127.1m² / 300 = 0.424m²

Exhaust: See note below.
25% of 0.424m² = 0.106m²
0.106m² / 0.08m² = 1.325 (x2) = 3 ridge vents
evenly spaced

Supply:
75% of 0.424m² = 0.318m²
0.318m² / 0.08m² = 3.975 (x2) = 8 eaves vents
evenly spaced

RV 200 x 400 ridge vent (50% opening)
EV 200 x 400 eaves vent (50% opening)

NOTE:
Ensure continuous gap in sarking at ridge to provide required ridge ventilation. BAL compliant mesh (or other approved system) used at ridge to ensure ember protection (If BAL 12.5 & over).
Ensure chosen eave vents have BAL compliant ember mesh (If BAL 12.5 & over).



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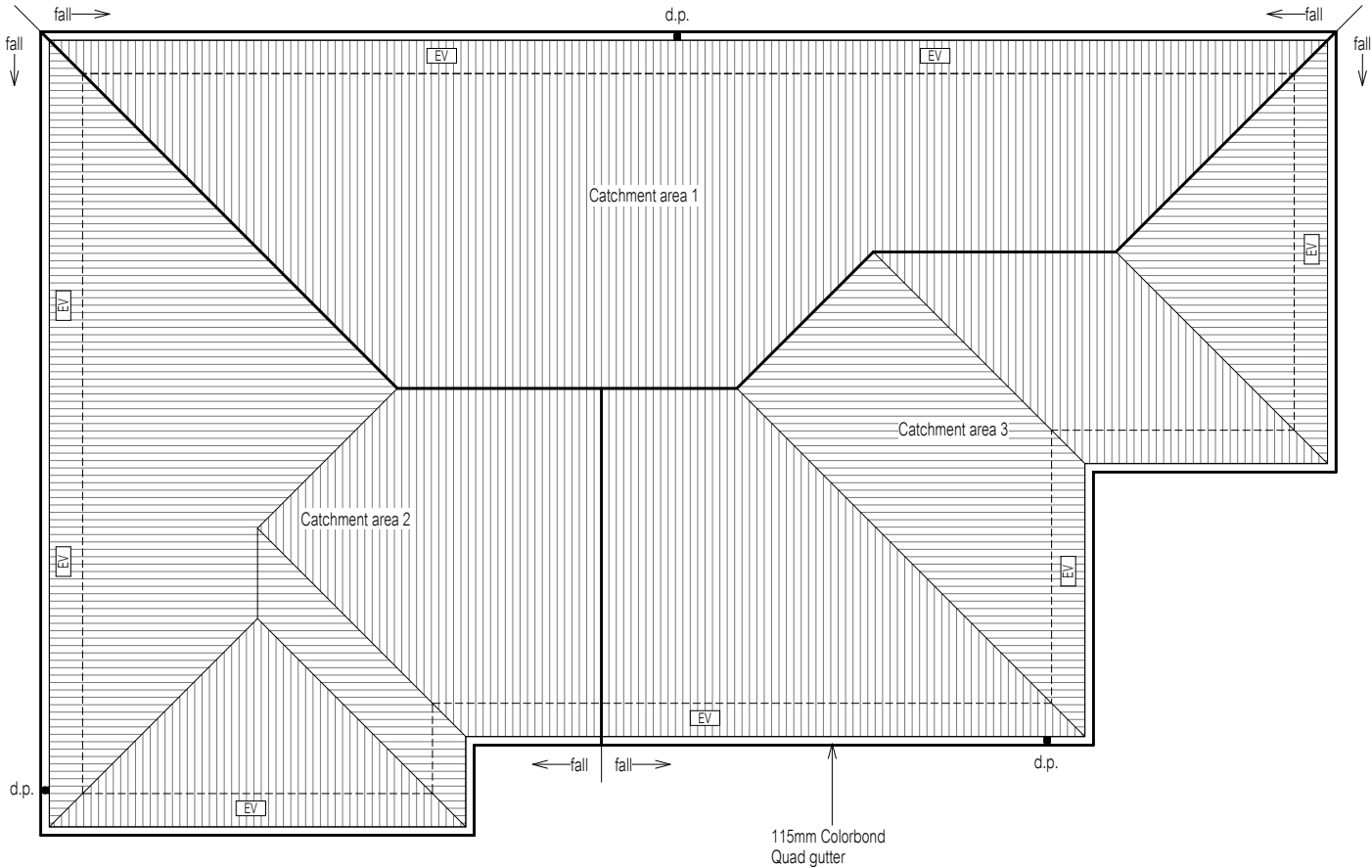
CATCHMENT AREAS NOTES:

Colorbond roof @ 22.5° pitch
CATCHMENT AREA 1 = 66.7m²
CATCHMENT AREA 2 = 64.6m²
CATCHMENT AREA 3 = 66.9m²

- denotes roof area
- d.p. denotes downpipe
- denotes direction of fall
- RV denotes 200 x 400 ridge vent
- EV denotes 200 x 400 eaves vent

IMPORTANT NOTES:

The position and quantity of downpipes are not to be altered without consulting with designer.
Areas shown are surface / catchment areas NOT plan areas.
All roof areas shown are indicative only and not to be used for any other purpose. Roof space must be ventilated.
Eave vents must be fitted to soffit with BAL compliant, non-combustible ember mesh installed (if BAL12.5 & over).
Vents must be in accordance with the NCC, BCA 2022, Volume 2, Part 10.8.3 'Ventilation of Roof Spaces'.



DOWNPIPE & ROOF CATCHMENT AREA CALCULATIONS (as per NCC part 7.4.1)

Ah	163.8	Area of roof (including 115mm Quad Gutter) (m²)
Ac	198.2	Ah x slope factor (determined from Table 3.4.3.2 from AS/NZS 3500.3) (m²)
Gutter type	A	Cross sectional area 6500mm² (determined from NCC Table 7.4.3b)
DRI	86	Design Rainfall Intensity (determined from NCC Table 7.4.3d)
Acdp	70	Catchment area per 90mm downpipe (determined from NCC Table 3.5.2.2)
Downpipes Required	2.83	$\frac{Ac}{Acdp}$
Downpipes Provided	3	

REVISION	DATE	DESCRIPTION
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DRAWING: ROOF PLAN

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale 1 : 100

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

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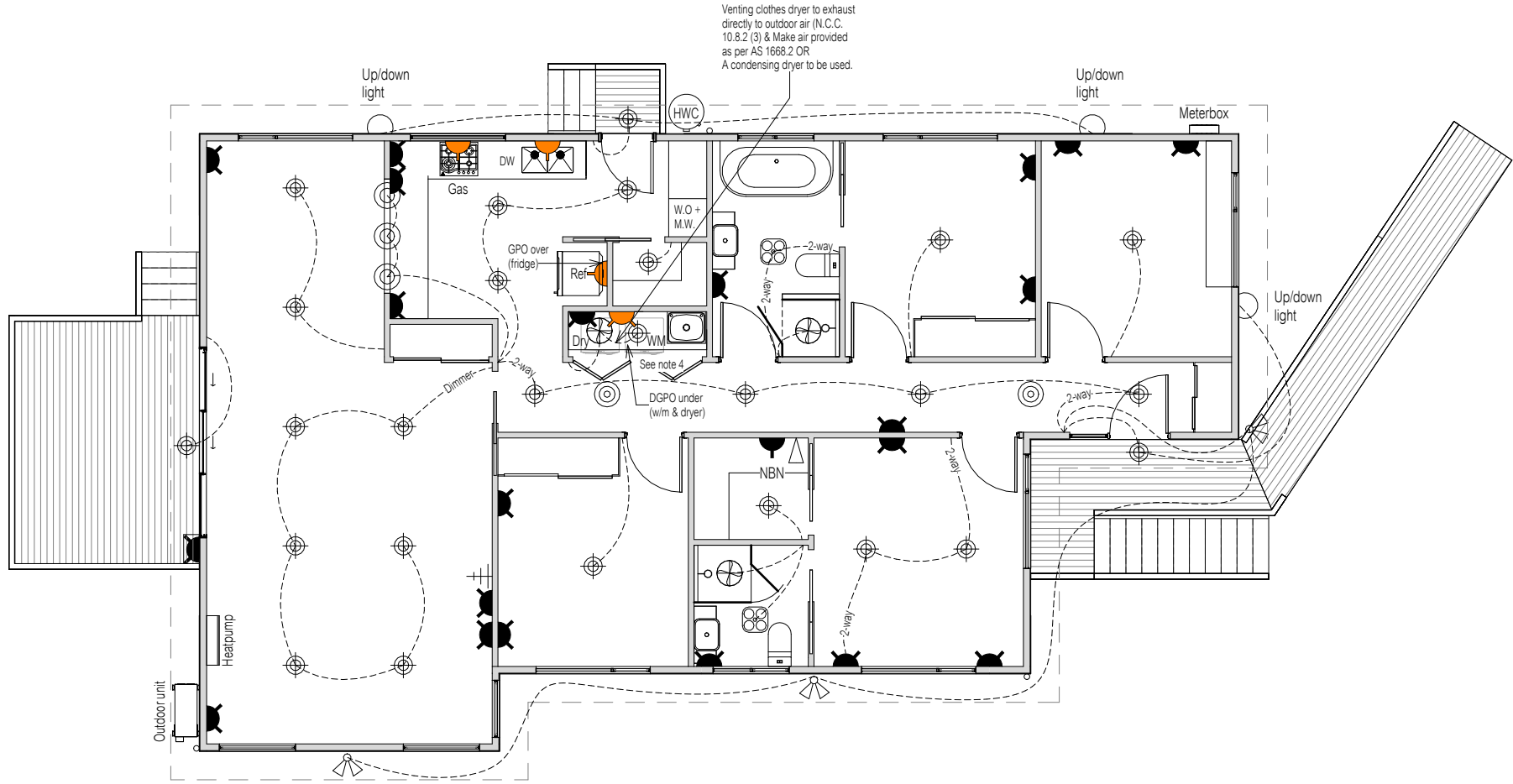
DATE:

- IMPORTANT NOTES:
1. Smoke alarms are to be installed in accordance with the NCC, BCA, Vol. 2, 2022, Part 9.5. Smoke alarms are to be interconnected where more than one alarm is installed.
 2. Toilet & bathroom fans to be min. 25L/s and to be ducted directly to outside. Kitchen & laundry fans to be min. 40L/s and to be ducted directly to outside.
 3. All downlights are to be sealed and IC-F rated.
 4. If no openable windows, "Make-up air" is required for this space as per AS1668.2

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- Batten light (28W)
- Wall light (28W)
- TV point
- Smoke alarm
- Phone / NBN point
- Pendant light (28W)
- LED strip light (10W/m)
- LED spotlight (sensor)
- LED downlight (12W)
- Single GPO
- Double GPO
- Double GPO (external)
- Slimline LED batten (40W)
- Ducted exhaust fan
- Data point
- 4-light Tastic (10W centre light only)
- 2-light Tastic (10W centre light only)
- Stair lights (5W)
- Ceiling fan

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

REVISION	DATE	DESCRIPTION
C	13 July 2026	Changes as per Cover Sheet

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DRAWING: ELECTRICAL PLAN

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale 1 : 100

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

THIS PLAN IS ACCEPTED BY:

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SIGNATURE:

.....

DATE:

.....

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FLOORING LEGEND

Floating Flooring

Carpet

Tiles



BAL - 19

See sheet 12 for
Bushfire Attack Level
construction requirements

REVISION	DATE	DESCRIPTION
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DRAWING: FLOORING LAYOUT PLAN

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale 1 : 100

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

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LIGHTING CALCULATIONS

ABC B

Lighting

Class 1 & 10a buildings

Calculator

Building name/description

H1417 - 10 ACHADERRY COURT, HOWRAH (CHODOR KANDY & SADANANDAN)

Classification

Class 1

Number of rows preferred in table below

14

(as currently displayed)

ID	Description	Type of space	Floor area of the space	Design lamp or illumination power load	Location	Adjustment factor			SATISFIES PART 13.7.6						
						Adjustment factors	Dimming % area	Dimming % of full power	Design lumen depreciation factor	Lamp or illumination power density		System share of % of aggregate allowance used			
1	ENTRY	Corridor	2.9 m ²	12 W	Class 1 building					5.0 W/m ²	4.1 W/m ²	8% of 61%			
2	BED 1	Bedroom	11.9 m ²	24 W	Class 1 building					5.0 W/m ²	2.0 W/m ²	4% of 61%			
3	BED 2	Bedroom	10.2 m ²	12 W	Class 1 building					5.0 W/m ²	1.2 W/m ²	2% of 61%			
4	BED 3	Bedroom	10.2 m ²	12 W	Class 1 building					5.0 W/m ²	1.2 W/m ²	2% of 61%			
5	BED 4	Bedroom	10.8 m ²	12 W	Class 1 building					5.0 W/m ²	1.1 W/m ²	2% of 61%			
6	WIR	Other	2.9 m ²	12 W	Class 1 building					5.0 W/m ²	4.1 W/m ²	8% of 61%			
7	ENS.	Bathroom	3.4 m ²	10 W	Class 1 building					5.0 W/m ²	2.9 W/m ²	5% of 61%			
8	HALL	Corridor	9.1 m ²	36 W	Class 1 building					5.0 W/m ²	4.0 W/m ²	8% of 61%			
9	BATH	Bathroom	6.8 m ²	10 W	Class 1 building					5.0 W/m ²	1.5 W/m ²	3% of 61%			
10	KITCHEN	Kitchen	12.4 m ²	120 W	Class 1 building					5.0 W/m ²	9.7 W/m ²	18% of 61%			
11	DINING	Living room	9.6 m ²	24 W	Class 1 building	(c) Manual dimming system	100%			5.9 W/m ²	2.5 W/m ²	5% of 61%			
12	LIVING	Living room	28.1 m ²	72 W	Class 1 building					5.0 W/m ²	2.6 W/m ²	5% of 61%			
13	L'DRY	Laundry	1.5 m ²	12 W	Class 1 building					5.0 W/m ²	8.0 W/m ²	15% of 61%			
14	WIP	Other	1.5 m ²	12 W	Class 1 building					5.0 W/m ²	8.0 W/m ²	15% of 61%			
										Allowance	Design average				
										121.3 m ²	380 W	Class 1 building	5.1 W/m ²	3.1 W/m ²	
										if inputs are valid					

IMPORTANT NOTICE AND DISCLAIMER IN RESPECT OF THIS LIGHTING CALCULATOR

By accessing or using this calculator, you agree to the following: While care has been taken in the preparation of this calculator, it may not be complete or up-to-date. You can ensure that you are using a complete and up-to-date version by checking the Australian Building Codes Board website (abcb.gov.au). The Australian Building Codes Board, the Commonwealth of Australia and States and Territories of Australia do not accept any liability, including liability for negligence, for any loss (howsoever caused), damage, injury, expense or cost incurred by any person as a result of accessing, using or relying upon this publication, to the maximum extent permitted by law. No representation or warranty is made or given as to the currency, accuracy, reliability, merchantability, fitness for any purpose or completeness of this publication or any information which may appear on any linked websites, or in other linked information sources, and all such representations and warranties are excluded to the extent permitted by law. This calculator is not legal or professional advice. Persons rely upon this calculator entirely at their own risk and must take responsibility for assessing the relevance and accuracy of the information in relation to their particular circumstances.

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NOTES:

3.12.5.5 - ARTIFICIAL LIGHTING

* Lamp power density or illumination power density of artificial lighting, excluding heaters that emit light, must not exceed the allowance of:
(i) 5W per m² in Class 1 building;
(ii) 4W per m² on a verandah, balcony or the like attached to a Class 1 building (not including eave perimeter lights);
(iii) 3W per m² in a Class10a building associated with a Class 1 building.
* The illumination power density allowance must be increased by dividing it by the illumination power density adjustment factor for a control device as per BCA 2019 3.12.5.5 (f)

WINDOW SCHEDULE

WINDOW MANUFACTURER: GLASS SUPPLIES					
Window Number (W)	Size & Type	Glass	ID	Uw	SHGC
01	12-18AW (dg)	Clear	AWS-008-01	4.30	0.55
02	065-15FW (dg) - Sill @ 900	Clear	AWS-067-08	3.20	0.68
03*	21-09GD (dg) Opaque	Opaque	AWS-019-01	4.10	0.50
04	09-12AW (dg) Opaque	Opaque	AWS-008-01	4.30	0.55
05	12-18AW (dg)	Clear	AWS-008-01	4.30	0.55
06	12-18AW (dg)	Clear	AWS-008-01	4.30	0.55
07*	21-06FW (dg)	Clear	AWS-067-08	3.20	0.68
08	12-18AW (dg)	Clear	AWS-008-01	4.30	0.55
09	06-18AW (dg)	Clear	AWS-008-01	4.30	0.55
10	06-12AW (dg) Opaque	Opaque	AWS-008-01	4.30	0.55
11	12-18AW (dg)	Clear	AWS-008-01	4.30	0.55
12	18-09AW (dg)	Clear	AWS-008-01	4.30	0.55
13	18-12AW (dg)	Clear	AWS-008-01	4.30	0.55
14	18-12AW (dg)	Clear	AWS-008-01	4.30	0.55
15*	21-30SD (dg)	Clear	AWS-013-01	4.00	0.61
LEGEND: SW = Sliding window, AW = Awning window, FW = Fixed window, SD = Sliding door, BF = Bi-fold Door or Window, GD = Glazed door, FD = French door, TW = Transom window, DH = Double Hung Window					
NOTE: Windows supplied MUST HAVE Uw, SHGC & Air infiltration performance values EQUAL TO or BETTER THAN those specified above. * Glass specification may change to comply with BAL requirements (Refer to sheet 12)					

INSULATION

INSULATION SCHEDULE	
AREA	INSULATION DETAILS
Roof	R1.3 anticon blanket under iron / over battens.
Ceiling	R4.0 bulk insulation (or equivalent).
Walls (external)	R2.0 bulk insulation (or equivalent) with 1 layer of vapour permeable sisalation.
Walls (internal)	R2.0 bulk insulation (or equivalent) to all internal walls adjacent the BATH room.
Floors	R2.5 bulk insulation (or equivalent) to all timber floors above sub-floor and other unconditioned spaced below.
NOTE: Clearance is required for uncompressed installation of bulk insulation and timbers should be sized accordingly; 210mm for R4.1 bulk insulation; 240mm for R5.0 bulk insulation; 260mm for R6.0 bulk insulation; 290mm for R7.0 bulk insulation. These dimensions are nominal and may vary depending on the type of insulation to be installed.	

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: LIGHTING CALCULATIONS, INSULATION & WINDOW SCHEDULE
DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

Scale

NCC VOLUME 2, CLASS 1 & 1a COMPLIANCE NOTES

SITE PREPARATION

Excavation and filling of site to be in accordance with NCC Part 3.2 and AS 2870.
Drainage works to be in accordance with NCC Part 3.3 & AS 3500.3.2.
Surface drainage - finished ground to fall away from building 50mm in 1000mm.
Finished slab level to be;
Minimum 150 above finished ground;
Minimum 50 above paved surfaces;
Prevent ponding of water under suspended floors.
All embankments that are left exposed must be stabilised with vegetation or similar to prevent erosion.
Embankments cannot exceed 2.0m in height without the aid of retaining walls or other approved types of soil retaining methods.
All unprotected embankments must comply with the slope ratios for soil type in NCC Table 3.2.1.

SOIL TYPE /	EMBANKMENT SLOPE	
CLASSIFICATION	Cut	Compacted Fill
STABLE ROCK (A)	8:1	2:3
SAND (A)	1:2	1:2
FIRM CLAY (M-E)	1:1	1:2
SOFT CLAY (M-E)	2:3	Not Suitable

FOOTINGS AND SLABS

Generally to be in accordance with NCC Part 4.2 (H1D4) and AS 2870.
Preparation for placement of concrete and reinforcement to be to AS 2870.
Concrete & steel reinforcement to be in accordance with AS 2870 & AS/NZS 3500.
The site classification to be in accordance with AS 2879.
Alternatively, footings & slabs to be in accordance with structural engineers design & specifications.

MASONRY

Generally masonry walls to be constructed in accordance with NCC Part 5 & AS 3700.
Un-reinforced masonry to NCC 5.2 & 5.3;
Reinforced masonry to NCC 5.4:
Masonry accessories to NCC 5.6:
Vertical articulation joints to NCC 5.6.8:
Weatherproofing of to NCC 5.7.

FRAMING

Timber framing to be in accordance with AS 1684.
Manufactured timber members to be in accordance with prescribed framing manual.
Sub-floor ventilation in accordance with NCC 6.2.
Sub-floor area to be clear of organic materials & rubbish.
Provide vent openings in substructure walls at a rate of not less than 6000mm²per meter of wall length, with vents not more than 600mm from corners.
150mm clearance required to underside of floor framing members unless specified otherwise by flooring material specification.
Tie down and bracing of frame to be in accordance with AS 1684 & AS 4055.
Structural steel framing to be in accordance with NCC 6.3, AS 1250, AS 4100 & structural engineers design & specifications.

ROOF AND WALL CLADDING

Generally to be in accordance with NCC 3.5.
Roof cladding to be in accordance with NCC 3.5.1 and;
Roof tiles to AS 2049 & AS 2050;
Metal sheet roofing to AS 1562.1;
Plastic sheet roofing to AS 4256.1, .2, .3 & .5 and AS 1562.3;
Gutters and downpipes, generally to be in accordance with NCC 7.4 & AS 3500.3.2 and The Tasmanian Plumbing Code.
Eaves, internal and valley guttering to have cross sectional area of 6500mm².
Roof space must be vented. Eave vents must be fitted to the soffit with BAL compliant, non-combustible ember mesh installed. Vents must be in accordance with the NCC 10.8.3 'Ventilation of Roof Spaces' and AS 3959.
Wall cladding to be installed in accordance with NCC 7.5 and manufacturer's specification. Flashings and cappings to NCC 7.2.7.

GLAZING

Generally glazing to be in accordance with NCC Part 8 and AS 1288.
Refer to window legend for sizes and type.
Windows to comply with NCC 8.4 'Protection of Openable Windows'.
Glazing to comply with NCC (H1D8) 8.2, 8.3 & 8.4.
BAL REQUIREMENTS:
Glazing to comply with AS 3959 - 2009 Section 3.9 'Construction of Buildings in Bushfire-prone Areas' where applicable. Window weatherproofing to AS 2047.

FIRE SAFETY

Generally to be in accordance with NCC Part 9.
Fire separation to be in accordance with NCC 9.2. External walls and gable ends constructed within 900 of boundary are to extend to underside of non-combustible roofing / eaves and are to be constructed of a masonry skin 90 thick with FRL of 60/60/60.
Sarking to have a flammability index less than 5.
Roof lights not to be placed closer than 900 from boundary.
Smoke alarm installations to be in accordance with NCC 9.5. Locations indicated on the floor plan.
Smoke alarms are to be interconnected where more than 1 smoke alarm is installed.
Installation locations;
CEILINGS - 300 away from wall junction;
CATHEDRAL CEILINGS - 500 down from apex;
WALLS - 300 down from ceiling junction.
Heating appliances generally to NCC 12.4 and to be in compliance with AS 2918,
Also refer to manufacturer's details and specifications for setbacks to adjacent combustible surfaces, flue installation and required hearth dimensions.
Construction in Bush Fire Area to be in accordance with AS 3959.

HEALTH AND AMENITY

Generally wet area waterproofing to be in accordance with NCC 10.2 and AS 3740.
Ceiling heights to be in accordance with NCC 10.3.
Construction of sanitary compartments to NCC 10.4.2.
Required facilities to NCC 10.4.1.
Provision of natural light to be in accordance with NCC 10.5.1. Windows / roof lights to provide light transmission area equal to 10% of the floor area of the room
Artificial lighting to NCC 10.5.2.
Ventilation generally to NCC Part 10.6. Exhaust fan from kitchen, laundry, bathroom & WC to be vented to outside for steel roof and to roof space for tile roof. Natural ventilation to be provided at a rate of 5% of room floor area, in accordance with NCC 10.6.2.
Mechanical ventilation to be in accordance with NCC 10.6.3 (b) & 10.8.2 or AS 1668.2
Sound insulation requirements generally to NCC Part 10.7.

SAFE MOVEMENT AND ACCESS

Stair and ramp construction to be in accordance with NCC 11.2.
Maximum of 18 risers to each flight;Riser opening to be less than 125;
Treads to have non-slip surface or nosing;
RISERS - min. 115, max. 190;
TREADS min. 240, max. 355.
Balustrade is generally in accordance with NCC 11.3.
Balustrade is required where area is not bounded by a wall or where level exceeds 1000 above floor level or ground level. 865 high on stairs, measured from line of stair nosing.1000 high above floor or landing. Openings between balusters / infill members to be constructed so as not to allow 125 sphere to pass between members. Where floor level exceeds 4000 above lower level, infill members between 150 and 760 above floor level, to be constructed so as to restrict climbing.
Protection from openable windows for rooms other than bedrooms to NCC 11.3.8.

ANCILLARY PROVISIONS

Generally in accordance with NCC Part 12.
Heating appliances, fireplaces, chimneys and flues to NCC Part 12.4.
OPEN FIREPLACE CONSTRUCTION to NCC 12.4.2;
CHIMNEY CONSTRUCTION to NCC 12.4.3;
INSERT FIREPLACES AND FLUES to NCC 12.4.4;
FREESTANDING HEATING APPLIANCES to NCC 12.4.5

ENERGY EFFICIENCY

Generally in accordance with BCA 2019 Part 3.12
Climate Zone 7 applicable to Tasmania (Zone 8 applicable to Alpine areas)
BUILDING FABRIC INSULATION-
Insulation to be fitted to form continuous barrier to roof / ceiling, walls and floors.
REFLECTIVE BUILDING MEMBRANE-
To be 'vapour permeable' with a minimum value of 4ug/Ns, installed to form 20mm airspace between reflective faces and external lining/ cladding, fitted closely up to penetrations/ openings, adequately supported and joints to be lapped minimum 150.
BULK INSULATION-
To maintain thickness and position after installation. Continuous cover without voids except around services/fittings.
ROOF INSULATION-
Roof construction to achieve minimum additional R Value of R4.0 unless noted otherwise.
Roof lights to comply with 3.12.1.3.
EXTERNAL WALLS-
External wall construction to achieve minimum additional R Value of R2.5 unless noted otherwise. Wall surface density minimum - 220kg/m²
FLOORS-
Generally in accordance with 3.12.1.5.Suspended floor with an unenclosed perimeter required to achieve a minimum Total R Value of R2.0.Concrete slab on ground with an in slab heating system to be insulated to R1.0 around vertical edge of slab perimeter.
ATTACHED CLASS 10a BUILDING-
External wall or separating wall between Class 1 building is required to achieve minimum Total R-Value of R1.9.
All hot water plumbing to be insulated in accordance with AS/NZS 3500: Plumbing and Drainage, Part 4 Heated Water Services.
Thermal insulation for central heating piping to NCC 13.7.2 and 13.7.3.
Heating and cooling ductwork to NCC 13.7.4
Chimneys or flues to be fitted with sealing damper or flap. Roof lights to habitable rooms to be fitted with operable or permanent seal to minimise air leakage. External windows & doors to habitable rooms / conditioned spaces to be fitted with air seal to restrict air infiltrations. Exhaust fans to habitable rooms / conditioned spaces to be fitted with self-closing damper or filter. Building envelope to be constructed to minimise air leakage. Construction joints and junctions or adjoining surfaces to be tight fitting and sealed by caulking, skirting, architraves and cornices. Windows and external door weatherproofing to AS 2047.

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TASSIE HOMES

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DATE:

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: COMPLIANCE NOTES

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

STEP-FREE ACCESS PATH
A continuous path to a dwelling entrance door must be provided from -

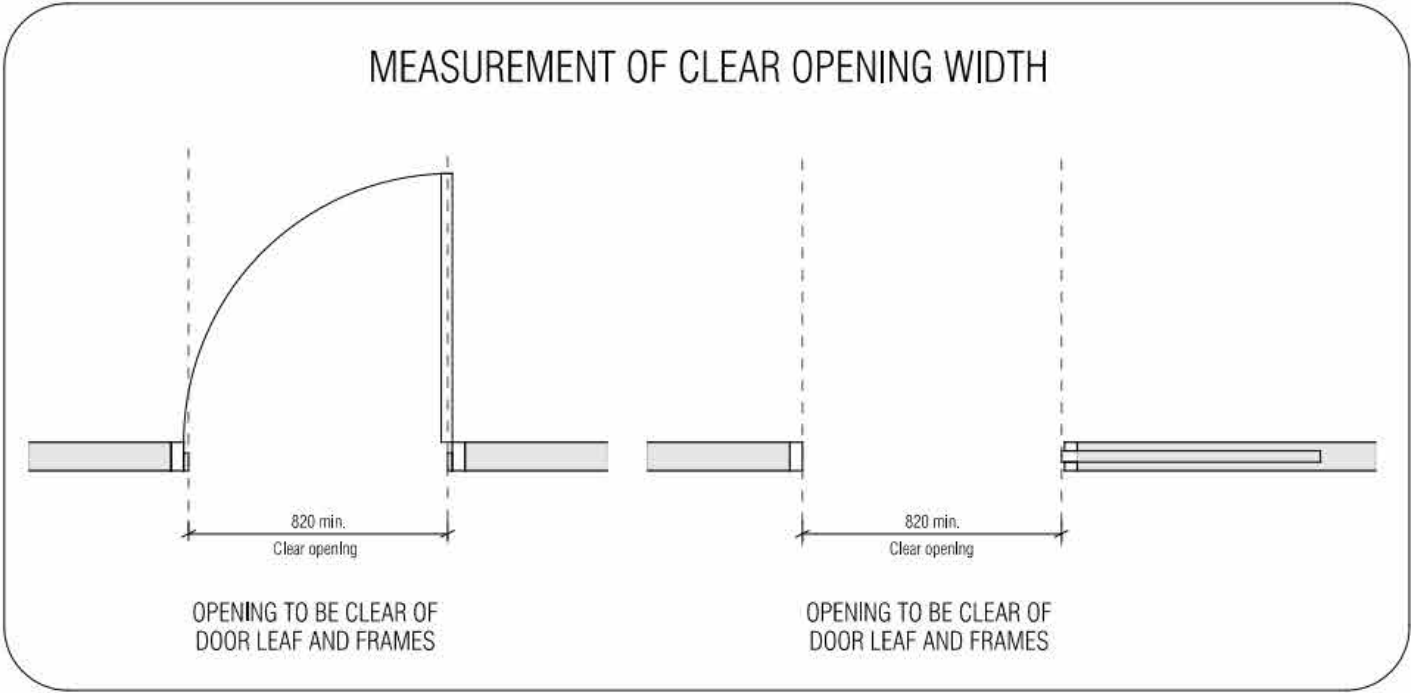
- (1) The pedestrian entry at the allotment boundary from the ground level of the adjoining land; or
 - (a) an appurtenant Class 10a garage or carport; or
 - (b) a car parking space within the allotment that is provided for the exclusive use of the occupants of the dwelling.
- (c) Access for the purposes of (1) must be -
- (2) via a pathway that -
 - (a) has no steps; and
 - (i) except for a step ramp provided under (5), has a maximum gradient of 1:14 in the direction of travel; and
 - (ii) if crossfall is provided, has a crossfall not more than 1:40; and
 - (iii) has a minimum width of 1000mm; and
 - (iv) if it incorporates a section suspended above finished ground level, is able to take loading forces in accordance with AS/NZS 1170.1; and
 - (vi) connects to a dwelling entrance door that complies with Section 2; or
 - (vi) provided directly from an attached Class 10a garage or carport, via a door complying with the requirements of Section 2, other than Clause 2.3.
- (3) For the purposes of (2), the following applies:
 - (a) Any gates along the access path must have a minimum clear opening width of 820mm, measured as if the gate were an entrance door.
 - (b) A deck or boardwalk-style path constructed in accordance with AS 1684 or NASH Standard – Residential and Low-rise Steel Framing would satisfy the requirements of (2)(a)(v).
- (4) Where one or more ramps are used, the following applies:
 - (a) The aggregate length of ramping (excluding landings) must not be more than—
 - (i) 9 m for a 1:14 gradient; or
 - (ii) 15 m for a 1:20 gradient; or
 - (iii) a length determined by linear interpolation for ramps with a gradient between 1:14 and 1:20.
 - (b) The minimum width of the ramp must be maintained at 1000mm between any handrails and/or kerbs (if provided) at each side of the ramp.
 - (c) At each end of a ramp there must be a landing that is -
 - (i) not less than 1200mm long; and
 - (ii) at least as wide as the ramp to which it connects; and
 - (iii) level, or has a gradient not more than 1:40 if a gradient is necessary for drainage.
 - (d) A landing area required by Clause 2.3 may also be counted as a landing for the purposes of (c).
- (5) The access path may incorporate one step ramp having a -
 - (a) height of not more than 190mm; and
 - (b) gradient not more than 1:10; and
 - (c) width of at least 1000mm or equivalent to that of the access path, whichever is the greater; and
 - (d) maximum length of 1900mm.

- THRESHOLD NOTES:
The threshold of an entrance door must -
- (a) be level; or
 - (b) have a sill height of not more than 5mm if the lip is rounded or bevelled; or
 - (c) have a ramped threshold that -
 - (i) does not extend beyond the depth of the door jamb; and
 - (ii) has a gradient not steeper than 1:8; and
 - (iii) is at least as wide as the minimum clear opening width of the entrance door; and
 - (iv) does not intrude into the minimum dimensions of the required landing area; or
 - (d) where the requirements of (a), (b) or (c) cannot meet the weatherproofing requirements of the NCC for external entrance doors containing a raised door sill -
 - (i) have no lip or upstand greater than 15mm within the sill profile; and
 - (ii) have no more than 5mm height difference between the edge of the top surface of the sill and the adjoining finished surface.

- LANDING AREA NOTES:
An entrance door must have a space of at least 1200mm x 1200mm on the external (arrival) side of the door that is -
- (a) unobstructed (other than by a gate or a screen door); and
 - (b) level, or has a gradient of not more than 1:40 if a gradient is necessary to allow for drainage.

- WEATHERPROOFING FOR EXTERNAL STEP-FREE ENTRANCE
Weatherproofing for an external step-free entrance must be provided in accordance with one or a combination of the following:
- (a) where the external surface is concrete or another impermeable surface, a channel drain that meets the requirements of Volume Two H2D2 is to be provided for within the entrance.
 - (b) Where the external trafficable surface is decking or another raised permeable surface, a drainage surface below the trafficable surface is provided that meets the requirements of Volume T20 H2D2, and drainage gaps in the trafficable surface, such as those between decking boards, are no greater than -
 - (i) 8mm; or
 - (ii) in a 'designated bushfire prone area' that is permitted by AS 3959.
 - (c) A roof covering an area no smaller than 1200mm by 1200mm, where the area is provided with a fall away from the building not greater than 1:40.

- LIVEABLE HOUSING NOTES
Internal doorways must provide a minimum clear opening width of 820mm,
At least one shower must have a hobless and step-free entry. A lip not more than 5mm in height may be provided for water retention purposes.
Internal corridors, hallways, passageways or the like, if connected to a door that is subject to Clause 3.1, must have a minimum clear width of 1000mm, measured between the finished surfaces of opposing walls.



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BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: LIVABLE HOUSING NOTES 1 of 3

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:



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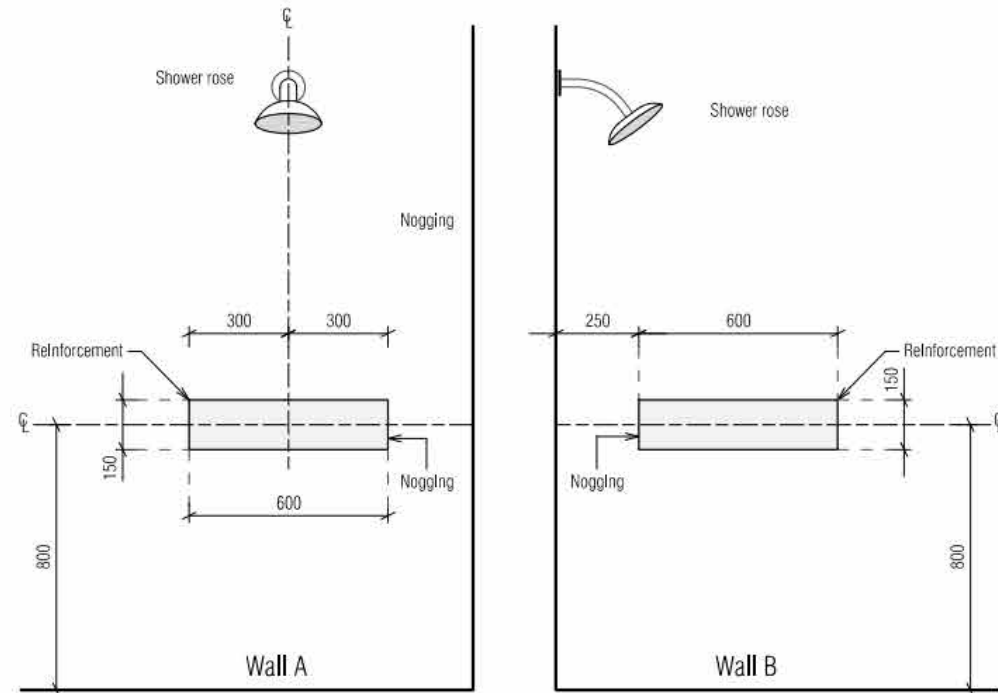
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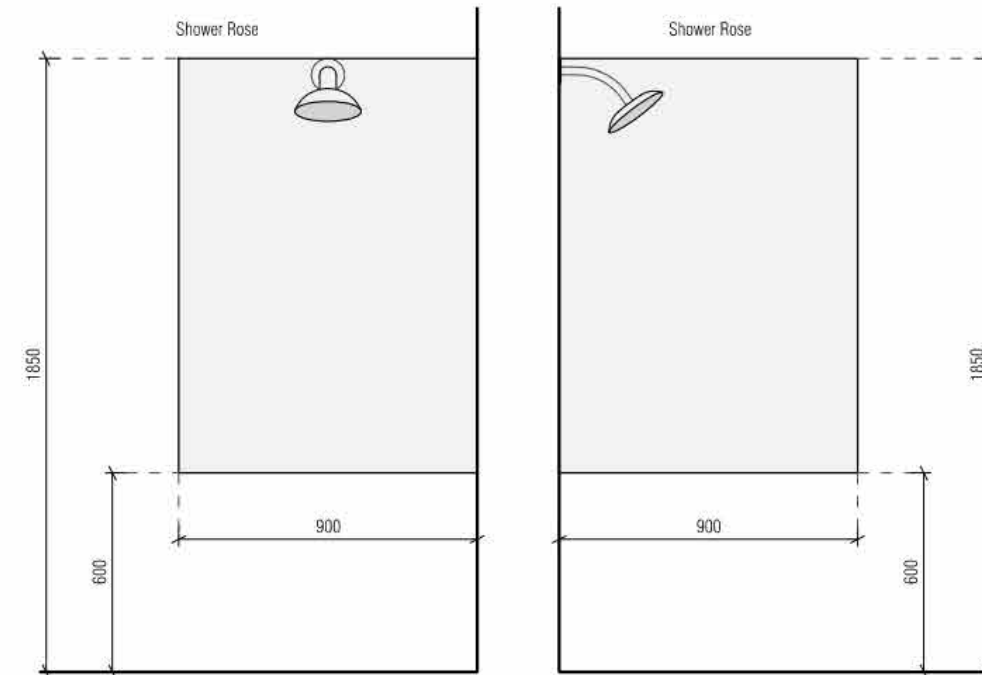
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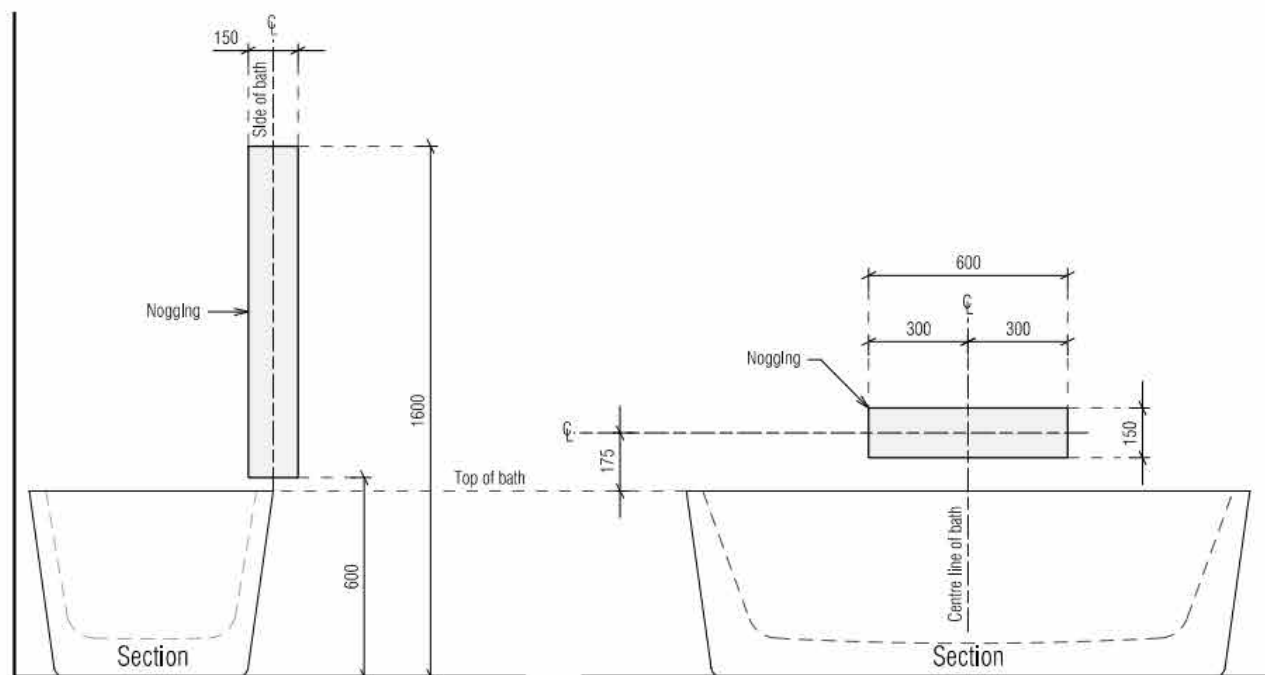
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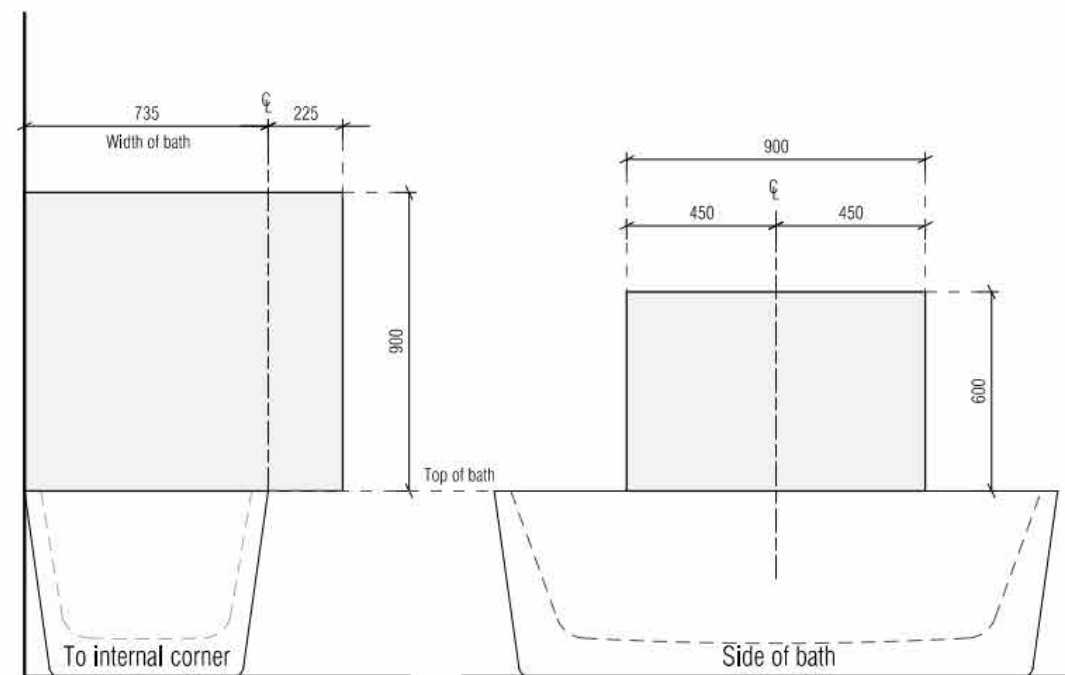
LOCATION OF NOGGINGS FOR SHOWER WALLS



LOCATION OF SHEETING FOR SHOWER WALLS



LOCATION OF NOGGINGS FOR WALLS SURROUNDING A BATH



LOCATION OF SHEETING FOR WALLS SURROUNDING A BATH

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: LIVABLE HOUSING NOTES 2 of 3

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

10b



TASSIE HOMES

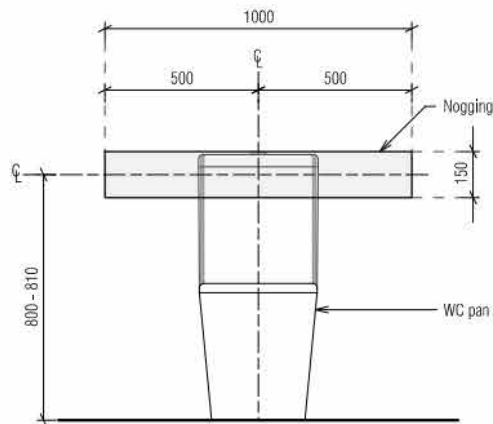
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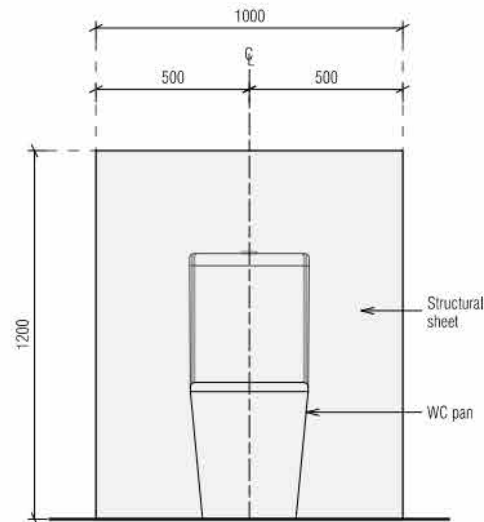
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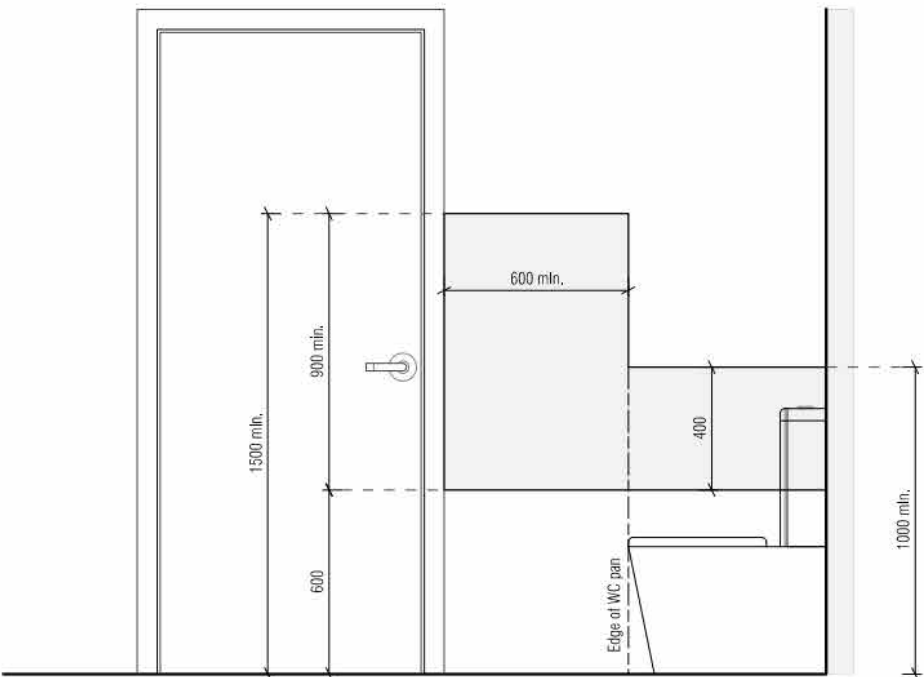
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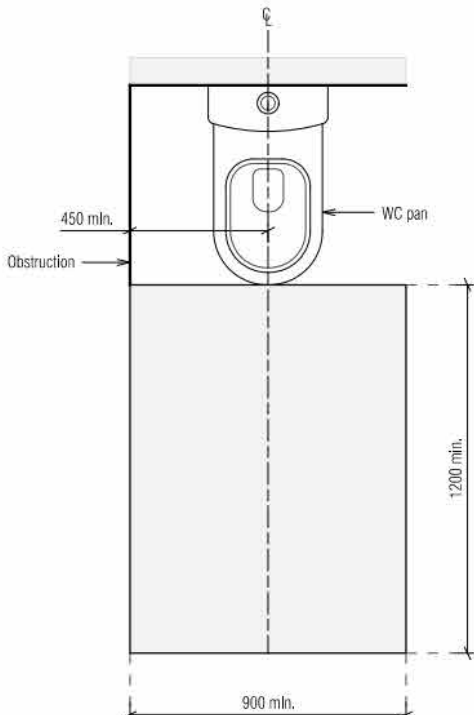
LOCATION OF NOGGINGS FOR
A WALL BEHIND TOILET PAN



LOCATION OF SHEETING
BEHIND TOILET PAN



MINIMUM EXTENT OF SHEETING FOR
A WALL ADJACENT TO A TOILET PAN



CIRCULATION SPACE
FOR A TOILET PAN

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See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: LIVABLE HOUSING NOTES 3 of 3

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

Scale

Vessels or area where the fixture is installed	Floor and horizontal surfaces	Walls	Wall junctions and joints	Penetrations
Enclosed shower with hob	Waterproof entire enclosed shower area, including hob.	Waterproof to not less than 150mm above the shower floor substrate or not less than 25mm above the maximum retained water level whichever is the greater with the remainder being water resistant to a height of not less than 1800mm above the finished floor level.	Waterproof internal and external corners and horizontal joints within a height of 1800mm above the floor level with not less than 40mm width either side of the junction.	Waterproof all penetrations
Enclosed shower without hob	Waterproof entire enclosed shower area, including waterstop	Waterproof to not less than 150mm above the shower floor substrate with the remainder being water resistant to a height of not less than 1800mm above the finished floor level	Waterproof internal and external corners and horizontal joints within height of 1800mm above the floor level with not less than 40mm width either side of the junction	Waterproof all penetrations
Enclosed shower with step down	Waterproof entire enclosed shower area, including the step down	Waterproof to not less than 150mm above the shower floor substrate or not less than 25mm above the maximum retained water level whichever is the greater with the remainder being water resistant to a height of not less than 1800mm above the finished floor level	Waterproof internal and external corners and horizontal joints within a height of 1800mm above the floor level with not less than 40mm width either side of the junction	Waterproof all penetrations
Enclosed shower with preformed shower base	N/A	Water resistant to a height of not less than 1800mm above finished floor level	Waterproof internal and external corners and horizontal joints within a height of 1800mm above the floor level with not less than 40mm width either side of the junction	Waterproof all penetrations
Unenclosed showers	Waterproof entire unenclosed shower area. Minimum horizontal distance of 1500mm (radius) from the shower rose.	Waterproof to not less than 150mm above the shower floor substrate or not less than 25mm above the maximum retained water level whichever is the greater with the remainder being water resistant to a height of not less than 1800mm above the finished floor level.	Waterproof internal and external corners and horizontal joints within a height of 1800mm above the floor level with not less than 40mm width either side of the junction.	Waterproof all penetrations
Areas outside the shower area for concrete and compressed fibre cement sheet flooring	Water resistant to entire floor	N/A	Waterproof all wall / floor junctions. Where a flashing is used the horizontal leg must be not less than 40mm	N/A
Areas outside the shower area for timber floors including particleboard, plywood and other timber based flooring materials	Waterproof entire floor.	N/A	Waterproof all wall / floor junctions. Where a flashing is used the horizontal leg must be not less than 40mm	N/A

IMPORTANT NOTES:

- If a shower is included above a bath, refer to the requirements for shower area walls and penetrations.
- N/A means not applicable. Wet areas waterproofing by licensed and accredited installer (eg Wet Seal).
- Certification to be provided to the Building Surveyor.
- Contractor or builder to determine the appropriate waterproofing in accordance with NCC Volume 2, H4D2 & H4D3 and to notify the Building Surveyor for inspection arrangements during installation.
- The above information is for general guidance and is indicative only.
Waterproofing installers to comply with all current codes of legislation which takes precedence over this specification.

NOTES TO THE OCCUPANT

Due to potential problems with condensation in residential buildings which can lead to structural damage over time and which may also be detrimental to the health of the occupants, the following strategies are recommended:

- Open windows every day for a few minutes especially when showering and cooking. Not every window needs to be opened, just those required to provide cross ventilation and extraction of moisture laden air;
- Ensure extractor fans are used every time when bathing;
- Ensure extractor fans are ducted to the outside; *
- Ensure non-condensing clothes dryers are ducted to the outside; **
- Install a rangehood or limit steam from cooking activities. i.e. by keeping lids on pots etc;
- Avoid the use of unflued gas heaters;
- Do not store large quantities of firewood inside the home in unventilated spaces;
- Avoid plants and water features in unventilated spaces;
- Ensure covers are kept on aquariums;
- Dry clothes in rooms that are warm, have adequate ventilation and are separated from the main house;

* these details are also noted on the plans for the builders.
or install separate air extractor on ceiling. However, direct ducting is recommended.

**

Vessels or area where the fixture is installed	Floor and horizontal surfaces	Walls	Wall junctions and joints	Penetrations
Areas adjacent to baths and spas for concrete and compressed fibre cement sheet flooring	Water resistant to entire floor	Water resistant to a height of not less than 150mm above the vessel and exposed surfaces below the vessel lip to floor level	Waterproof edges of the vessel and junctions of bath enclosure with floor. Where the lip of the bath is supported by a horizontal surface this must be waterproof for showers over bath and water resistant for all other cases	Waterproof all tap and spout penetrations where they occur in a horizontal surface.
Areas adjacent to baths and spas (see note 1) for timber floors including particleboard, plywood and other timber based flooring materials	Waterproof entire floor	Water resistant to a height of not less than 150mm above the vessel and exposed surfaces below the vessel lip to floor level	Waterproof edges of the vessel and junctions of bath enclosure with floor. Where the lip of the bath is supported by a horizontal surface this must be waterproof for showers over bath and water resistant for all other cases	Waterproof all tap and spout penetrations where they occur in a horizontal surface.
Inserted baths	N/A for floor under bath. Waterproof entire shelf area, incorporating waterstop under the bath lip and project not less than 5mm above the tile surface	N/A for wall under bath. Waterproof to not less than 150mm above the lip of the bath	N/A for wall under bath	Waterproof all tap and spout penetrations where they occur in a horizontal surface.
Walls adjoining other vessels (e.g. sinks, laundry tubs and basins)	N/A	Water resistant to a height of not less than 150mm above the vessel if the vessel is within 75mm of the wall	Where the vessel is fixed to a wall, waterproof edges for extent of vessel	Waterproof all tap and spout penetrations where they occur in a horizontal surface.
Laundries and WCs	Water resistant to entire floor	Waterproof all wall / floor junctions to not less than 25mm above the finished floor level, sealed to floor	Waterproof all wall / floor junctions. Where a flashing is used the horizontal leg must be not less than 40mm	N/A



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BAL - 19

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DRAWING: WET AREA SPECIFICATIONS

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN AT 10 ACHADERRY COURT, HOWRAH

TIMBER TYPE	THICKNESS (mm)	RECOMMENDED MAXIMUM JOIST SPACING (mm)
Kwila, jarrah, other hardwoods	19	500
Treated pine	22 dressed	450
	19 sawn (25 actual thickness)	500
Cypress	21	400
	25	500

BOLT TYPE	MAXIMUM ALLOWABLE DECK AREA SUPPORTED PER BOLT (m²) - REFER NOTES			
	Seasoned Hardwood (F17) Minimum timber thickness: 35mm		Treated Pine (F5) Minimum timber thickness: 35mm	
	Bearer to one side only (fig. 18)	Spaced Bearer (fig. 19)	Bearer to one side only (fig. 18)	Spaced Bearer (fig. 19)
M10	1.0	1.7	0.8	1.3
M12	1.3	2.0	1.0	1.5
M16	1.7	2.7	1.2	2.0
M20	2.1	3.4	1.5	2.5

TIMBER TYPE	STAIR WIDTH (mm)				
	750	1000	1200	1500	1800
	RECOMMENDED THICKNESS OF TREAD (mm)				
Treated Pine, Cypress	45	50	55	65	80
Jarraah, other hardwoods	45	45	45	55	60
	SCREW TYPE / NUMBER				
	3#10	3#10	3#10	3#12	3#12

INTERNAL	14 gauge, 75mm bugle screws into wall studs
EXTERNAL	M10 masonry anchors into masonry @ 600 centres

Decking Species	Joist Species	Nailing			
		Machine Driven		Hand Driven	
Hardwood, Cypress	Hardwood, Cypress	50 x 2.5 Flat Head		50 x 2.8 Flat Head	
	Seasoned Treated Pine, Oregon	50 x 2.5 DS Flat Head	65 x 2.5 Flat Head	50 x 2.8 DS Flat Head	65 x 2.8 Flat Head
Seasoned Treated Pine	Hardwood, Cypress	50 x 2.5 Flat Head		50 x 2.8 Flat Head	
	Seasoned Treated Pine, Oregon	50 x 2.5 DS Flat Head	65 x 2.5 Flat Head	50 x 2.8 DS Flat Head	65 x 2.8 Flat Head

1. Nails to be hot dipped galvanised or stainless steel (mechanical galvanised plated not recommended).
2. In areas subjected to extreme wetting and drying conditions (e.g. around swimming pools), consideration should be given to increasing the nail diameter and/or length.
3. Dome head nails may be used in lieu of flat head nails.

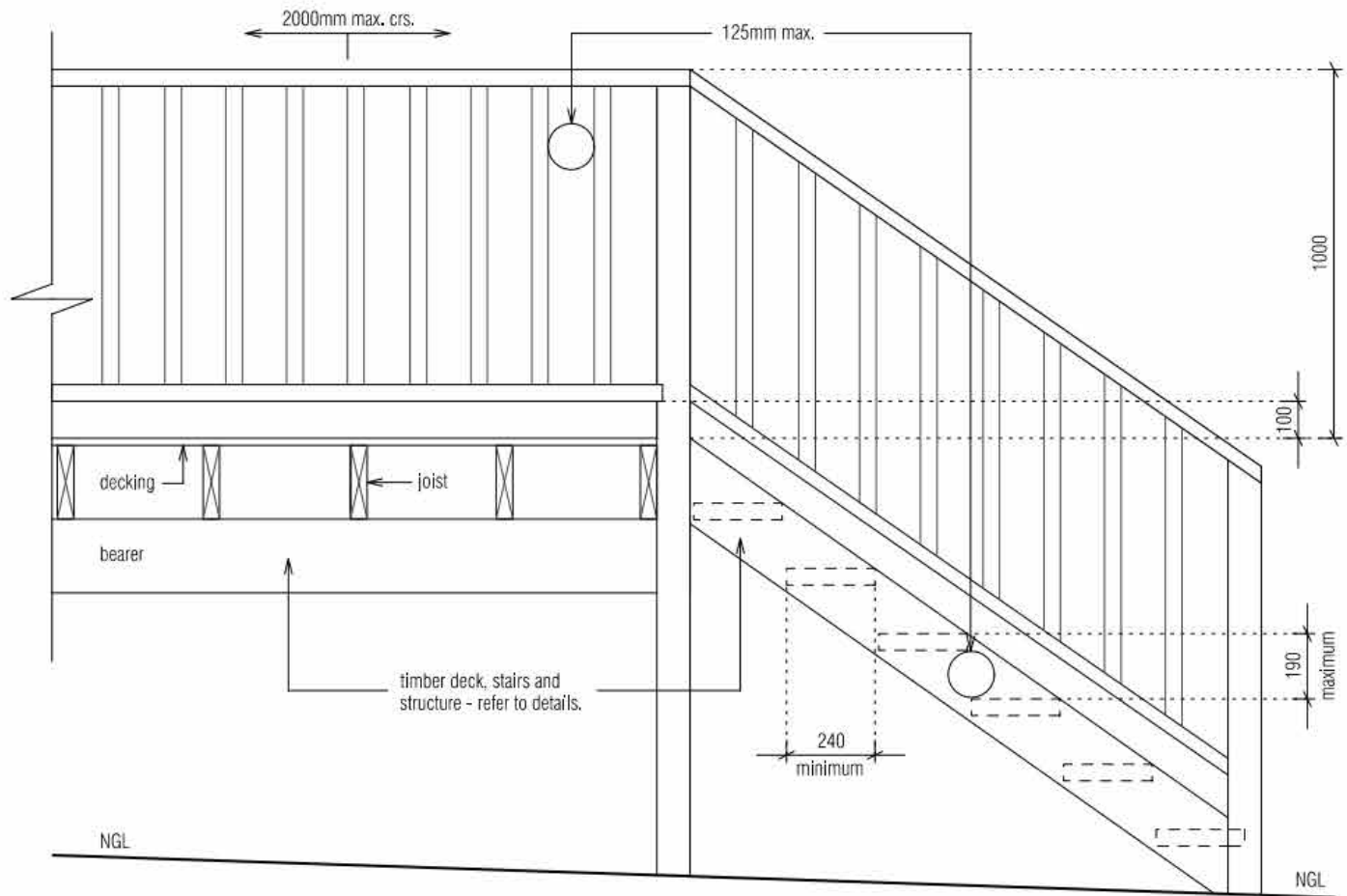


Diagram illustrating two alternative methods for fixing timber stair treads:

- Left Diagram:** Shows a stringer with a routed slot (nominal 10mm) for the tread to sit into. The tread is fixed with screws.
- Right Diagram:** Shows a stringer with a 60 x 38 cleat (refer to timber stair tread fixing table) attached. The tread is fixed with screws to the cleat.



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BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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DRAWING: STAIR NOTES

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

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PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH



TASSIE HOMES

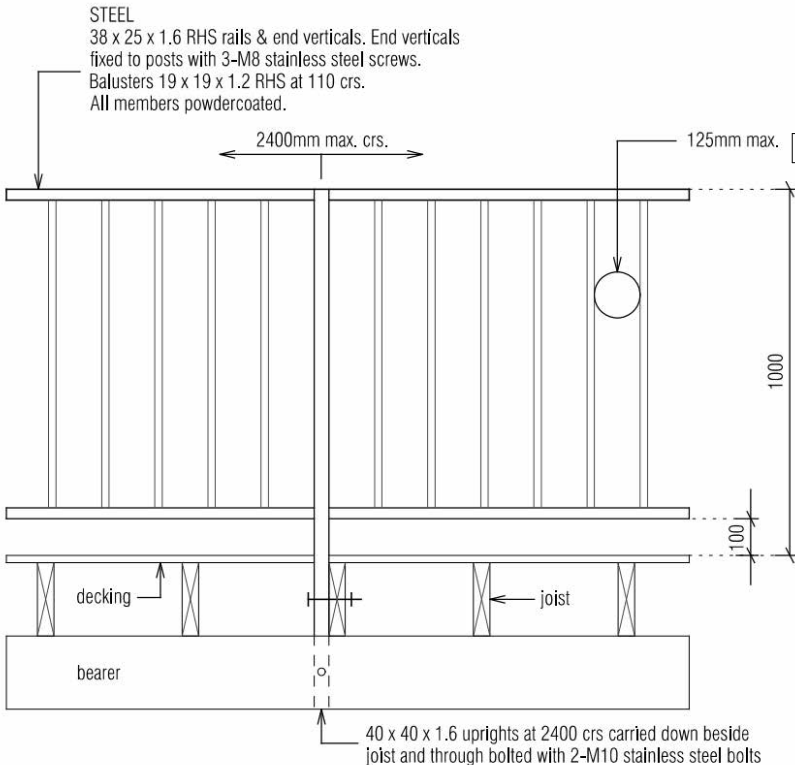
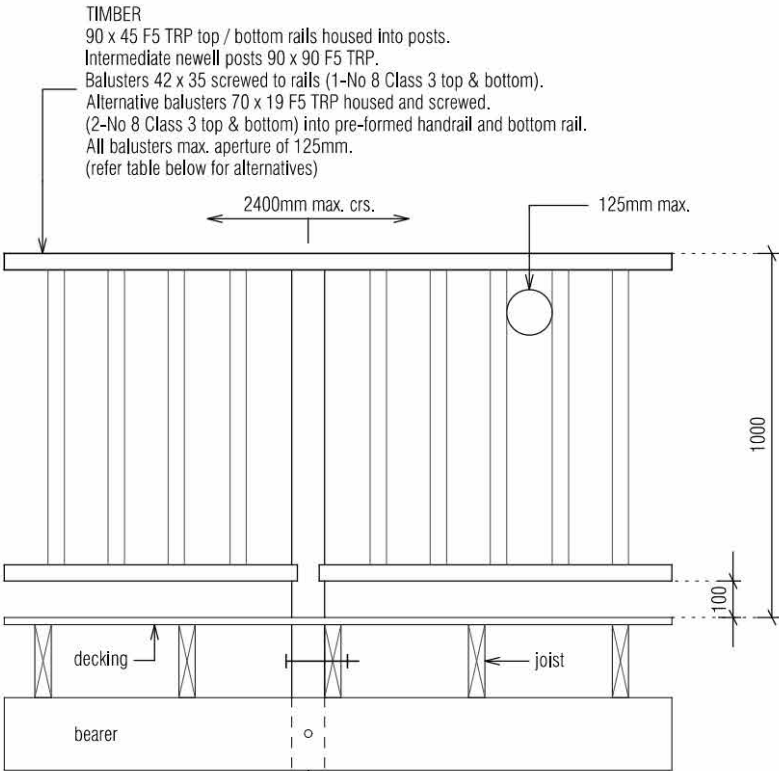
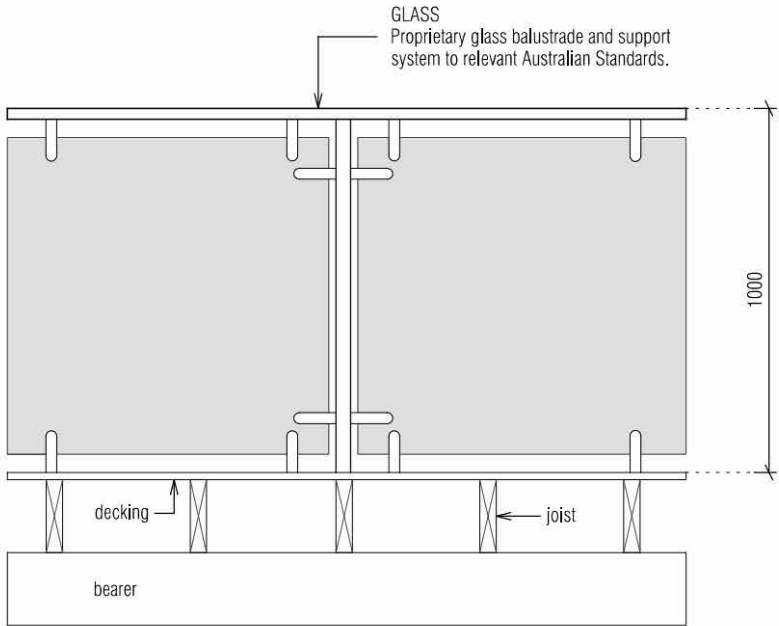
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TIMBER STRINGERS

TIMBER TYPE	SECTION* SIZES (mm)	STAIR WIDTH (mm)				
		750	1000	1200	1500	1800
		MAXIMUM NUMBER OF RISERS				
Treated Pine, Cypress	190 x 35	10	8	8	7	6
	190 x 45	11	10	9	8	7
	240 x 35	12	11	10	9	8
	240 x 45	14	12	11	10	9
	290 x 35	15	13	12	11	10
	290 x 45	17	15	14	12	11
Jarrah, other hardwoods or Kwila	190 x 35	13	12	11	10	10
	190 x 45	14	13	12	11	11
	240 x 35	16	15	14	13	12
	240 x 45	18	16	15	14	13
	290 x 35	18	18	17	16	15
	290 x 45	18	18	8	17	16

* Sizes stated are minimum sizes.

NOTE:
The building regulations limit the number of risers in a single flight of stairs to a maximum of 18.

SIZES OF HANDRAILS

HANDRAIL TIMBER	SUPPORT SPACING (mm)				
	900	1200	1500	1800	2400
	RECOMMENDED HANDRAIL SIZE* (mm)				
Treated Pine, Cypress	70 x 35 70 x 45	120 x 35 70 x 45	170 x 35 70 x 45	290 x 35 140 x 45	240 x 45
Jarrah, other hardwoods	70 x 35 70 x 45	70 x 35 70 x 45	90 x 35 70 x 45	170 x 35 90 x 45	290 x 35 140 x 45
Kwila	70 x 35 70 x 45	70 x 35 70 x 45	70 x 35 70 x 45	170 x 35 70 x 45	290 x 35 120 x 45

*Section sizes can be used in either a vertical or horizontal position.

- NOTES:
- Handrails for 900, 1200 and 1500mm support spacings have been designed as continuous over two spans (continuous lengths of 1800, 2400 and 3000mm respectively).
 - The sizes shown are minimum allowable dressed sections sizes. Sections sizes shall not be less than those stated.

- * WIRE HANDRAILS AS PER CLAUSE 11.3.6 OF N.C.C.
* STAIR BALUSTRADES MIN 865mm ABOVE NOSE OF STAIR TREAD

TYPICAL SHRINKAGE VALUES FOR DECKING BOARDS

TIMBER TYPE	BOARD WIDTH (mm)	APPROXIMATE SHRINKAGE (mm)
Kwila	70	2 (unseasoned)
Jarrah	65	0 (seasoned)
		5 (unseasoned)
Treated Pine	70	0 (seasoned)
Cypress	70	2 (unseasoned)

EXAMPLE:
For a 6mm final gap using 70mm Kwila decking boards, the required spacer thickness would be 6 - 2 = 4mm

BAL - 19
See sheet 12 for
Bushfire Attack Level
construction requirements

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PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN
AT 10 ACHADERRY COURT, HOWRAH

11b

Construction shall be in accordance with Bushfire Attack Level 19 (BAL-19) as specified in AS 3959-2018 Construction of Buildings in Bushfire Prone Areas, Sections 3 and 5.

SUBFLOOR shall be either slab-on-ground or timber on isolated piers with brick perimeter. The standard does not provide construction requirements for either of these subfloor construction methods. Refer section 6.3.1 for detail.

EXTERNAL WALLS shall be timber framing, externally lined with sarking and clad with brick veneer or Weathertex cladding respectively. (Weathertex is stated as having a density of 990kg/m3. Any exposed timber shall bushfire resistant timber (AS 3959-2018 Appendix E1 or Appendix F compliant). Compliant timbers include Tas Oak (as Messmate, Peppermint & Manna Gum) or Southern Blue Gum as long as the density is 750 kg/m3 or greater. Refer section 6.4.1 for detail.

JOINTS IN EXTERNAL WALLS are to be covered, sealed, overlapped, backed or butt-jointed to prevent gaps greater than 3mm. Refer section 6.4.2 for detail.

VENTS, WEEPHOLES AND GAPS IN EXTERNAL WALLS greater than 3mm are to be fitted with 2mm minimum aperture, corrosion resistant steel, bronze or aluminium mesh. Aluminium mesh or perforated sheet cannot be used for the ember guards. Refer section 6.4.3 for detail.

BUSHFIRE SHUTTERS when used, shall protect the whole window/door assembly and shall be fixed to the building and be non-removable with gaps no greater than 3mm between the shutter and the wall, sill or head. They must be manually openable from either inside or outside. They shall be made of non-combustible material or bushfire resistant timber (AS 3959-2018 Appendix F compliant). Perforations must have an area no greater than 20% of the shutter and be uniformly distributed with gaps no greater than 3mm (or no greater than 2mm when the openable portion of the window is not screened).

SCREENS shall be fitted internally or externally to openable portions of windows. Screens shall be aluminium framed with 2mm minimum aperture, corrosion resistant steel, bronze or aluminium mesh. No gaps between the perimeter of the screen assembly and the building are to be greater than 3mm. Refer section 6.5.1A for detail. Alternatively, compliant bushfire shutters may be installed.

WINDOWS AND GLAZED SLIDING DOORS and their frames, joinery and architraves can be aluminium framed but can also be metal reinforced PVC-U (Aluminium, stainless steel or corrosion resistant steel and frame and sash satisfy the design load) which is shown to be bushfire resistant or bushfire resistant timber (AS 3959-2018 Appendix E2 or Appendix F compliant). Compliant timbers include Celery Top, Blackwood, Myrtle, Southern Blue Gum, some Tas Oak (as Messmate, Alpine Ash, Mountain Ash, Silvertop Ash, Peppermint & Manna Gum) or Plantation Ash (as Shining Gum) as long as the density is 650 kg/m3 or greater.

Glazing less than 400mm from the ground or less than 400mm above decks, carport roofs, veranda roofs and awnings which have an angle less than 18 degrees extending more than 110mm in width from the window frame shall be a minimum of 5mm toughened glass or glass blocks with no restrictions on glazing method. When using double glazing this requirement applies to the external face only. Openable parts of windows to be fitted with compliant screening either internally or externally that comply with 6.5.1A. Glazing above 400mm (when specific glazing is not required by other relevant Standards) may use annealed glass which is fully screened in compliance with 6.5.1A. Sliding doors shall be glazed with a minimum of 5mm toughened glass. Refer section 6.5.2 for detail. Alternatively, compliant bushfire shutters may be installed. Care should be taken to ensure that the energy assessor for this project is aware of the minimum glazing requirements for this BAL classification so as to avoid conflict with glazing specifications.

SIDE HUNG EXTERNAL DOORS can be either non-combustible or solid timber with a minimum thickness of 35mm, or hollow core with a non-combustible kick plate on the outside for the first 400mm above the threshold. Glazed doors including French doors and bi-fold must have glazing that complies with the glazing requirements for windows and the frame can be aluminium framed or metal reinforced PVC-U (Aluminium, stainless steel or corrosion resistant steel and frame and sash satisfy the design load) which is shown to be bushfire resistant or bushfire resistant timber (AS 3959-2018 Appendix E2 or Appendix F compliant). Compliant timbers include Celery Top, Blackwood, Myrtle, Southern Blue Gum, some Tas Oak (as Messmate, Alpine Ash, Mountain Ash, Silvertop Ash, Peppermint & Manna Gum) or Plantation Ash (as Shining Gum) as long as the density is 650 kg/m3 or greater. Refer section 6.5.3 for detail.

DOOR JAMBS AND ARCHITRAVES can be aluminium framed or metal reinforced PVC-U (Aluminium, stainless steel or corrosion resistant steel and frame and sash satisfy the design load) which is shown to be bushfire resistant or bushfire resistant timber (AS 3959-2018 Appendix E2 or Appendix F compliant). Compliant timbers include Celery Top, Blackwood, Myrtle, Southern Blue Gum, some Tas Oak (as Messmate, Alpine Ash, Mountain Ash, Silvertop Ash, Peppermint & Manna Gum) or Plantation Ash (as Shining Gum) as long as the density is 650kg/m3 or greater. Doors must be tight-fitting to the door jamb (and to the abutting door where applicable). Weather strips or draught excluders shall be installed to all side-hung external doors.

GARAGE DOORS must be fully non-combustible or have the lower portion of the door which is within 400mm of the ground be non-combustible. Panel lift, tilt or side hung doors shall be fitted with weather strips, draught excluders or guide tracks as appropriate to the door type with gaps no greater than 3mm. Roller doors shall have guide tracks with gaps no greater than 3mm or fitted with a nylon brush that is in contact with the door. Refer section 6.5.5 for detail. Door shall not include ventilation slots.

ROOF shall be timber framing, lined with sarking on the outside of the frame and clad with corrugated colorbond cladding. Any gaps under ribs or roof components such as roof eave, ridge, fascia and wall junctions are to be sealed with 2mm aperture corrosion resistant, steel, bronze or aluminium mesh, or filled with mineral wool to prevent openings greater than 3mm. Refer section 6.6.1, 6.6.2 & 6.6.3 for detail.

VERANDAH, CARPORT OR AWNING ROOFS forming part of the main roof shall meet the requirements of the main roof. Refer section 6.6.4 for detail.

ROOF PENETRATIONS such as skylights, vent pipes and aerials that penetrate the roof shall be sealed (non-combustible) to prevent openings greater than 3mm. Openable and vented skylights or vent pipes shall be fitted with 2mm aperture corrosion resistant, steel, bronze or aluminium mesh ember guards. All overhead glazing shall be Grade A safety glass complying with AS1288. Refer section 6.6.5 for detail.

EAVES LINING, FASCIA AND GABLES shall be cement sheet or equivalent non-combustible material and sealed to prevent openings greater than 3mm. Gables shall comply with Clause 6.4. Eaves penetrations shall be protected the same as for roof penetrations, as per 6.6.5. Eaves ventilation openings greater than 3mm shall be fitted with ember guards made of non-combustible material or a mesh or perforated sheet with a maximum aperture of 2mm, made of corrosion-resistant steel, bronze or aluminium. Refer section 6.6.6 for detail.

GUTTERS AND DOWNPIPE materials and requirements are not specified in the standard for BAL-19 with the exception of box gutters which shall be non-combustible. Gutter and valley leaf guards are not a requirement of the standard but they are strongly recommended. If installed, they must be non-combustible. Refer section 6.6.7 for detail.

VERANDAH AND DECK SUPPORTS AND FRAMING can be timber construction as there are no construction requirements in the standard for BAL-19. Decking may be spaced or un-spaced and the sub-floor either enclosed or unenclosed. If the decking is spaced it is assumed that the spacing shall be 3mm nominal spacing with an allowance of between 0-5mm due to seasonal changes. If the deck sub-floor is enclosed, then all materials less than 400mm from the ground shall be non-combustible. Refer section 6.7.1, 6.7.2 & 6.7.3 for detail.

VERANDAHS, DECKS, STEPS, LANDINGS AND RAMPS and their elements can be timber construction as there are no construction requirements for BAL-19 except for elements less than 300mm horizontally and 400mm vertically from glazed elements which must be bushfire resistant timber (AS 3959-2018 Appendix E1 or Appendix F compliant) or equivalent non-combustible material. Compliant timbers include Tas Oak (as Messmate, Peppermint & Manna Gum) or Southern Blue Gum as long as the density of 750kg/m3 or greater. An acceptable solution would be to line the area with cement sheet with ceramic tiles over. Refer section 6.7.2.4 for detail.

BALUSTRADES AND HANDRAILS can be timber construction as there are no construction requirements in the standard for BAL 19. Refer section 6.7.4 for detail.

WATER AND GAS SUPPLY PIPING where it is above ground and exposed shall be metal. Refer section 6.8 for detail.

TH

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BAL - 19

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DRAWING: B.A.L. CONSTRUCTION REQUIREMENTS

DATE: 27 May 2026
FILE NAME: H1417 - BA - Rev C - 130726
DRAWN BY: CK
DWG No:

PROPOSED HOUSE FOR CHODOR KANDY & SADANANDAN AT 10 ACHADERRY COURT, HOWRAH

Scale

Prepared for:
Tassie Homes

10 Achaderry Court
HOWRAH

FLOOD HAZARD REPORT

FE_26120
07 July 2026

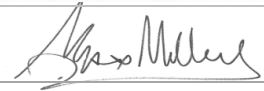


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Document Information

Title	Client	Document Number	Project Manager
10 Achaderry Court, Howrah Flood Hazard Report	Tassie Homes	FE_26120	Max W. Möller <i>BEng, FIEAust, EngExec, CPEng, NER, APEC Engineer, IntPE (Aus.) Managing Director / Principal Hydraulic Engineer</i>

Document Initial Revision

REVISION 00	Staff Name	Signature	Date
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Prepared by	Fraser Cumming <i>Graduate Civil Engineer</i>		30/06/2026
Reviewed by	John Holmes <i>Senior Engineer</i>		07/07/2026
Authorised by	Max W. Möller <i>Principal Hydraulic Engineer</i>		07/07/2026

Document Revision

Rev No.	Description	Prepared by	Authorised by	Date

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1. Introduction

Flüssig Engineers has been engaged by Tassie Homes, to undertake a site-specific Flood Hazard Report for the development at 10 Achaderry Court, Howrah in the Clarence City Council municipality.

The purpose of this report is to provide a detailed comparison of the flood behaviour for both the existing and proposed development scenarios under the 1% AEP plus climate change storm event. The assessment identifies any changes in flood depth, velocity and hazard across the site and recommends construction measures where required to ensure the development meets acceptable flood risk standards.

1.1 Development

The proposed development includes the construction of a single residential dwelling with a floor area of approximately 133 m², together with associated timber deck, porch, ramp and landing areas. The dwelling is proposed to be elevated on piers/columns. The proposal also includes a 38 m² suspended concrete parking area/driveway to the north-east of the dwelling.

1.2 Objectives and Scope

This report is written to meet the requirements under C12.0 Flood Prone Areas Hazard Code of the Tasmanian Planning Scheme. The objectives of this study are:

- Provide an assessment of the site's flood characteristics under the combined 1% AEP plus climate change (CC) scenario.
- Provide comparison of flooding for post-development against acceptable solution and performance criteria.
- Provide flood mitigation recommendations for the proposed development, where appropriate.

1.3 Scope Limitations

This study is limited to the objectives of the engagement by the clients, the availability and reliability of data, and including the following:

- The flood model is limited to a 1% AEP + CC worst case temporal design storm.
- All parameters have been derived from best practice manuals and available relevant studies (if applicable) in the area.
- All provided data by the client or government bodies for the purpose of this study is deemed fit for purpose and has not been checked for accuracy.
- The study is to determine the effects of the new development on flooding behaviour and should not be used as a full flood study outside the specified area without further assessment.

1.4 Relevant Planning Scheme Requirements

Table 1. TPS Planning Scheme Requirements

Planning Scheme Code	Objective
C12.5.1 Uses within a flood prone hazard area	That a habitable building can achieve and maintain a tolerable risk from flood.
C12.6.1 Building and works within a flood prone area	(a) building and works within a flood-prone hazard area can achieve and maintain a tolerable risk from flood; and (b) buildings and works do not increase the risk from flood to adjacent land and public infrastructure.

2. Model Build

2.1 Overview of Catchment

Upstream of 10 Achaderry Court in Howrah, has a contributing catchment of approximately 12.6 ha. The land use within this catchment area is Landscape Conservation, Open Space and Utilities, with the study site zoned as General Residential.

Figure 1 below outlines the immediate contributing catchment for 10 Achaderry Court, Howrah.



Figure 1. Immediate Contributing Catchment, 10 Achaderry Court, Howrah

2.2 Hydrology

The following Table 2 states the adopted hydrological parameters for the RAFTS catchment.

Table 2. Parameters for RAFTS catchment

Catchment Area (ha)	Initial Loss Perv/imp (mm)	Continuing Loss Perv/imp (mm/hr)	Manning's n pervious	Manning's n impervious	Non-linearity factor
12.6	28-15/1	3.7-2/0.0	0.1	0.02	-0.285

2.2.1 Design Rainfall Events

Figure 2 shows the box and whisker output of the model run. The model shows that the 1% AEP 10 min storm, temporal pattern 2 was the worst-case median storm. Therefore, this storm event was used within the hydraulic model.

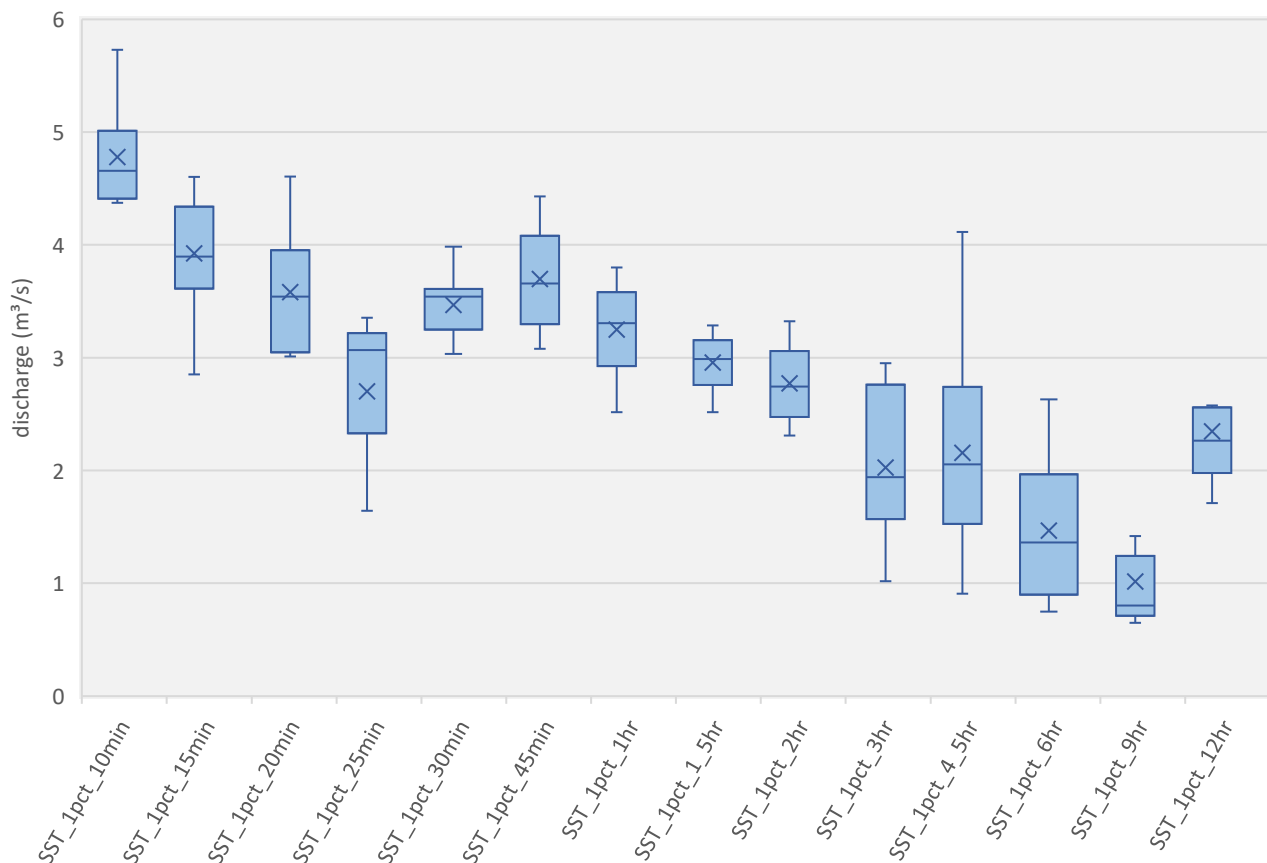


Figure 2. 1% AEP Flood Event Model, Box and Whisker Plot.

2.2.2 Climate Change

The ARR 2019 Guide for Flood Estimation, Version 4.2, is regarded as the industry standard for assessing projected increases in rainfall under climate change conditions for the year 2100 scenario.

According to the guide, a multiplication factor of 1.86 is adopted for rainfall durations of less than 1 hour under the SSP5-8.5 at 2100 scenario for the localised catchment. This factor accounts for the anticipated intensification of extreme rainfall events due to climate change impacts and is generally adopted by councils which is shown below in Table 3.

Table 3. Climate Change Increases

Parameter	Localised Catchment SSP5-8.5 @ 2100
<1 - hour Rainfall Intensity	86% Increase

2.2.3 Calibration/Validation

This catchment has no stream gauge to calibrate the model against a real-world storm event. Similarly, there is little historical information available, and no past flood analysis undertaken to validate against the flows obtained in the model.

2.3 Hydraulics

A detailed one-dimensional–two-dimensional (1D–2D) hydraulic model was developed to simulate and quantify flood behaviour across the target study area. The 1D component of the model was configured to represent the existing pipe and channel network, enabling accurate routing of flows through defined hydraulic structures such as stormwater pits, culverts and pipe connections. This ensured that

conveyance within the formal drainage system was properly captured, including surcharge behaviour during periods of high flow.

2.3.1 Calibration/Validation

This catchment has no stream gauge to calibrate the model against a real-world storm event. Similarly, there is little historical information available, and no past flood analysis undertaken to validate against the flows obtained in the model.

2.3.2 Survey

The 2D surface model was taken from a combination of Clarence LiDAR 2019 (Geoscience Australia) and site survey to create a 1m and cell size DEM. For the purposes of this report, 1m cells are enough to capture accurate flow paths. The DEM with hill shading can be seen below (Figure 3).

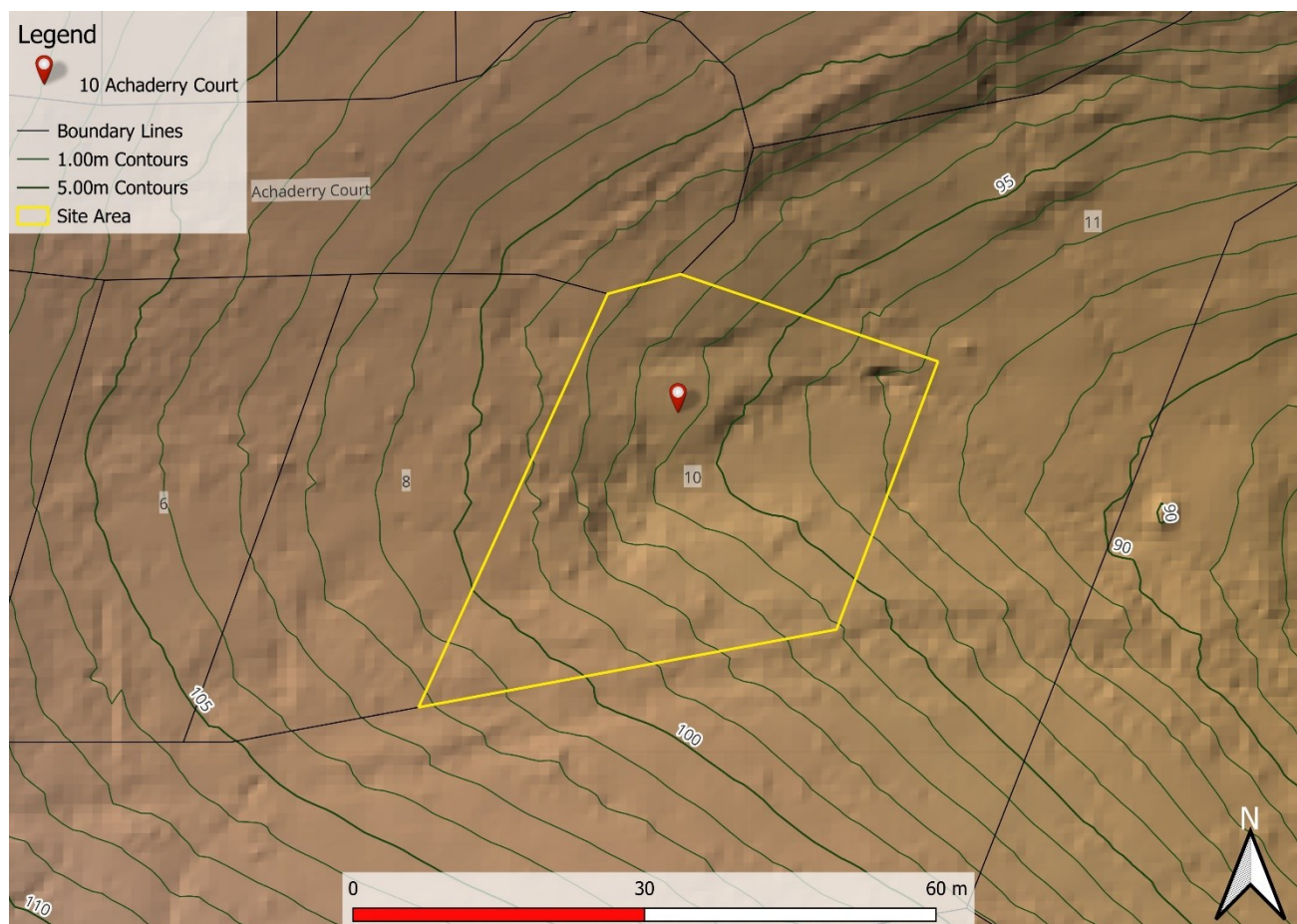


Figure 3. 1m DEM (Hill shade) of new development Area

2.3.3 Roads

Roads often form the basis for overland flow in high frequency events; however, the kerb and channel are not always picked up by the DEM surface. To correct for the drainage lines, mesh polygons were used to delineate road corridors with the roads incorporating a z-line along the gutter to ensure the kerb invert is represented in the mesh.

2.3.4 Buildings

Specifically, residential houses and commercial buildings were integrated into the DEM by elevating the corresponding grid cells representing these structures by a standardised height of 0.3 meters above the natural ground surface. Subsequently, the re-sampled grids were utilised to establish the Infoworks ICM model, thus forming a foundational framework for the subsequent analysis and simulation of flood dynamics.

This method allows for flow through the building if the flood levels/ pressure become great enough. The aim is to mimic flow through passageways such as doors, windows, and hallways.

2.3.5 Walls

All significant fences and retaining structures were incorporated into the 2D model as 2D linear wall elements. Pallet fences were modelled with a maximum height of 250 mm, representing the estimated depth at which they are likely to collapse during a 1% AEP rainfall event. Solid material walls were modelled using a realistic height to reflect their structural integrity and expected behaviour under flood conditions.

2.3.6 Structures

In the process of crafting a two-dimensional grid to depict the ground surface of the floodplain, we initiated by re-sampling high-resolution LiDAR data to generate a digital elevation model (DEM) through the utilisation of GIS software.

Within this procedure, the attention was directed towards identifying and incorporating pertinent features such as residential structures, commercial buildings, walls, and roadways. Ensuring the comprehensive inclusion of these features within the re-sampled DEM was of utmost importance.

2.3.7 Roughness (Manning's n)

The model grid's roughness and equivalent Manning's n values were derived from land use data. Table 4 shows Manning's values used in the model. Values for this layer were derived from the ARR 2019 Guidelines. These parameters have proven effective in previous flood mapping projects undertaken in Tasmania.

Table 4. Manning's Coefficients (ARR 2019)

Land Use	Roads	Open Channel	Rural	Residential	Parks	Buildings	Piped Infrastructure
Manning's n	0.018	0.035	0.04	0.045	0.05	0.3	0.013

3. Model Results

3.1 Pre-Development Scenario

Figure 4 provides a detailed analysis of the flood extent at No. 10 Achaderry Court, Howrah. The primary focus is on the overland flow path from the northwest and southwest sides of the property. The assessment examines the potential impact on the proposed development.

The overland flow path has been assessed to determine its impact on the property, and those adjacent following construction of the proposed development.

The dwelling lies within an overland flood path where floodwaters enter the site from the north originating from the street and also from the west and south from the Rokeby Hills. Overland flow from the north and west travel through the site towards the eastern lot boundary, with the existing Colourbond fence on the southern lot boundary restricting the flow from the southerly direction and preventing some of the flood water from entering the site from this overland flow path.

The depth of flooding reaches a maximum of approximately 0.14 m in the centre of the lot where the overland flow paths converge, with deeper depths in the north-east corner of the property of up to 0.35 m due to the impediment of the existing fence obstructing the flow on this side.

The flood extent analysis for No. 10 Achaderry Court, Howrah, indicates that the overland flow path from the north and west results in surface flooding of approximately 0.1 – 0.3 m which is considered relatively shallow, however, due to the topography of the site with an average slope of approximately 13%, this results in a maximum velocity of 1.9 – 2.1 m/s in the centre of the lot.

Hazard classifications within the lot are a majority of H1, with an area of H2 flooding on the north-eastern fence line and a small area of H5 in the centre of the lot. This H5 area is due to velocity of the flood water measuring just above the H5 threshold of 2.0 m/s.

3.2 Post-Development Scenario

Figure 5 provides a post-development analysis of flood risks at No. 10 Achaderry Court, Howrah, focusing on the flood extent of the overland flow paths that affect the lot. The analysis includes the impact on the proposed development and recommendations for mitigating flood risks.

The post-development hydraulic modelling results for the 1 % AEP + Climate Change (2100) scenario indicate that No. 10 Achaderry Court remains influenced by the site's natural topography, which forms a natural depression in the centre of the lot collecting flow from multiple directions and flowing in a westerly direction.

The proposed paling fence on the western lot boundary results in minor localised changes to depth and velocity on the western side of the fence. However, these impacts are contained to a small area due to the natural slope towards the development lot to the east. Some of the overland flow originating from the south is intersected by the proposed paling fence on the western boundary, resulting in a minor reduction in floodwater entering the site from this direction.

Floodwaters continue to flow across the natural overland flow path through the centre of the lot before becoming impeded by the existing fence on the north-eastern boundary, resulting in minor ponding before continuing along the natural overland flow path towards the east. The proposed dwelling is constructed on piers, allowing the free passage of floodwater beneath the building footprint and maintaining the natural overland flow path through the site. The maximum flood depth within the building footprint is approximately 0.14 m, which is relatively unchanged from the pre-development scenario.

Hydraulic results show minimal alteration to overall flood behaviour following development. The introduction of the pier-supported dwelling and the new driveway have only a minor influence on the local flow distribution, with small increases in depth on the western side of the proposed paling fence. The overland flow path remains largely consistent with pre-development conditions, and the broader catchment flow continues to be conveyed without redirection or significant obstruction.

Hazard mapping indicates that there is no increase in hazard classification or extent within the lot or on surrounding properties. The small area of H5 hazard previously present in the centre of the lot under the pre-development scenario is removed in the post-development scenario, with the majority of the site remaining within H1 hazard and only localised H2 hazard near the north-eastern boundary. This is attributed to the elevated dwelling form and the minor redistribution of flow through the site, while maintaining the natural overland flow path beneath the building footprint.

In summary, while the elevated dwelling design provides effective protection from inundation, the surrounding land continues to act as a flood conveyance and storage zone. The development must therefore adopt resilient materials and engineering detailing to ensure both the structural integrity of the dwelling supports without adversely affecting the downstream hydraulic system.

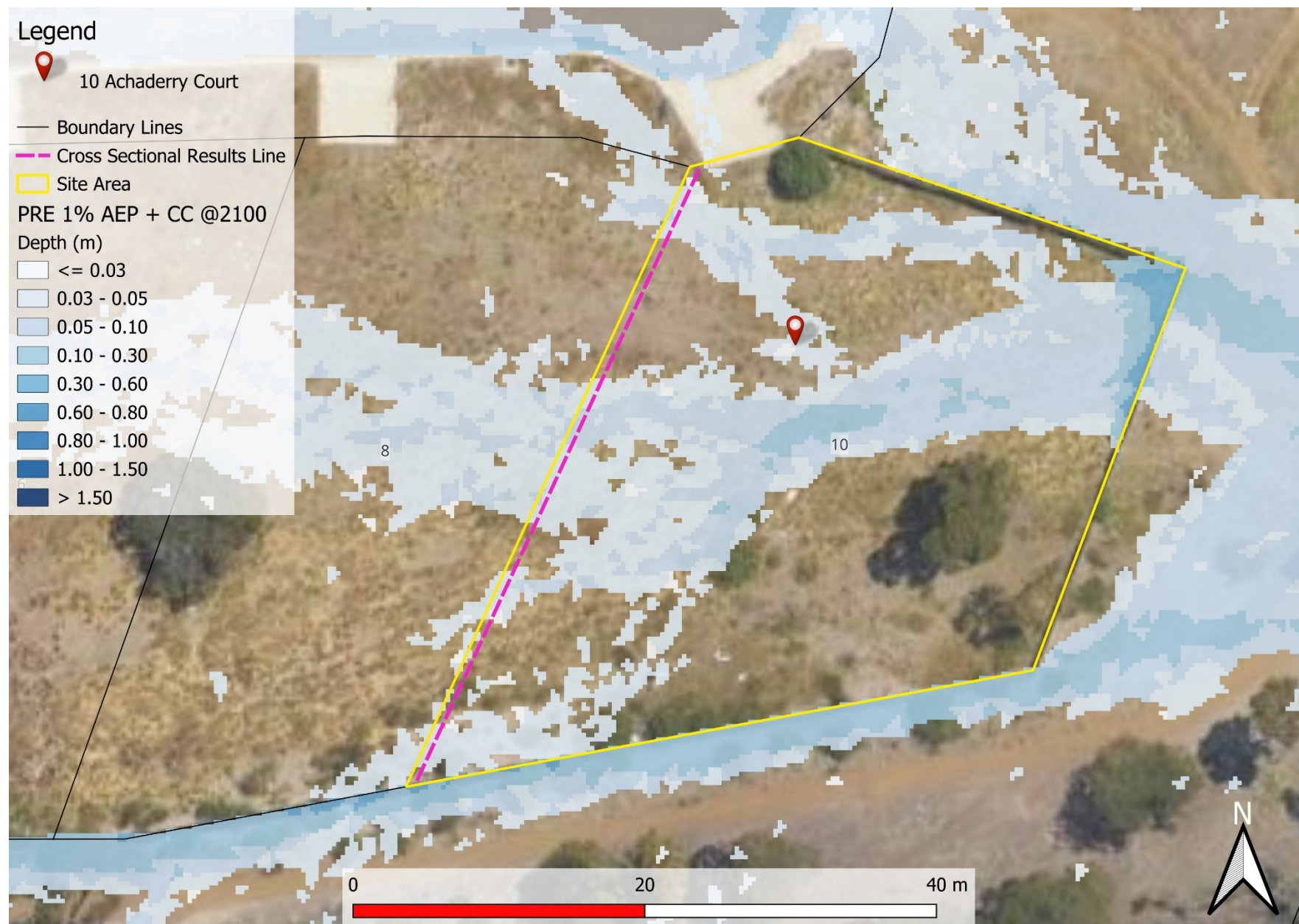


Figure 4. Pre-Development 1% AEP + CC Depth

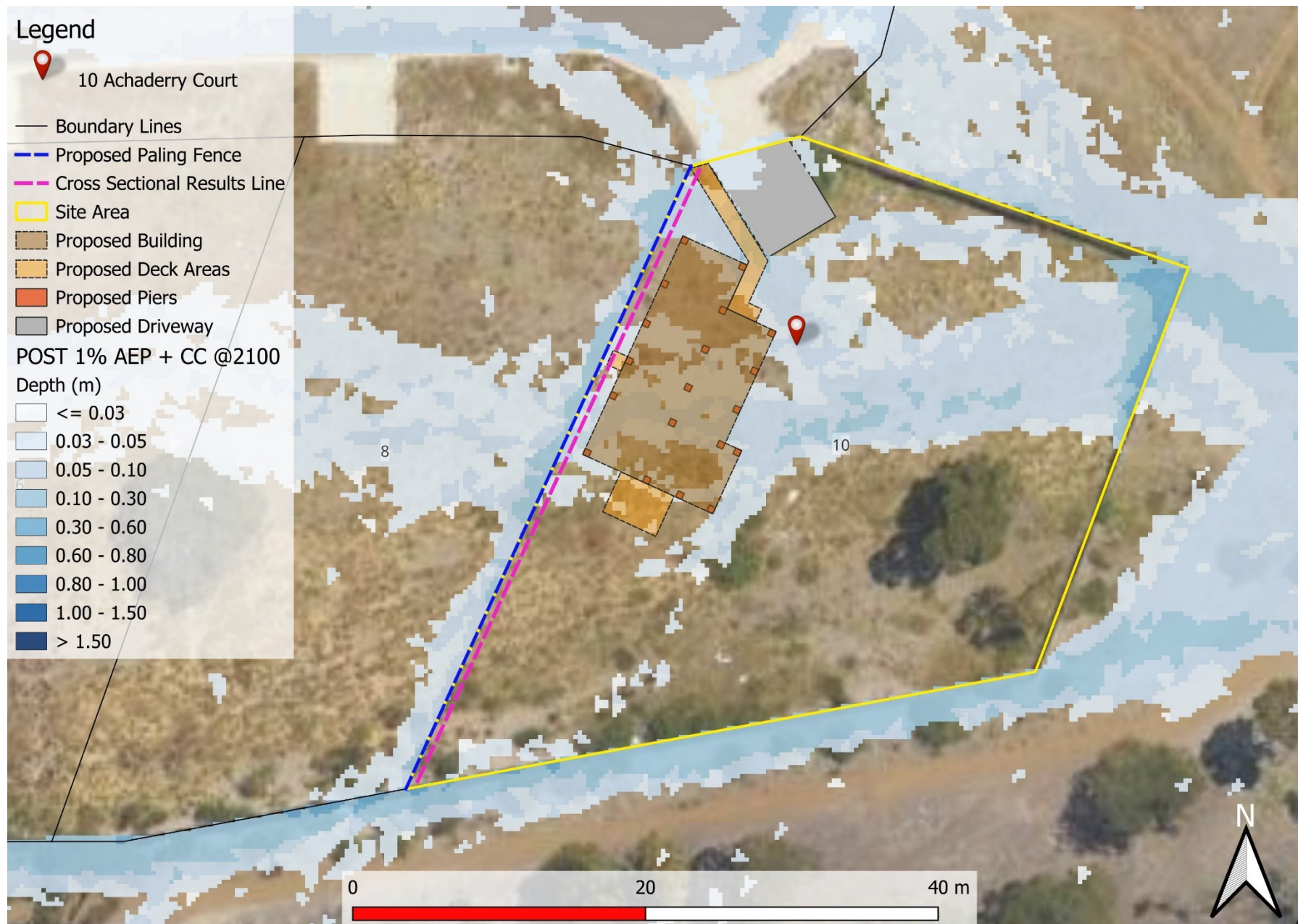


Figure 5. Post-Development 1% AEP + CC Depth

3.3 Displacement of Overland Flow on Third Party Property

Post-development flows in Figure 5 show that when compared against pre-development flows in Figure 4, there is minimal change to the overland flow path. It is further evident that there is minimal increase in flood depth or extent on neighbouring lots in the vicinity of the development site, with only a small area on the western side of the proposed paling fence into number 8 Achaderry Court. This minor increase in depth in lot 8 Achaderry is only contained adjacent to the proposed paling fence and does not increase in the risk of flooding in this lot or result in a detrimental impact on the existing flood conditions.

It is therefore deemed that the post-development model does not adversely affect flood flow through the surrounding properties with minimum property flow displacement.

3.4 Development Effects on Flooding

When comparing the pre-development and post-development flood model scenarios, flood depth at the cross-sectional result line remains unchanged at approximately 0.08 m. This indicates that the proposed dwelling, which is constructed on piers, maintains the free passage of overland flow beneath the building footprint.

Figure 6 shows the net discharge hydrograph from the cross-sectional result line on the western lot boundary. The peak discharge in the pre-development scenario is $0.76 \text{ m}^3/\text{s}$, increasing slightly to $0.78 \text{ m}^3/\text{s}$ in the post-development scenario. This represents a minor increase of $0.02 \text{ m}^3/\text{s}$. The maximum velocity increases by 0.50 m/s , from 0.92 m/s in the pre-development scenario to 1.42 m/s in the post-development scenario. This is primarily due to the proposed paling fence resulting in a minor build-up and redistribution of floodwater before passing into the development lot.

As flood depths remain unchanged and the increase in discharge is minor, the post-development scenario has little overall effect on flooding. The proposed development is therefore considered to have no adverse impact on surrounding properties or stormwater infrastructure.

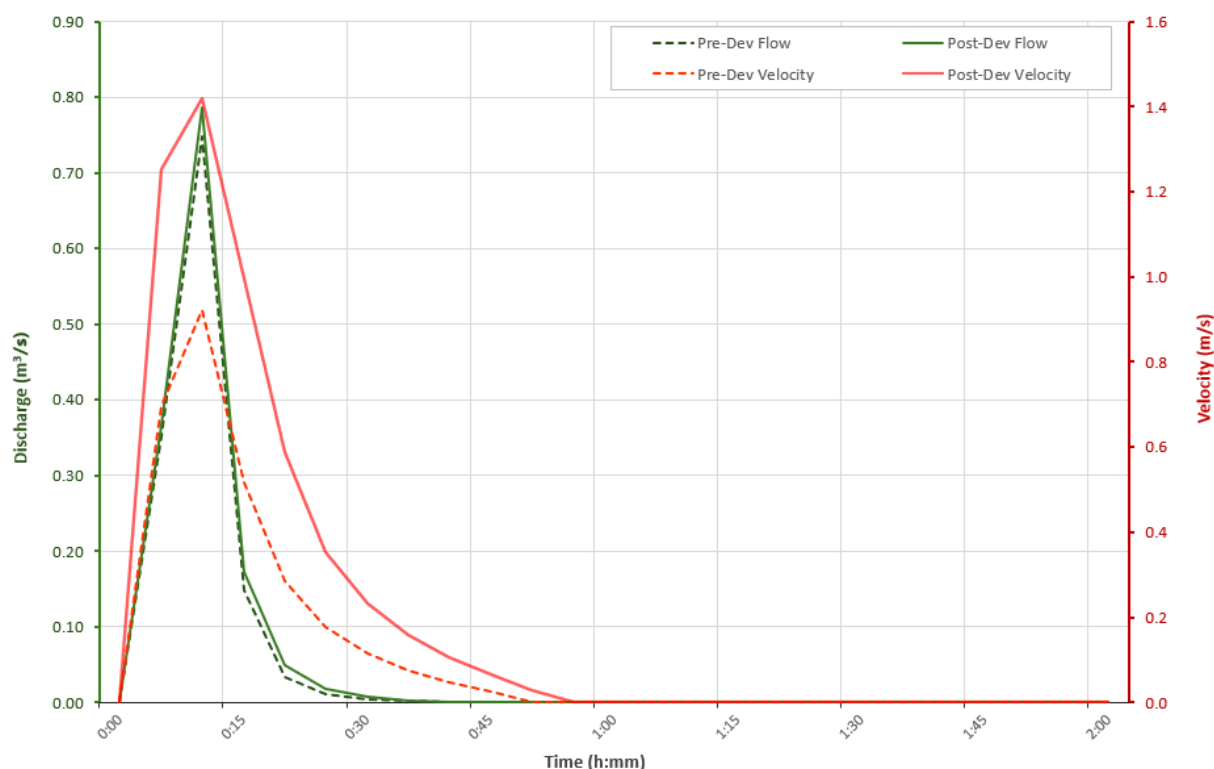


Figure 6. Pre and Post Development Net Discharge 1% AEP +CC

3.5 Model Summary

Table 5. Pre- and post-development results at the cross-sectional line

	Pre-development	Post-development	Net Change
Depth (m)	0.08	0.08	-
Velocity (m/s)	0.92	1.42	+ 0.50
Discharge (m ³ /s)	0.76	0.78	+0.02

3.6 New Habitable Building

To meet the performance criteria of the Building Regulations S.54, the construction of a new dwelling is required to have a habitable floor level >300mm above the >1% AEP + CC flood level. The proposed dwelling at 10 Achaderry Court, Howrah must meet this regulation as shown Table 6. (The floor level >1% AEP + CC flood level + 300mm does not apply for non-habitable areas).

Table 6. Habitable floor construction levels of proposed building.

Structure	1% AEP +CC flood level (mAHD)	Minimum Floor Level required (mAHD)
Proposed dwelling	98.90	99.20

4. Flood Hazard

According to the Australian Flood Resilience and Design Handbook classification is presented in Figure 7, the combined depth and velocity place the majority of the site within a maximum of H1 hazard category, indicating conditions that are generally safe for people, vehicles and buildings.

In the pre-development scenario, a small area of H5 hazard is present in the centre of the lot. This is a result of localised velocities slightly exceeding 2.0 m/s, which increases the hazard classification to H5 despite the relatively shallow flood depths in this area. A small area of H2 hazard is also present near the north-eastern boundary fence. The remainder of the inundated areas within the lot are predominantly classified as H1.

In the post-development scenario, the small area of H5 hazard in the centre of the lot is reduced to H1. This is due to the minor redistribution of flow through the site, with the proposed paling fence and dwelling piers altering the local flow distribution and slightly reducing velocities through the centre of the lot.

Floodwaters are shown to pass around and beneath the proposed dwelling footprint, consistent with the active overland flow path shown in the hazard mapping. A small area of H2 hazard remains near the north-eastern boundary fence in both the pre-development and post-development scenarios. This area is away from the proposed dwelling and does not affect the habitable floor area.

As this study does not extend to the public access roads we cannot comment on the accessibility to the site, only within the site. Therefore, this report would advise that residents and visitors remain inside in the event of a flood unless instructed by emergency services.

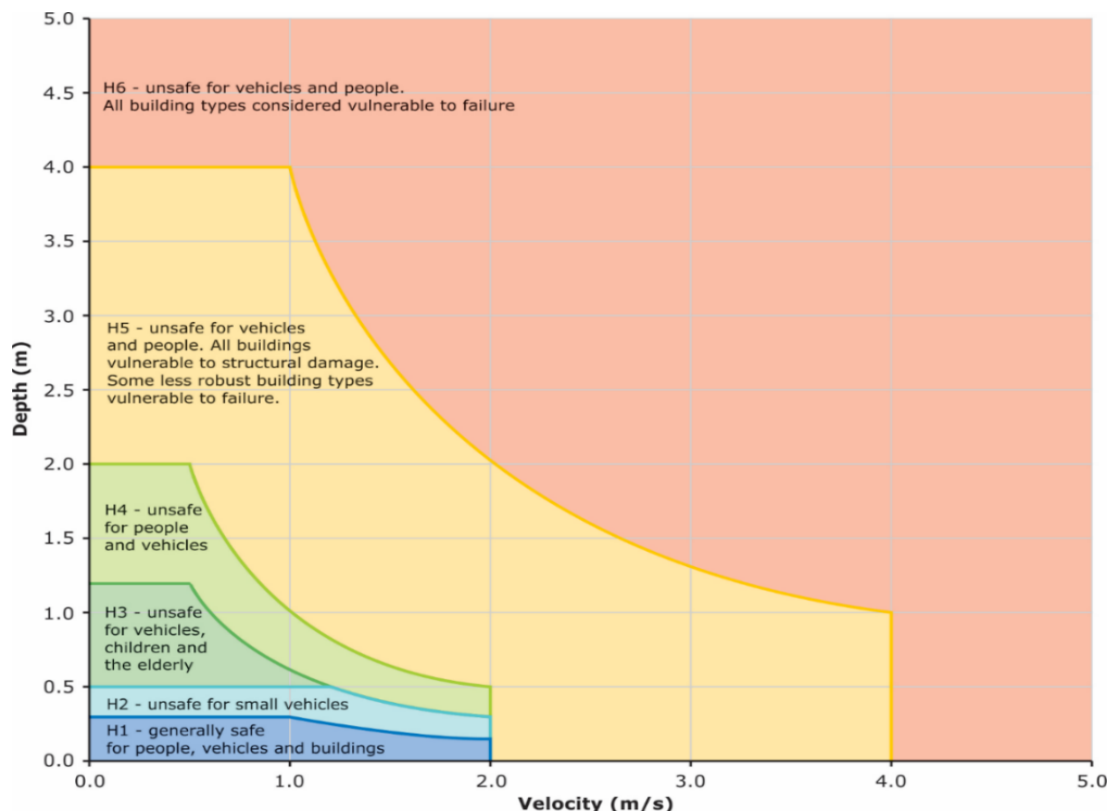


Figure 7. Hazard Categories Australian Disaster and Resilience Handbook

4.1 Tolerable Risk

Flood analysis for the proposed dwelling at 10 Achaderry Court, Howrah indicates that the site lies within a broad, low-lying floodplain subject to relatively shallow moderately moving inundation during the 1% AEP + CC event. Most of the immediate surroundings fall within H1 hazard classifications, while localised pockets of H2 near the north-east boundary fence. The elevated pier design will mitigate direct impacts to the overland flow path allowing the flood water to pass unimpeded underneath the dwelling.

The combination of depth and flow movement can generate local erosion and transport of debris. For this reason, the construction must be robust and flood-resilient, ensuring that foundations, pier supports, and driveway materials can withstand inundation, scour, and minor impact forces.

In the event of a major flood the most secure option for occupants is to shelter in place within the elevated dwelling until floodwaters recede or official evacuation advice is issued by emergency management authorities. The structural design must therefore prioritise occupant safety and building stability under such conditions.

Provided these design measures and recommendations are implemented, the proposed Class 1A habitable structures (BCA 2022) can achieve a tolerable level of flood risk over its design life while maintaining safety for occupants during extreme flood events.

5. Response to the Tasmanian Planning Scheme

Table 7. Tasmanian Planning Scheme summary C12.5.1

C12.5.1 Uses within a flood prone hazard area			
Objectives: That a habitable building can achieve and maintain a tolerable risk from flood			
Performance Criteria			
P1.1		P1.1	
A change of use that, converts a non-habitable building to a habitable building, or a use involving a new habitable room within an existing building, within a flood-prone hazard area must have a tolerable risk, having regard to:		Response from flood report	
(a)	the location of the building;	(a)	Proposed dwelling and driveway are located within a shallow flood hazard area of up to H1 classification.
(b)	the advice in a flood hazard report;	(b)	Assuming recommendations of this report are implemented, no additional flood protection measures required for the life expectancy of the building.
(c)	any advice from a state authority, regulated entity or a council;	(c)	N/A
P1.2		P1.2	
A flood hazard report also demonstrates that:		Response from flood report	
(a)	any increase in the level of risk from flood does not require any specific hazard reduction or protection measures;	(a)	No increase in level of risk from pre-development scenario.
(b)	the use can achieve and maintain a tolerable risk from a 1% annual exceedance probability flood event for the intended life of the use without requiring any flood protection measures	(b)	Maximum hazard rating within the lot in the post-development scenarios is H2 which is only a small area near the northeast boundary fence away from the proposed dwelling and driveway access. This can be considered as having a tolerable risk if recommendations of this report are implemented.

Table 8. Tasmanian Planning Scheme summary C12.6.1

C12.6.1 Building and works within a flood prone area			
Objective: (a) building and works within a flood-prone hazard area can achieve and maintain a tolerable risk from flood; and, (b) buildings and works do not increase the risk from flood to adjacent land and public infrastructure.			
Performance Criteria			
P1.1		P1.1	
Buildings and works within a flood-prone hazard area must achieve and maintain a tolerable risk from a flood, having regard to:		Response from flood report	
(a)	the type, form, scale and intended duration of the development;	(a)	Proposed residential dwelling and driveway
(b)	whether any increase in the level of risk from flood requires any specific hazard reduction or protection measures;	(b)	Assuming recommendations of this report are implemented, no additional flood protection measures required for the life expectancy of a habitable building.
(c)	any advice from a State authority, regulated entity or a council; and	(c)	N/A
(d)	the advice contained in a flood hazard report.	(d)	Flood report and recommendations provided within.
Performance Criteria			
P1.2		P1.2	
A flood hazard report also demonstrates that the building and works:		Response from Flood Report	
(a)	do not cause or contribute to flood on the site, on adjacent land or public infrastructure; and	(a)	Does not increase flooding extents and depths within the site, nor does the proposed development have a detrimental impact on adjacent land or public infrastructure.
(b)	can achieve and maintain a tolerable risk from a 1% annual exceedance probability flood event for the intended life of the use without requiring any flood protection measures.	(b)	Assuming recommendations of this report, the proposed site and development can achieve a tolerable risk to the 1% AEP storm event for the life expectancy of the buildings.

6. Conclusion

This assessment has been undertaken with consideration of the Flood-Prone Areas Hazard Code provisions of the Tasmanian Planning Scheme. The assessment considers the proposed single residential dwelling, associated deck areas and suspended concrete parking area/driveway under the 1% AEP plus climate change flood event.

The proposed dwelling is elevated on piers, allowing the existing natural overland flow path to be maintained beneath the building footprint. The hydraulic assessment indicates that the proposed development results in only minor localised changes to flood behaviour, primarily associated with redistribution of flow around the proposed paling fence and development footprint. The broader overland flow path through the site remains generally consistent with pre-development conditions.

Hazard mapping indicates that the majority of the site remains subject to low flood hazard conditions, generally classified as H1. The small area of H5 hazard present in the centre of the lot under pre-development conditions is reduced to H1 in the post-development scenario due to localised redistribution of flow and slightly reduced velocities through this area. A localised area of H2 hazard remains near the north-eastern boundary fence, away from the proposed habitable floor area.

The proposed development does not result in a material increase in flood levels, flood hazards, flow velocities or flood risk to adjoining properties or public infrastructure. Subject to the recommendations outlined within this report, the proposed development is considered capable of achieving and maintaining a tolerable level of flood risk over its intended design life and is consistent with the relevant requirements of the Tasmanian Planning Scheme.

7. Recommendations

Flüssig Engineers therefore recommends the following engineering design be adopted for the development and future use to ensure the works meets the Flood Prone Areas Hazard Code:

1. The new dwelling development to have a minimum floor level as described in Table 6.
2. The proposed dwelling is to be constructed on piers to maintain the natural overland flow path beneath the building footprint.
3. The dwelling piers, footings and associated structural elements within the inundation area are to be designed by a suitably qualified structural engineer to resist the flood forces, debris loading, scour and localised erosion conditions identified in this report.
4. The subfloor area beneath the dwelling is to remain clear of obstructions, including enclosed walls, storage, or other works that may impede overland flow.
5. Future use of lot areas to be limited to areas deemed safe under the ARR Disaster manual categories.
6. All future proposed structures within the flood extent not shown within this report will require a separate report addressing their impacts.

8. Limitations

Flüssig Engineers were commissioned by Tassie Homes to prepare a site-specific Flood Hazard Report for 10 Achaderry Court, Howrah, in accordance with C12 Flood Prone Areas Hazard Code of the Tasmanian Planning Scheme. This assessment has been undertaken using the best available data and modelling information at the time of preparation and is considered suitable for its intended purpose.

The results, findings, and interpretations contained in this report are based on the existing site conditions, available LiDAR surface data, hydraulic modelling, and other third-party information provided to Flüssig Engineers. Should any aspect of the site, catchment, or proposed development design change, including modifications to ground levels, drainage patterns, or surrounding infrastructure, the flood behaviour and associated risks may also change. In such cases, this report must be re-evaluated and updated to reflect those modifications before further use.

This report must be read and used in its entirety. It may not be quoted, reproduced, or relied upon in part or for any purpose other than that expressly stated within, unless prior written consent is obtained from Flüssig Engineers.

Flüssig Engineers accepts no responsibility or liability for errors or inaccuracies arising from information supplied by external sources, third-party consultants, or other data providers used in preparing this report. The outcomes and conclusions presented herein are valid only for the conditions and assumptions explicitly described in this document.

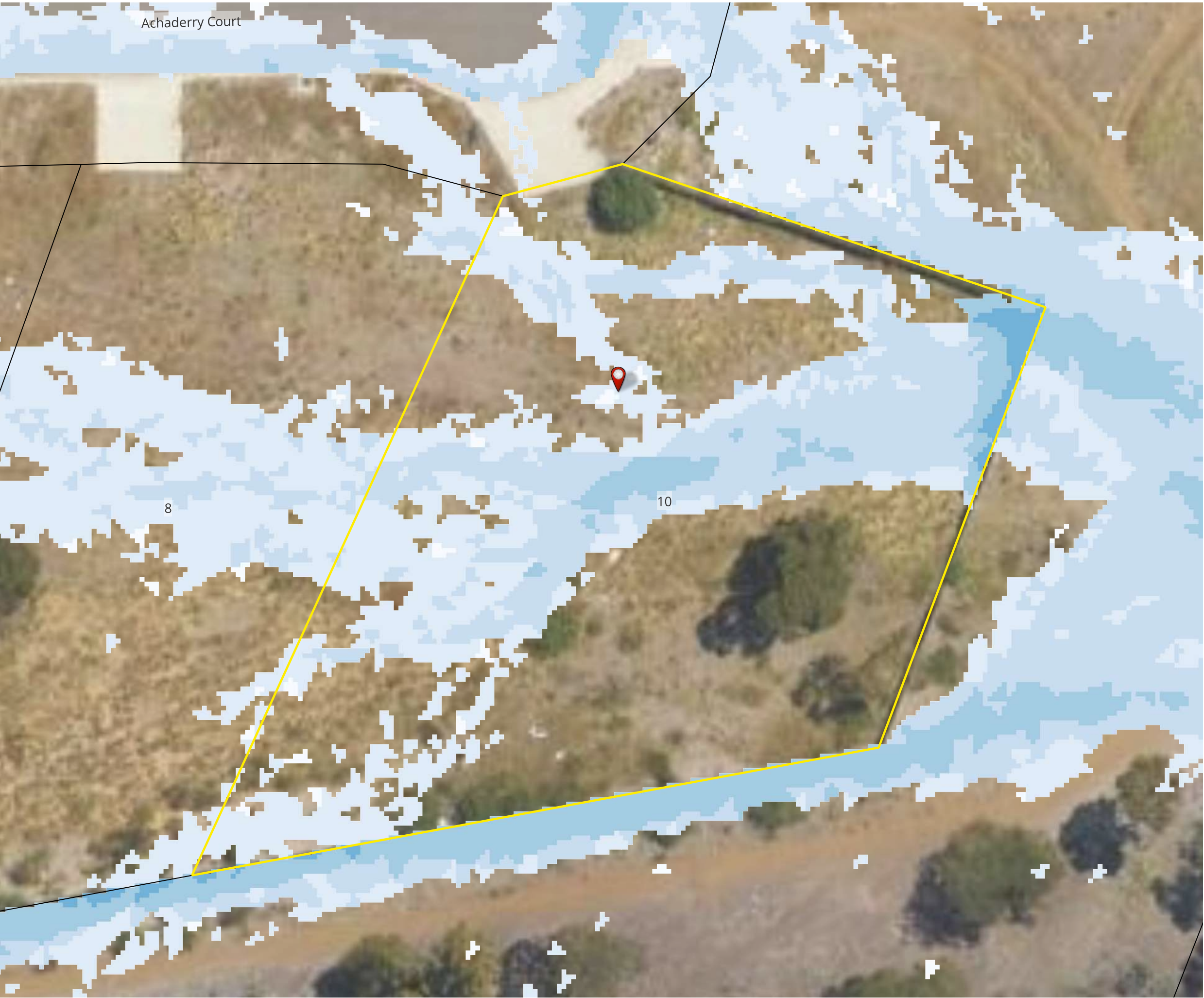
9. References

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Appendices

Appendix A Flood Study Maps

PRE 1% AEP + CC @2100



Legend

 10 Achaderry Court

 Boundary Lines

 Site Area

PRE 1% AEP + CC @2100

Depth (m)

	<= 0.03
	0.03 - 0.05
	0.05 - 0.10
	0.10 - 0.30
	0.30 - 0.60
	0.60 - 0.80
	0.80 - 1.00
	1.00 - 1.50
	> 1.50



0 7 14 m

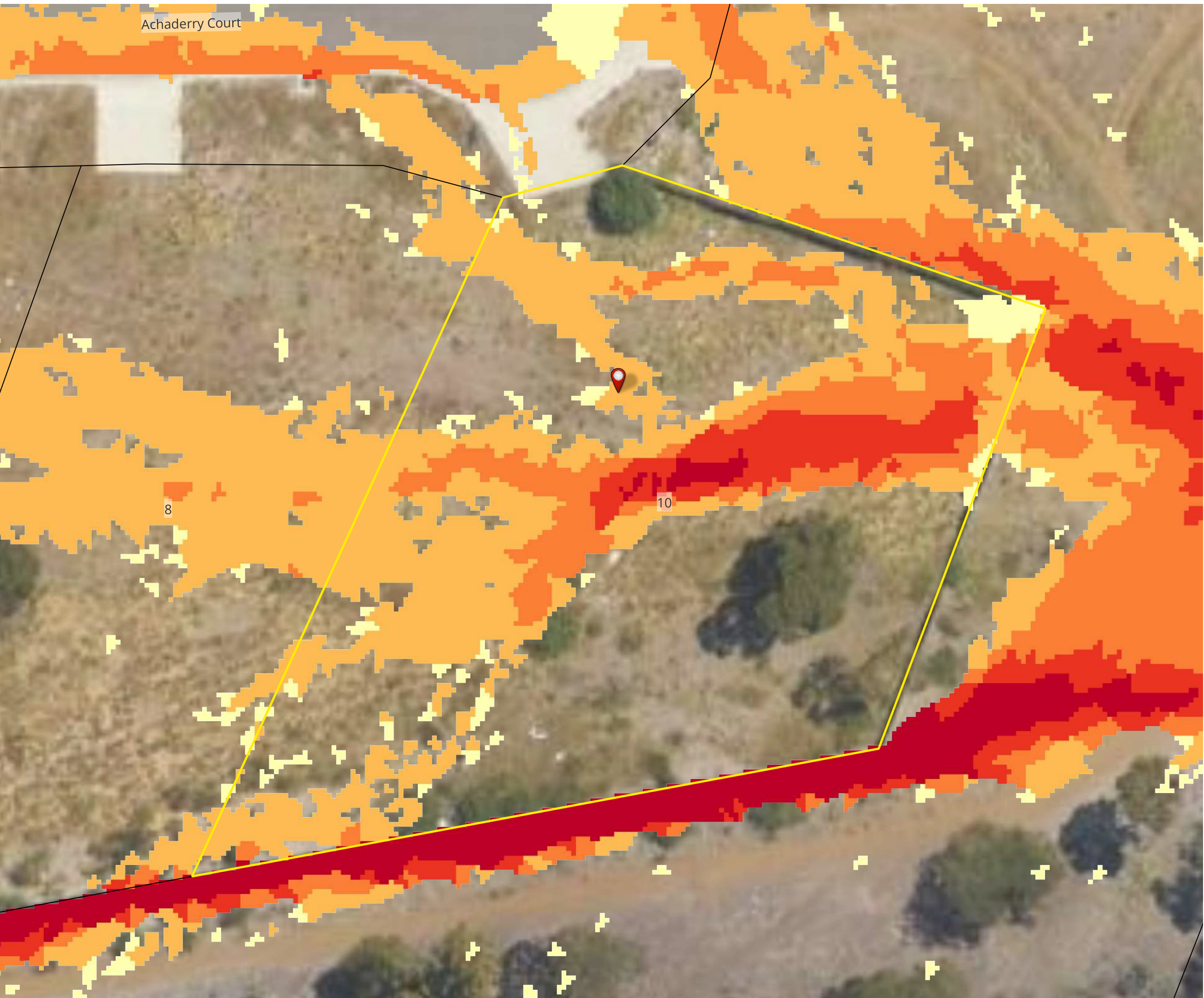
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PRE 1% AEP + CC @2100



Legend

 10 Achaderry Court

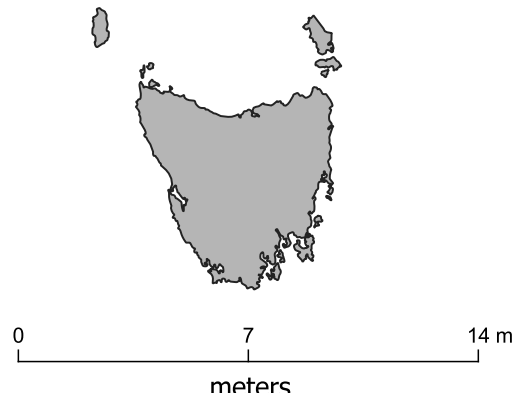
 Boundary Lines

 Site Area

PRE 1% AEP + CC @2100

Velocity (m/s)

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	1.50 - 2.00
	> 2.00

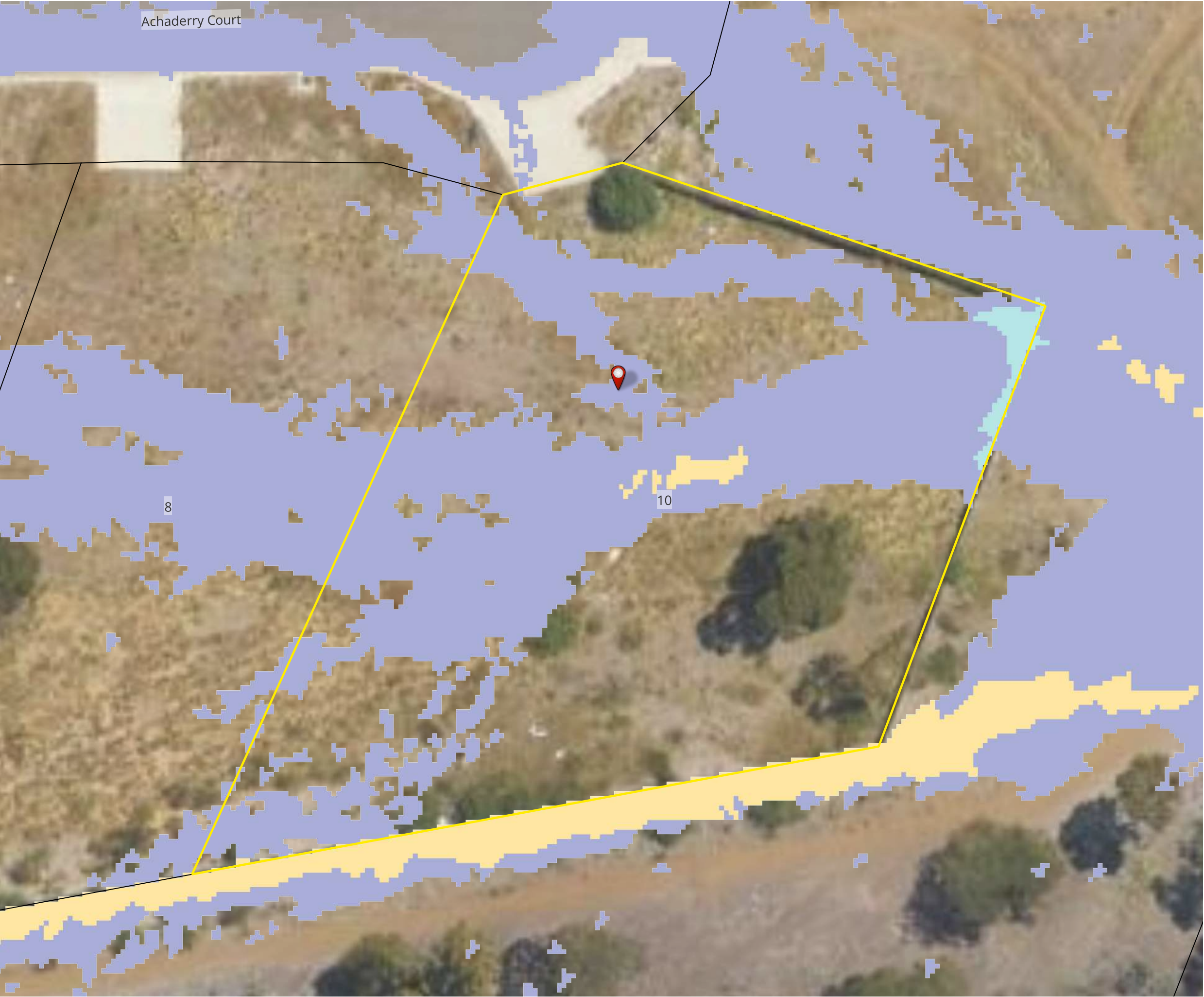




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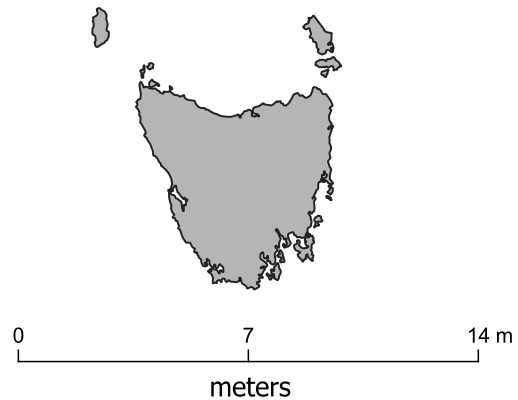
Boundary Lines

Site Area

PRE 1% AEP + CC @2100

Hazard

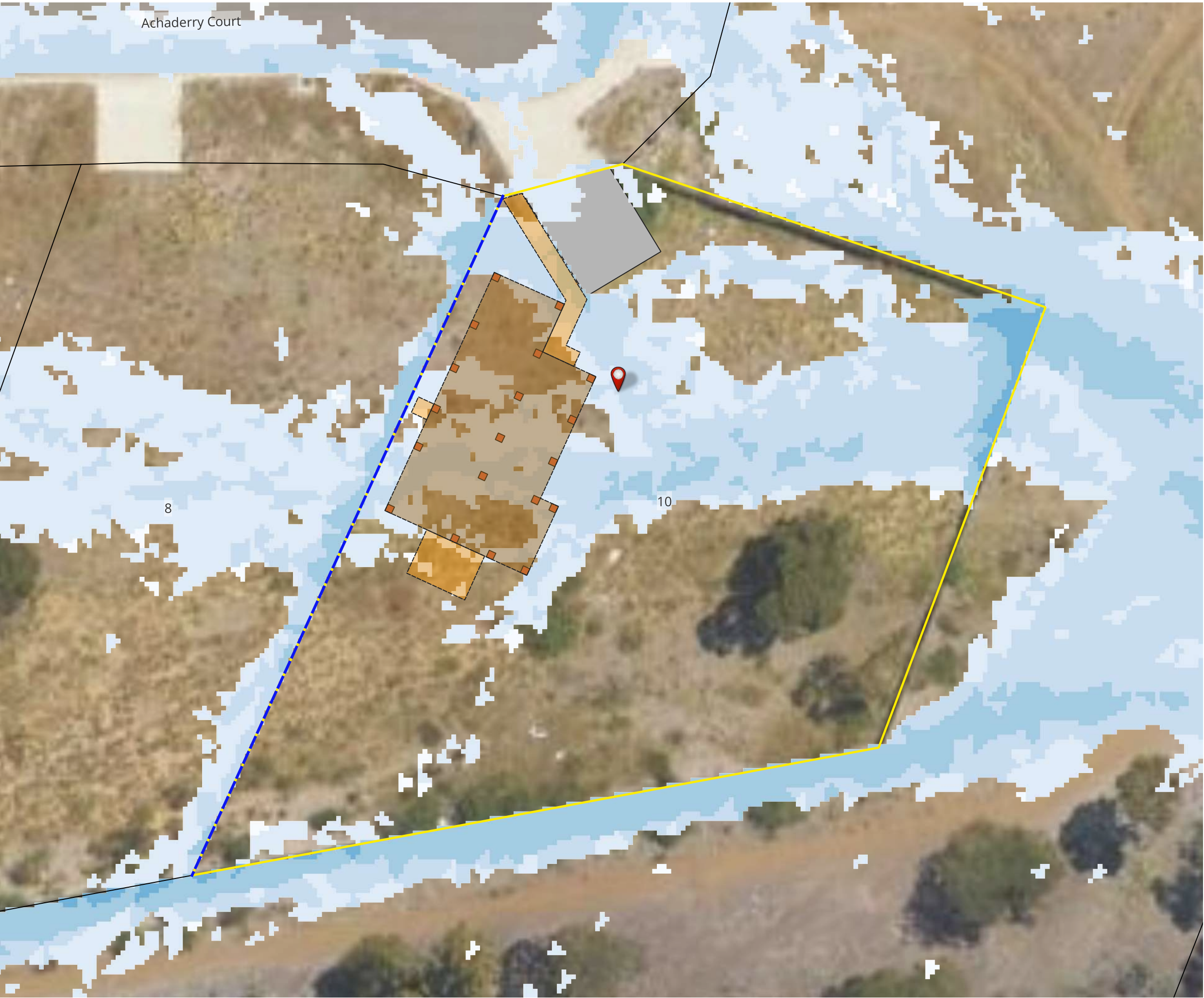
- H1
- H2
- H3
- H4
- H5
- H6



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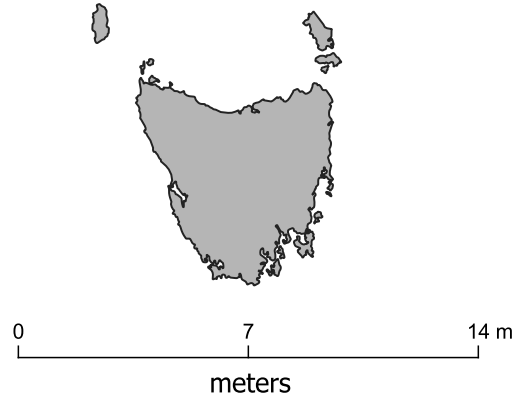
Legend

- 10 Achaderry Court
- Boundary Lines
- Proposed Piling Fence
- Site Area
- Proposed Building
- Proposed Deck Areas
- Proposed Piers
- Proposed Driveway

POST 1% AEP + CC @2100

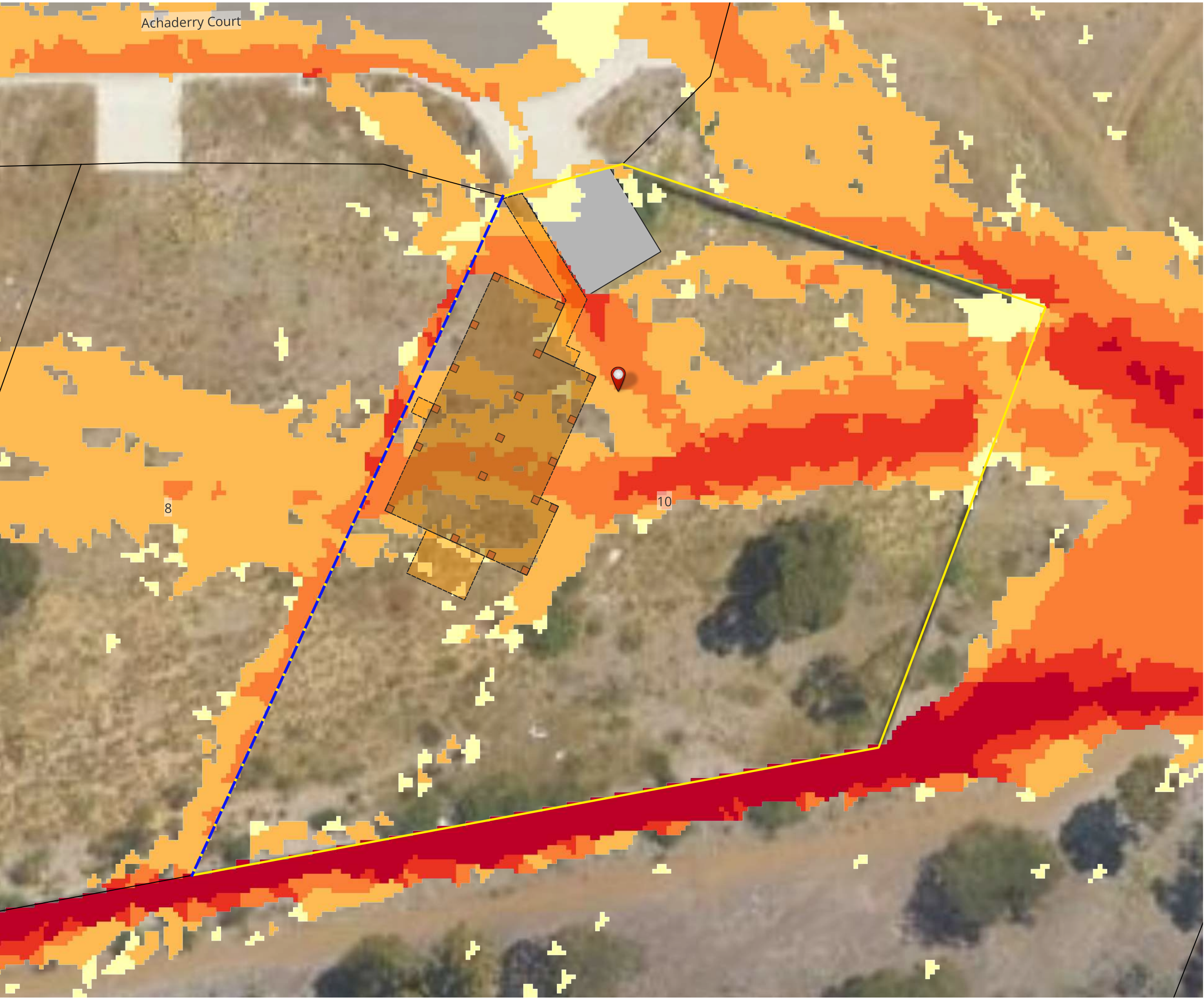
Depth (m)

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	0.03 - 0.05
	0.05 - 0.10
	0.10 - 0.30
	0.30 - 0.60
	0.60 - 0.80
	0.80 - 1.00
	1.00 - 1.50
	> 1.50



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POST 1% AEP + CC @2100



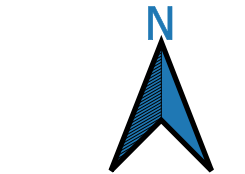
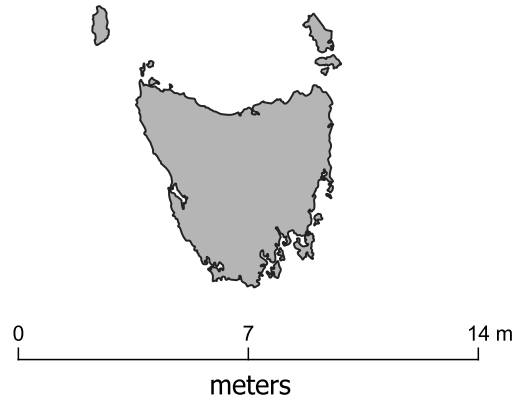
Legend

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POST 1% AEP + CC @2100

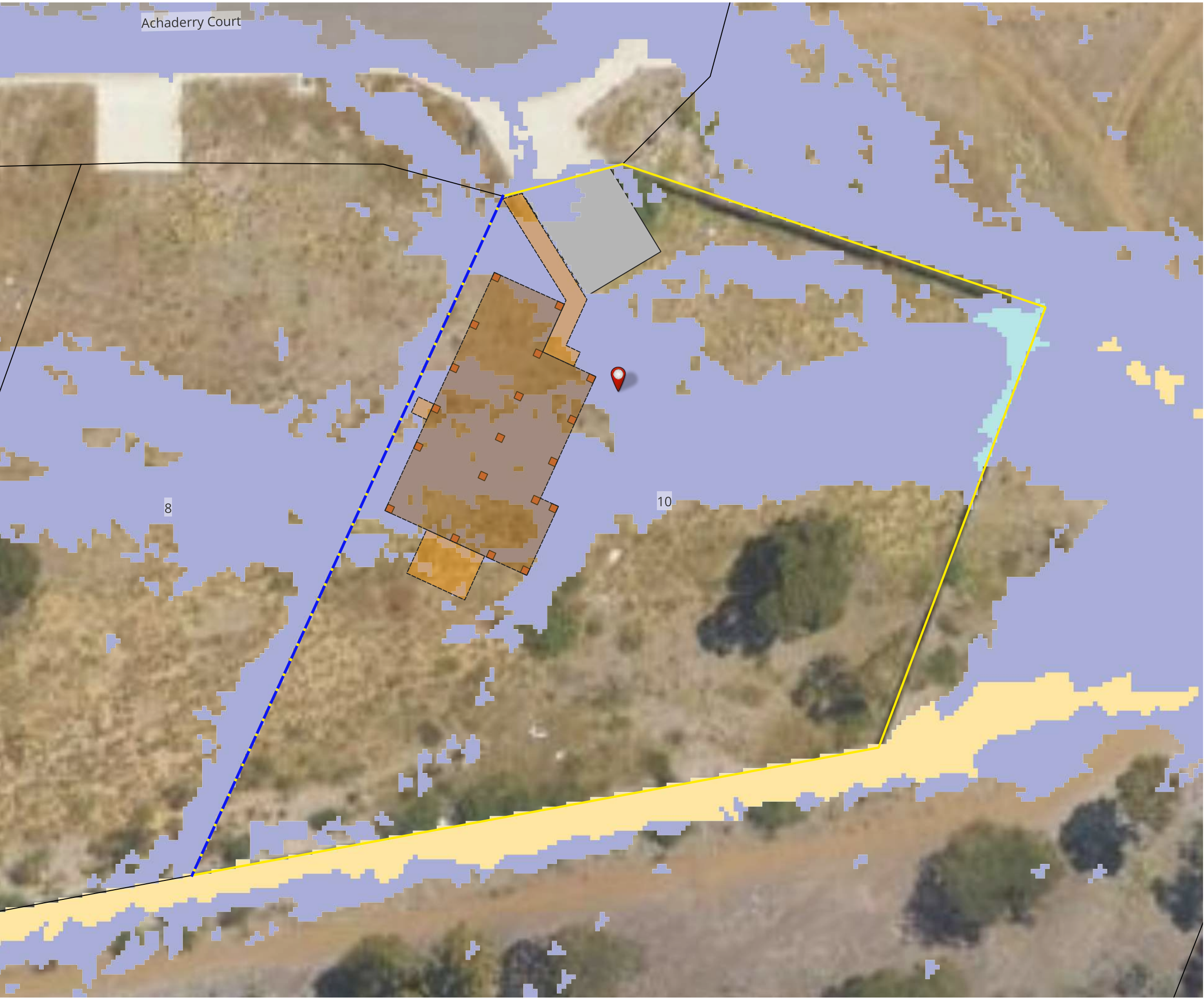
Velocity (m/s)

- <= 0.50
- 0.50 - 1.00
- 1.00 - 1.50
- 1.50 - 2.00
- > 2.00



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POST 1% AEP + CC @2100



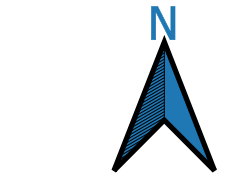
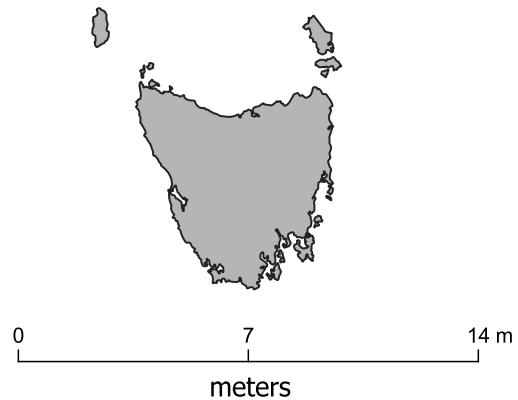
Legend

- 10 Achaderry Court
- Boundary Lines
- Proposed Piling Fence
- Site Area
- Proposed Building
- Proposed Deck Areas
- Proposed Piers
- Proposed Driveway

POST 1% AEP + CC @2100

Hazard

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



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