NOTICE OF PROPOSED DEVELOPMENT

Notice is hereby given that an application has been made for planning approval for the following development:

SITE: 10 Arthur Street, Sorell

PROPOSED DEVELOPMENT:
TWO MULTIPLE DWELLINGS

The relevant plans and documents can be inspected at the Council Offices at 47 Cole Street, Sorell during normal office hours, or the plans may be viewed on Council's website at www.sorell.tas.gov.au until **Tuesday 4th February 2025.**

Any person may make representation in relation to the proposal by letter or electronic mail (sorell.council@sorell.tas.gov.au) addressed to the General Manager. Representations must be received no later than **Tuesday 4th February 2025**

APPLICANT: **Pinnacle Drafting and Design**

APPLICATION NO: **DA 2024 / 230 - 1**
DATE: **16 January 2025**

Part B: Please note that Part B of this form is publicly exhibited.

Full description of Proposal:	*Use:* Residential dwelling
	Development: Two residential units proposed on site with existing unit
	Large or complex proposals should be described in a letter or planning report.

Design and construction cost of proposal:	$ 1,000,000

Is all, or some the work already constructed:	No: ☐ Yes: ☑

Location of proposed works:	Street address: 10 Arthur St Suburb: Sorell Postcode: 7172 Certificate of Title(s) Volume: 57317 Folio: 3

Current Use of Site	Existing residential dwelling

Current Owner/s:	Name(s) Steve Graham

Is the Property on the Tasmanian Heritage Register?	No: ☑ Yes: ☐	*If yes, please provide written advice from Heritage Tasmania*
Is the proposal to be carried out in more than one stage?	No: ☑ Yes: ☐	*If yes, please clearly describe in plans*
Have any potentially contaminating uses been undertaken on the site?	No: ☑ Yes: ☐	*If yes, please complete the Additional Information for Non-Residential Use*
Is any vegetation proposed to be removed?	No: ☑ Yes: ☐	*If yes, please ensure plans clearly show area to be impacted*
Does the proposal involve land administered or owned by either the Crown or Council?	No: ☑ Yes: ☐	*If yes, please complete the Council or Crown land section on page 3*

If a new or upgraded vehicular crossing is required from Council to the front boundary please complete the Vehicular Crossing (and Associated Works) application form
https://www.sorell.tas.gov.au/services/egineering/

Sorell Council
Development Application: Development Application - 10 Arthur Street, Sorell - P1.pdf
Plans Reference:P1
Date Received:18/09/2024

Part B continued: Please note that Part B of this form is publicly exhibited

Declarations and acknowledgements
• I/we confirm that the application does not contradict any easement, covenant or restriction specified in the Certificate of Title, Schedule of Easements or Part 5 Agreement for the land. • I/we consent to Council employees or consultants entering the site and have arranged permission and/or access for Council's representatives to enter the land at any time during normal business hours. • I/we authorise the provision of a copy of any documents relating to this application to any person for the purposes of assessment or public consultation and have permission of the copyright owner for such copies. • I/we declare that, in accordance with s52(1) of the *Land Use Planning and Approvals Act 1993*, that I have notified the owner(s) of the intention to make this application. • I/we declare that the information in this application is true and correct. *Details of how the Council manages personal information and how you can request access or corrections to it is outlined in Council's Privacy Policy available on the Council website.*
• I/we 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 exhibition, 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.
• Where the General Manager's consent is also required under s.14 of the *Urban Drainage Act 2013*, by making this application I/we also apply for that consent.

Applicant Signature:	Signature: .... Date: 18/09/2024

Crown or General Manager Land Owner Consent
If the land that is the subject of this application is owned or administered by either the Crown or Sorell Council, the consent of the relevant Minister or the Council General Manager whichever is applicable, must be included here. This consent should be completed and signed by either the General Manager, the Minister, or a delegate (as specified in s52 (1D-1G) of the *Land Use Planning and Approvals Act 1993*). Please note: • If General Manager consent if required, please first complete the General Manager consent application form available on our website www.sorell.tas.gov.au • If the application involves Crown land you will also need a letter of consent. • Any consent is for the purposes of making this application only and is not consent to undertaken work or take any other action with respect to the proposed use or development.
I ______________________________ being responsible for the administration of land at ______________________________ declare that I have given permission for the making of this application for ______________________________

Sorell Council
Development Application: Development Application - 10 Arthur Street, Sorell - P1.pdf
~~Plans Reference:P1~~
Date Received:18/09/2024

Signature of General Manager, Minister or Delegate:	Signature: .... Date: ....

Prepared for
Lyden Builders

10 Arthur Street
Sorell

FLOOD HAZARD REPORT

FE_24087
14 November 2024

flüssig Engineers

L4/ 116 BATHURST ST
HOBART TASMANIA 7000
ABN: 16 639 276 181

Document Information

Title	*Client*	*Document Number*	*Project Manager*
10 Arthur Street, Sorell, Flood Hazard Report	**Lyden Builders**	FE_24087	Max W. Möller *Principal Hydraulic Engineer*

Document Initial Revision

REVISION 00	Staff Name	Signature	Date
Prepared by	Max W. Moller ***Principal Hydraulic Engineer***		04/11/2024
Prepared by	Ash Perera ***Hydraulic Engineer***		04/11/2024
Prepared by	Christine Keane ***Senior Water Resources Analyst***		04/11/2024
GIS Mapping	Damon Heather ***GIS Specialist***		12/11/2024
Reviewed by	John Holmes ***Senior Engineer***		14/11/2024
Reviewed by	Max W. Möller ***Principal Hydraulic Engineer***		14/11/2024
Authorised by	Max W. Moller ***Principal Hydraulic Engineer***		14/11/2024

Rev No.	Description	Prepared by	Authorised by	Date

Contents

List of Tables

List of Figures

1. Introduction

Flüssig Engineers has been engaged by **Lyden Builders** to undertake a site-specific Flood Hazard Report for the development at 10 Arthur Street, Sorell in the **Sorell Council** municipality. The purpose of this report is to determine the flood characteristics on the existing and post-development hazard scenarios for the 1% AEP plus climate change, for the purpose of development.

1.1 Development

The proposed development is a unit development consisting of an existing 107 m^2 dwelling, 2 new unit dwellings of 115 m^2 each and a proposed driveway of 373 m^2 area within the 1219 m^2 lot. This development triggers the inundation code as the development falls within Sorell Council flood prone area.

1.2 Objectives and Scope

This report is to assess the proposed development at 10 Arthur Street, Sorell under C12.0 Flood Prone Areas Hazard Code of the Tasmanian Planning Scheme 2021- Sorell (TPS 2021). 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 a potential future development, where appropriate.

1.3 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

This report addresses the Tasmanian Planning Scheme codes C12.5.1 and C12.6.1 of the Flood Prone Areas Hazard Code of which the objective is to ensure that risk from riverine, watercourse or inland flooding is appropriately managed and takes into account the use of the buildings. Specific details of this code and how this report addresses these requirements is shown in Table 8 and Table 9.

2. Model Build

2.1 Overview of Catchment

The contributing catchment for 10 Arthur Street, Sorell is approximately 230 ha stretching from the peak of Weston Hill to the development site with an average slope of 7-8 %.

The land use of the catchment is Agriculture, General Business, General Residential and Rural Resources with the specific site being listed as General Residential. Figure 1 below outlines the approximate contributing catchment for the site at 10 Arthur Street, Sorell.

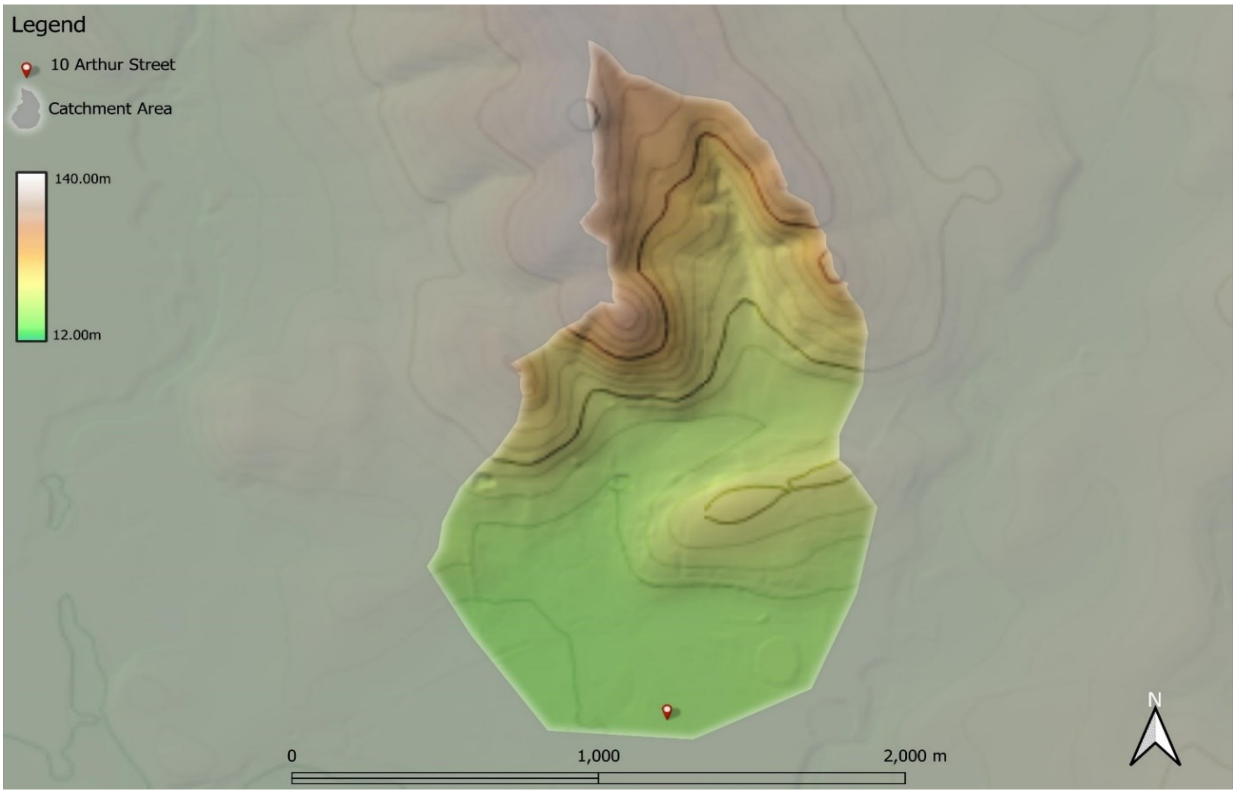


Figure 1. Contributing Catchment, 10 Arthur Street, Sorell

2.2 Hydrology

The following Table 1 states the adopted hydrological parameters for the RAFTS catchment, as per best practice guidelines.

Table 1. 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
230	27/1	4.0/0.0	0.045	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 4.5 -hour storm temporal pattern 8 was the worst-case median storm. Therefore, this storm event was used within the hydraulic model. This particular storm event was selected as the worst-case scenario for further integration into the hydraulic model. The utilisation of this specific storm pattern ensures a comprehensive assessment of the system's response under conditions representing a high level of hydrological stress, thereby enhancing the model's ability to simulate and address extreme weather scenarios.

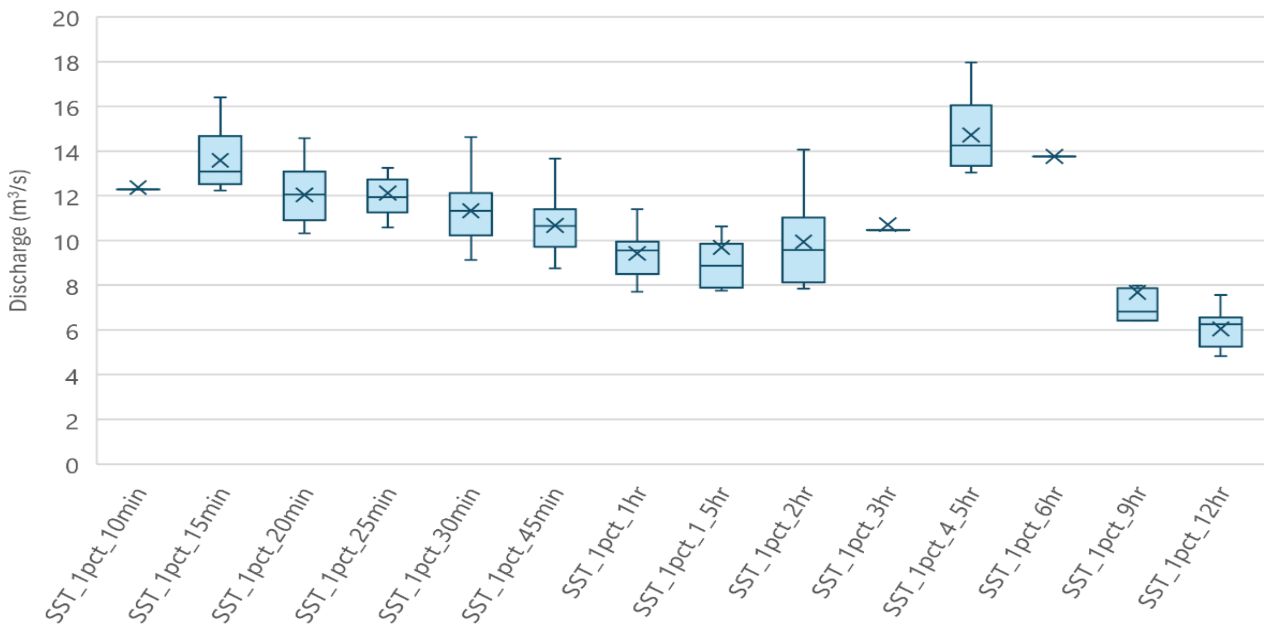


Figure 2. 1% AEP Flood Event Model, Box and Whisker Plot

2.2.2 Climate Change

As per ARR 2019 Guidelines, for an increase in rainfall due to climate change at 2100, it is recommended the use of RCP 8.5. However, ARR 2019 recommends that this figure be used in lieu of more local data being available.

The base scenario of the Climate Futures Tasmania (2010) study was revised following the ARR 2019 Australasia Climate Change study (undertaken by the University of Tasmania), resulting in the original increase in rainfall being reduced to 14.6% in cooler climates (Southern Tasmania). Table 2 shows the ARR 8.5 increase of 16.3% that has been adopted by Sorell Council and therefore used within the model.

Table 2. Climate Change Increases

Catchment	CFT increase @ 2100	ARR 8.5 increase @ 2100
South East Tasmania	14.6%	16.3%

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 limited available past flood analysis undertaken to validate against the flows obtained in the model. A Regional Flood Frequency Estimation model (RFFE) has been used to calibrate our rain on grid rainfall estimation. The RFFE values are listed in Table 3.

Table 3. Regional Flood Frequency Estimation model (RFFE) v/s Flussig Result.

AEP (%)	Lower Confidence Limit (5%) (m³/s)	Upper Confidence Limit (95%) (m³/s)	Discharge (m³/s)	Flussig Discharge (m³/s)
50	1.09	6.59	2.29	2.59
20	2	11.6	4.21	4.63
10	2.49	17.2	6.02	6.36
5	2.84	25.1	8.16	8.33
2	3.23	40.2	11.15	11.36
1	3.49	56	13.96	14.19

Input Data	
Date/Time	7/11/2024 15:34
Catchment Name	Sorell
Latitude (Outlet)	-42.789
Longitude (Outlet)	147.559
Latitude (Centroid)	-42.726
Longitude (Centroid)	147.515
Catchment Area (km²)	2.3
Distance to Nearest Gauged Catchment (km)	3.58
50% AEP 6 Hour Rainfall Intensity (mm/h)	4.788139
2% AEP 6 Hour Rainfall Intensity (mm/h)	9.906917
Rainfall Intensity Source (User/Auto)	Auto
Region	Tasmania
Region Version	RFFE Model 2016 v1
Region Source (User/Auto)	Auto
Shape Factor	2.49*
Interpolation Method	Natural Neighbour
Bias Correction Value	0.461

2.3 Hydraulics

A 1D-2D hydraulic model was created to determine the flood level through the target area.

2.3.1 Survey

The 2D surface model was taken from a combination of Greater Hobart LiDAR 2013 (Geoscience Australia). 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).

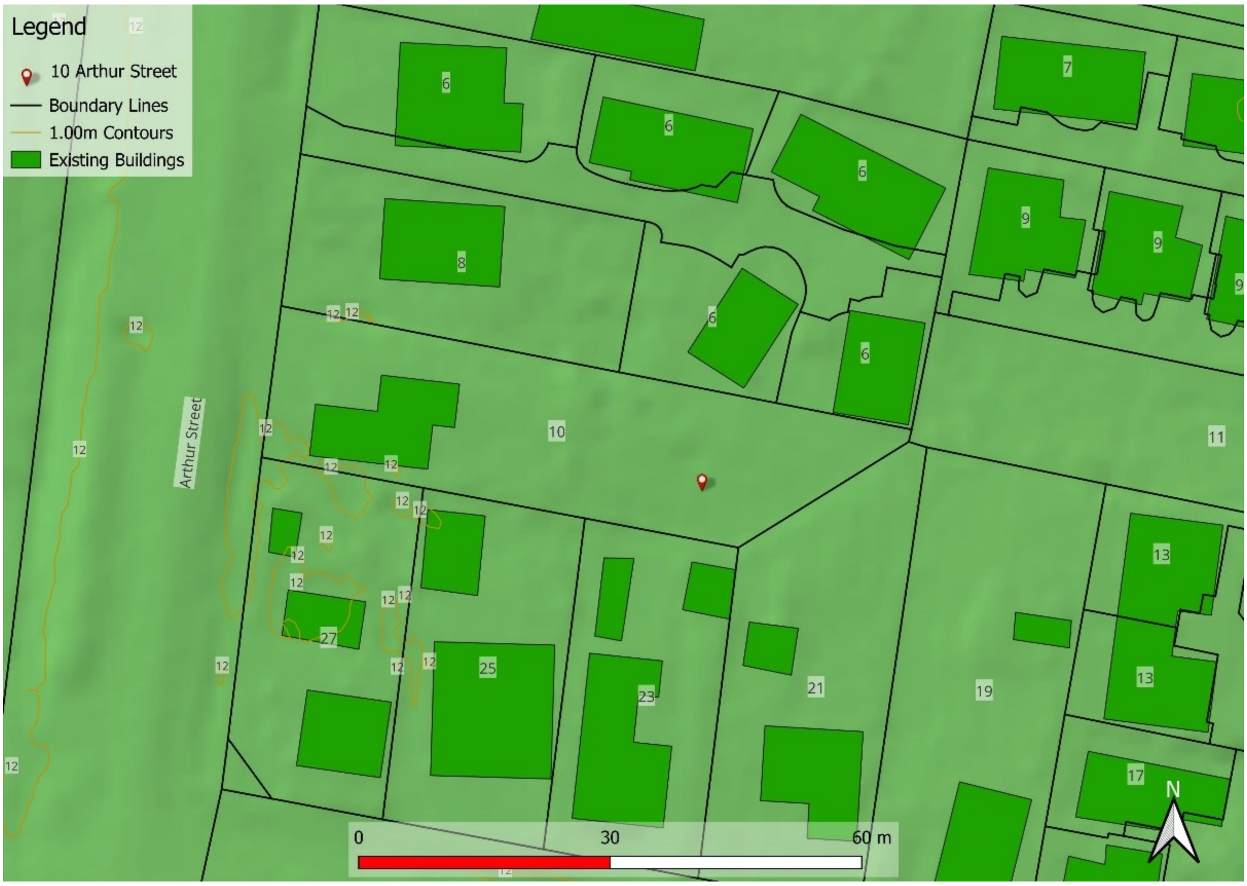


Figure 3. 1m DEM (Hill shade) of Lot Area

2.3.2 Key Stormwater Assets including pipes and pits

Pipes and pits were modelled as 1D underground network within the catchment model included identified culverts and discharge outlets. All upstream stormwater infrastructure was included within the model to provide insight into the capacity of the stormwater system. Where data was missing, this was inferred from surrounding data and where invert levels were missing, a 600 mm cover was applied.

It should be noted that the Devenish Drive upgrades undertaken in 2023 have been incorporated into the model including the 2.4 m deep, 2.1 m wide open drain which runs parallel to Pennington Drive which connects to the DN1200 pipe under Tasman Highway.

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 DEM surface. To correct for the drainage lines, mesh polygons were used to delineate road corridors with the roads being incorporated a z-line along the gutter to ensure the kerb invert is represent in the mesh.

In our Digital Elevation Model (DEM), a "z-line" refers to a line representing a constant elevation or contour line. These lines connect the existing kerb points of equal elevation on the terrain surface, allowing for visualisation of the terrain's shape and elevation changes.

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 Boundary Conditions

Infoworks ICM operates as a single-use software, streamlining the hydrology and hydraulic modelling processes within a unified framework. This unique feature eliminates the necessity for separate inflow boundary conditions, as the hydrology model seamlessly integrates with the hydraulic model through a 1D or 2D link.

The catchment originates from the peak at Weston Hill approximately 3000 m upstream of the site.

The rain on grid model originated from Weston Hill to the north with the extents stretching further downstream of the site.

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. 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 type	Roughness, Manning's N	Equivalent Manning's 'n' (1/Roughness)
Built up areas	8	0.125
Open space	28	0.025
Waterways	33	0.029
Roads	55	0.013
Houses/ Buildings Roof	56	0.010

2.3.8 Walls

All significant fences and retaining structures were included as 2D linear wall structures within the 2D model. Fences were modelled 300 mm above the ground level. In the post development scenario, the fences surrounding the development were modelling 300 mm above the ground level.

2.4 Development Runoff

Stormwater runoff from the development site has been assessed under pre- and post-development models to determine the potential impact the development at 10 Arthur Street, Sorell has on the immediate local flows. As per planning guidelines it is a requirement that this does not have a negative impact from pre to post development.

3. Model Results

The result of 1% AEP + CC were run through the pre-development and post-development model scenarios to compare the changes to flooding onsite and to surrounding properties. It can be seen from the pre-development model runs (Figure 4), that there is a shallow overland flood path flowing from the northern lot boundary towards the western lot boundary with maximum flood depths of 0.41 m observed at the cross-sectional results line on the southern lot boundary.

Figure 5 shows the effect that the inclusion of the proposed units has on the overland flood flow. There is no observed increase in depths at the cross-sectional result line.

Table 5 shows the maximum flood depths and hazard classifications within the potential building area in pre-development scenario in contrast to the post-development scenario. It shows that there is a slight increase in flood depths in the immediate area surrounding the proposed units, but no increase in hazard classification as described in more detail in section 4.

Maximum depths up to 0.3 m are observed in a small, localised area at the access to the units from Arthur Street.

Table 5. Pre and post development flood characteristics

Unit	Max depth Pre-development (m)	Max depth Post-develeopment (m)	Max Hazard Pre-development	Max Hazard Post-development
Unit 1 (Existing)	0.35	0.37	H2	H2
Proposed Unit 2	0.16	0.20	H1	H1
Proposed Unit 3	0.20	0.23	H1	H1

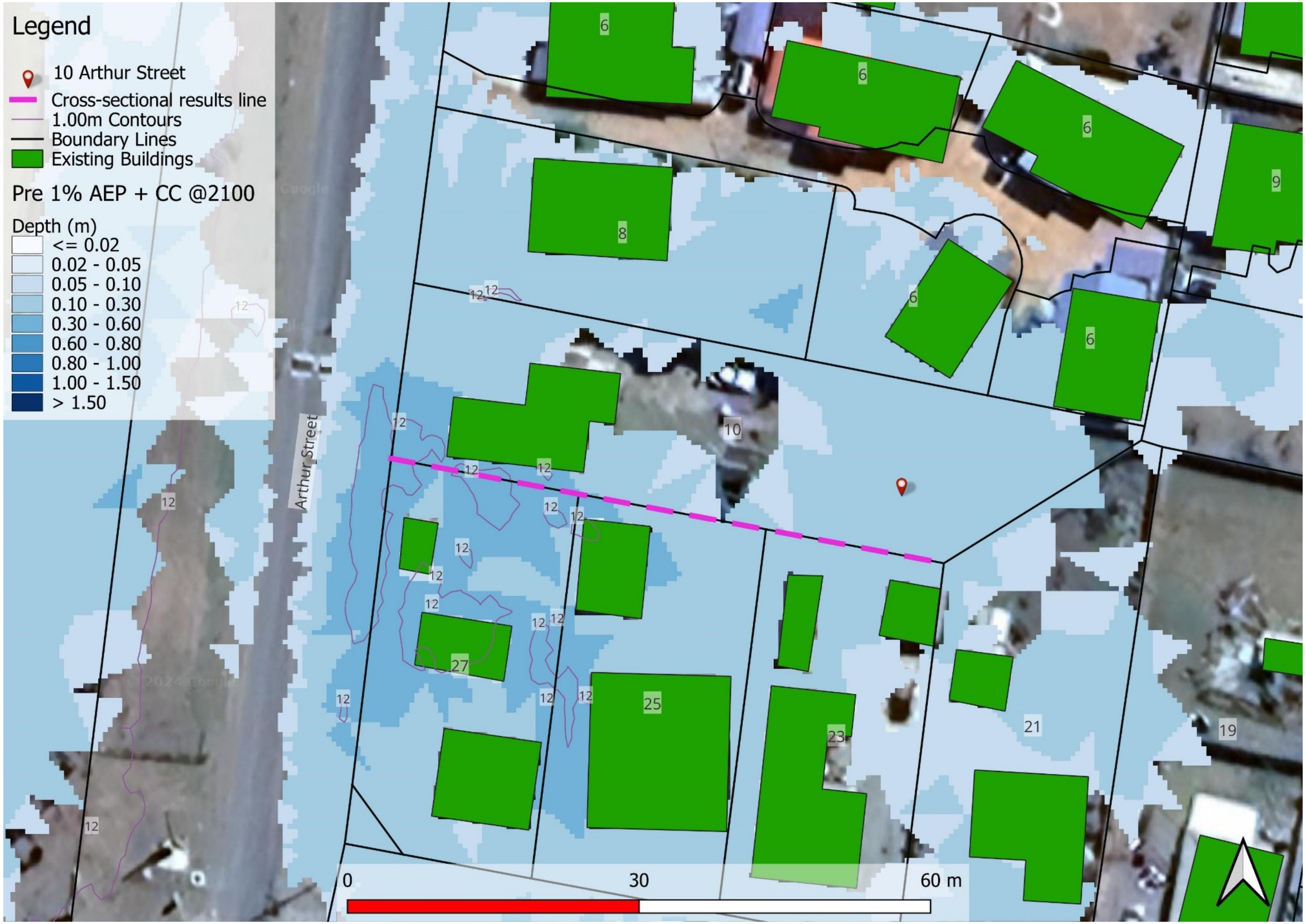


Figure 4. Pre-Development 1% AEP + CC Depth

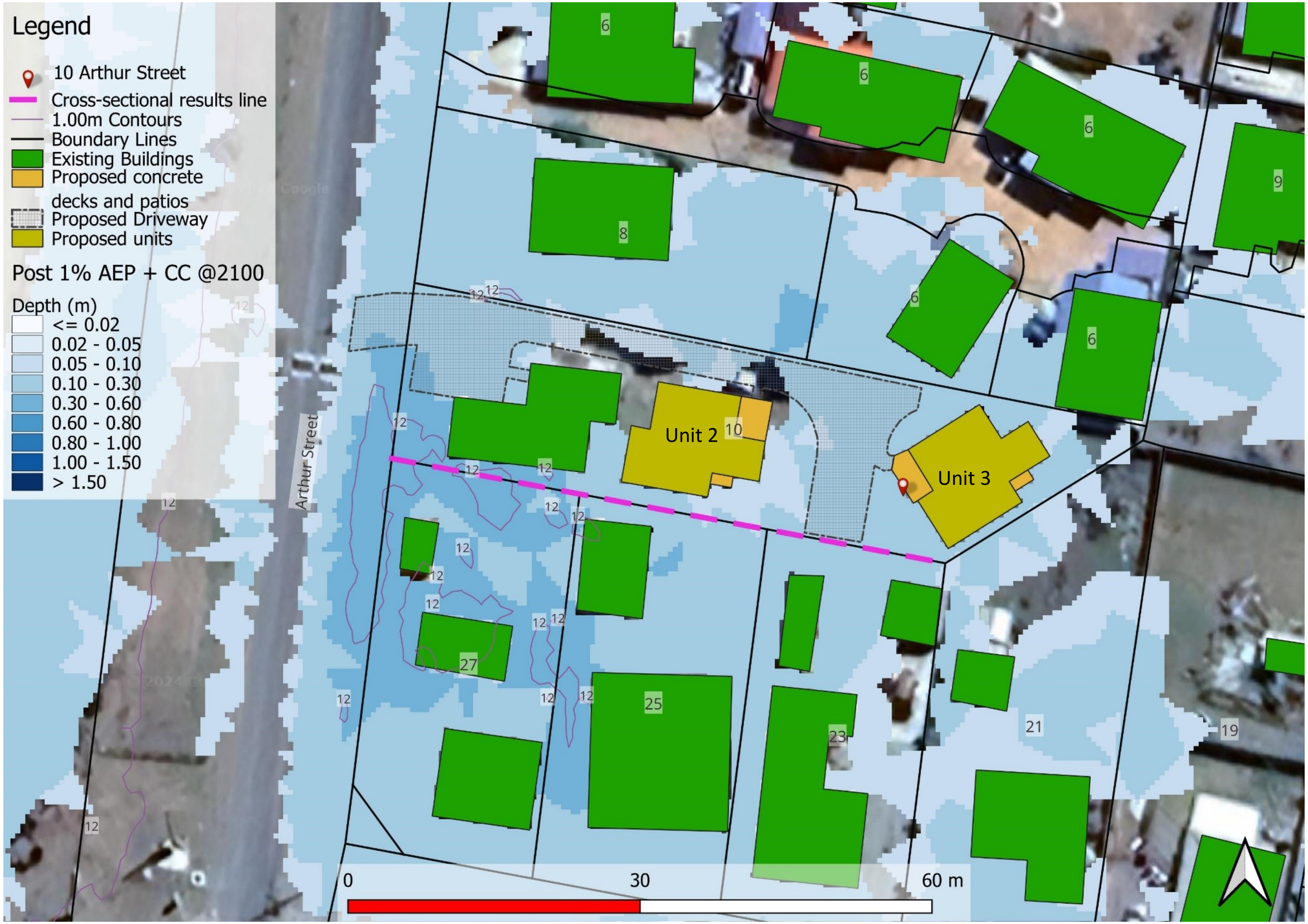


Figure 5. Post-Development 1% AEP + CC including Depth

3.1 Displacement of Overland Flow on Third Party Property

Post-development flows in Figure 5 show that when compared against pre-development in Figure 4, there is no increase in flood depths on adjacent properties to the development lot, with the overland flow continuing south west towards the natural overland flow path. Some lots adjacent to the development are already affected by this overland flood path, and any observed increase in flood depths is only minimal and does not contribute to any increase in flood hazard.

Therefore, it can be stated that the development does not have any measurable effect on third party property.

3.2 Development Effects on Stormwater Discharge

Figure 6 below shows the discharge hydrograph from the property boundary for the overland flow through the development area. The graph was captured in the model for both pre- and post-development runs and combined in graph format to demonstrate the change in net discharge. It demonstrates the discharge increasing slightly by 0.01 m^3/s from 0.22 m^3/s to 0.23 m^3/s from the pre-development to post-development scenarios, while velocity shows an increase of 0.01 m/s from 0.20 m/s to 0.21 m/s.

As both the discharge and velocity in the pre-development scenario is relatively low, the slight increases are more likely due to model sensitivity and has no real impact on discharge from the lot following development. It is therefore deemed that the post development model does not increase net discharge.

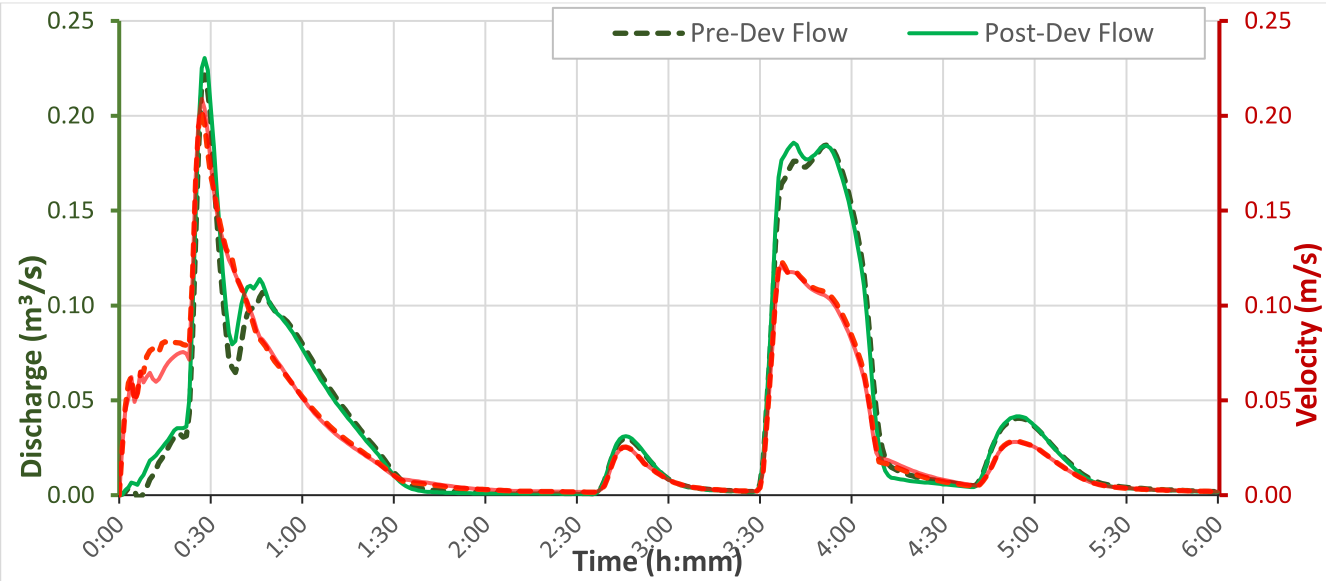


Figure 6. Pre and Post development net discharge and velocity 1% AEP + CC

3.3 New Habitable Building

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

Table 6. Habitable Floor Construction Levels

10 Arthur Street	1% AEP +CC flood level (mAHD)	Minimum Floor Level required (mAHD)	Design Finished Floor Level (mAHD)
Proposed Unit 2	12.40	12.70	12.80
Proposed Unit 3	12.40	12.70	12.60

As shown above, the proposed finished floor level for unit 2 is above the minimum required of 12.70 mAHD meeting the requirements of the Building Regulations. Proposed unit 3 finished floor level needs to be raised by 0.1 m to 12.70 mAHD to comply with the building regulations.

3.4 Model Summary

Table 7. Pre-development and post-development at the cross-sectional line

	Pre-development	Post-development	Net Change
Depth (m)	0.41	0.41	-
Velocity (m/s)	0.20	0.21	+0.01
Discharge (m^3/s)	0.22	0.23	+0.009

4. Flood Hazard

Under existing conditions prior to development, the proposed location of the buildings is subject to be inundated to < 0.41 m flood depth and < 0.20 m/s velocity. This places the hazard rating as adopted by Australian Flood Resilience and Design Handbook as a maximum H2 –*Generally safe for people and buildings, unsafe for small vehicles,* which is present on the south-western corner of the lot adjacent to Arthur Street as shown in Appendix A – Hazard maps. The remainder of the lot is classified at the lower rating of H1.

The post-development scenario sees the depth at the lot boundary remaining at 0.41 m and the velocity increasing by 0.01 m/s which has no effect on the hazard rating that remains within a low hazard band of H2 for the lot.

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.

A summary of the hazard ratings is shown in Figure 7.

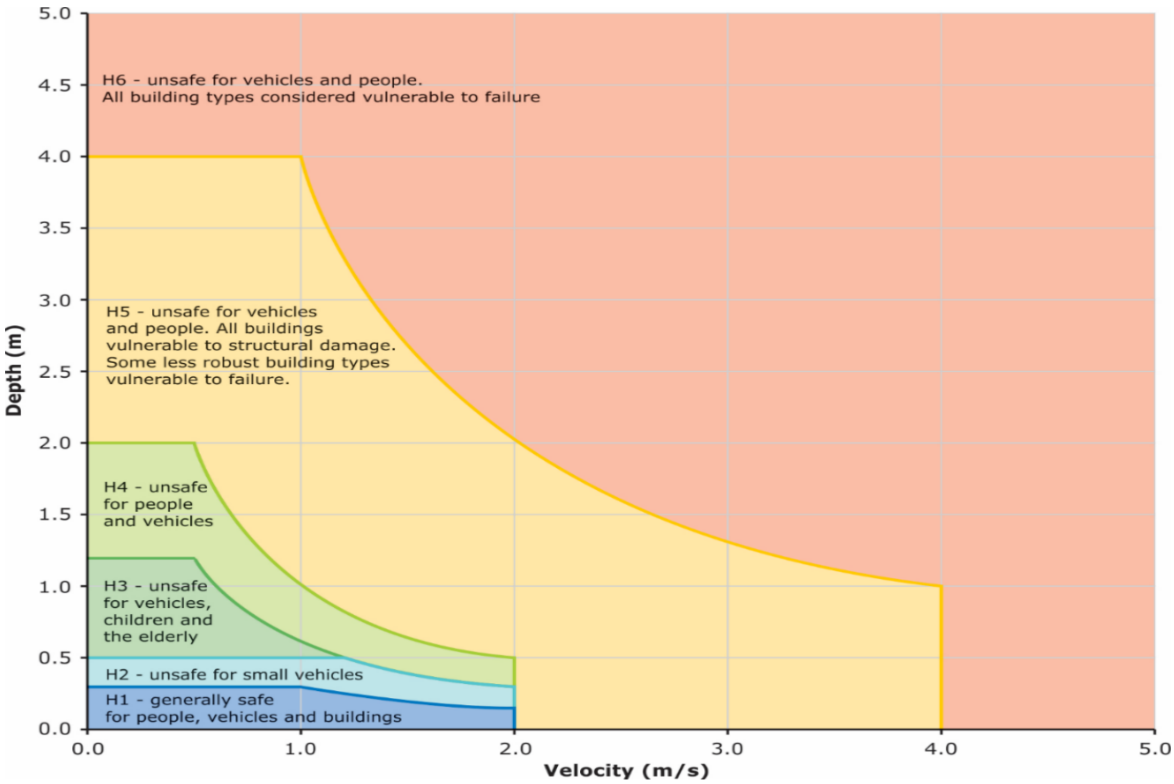


Figure 7. Hazard Categories Australian Disaster and Resilience Handbook

4.1 Tolerable Risk

The lot at 10 Arthur Street, Sorell is susceptible to a relatively shallow, slow-moving flood plain flow, with the majority of the immediate surrounding region classified low H1-H2 hazard rating in the 1% AEP + climate change event. The hazard in the south-western corner of the lot remains at H2 in both pre and post development scenarios. Apart from this area which is located away from the proposed units and lot access, the hazard rating remains at H1 in both the pre development and the post development scenario and the H2 classified extent does not increase to any significant degree, both within the lot and on surrounding properties.

Even at minor velocity and depths during a storm event, erosion and debris movement nevertheless pose a threat. It is recommended that all structures undertake a hydrostatic/hydrodynamic analysis to ensure suitability. If the recommendations in this report are implemented, the proposed structure, which is intended to be habitable class 1a structures with a 50-year asset life (BCA2022), can achieve a tolerable risk of flooding over its asset life.

Table 8. Tasmanian Planning Scheme – Sorell summary C12.5.1

<table>
<tr><th colspan="4">C12.5.1 Uses within a flood prone hazard area</th></tr>
<tr><td colspan="4">Objectives: That a habitable building can achieve and maintain a tolerable risk from flood</td></tr>
<tr><th colspan="4">Performance Criteria</th></tr>
<tr><th colspan="2">P1.1</th><th colspan="2">P1.1</th></tr>
<tr><td colspan="2">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:</td><td colspan="2">Response from flood report</td></tr>
<tr><td>(a)</td><td>the location of the building;</td><td>(a)</td><td>Proposed 3-unit development in a lot that lays within a relatively shallow depth and slow-moving flood inundation area.</td></tr>
<tr><td>(b)</td><td>the advice in a flood hazard report;</td><td>(b)</td><td>Assuming recommendations of this report are implemented, no additional flood protection measures required for the life expectancy of the building.</td></tr>
<tr><td>(c)</td><td>any advice from a state authority, regulated entity or a council;</td><td>(c)</td><td>N/A</td></tr>
<tr><th colspan="2">P1.2</th><th colspan="2">P1.2</th></tr>
<tr><td colspan="2">A flood hazard report also demonstrates that:</td><td colspan="2">Response from flood report</td></tr>
<tr><td>(a)</td><td>any increase in the level of risk from flood does not require any specific hazard reduction or protection measures;</td><td>(a)</td><td>No increase in level of risk from pre-development scenario.</td></tr>
<tr><td>(b)</td><td>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</td><td>(b)</td><td>Maximum hazard rating at the proposed development site is H2 in both pre-development and post-development scenarios.

The proposed units 2 and 3 are located in areas with a maximum hazard rating of H1.

Access to the proposed units is at a maximum hazard rating of H2 in a small, localised area while majority of the lot access remains at the lowest hazard rating of H1.</td></tr>
</table>

Table 9. Tasmanian Planning Scheme – Sorell 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 3-unit development
(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 along with the recommended finished floor levels, 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)	No significant increase to flow and velocity from proposed dwelling.
(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 unit development can achieve a tolerable risk to the 1% AEP storm event for the life expectancy of the building.

5. Conclusion

The Flood Hazard Report for 10 Arthur Street, Sorell development site has reviewed the potential development flood scenario.

The following conclusions were derived in this report:

1. A comparison of the post-development peak flows for the 1% AEP at 2100 were undertaken against C12.0 of the Tasmanian Planning Scheme – Sorell Flood Prone Areas code.
2. Building Regulations requires a habitable floor level of no less than the levels outlined in Table 6.
3. No increase in depth observed at the southern property boundary at the cross-sectional result line.
4. Peak discharge sees a slight increase of 0.01 m^3/s from the pre-development to post-development riverine flood scenario.
5. Velocity shows an increase of 0.01 m/s between pre- and post-development riverine flood scenarios.
6. Hazard from flooding within the lot remain at the majority category of H1-H2 for both pre and post development riverine scenarios, including on neighbouring properties. The location of the 2 new units remain at a classification of H1 in both pre and post-development scenarios.

6. Recommendations

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

1. The new unit dwellings to have a minimum floor level as per Table 6. (Unit 2 and Unit 3 **FFL = 12.70** mAHD or higher).
2. Concrete decks/ landings to be constructed with a minimum height of 0.25 m from the ground level.
3. Proposed driveway to be constructed to fall towards the kerb away from the buildings.
4. Proposed structures, located in the inundation area, are to be designed to resist flood forces including debris.
5. Ensure that adequate stormwater drainage is provided within ground areas surrounding individual unit dwellings.
6. Any change in external building layout or addition of other solid structures will require further flood assessment.
7. The proposed dwelling should be designed to withstand hydrostatic and hydrodynamic forces, including debris impact, under the specified flood conditions.
8. All future proposed structures within the flood extent not shown within this report will require a separate design and report addressing their impacts.

Under the requirements of this Flood Hazard Report, the proposed development will meet current acceptable solutions and performance criteria under the Tasmanian Planning Scheme 2021 – Sorell.

7. Limitations

Flüssig Engineers were engaged by **Lyden Builders**, for the purpose of a site-specific Flood Hazard Report for 10 Arthur Street, Sorell as per C12.0 of the Tasmanian Planning Scheme - Sorell 2021. This study is deemed suitable for purpose at the time of undertaking the study. If the conditions of the site should change, the report will need to be reviewed against all changes.

This report is to be used in full and may not be used in part to support any other objective other than what has been outlined within, unless specific written approval to do otherwise is granted by Flüssig Engineers.

Flüssig Engineers accepts no responsibility for the accuracy of third-party documents supplied for the purpose of this Flood Hazard Report.

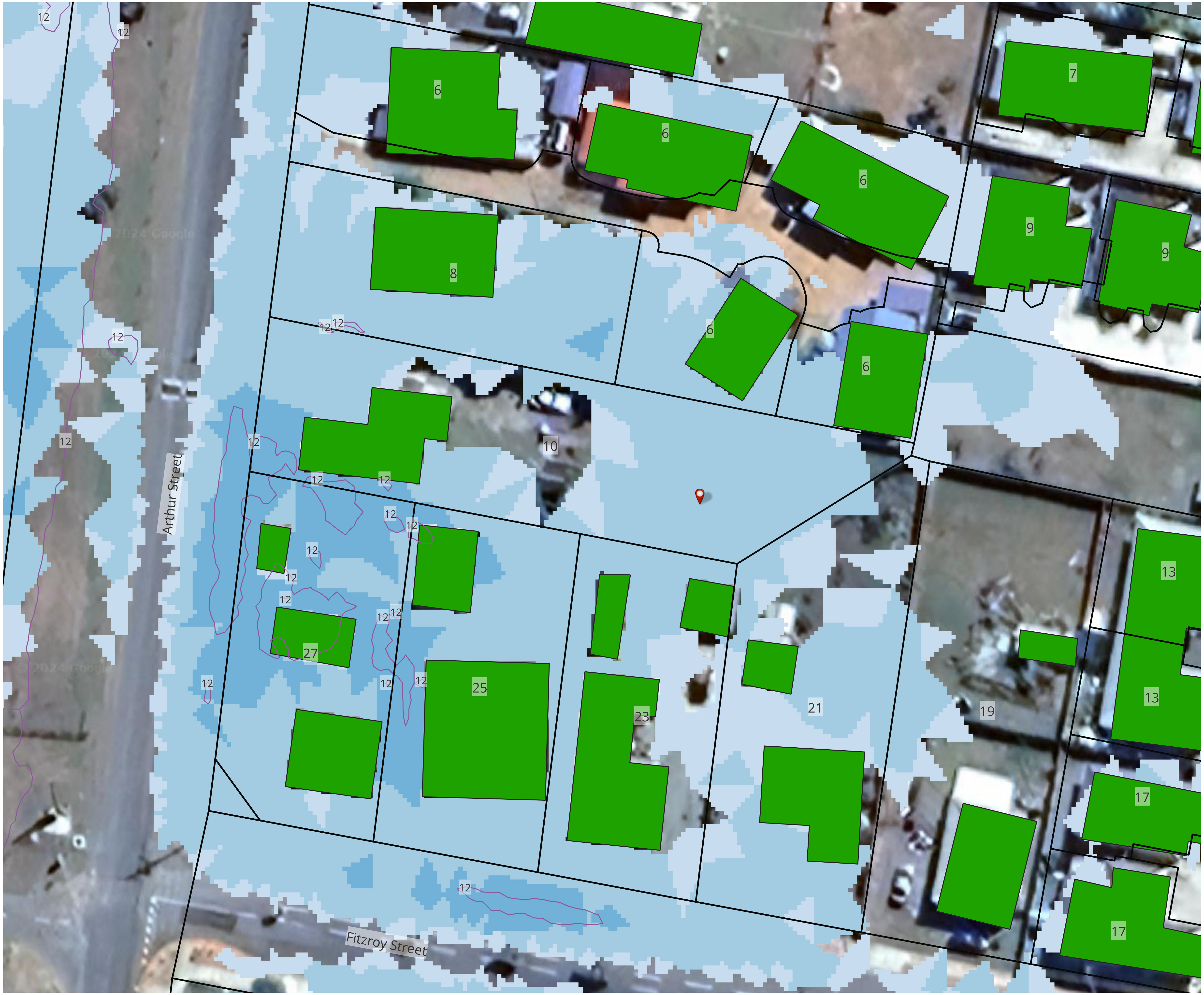
8. References

- Australian Disaster Resilience Guideline 7-3: Technical flood risk management guideline: Flood hazard, 2014, Australian Institute for Disaster Resilience CC BY-NC
- Ball J, Babister M, Nathan R, Weeks W, Weinmann E, Retallick M, Testoni I, (Editors), 2019, Australian Rainfall and Runoff: A Guide to Flood Estimation, Commonwealth of Australia
- Grose, M. R., Barnes-Keoghan, I., Corney, S. P., White, C. J., Holz, G. K., Bennett, J. & Bindoff, N. L. (2010). Climate Futures for Tasmania: General Climate Impacts Technical Report.
- T.A. Remenyi, N. Earl, P.T. Love, D.A. Rollins, R.M.B. Harris, 2020, Climate Change Information for Decision Making –Climate Futures Programme, Discipline of Geography & Spatial Sciences, University of Tasmania.

Appendices

Appendix A Flood Study Maps

PRE 1% AEP + CC @2100



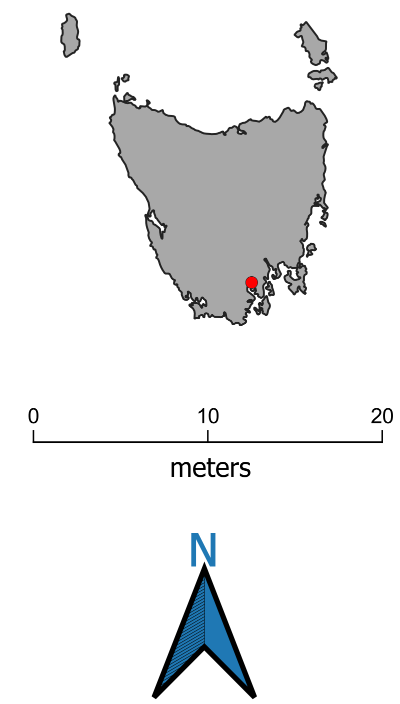
Legend

- 10 Arthur Street
- Boundary Lines
- 1.00m Contours
- Existing Buildings

Pre 1% AEP + CC @2100

Depth (m)

- <= 0.02
- 0.02 - 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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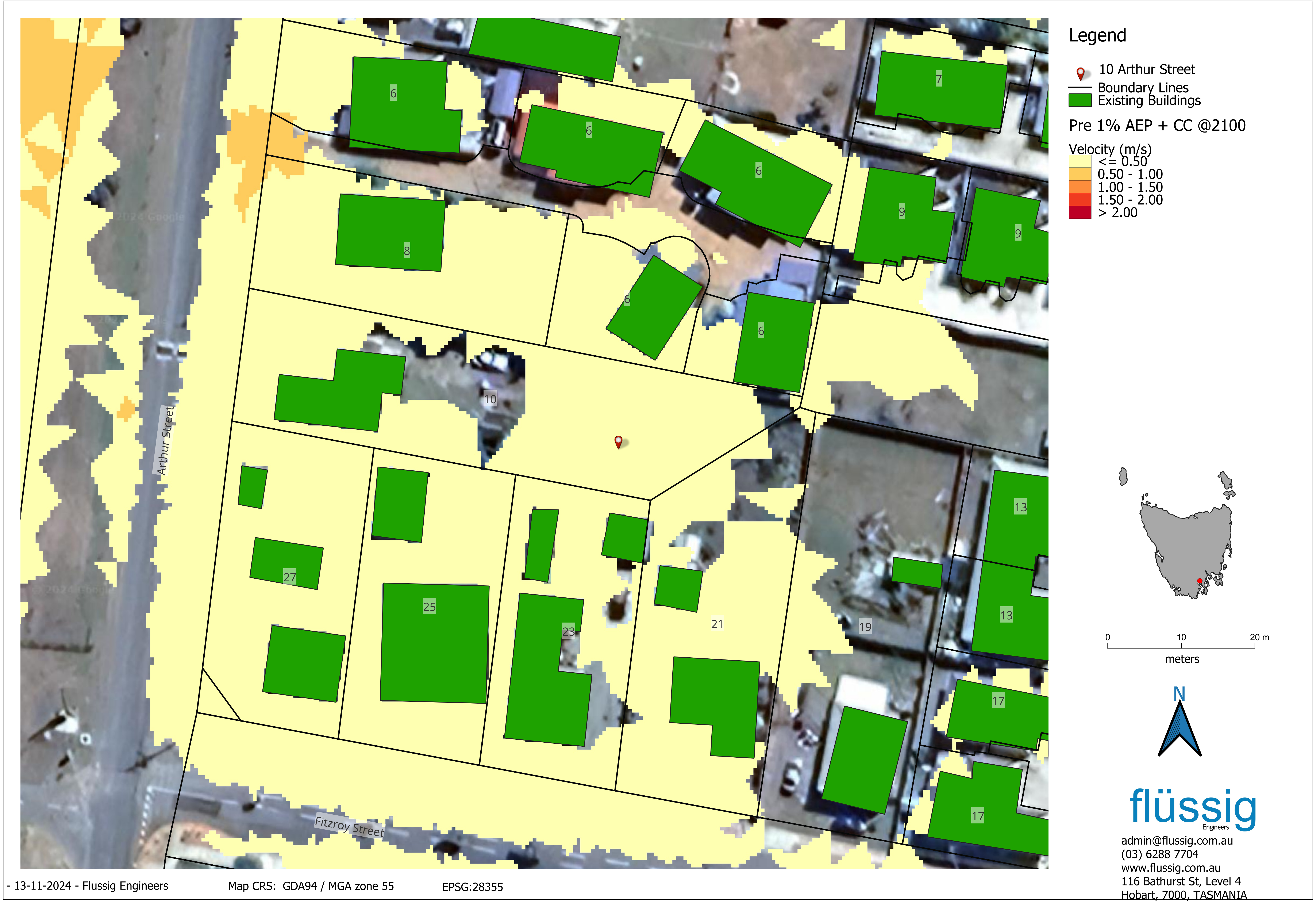
116 Bathurst St, Level 4
Hobart, 7000, TASMANIA

- 13-11-2024 - Flussig Engineers   Map CRS: GDA94 / MGA zone 55   EPSG:28355

PRE 1% AEP + CC @2100



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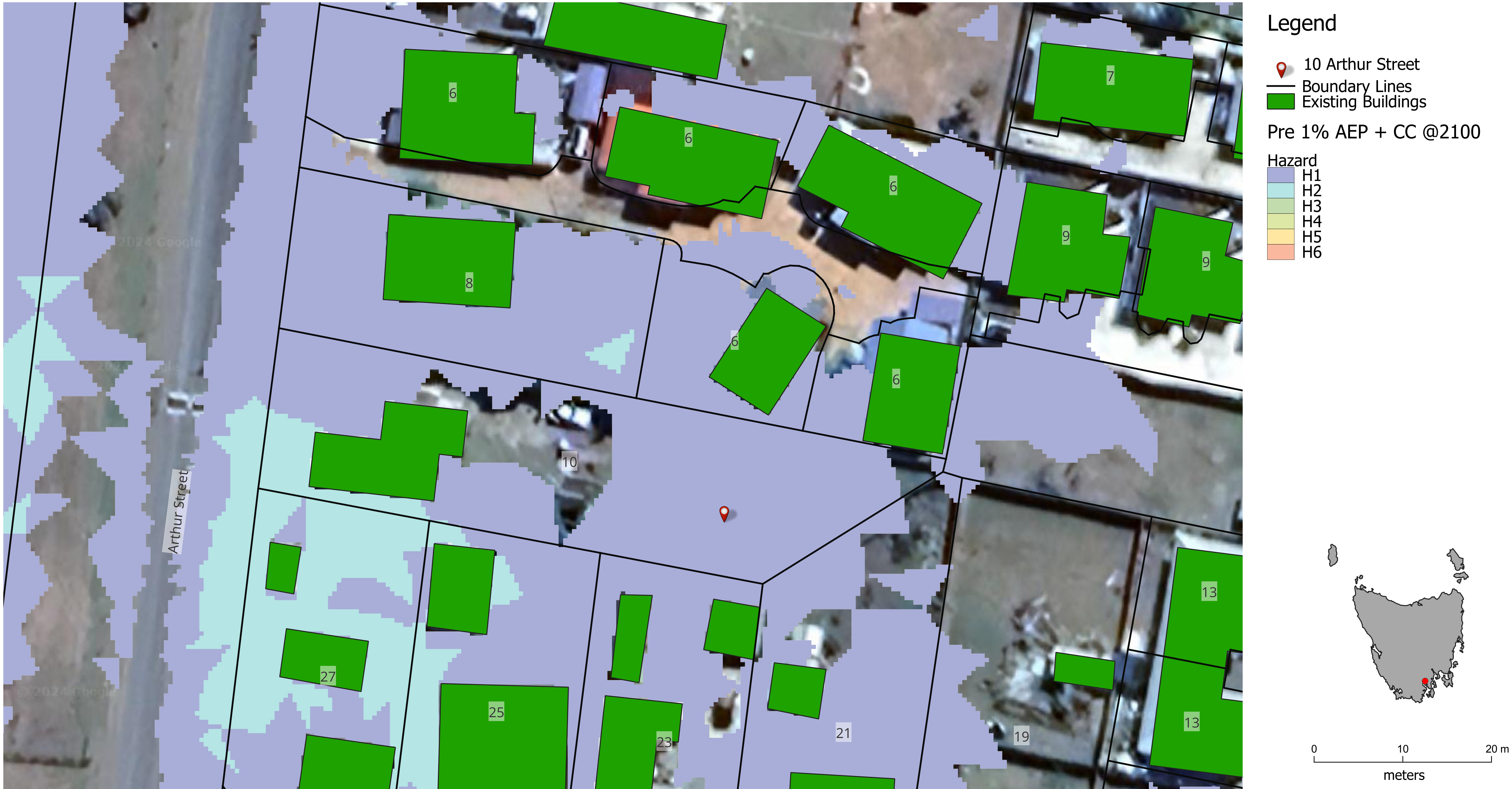

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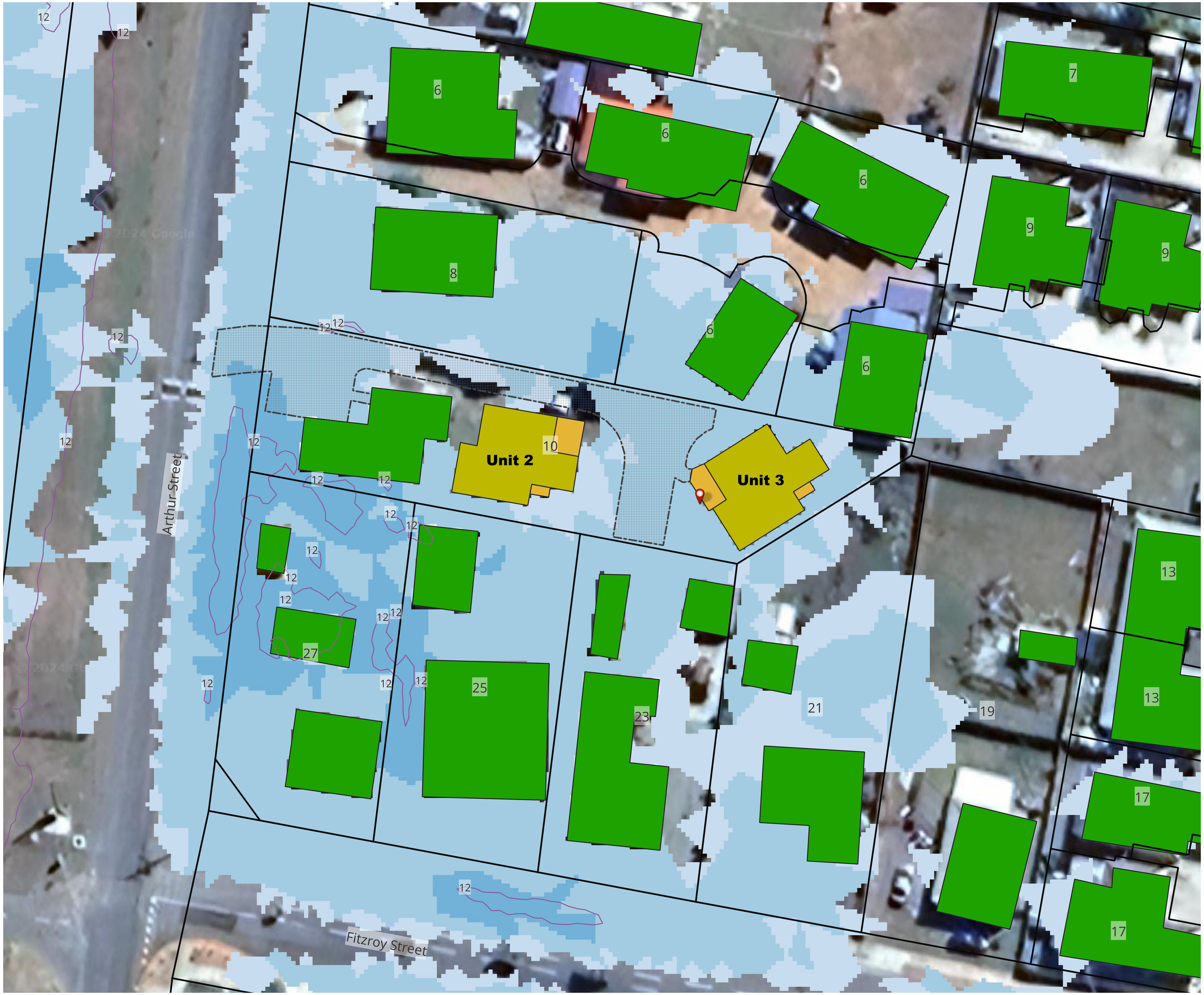
POST 1% AEP + CC @2100



Legend

- 10 Arthur Street
- 1.00m Contours
- Boundary Lines
- Existing Buildings
- Proposed concrete decks and patios
- Proposed Driveway
- Proposed units

Post 1% AEP + CC @2100

Depth (m)

- <= 0.02
- 0.02 - 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 10 20 m

meters

N

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POST 1% AEP + CC @2100

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- 13-11-2024 - Flussig Engineers Map CRS: GDA94 / MGA zone 55 EPSG:28355

POST 1% AEP + CC @2100

Legend

10 Arthur Street
Boundary Lines
Existing Buildings
Proposed concrete decks and patios
Proposed Driveway
Proposed units

Post 1% AEP + CC @2100

Hazard
H1
H2
H3
H4
H5
H6

0 10 20 m
meters

N

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Engineers

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- 13-11-2024 - Flussig Engineers   Map CRS: GDA94 / MGA zone 55   EPSG:28355

<u>Contact Project Manager:</u> Max Moller

flüssig
Engineers

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A: Level 4, 116 Bathurst Street
Hobart TAS 7000

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Note: The images provided are artistic representations only and should not be used as references for final colours, finishes, or external/internal features.

Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

10 Arthur Street, Sorell, 7172

Owner(s) or Clients	Steve Graham
Building Classification	1a
Designer	Jason Nickerson CC6073Y
Total Floor Area (Combined)	228.46m^2
Deck	38.63m^2
Alpine Area	N/A
Other Hazards	Flood-prone areas, Airport obstacle limitation area

Title Reference	57317/3
Zoning	General Residential
Land Size	1219m^2
Design Wind Speed	TBA
Soil Classification	TBA
Climate Zone	7
Corrosion Environment	Low
Bushfire Attack Level (BAL)	Low

ID	Sheet Name	Issue
A0.01	Location Plan	DA - 03
A0.02	Site Plan	DA - 03
A0.03	Strata Plan	DA - 03
A1.01	U1 - Existing Floor Plan	DA - 03
A1.02	U1 - Existing Elevations	DA - 03
A2.01	U2 - Floor Plan	DA - 03
A2.02	U2 - Elevations	DA - 03
A2.03	U2 - Elevations	DA - 03
A2.04	U2 - Roof Plan	DA - 03
A2.05	U2 - Electrical Plan	DA - 03
A2.06	U2 - Door & Window Schedule	DA - 03
A3.01	U3 - Floor Plan	DA - 03
A3.02	U3 - Elevations	DA - 03
A3.03	U3 - Elevations	DA - 03
A3.04	U3 - Roof Plan	DA - 03
A3.05	U3 - Electrical Plan	DA - 03
A3.06	U3 - Door & Window Schedule	DA - 03
C.01	Parking	DA - 03
C.02	Parking	DA - 03
L.01	Landscaping Plan	DA - 03
L.02	Planting Schedule & Details	DA - 03

Legend

- Electrical Connection
- Electrical Turret
- Sewer Connection
- Stormwater Connection
- Telstra Connection
- Telstra Pit
- Water Meter
- Water Stop Valve
- Fire Hydrant
- Solar Bollard Light
- Spotlight with sensor

Survey Notes from Surveyor

This plan and associated digital model is prepared for Pinnacle drafting & Design from a combination of field survey and existing records for the purpose of designing new constructions on the land and should not be used for any other purpose.

The title boundaries as shown on this plan were not marked at the time of the survey and have been determined by plan dimensions only and not by field survey. No measurements or offsets are to be derived between the features in this model and the boundary layers cannot be used for any set out purposes or to confirm the position of the title boundaries on site. Due to the nature of the title boundary information, if any structures are designed on or near a boundary, we would recommend a re-mark survey be completed and lodged with the land titles office to support the boundary definition.

Services shown have been located where visible by field survey. Services denoted as being "Per DBYD Only" are approximate and for illustrative purposes only. Prior to any demolition excavation or construction on site the relevant authority should be contacted for possible location orf futher underground services and detailed locations or all aervices.

If subsequent design is intended for construction setout, future surveying setout costs are increased if the digital data provided is rotated, scaled or moved.

This note forms an integral part of the plan/data. Any reproduction of this plan/model without this note attached will render the information shown invalid.

Site Areas

Site Area	1219 m²
Existing Building Footprint	106.54m²
Proposed Building Footprint	228.46m²
Total Building Footprint	335 m²
Total Site Coverage	27.5%

NOT FOR CONSTRUCTION

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Licence: CC6073Y

Location Plan

Revision: DA - 03
Approved by: JD

Scale: 1:250 @ A3
Pg. No: A0.01

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

N

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Legend

- Electrical Connection
- Electrical Turret
- Sewer Connection
- Stormwater Connection
- Telstra Connection
- Telstra Pit
- Water Meter
- Water Stop Valve
- Fire Hydrant
- Solar Bollard Light
- Spotlight with sensor

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Services shown have been located where visible by field survey. Services denoted as being "Per DBYD Only" are approximate and for illustrative purposes only. Prior to any demolition excavation or construction on site the relevant authority should be contacted for possible location orf futher underground services and detailed locations or all aervices.

If subsequent design is intended for construction setout, future surveying setout costs are increased if the digital data provided is rotated, scaled or moved.

This note forms an integral part of the plan/data. Any reproduction of this plan/model without this note attached will render the information shown invalid.

Subsoil Drainage

is to comply with AS2870, AS3500 & N.C.C 2022 3.3.4.

Where a subsoil drainage system is installed to divert subsurface water away from the area beneath a building, the subsoil drain must-

(a) be graded with a uniform fall of not less than 1:300; and

(b) discharge into an external silt pit or sump with-

(i)the level of discharge from the silt pit or sump into an impervious drainage line not less than 50 mm below the invert level of the inlet; and provision for cleaning and maintenance.

Note

All driveway pits and grate drains to be **Class B**.

Stormwater pits are indicative. Location may vary depending on site conditions.

Surface Water Drainage

Ground to fall away from building in all directions in compliance with AS2870 & N.C.C 2022 3.3.3.

Surface water must be diverted away from a Class 1 building as follows:

(a)Slab-on-ground - finished ground level adjacent to a building: the external finished surface surrounding the slab must be drained to move surface water away from the building and graded to give a slope of not less than

(i)25mm over the first 1m from the building

(A)in low rainfall intensity areas for surfaces that are reasonably impermeable (such as concrete or claypaving); or

(B)for any reasonably impermeable surface that forms part of an access path or ramp provided for the purposes of Clauses 1.1(2) or (4)(c) of the ABCB Standard for Livable Housing Design; or

(ii)50 mm over the first 1 m from the building in any other case.

(b)Slab-on-ground - finished slab heights: the height of the slab-on-ground above external finished surfaces mustbe not less than

(i)100 mm above the finished ground level in low rainfall intensity areas or sandy, well-drained areas; or

(ii)50 mm above impermeable (paved or concrete) areas that slope away from the building in accordance with(a); or

(iii)150 mm in any other case.

(c)The ground beneath suspended floors must be graded so that the area beneath the building is above the adjacent external finished ground level and surface water is prevented from ponding under the building.

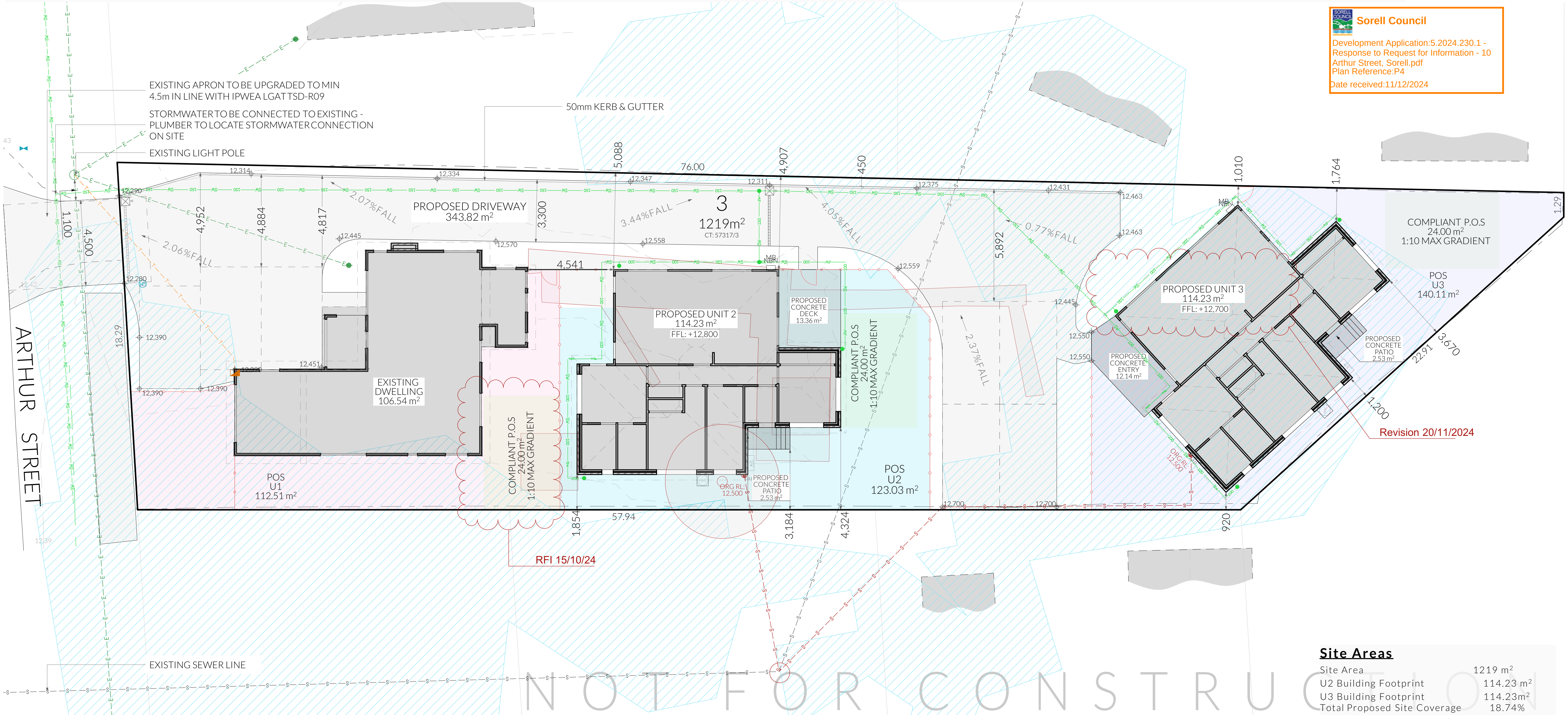
- Flood-prone Hazard Areas Code - Identified from Listmap

Important Note

Refer to flood report completed by Flussig dated October 2024 for details on Flood-prone Area Assement and mitigation recomendations & measures.

Sorell Council

Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024



Site Areas

Site Area	1219 m²
U2 Building Footprint	114.23 m²
U3 Building Footprint	114.23m²
Total Proposed Site Coverage	18.74%

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Site Plan

Scale: 1:200 @ A3
Revision: DA - 03
Approved by: JD
Pg. No: A0.02

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

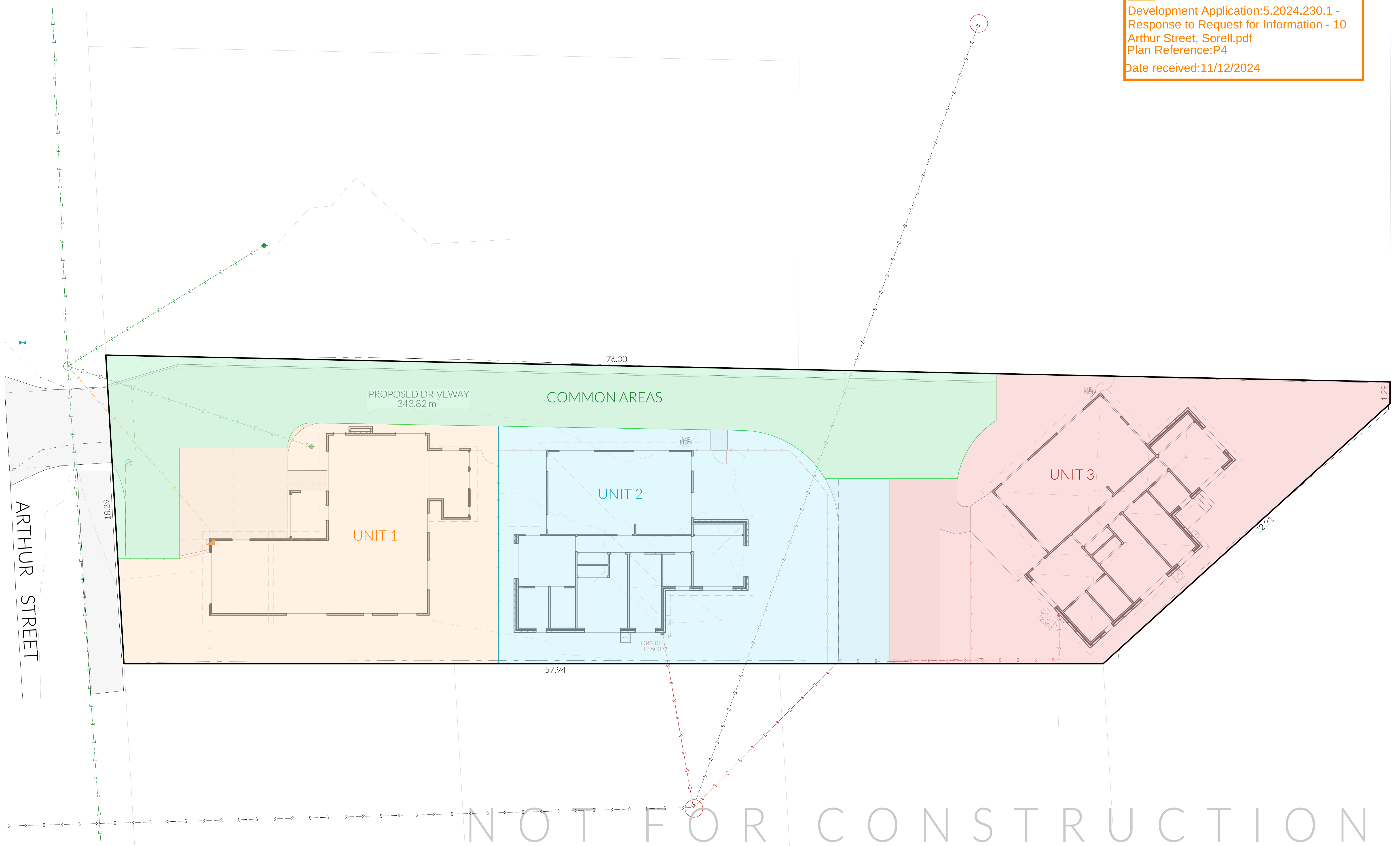
N

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA

UNIT 1 (Existing) - Indicative Strata Plan | UNIT 2 - Indicative Strata Plan | UNIT 3 - Indicative Strata Plan | Common Areas

Sorell Council

Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024



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Strata Plan

Scale: @ A3
Revision: DA - 03
Approved by: JD
Pg. No: A0.03

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
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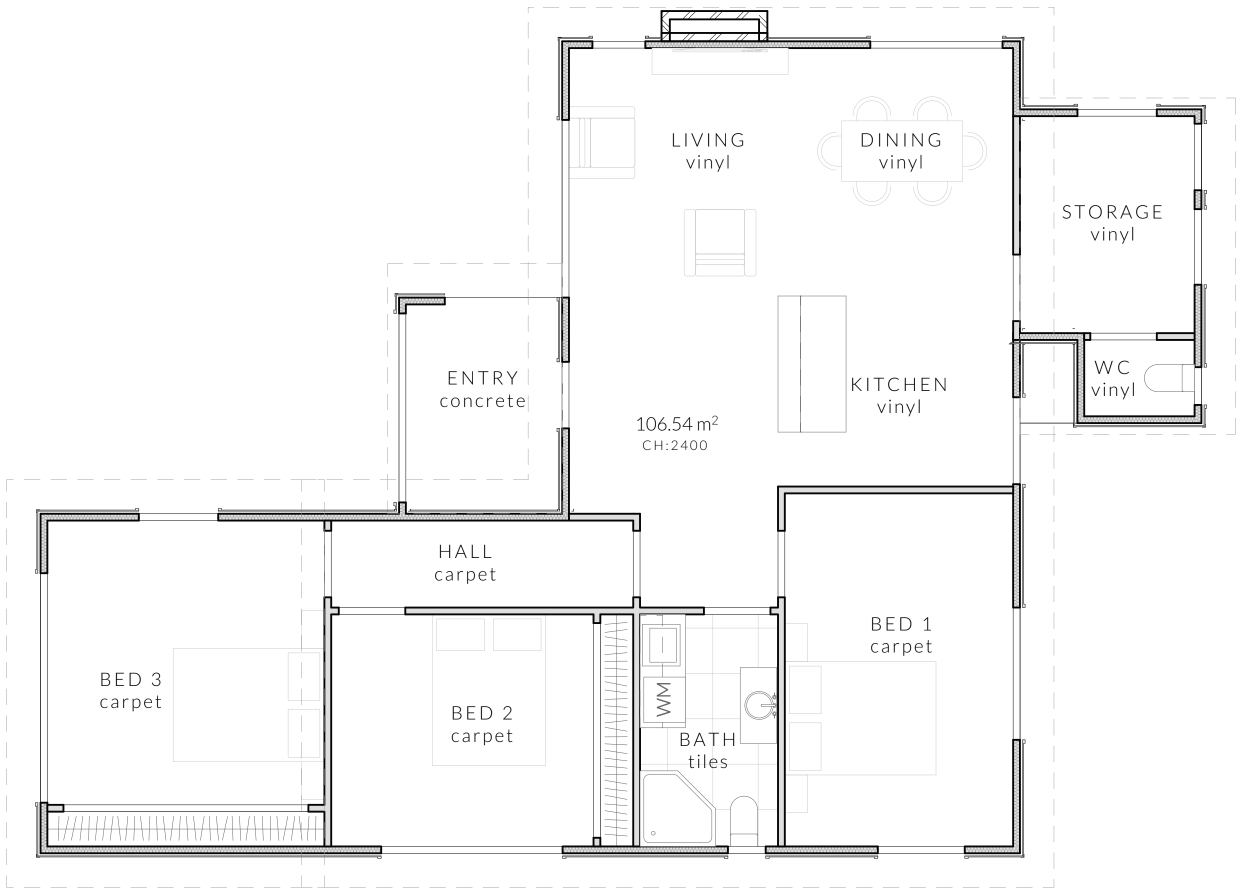
DA - 03	11/12/2024	Council RFI

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA



Existing Ground Floor - U1

Floor Area

Unit 1 Floor Area 111.31m²

N O T F O R C O N S T R U C T I O N

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U1 - Existing Floor Plan

Revision: DA - 03
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A1.01

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
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DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

N

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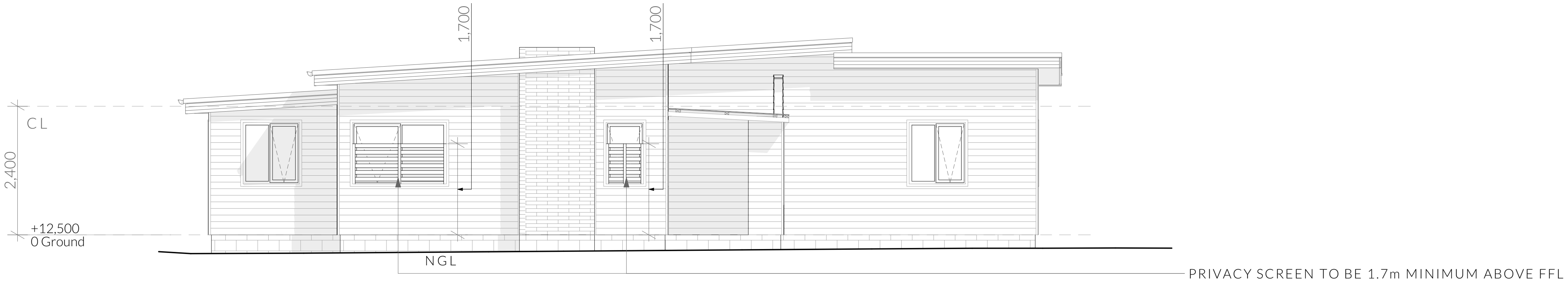
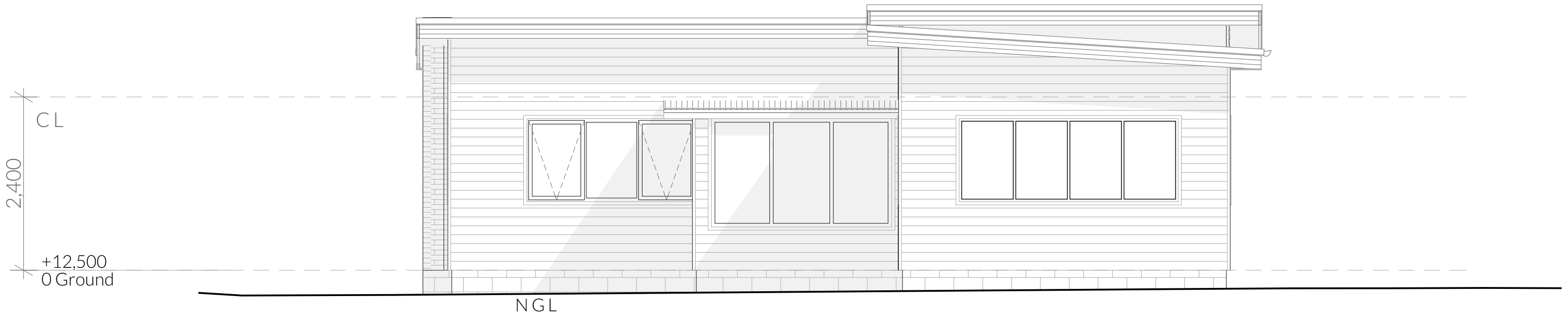


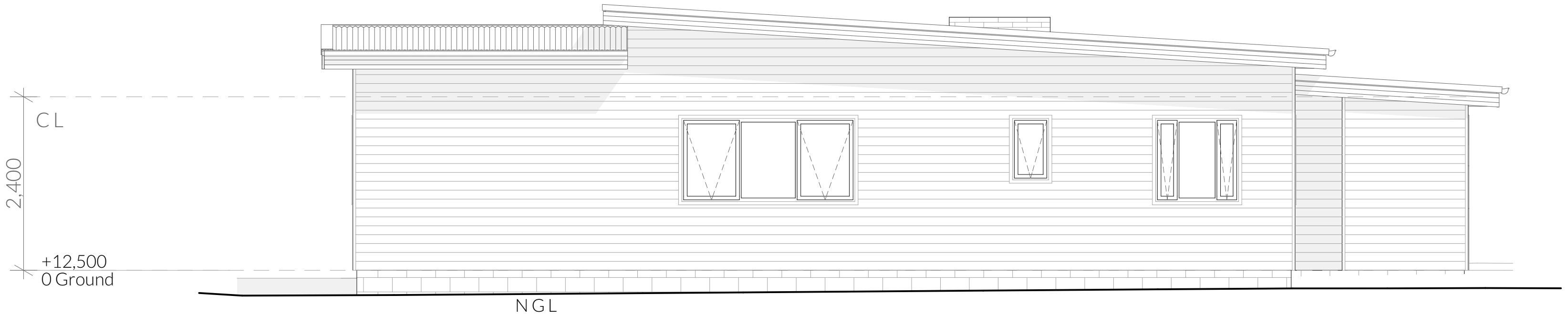
Existing Northern Elevation - U1

1:100



Existing Western Elevation - U1

1:100



Existing Southern Elevation - U1

1:100

Existing Eastern Elevation - U1

1:100

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U1 - Existing Elevations

Revision: DA - 03
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A1.02

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
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Access Panel
Articulation Joint
Smoke Alarm

- BATTS TO WALL
- SOUND INSULATION

Construction of sanitary compartments 10.4.2 of NCC 2022

The door to a fully enclosed sanitary compartment must -

- open outwards; or
- slide; or
- be readily removable from the outside of the compartment.

unless there is a clear space of at least 1.2 m, measured in accordance with Figure 10.4.2 of NCC 2022 Vol II, between the closet pan within the *sanitary compartment* and the doorway.

Note: Safe Movement & Egress

Openable windows greater than 4m above the surface below are to be fitted with a device to limit opening or a suitable screen so a 125mm sphere cannot pass through. Except for Bedrooms, where the requirement is for heights above 2m. Refer to clauses 11.3.7 and 11.3.8 of NCC 2022 for further information on suitable protective devices.

Note: Paved Areas

All paths and patios to fall away from dwelling.

Note: Stair Construction

All stairs to be constructed in accordance with NCC Vol II 2022 Part 11.2.2:
Riser: Min 115mm - Max 190mm
Going: Min 240mm - Max 355mm
Slope (2R+G): Max 550 - Min 700
For stairways serving non-habitable room used infrequently, refer to table 11.2.2(b).

Landings to comply with Clause 11.2.5 and be a minimum of 750mm deep measured 500mm from the inside edge of the landing.

Slip resistance of treads, nosings and ramps to comply with Clause 11.2.4.

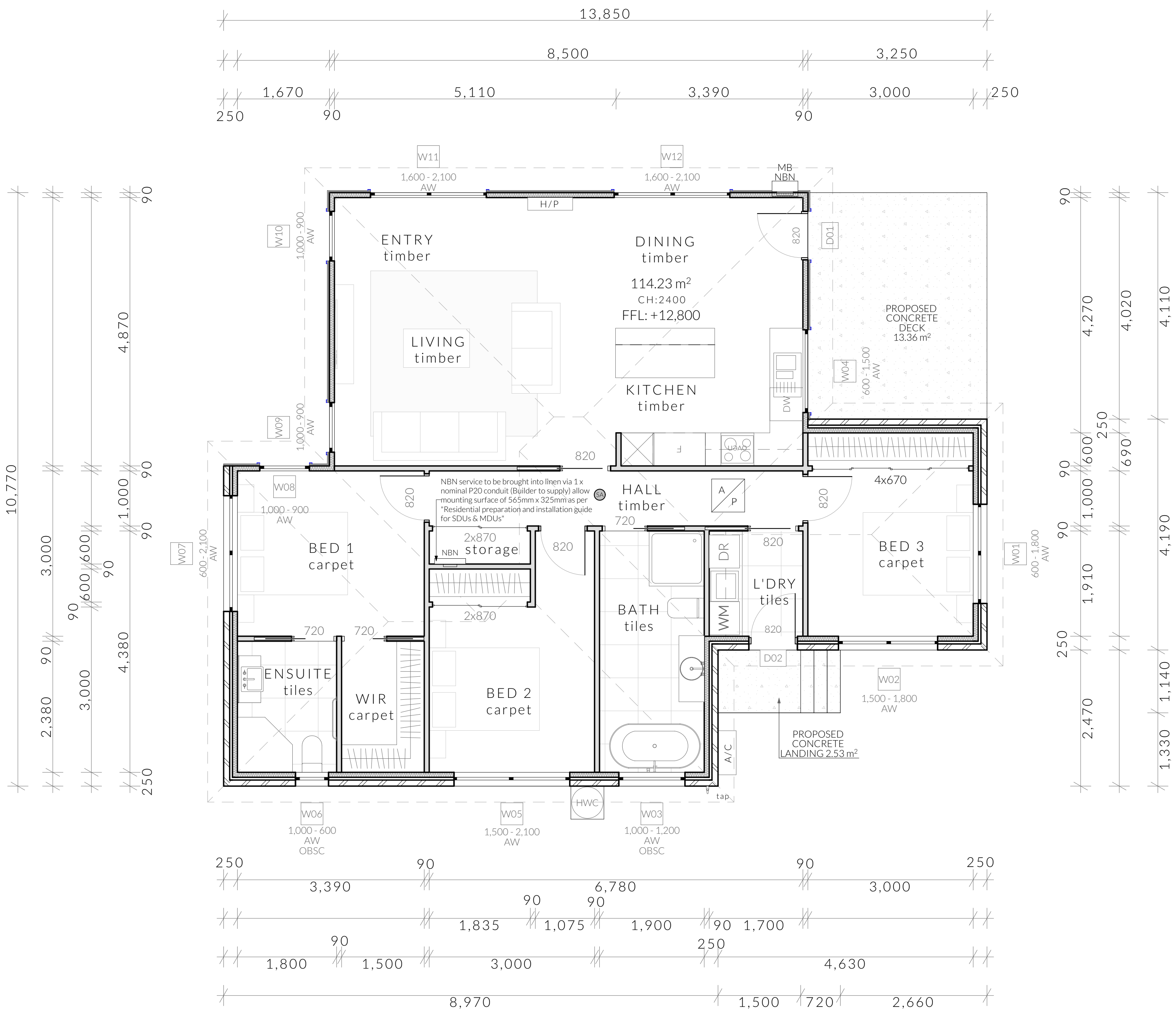
Heights of rooms & other spaces 10.3.1 of NCC 2022

Heights of rooms and other spaces must not be less than;
(a)in a *habitable room* excluding a kitchen - 2.4 m; and
(b)in a kitchen - 2.1 m; and
(c)in a corridor, passageway or the like - 2.1 m; and
(d)in a bathroom, shower room, laundry, *sanitary compartment*, airlock, pantry, storeroom, garage, car parking area or the like - 2.1 m; and
(e)in a room or space with a sloping ceiling or projections below the ceiling line within- See NCC directly for these items
(f)in a stairway, ramp, *landing*, or the like - 2.0 m measured vertically above the nosing line of stairway treads or the floor surface of a ramp, *landing* or the like.

If required onsite, the builder may work within the tolerances of the above as specified within the NCC 2022 Vol II. Builder to contact *Pinnacle* before undertaking works.

Floor Areas

Unit 2 Floor Area	119.03m²
Deck + Landing Area	16.82m²



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www.pinnacledrafting.com.au
Licence: CC6073Y

U2 - Floor Plan

Revision: DA - 03
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A2.01

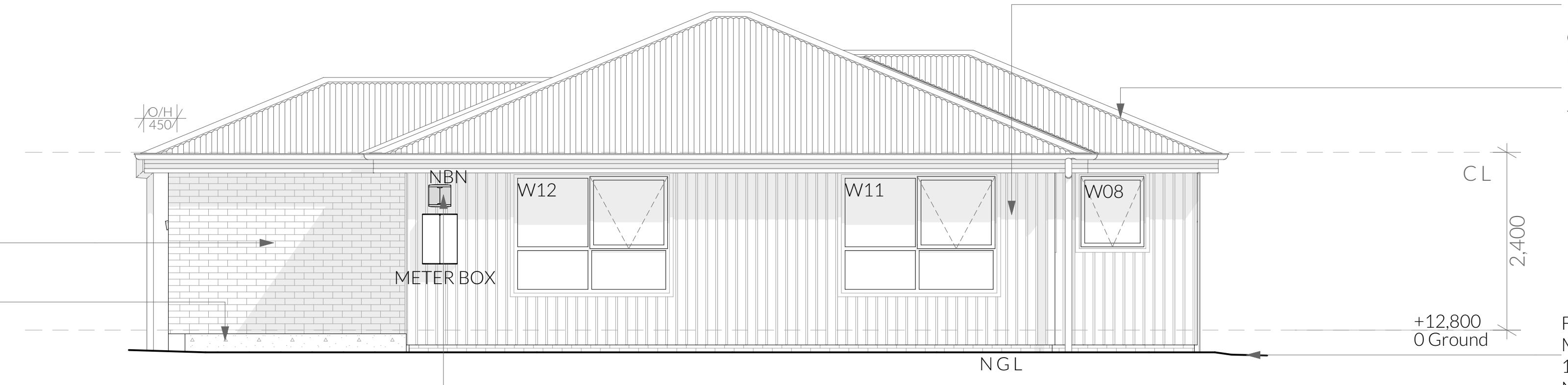
Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

N

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA



U2 - North Elevation 1:100

U2 - East Elevation 1:100

NOTE

Clearances between cladding and ground shall comply with Clause 7.5.7 of the NCC 2022 and shall be a minimum clearance of:
100mm in low rainfall intensity areas or sandy, well-drained areas; or 50mm above impermeable areas that slope away from the building; or 150mm in any other case.

Wall cladding must extend a minimum of 50 mm below the bearer or lowest horizontal part of the suspended floor framing.

U.N.O in builders specifications or located in saline environments or if using a glazed finish brick, brickwork is to be installed in stretcher bond pattern with raked joints.

As per NCC parts 11.3.7 and 11.3.8,
Openable windows greater than 4m above ground level are to be fitted with a device to limit the opening or a suitable screen so a 125mm sphere cannot pass through, and withstand a force of 250N. Except for bedrooms, where the requirement is for heights above 2m.

All stairs to be constructed in accordance with NCC 2022 Vol II Part 11.2.2
Riser: Min 115mm - Max 190mm Going: Min 240mm - Max 355mm Slope (2R+G): Max 550 - Min 700

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U2 - Elevations

Scale: 1:100 @ A3
Revision: DA - 03
Approved by: JD
Pg. No: A2.02

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments
		Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

'CUSTOM ORB' SHEET METAL ROOF
PITCHED @ 22.5°
- CB DOVER WHITE

SELECTED BRICK VENEER
- IB "PEARL ECO EXPOSED" OR SIMILAR

CONCRETE LANDING

FALL GROUND AWAY FROM HOUSE A MINIMUM OF 50mm OVER THE FIRST 1000mm IN ACCORDANCE WITH AS2870, NCC 2022 PART 3.3.3 & Fig. 3.3.3a

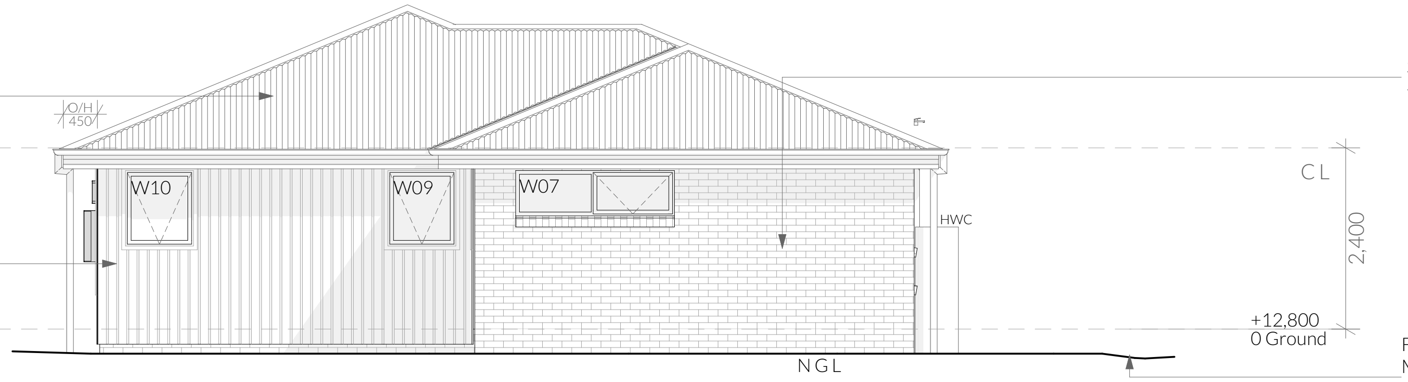
South Elevation

1:100

'CUSTOM ORB' SHEET METAL ROOF
PITCHED @ 22.5°
- CB DOVER WHITE

JAMES HARDIE AXON CLADDING, CB SHALE GREY PAINT FINISH, INSTALLED WITH A VENTILATED CAVITY

SELECTED BRICK VENEER
- IB "PEARL ECO EXPOSED" OR SIMILAR



FALL GROUND AWAY FROM HOUSE A MINIMUM OF 50mm OVER THE FIRST 1000mm IN ACCORDANCE WITH AS2870, NCC 2022 PART 3.3.3 & Fig. 3.3.3a

West Elevation

1:100

Sorell Council

Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

NOTE

Clearances between cladding and ground shall comply with Clause 7.5.7 of the NCC 2022 and shall be a minimum clearance of:
100mm in low rainfall intensity areas or sandy, well-drained areas; or 50mm above impermeable areas that slope away from the building; or 150mm in any other case.

Wall cladding must extend a minimum of 50 mm below the bearer or lowest horizontal part of the suspended floor framing.

U.N.O in builders specifications or located in saline environments or if using a glazed finish brick, brickwork is to be installed in stretcher bond pattern with raked joints.

As per NCC parts 11.3.7 and 11.3.8,
Openable windows greater than 4m above ground level are to be fitted with a device to limit the opening or a suitable screen so a 125mm sphere cannot pass through, and withstand a force of 250N. Except for bedrooms, where the requirement is for heights above 2m.

All stairs to be constructed in accordance with NCC 2022 Vol II Part 11.2.2
Riser: Min 115mm - Max 190mm   Going: Min 240mm - Max 355mm   Slope (2R+G): Max 550 - Min 700

NOT FOR CONSTRUCTION

PINNACLE

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www.pinnacledrafting.com.au
Licence: CC6073Y

U2 - Elevations

Revision: DA - 03
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A2.03

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA

Ventilation of roof spaces NCC 2022 Part 10.8.3

A roof must have a roof space that-
- (a)is located-
  - (i)immediately above the primary insulation layer; or
  - (ii)immediately above sarking with a vapour permeance of not less than 1.14 μg/N.s, which is immediately above the primary insulation layer; or
  - (iii)immediately above ceiling insulation; and
- (b)has a height of not less than 20 mm; and
- (c)is either-
  - (i)ventilated to outdoor air through evenly distributed openings in accordance with Table 10.8.3; or
  - (ii)located immediately underneath the roof tiles of an unsarked tiled roof.

Stormwater Notes

All gutters, downpipes and rain heads to be designed and installed in compliance with AS3500.3 & NCC 2022 Volume II Part 7.4.

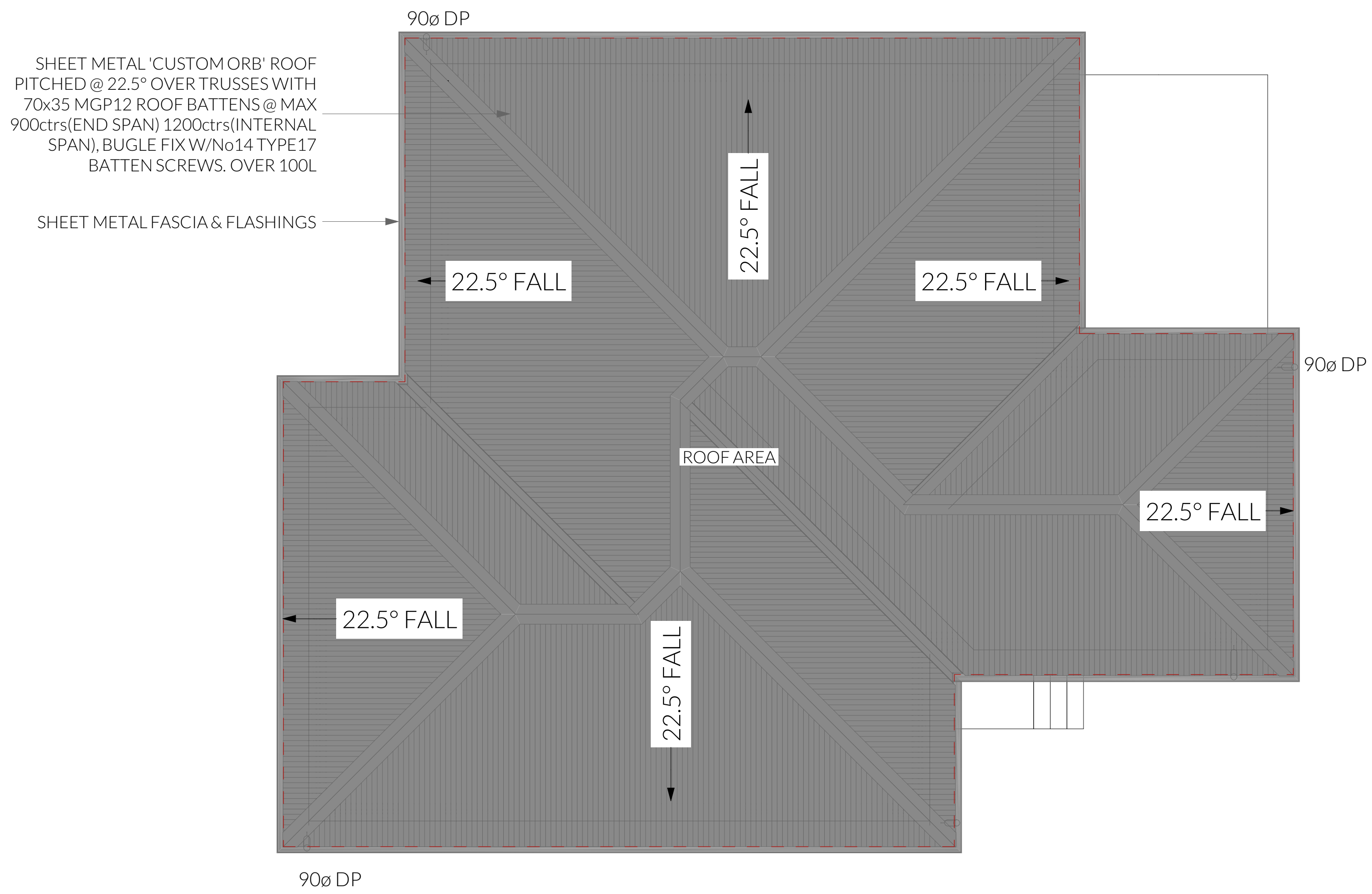
Roofing Cladding

Roof cladding, flashings, cappings, roof sheeting and fixings are to be installed in accordance with NCC 2022 Volume II Part 7.2 for sheet roofing and Part 7.3 for tiled and shingle roofing.

Eaves & Soffit Linings

To comply with NCC 2022 Vol II Part 7.5.5 and where provided, external fibre-cement sheets and linings used as eaves and soffit linings must-
- (a)comply with AS/NZS 2908.2 or ISO 8336; and
- (b)be fixed in accordance with Table 7.5.5 and Figure 7.5.5 using-
  - (i) 2.8 × 30 mm fibre-cement nails; or
  - (ii) No. 8 wafer head screws (for 4.5 mm and 6 mm sheets only); or
  - (iii) No. 8 self embedding head screws (for 6 mm sheets only).

Refer to table 7.5.5 for trimmer and fastener spacings.



ROOF PITCH	VENTILATION OF OPENINGS (TABLE 10.8.3)
>15° AND <75°	7,000 mm2/m provided at the eaves and 5,000 mm2/m at high level, plus an additional 18,000 mm2/m at the eaves if the roof has a cathedral ceiling

(1)Ventilation openings are specified as a minimum free open area per metre length of the longest horizontal dimension of the roof.
(2)For the purposes of this Table, high level openings are openings provided at the ridge or not more than 900 mm below the ridge or highest point of the roof space, measured vertically.

REQUIRED NUMBER OF ROOF VENTS:

ROOF PITCH >15° and <75°
HIP/GABLE ROOF

REQUIRED VENT AREA
Low Vents = 0.3479m^2 (49.7m x 7,000mm2)
High Vents = 0.2485m^2 (49.7m x 5,000mm2)

EAVE VENTS
BUILDERS EDGE EAVE VENT (EV4020)
9x 400X200mm(0.042m^2) VENTS EVENLY SPACED
OR
25mm CONTINUOUS VENT

RIDGE VENT SYSTEM
RIDGE CAP (Continuous 5mm gap in sarking)

Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

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U2 - Roof Plan

Scale: 1:100 @ A3
Pg. No: A2.04
Revision: DA - 03
Approved by: JD

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

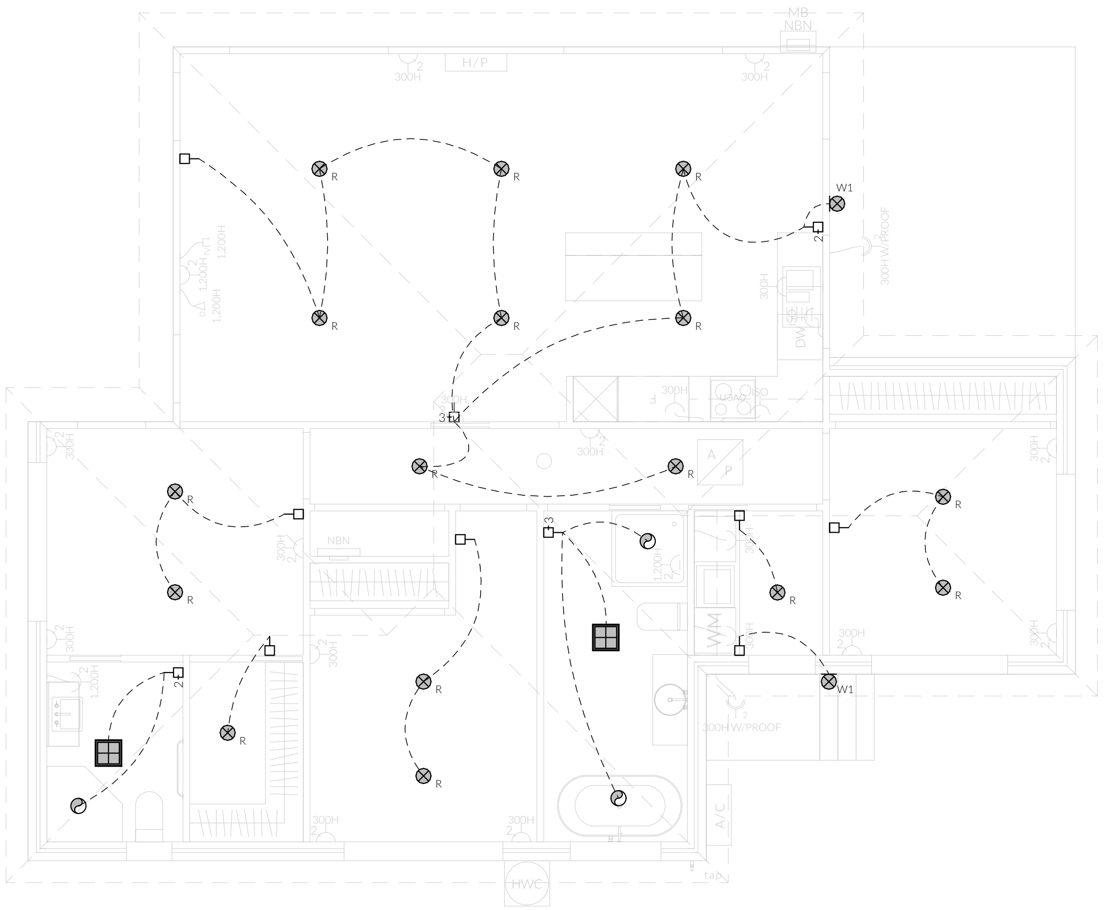
Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

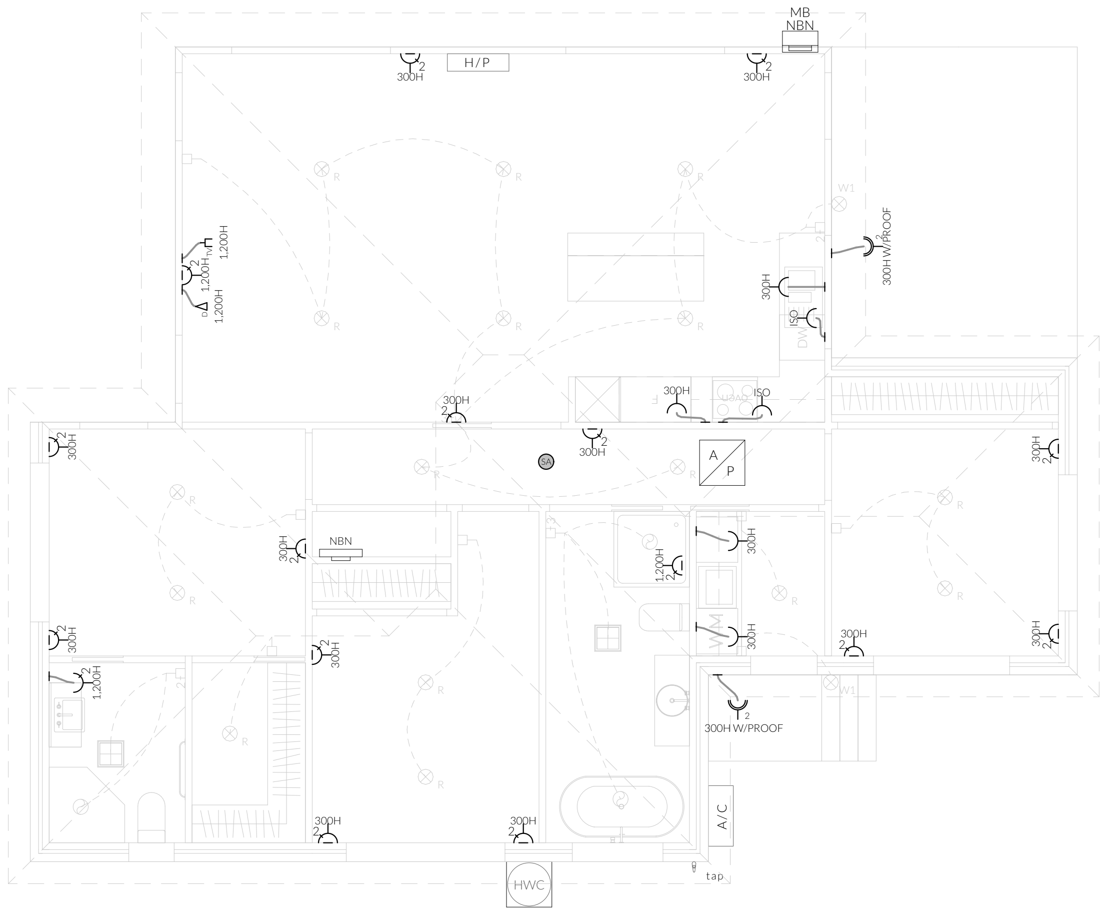
N

ELECTRICAL LEGEND - UNIT 2

Symbol	Description	Allowance	Quantity
	DATA - CAT 6 (RJ45) - 1 GANG		1
	DATA - TV CONNECTION		1
	FAN - 3 IN 1 (4 LAMP)	10W (LIGHT)	2
	FAN - CEILING - EXHAUST		3
	GPO - (2) DOUBLE		20
	GPO - (2) DOUBLE (WITH COOKTOP ISOLATOR SWITCH)		2
	GPO - WEATHER PROOF DOUBLE		2
R	LIGHT - CEILING - DOWNLIGHT RECESSED	10W	16
W1	LIGHT - WALL MOUNTED - TYPE 1	10W	2
	SERVICE - SMOKE ALARM		1
	SWITCH - LIGHT 1 GANG		6
2	SWITCH - LIGHT 2 GANG		5



Electrical Plan - Light/Reflected Ceiling



Electrical Plan - Power

Smoke Alarms Part 9.5 of NCC 2022

Smoke alarms must-
(a)be located in-
(i)a Class 1a building in accordance with 9.5.2 and 9.5.4; and
(ii)a Class 1b building in accordance with 9.5.3 and 9.5.4; and

(b)comply with AS 3786, except that in a Class 10a private garage where the use of the area is likely to result in smoke alarms causing spurious signals, any other alarm deemed suitable in accordance with AS 1670.1 may be installed provided that smoke alarms complying with AS 3786 are installed elsewhere in the Class 1 building; and
(c)be powered from the consumer mains source where a consumer mains source is supplied to the building; and be interconnected where there is more than one alarm.

In a Class 1a building, smoke alarms must be located in-
(a)any storey containing bedrooms, every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building; and
(b) each other storey not containing bedrooms.

Smoke alarms required by 9.5.2 and 9.5.3 must be installed on or near the ceiling, in accordance with the following:
(a)Where a smoke alarm is located on the ceiling it must be-
(i)a minimum of 300 mm away from the corner junction of the wall and ceiling; and
(ii)between 500 mm and 1500 mm away from the high point and apexes of the ceiling, if the room has a sloping ceiling.
(b)Where (a) is not possible, the smoke alarm may be installed on the wall, and located a minimum of 300 mm and a maximum of 500 mm off the ceiling at the junction with the wall.

Note: Exhaust Fans

Exhaust fans to comply with NCC 2022 Vol 2 Part 10.8.2 and have;
-An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of-
(a)25 L/s for a bathroom or sanitary compartment; and
(b)40 L/s for a kitchen or laundry.
-Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air.
-Where a venting clothes dryer is installed, it must discharge directly or via a shaft or duct to outdoor air.
-An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with 10.6.2(a) must-
(a)be interlocked with the room's light switch; and
(b)include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off.

Note: Lighting

Lighting layout may change, owner to confirm with builder prior to purchase/installation of exact quantity and location of electrical services provided that installation is compliant with AS3000 and artificial lighting allowances do not exceed:
5W/m² in class 1a dwellings
4W/m² to veranda, balcony or the like
3W/m² in a class 10a dwelling associated with the class 1a dwelling

U.N.O - All downlights are to be Insulation Contact (IC) rated.

Preparation for future Solar Installation:

Should the solar design be required for future installation, 2/25mm solarflex (or similar) conduits marked "solar" are to be installed from the meter box to the roof space - See electrical plan.

Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

Notes

U.N.O ceilings are to be plasterboard.

Dimmable Circuit

Timer Circuit(as fan note)

PB - Plasterboard

CS - Cement Sheet Eaves

PW - Plywood Ceiling

TB - Timber Batten Ceiling

NOT FOR CONSTRUCTION

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Licence: CC6073Y

U2 - Electrical Plan
Scale: @ A3
Revision: DA - 03
Approved by: JD
Pg. No: A2.05

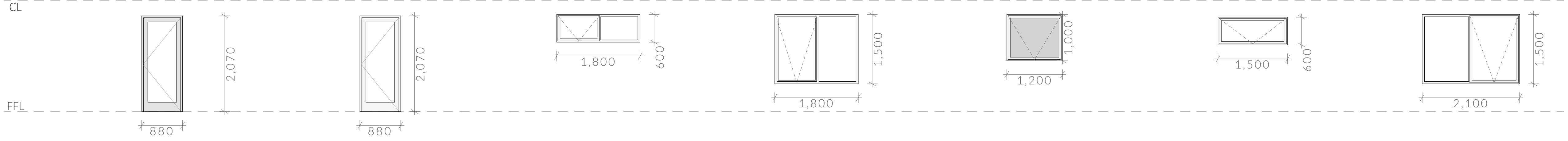
Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

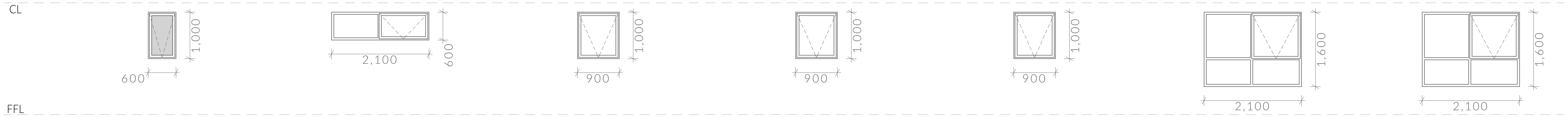
Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

N

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA



ID	D01	D02	W01	W02	W03	W04	W05
External View							
Sill Height	0	0	1,500	600	1,100	1,440	600
Notes					OBSCURE		



ID	W06	W07	W08	W09	W10	W11	W12
External View							
Sill Height	1,100	1,500	1,100	1,100	1,100	500	500
Notes	OBSCURE						

Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

Glazing - 52mm Double Glazed (clear)

All windows & doors to be glazed with the minimum following values:

Window Type	U-Value	SHGC
Awning	4.1	0.57
Fixed	3.2	0.67

Values based on products from Clark Windows. Where Argon Gas is specified the U-Value is reduced by 0.1 across all products.

NOT FOR CONSTRUCTION

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U2 - Door & Window Schedule
Scale: @ A3
Revision: DA - 03
Approved by: JD
Pg. No: A2.06

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
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Job No: 041-2024
Engineer: TBA
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Access Panel

Articulation Joint

Smoke Alarm

- BATTS TO WALL

- SOUND INSULATION

Construction of sanitary compartments 10.4.2 of NCC 2022

The door to a fully enclosed sanitary compartment must -

- open outwards; or
- slide; or
- be readily removable from the outside of the compartment.

unless there is a clear space of at least 1.2 m, measured in accordance with Figure 10.4.2 of NCC 2022 Vol II, between the closet pan within the *sanitary compartment* and the doorway.

Note: Safe Movement & Egress

Openable windows greater than 4m above the surface below are to be fitted with a device to limit opening or a suitable screen so a 125mm sphere cannot pass through. Except for Bedrooms, where the requirement is for heights above 2m. Refer to clauses 11.3.7 and 11.3.8 of NCC 2022 for further information on suitable protective devices.

Note: Paved Areas

All paths and patios to fall away from dwelling.

Note: Stair Construction

All stairs to be constructed in accordance with NCC Vol II 2022 Part 11.2.2:
Riser: Min 115mm - Max 190mm
Going: Min 240mm - Max 355mm
Slope (2R+G): Max 550 - Min 700
For stairways serving non-habitable room used infrequently, refer to table 11.2.2(b).

Landings to comply with Clause 11.2.5 and be a minimum of 750mm deep measured 500mm from the inside edge of the landing.

Slip resistance of treads, nosings and ramps to comply with Clause 11.2.4.

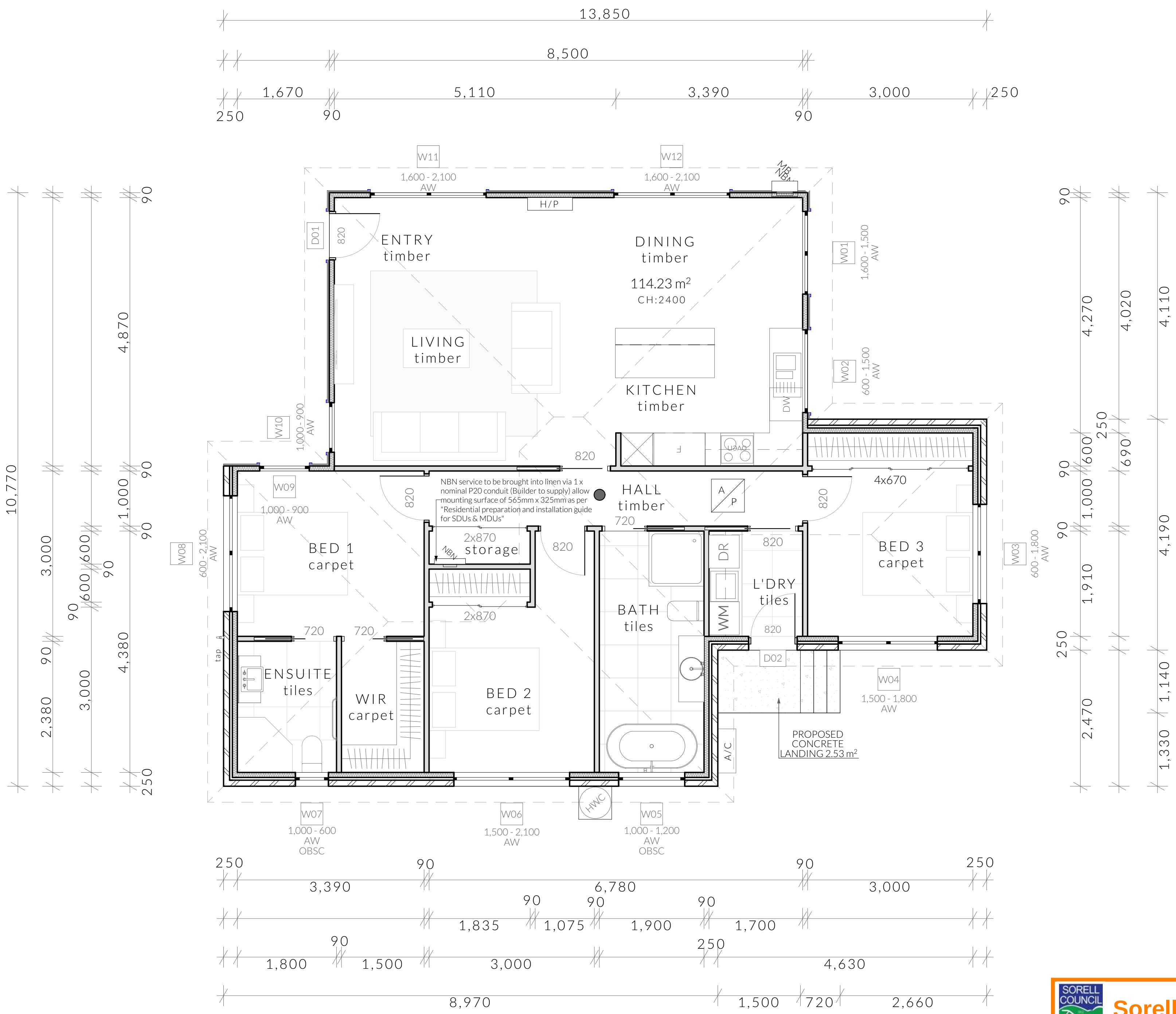
Heights of rooms & other spaces 10.3.1 of NCC 2022

Heights of rooms and other spaces must not be less than;
(a)in a *habitable room* excluding a kitchen - 2.4 m; and
(b)in a kitchen - 2.1 m; and
(c)in a corridor, passageway or the like - 2.1 m; and
(d)in a bathroom, shower room, laundry, *sanitary compartment*, airlock, pantry, storeroom, garage, car parking area or the like - 2.1 m; and
(e)in a room or space with a sloping ceiling or projections below the ceiling line within- See NCC directly for these items
(f)in a stairway, ramp, *landing*, or the like - 2.0 m measured vertically above the nosing line of stairway treads or the floor surface of a ramp, *landing* or the like.

If required onsite, the builder may work within the tolerances of the above as specified within the NCC 2022 Vol II. Builder to contact *Pinnacle* before undertaking works.

Floor Areas

Unit 3 Floor Area	118.60m²
Concrete Decks + Landing	21.81m²



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Licence: CC6073Y

U3 - Floor Plan

Revision: DA - 03
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A3.01

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

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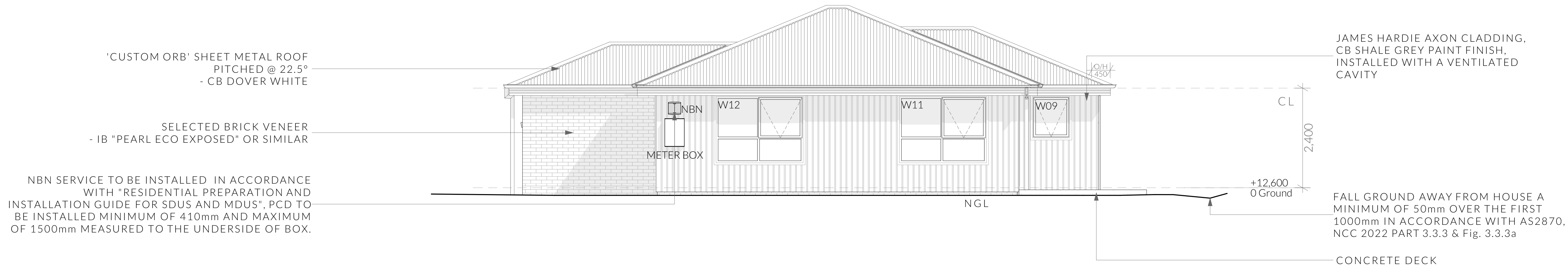
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments
		Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA



U3 - North Elevation 1:100

U3 - East Elevation 1:100

Sorell Council

Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

NOTE

Clearances between cladding and ground shall comply with Clause 7.5.7 of the NCC 2022 and shall be a minimum clearance of:
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Wall cladding must extend a minimum of 50 mm below the bearer or lowest horizontal part of the suspended floor framing.

U.N.O in builders specifications or located in saline environments or if using a glazed finish brick, brickwork is to be installed in stretcher bond pattern with raked joints.

As per NCC parts 11.3.7 and 11.3.8,
Openable windows greater than 4m above ground level are to be fitted with a device to limit the opening or a suitable screen so a 125mm sphere cannot pass through, and withstand a force of 250N. Except for bedrooms, where the requirement is for heights above 2m.

All stairs to be constructed in accordance with NCC 2022 Vol II Part 11.2.2
Riser: Min 115mm - Max 190mm Going: Min 240mm - Max 355mm Slope (2R+G): Max 550 - Min 700

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U3 - Elevations

Revision: DA - 03
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A3.02

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

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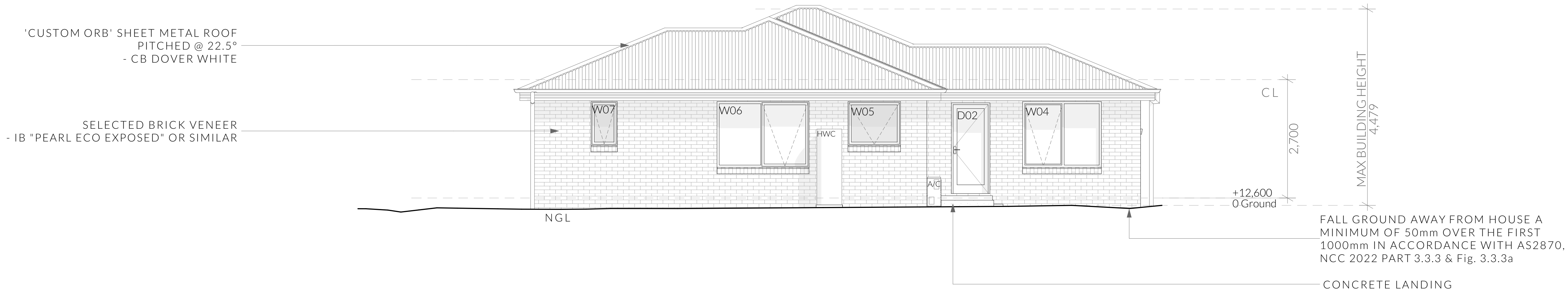
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

BUILDING DESIGNERS
ASSOCIATION OF AUSTRALIA



South Elevation 1:100

West Elevation 1:100

NOTE

Clearances between cladding and ground shall comply with Clause 7.5.7 of the NCC 2022 and shall be a minimum clearance of:
100mm in low rainfall intensity areas or sandy, well-drained areas; or 50mm above impermeable areas that slope away from the building; or 150mm in any other case.

Wall cladding must extend a minimum of 50 mm below the bearer or lowest horizontal part of the suspended floor framing.

U.N.O in builders specifications or located in saline environments or if using a glazed finish brick, brickwork is to be installed in stretcher bond pattern with raked joints.

As per NCC parts 11.3.7 and 11.3.8,
Openable windows greater than 4m above ground level are to be fitted with a device to limit the opening or a suitable screen so a 125mm sphere cannot pass through, and withstand a force of 250N. Except for bedrooms, where the requirement is for heights above 2m.

All stairs to be constructed in accordance with NCC 2022 Vol II Part 11.2.2
Riser: Min 115mm - Max 190mm   Going: Min 240mm - Max 355mm   Slope (2R+G): Max 550 - Min 700

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U3 - Elevations

Revision: DA - 03
Approved by: JD

Scale: 1:100 @ A3
Pg. No: A3.03

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

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DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
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BUILDING DESIGNERS ASSOCIATION OF AUSTRALIA

Ventilation of roof spaces NCC 2022 Part 10.8.3

A roof must have a roof space that-
- (a)is located-
  - (i)immediately above the primary insulation layer; or
  - (ii)immediately above sarking with a vapour permeance of not less than 1.14 µg/N.s, which is immediately above the primary insulation layer; or
  - (iii)immediately above ceiling insulation; and
- (b)has a height of not less than 20 mm; and
- (c)is either-
  - (i)ventilated to outdoor air through evenly distributed openings in accordance with Table 10.8.3; or
  - (ii)located immediately underneath the roof tiles of an unsarked tiled roof.

Stormwater Notes

All gutters, downpipes and rain heads to be designed and installed in compliance with AS3500.3 & NCC 2022 Volume II Part 7.4.

Roofing Cladding

Roof cladding, flashings, cappings, roof sheeting and fixings are to be installed in accordance with NCC 2022 Volume II Part 7.2 for sheet roofing and Part 7.3 for tiled and shingle roofing.

Eaves & Soffit Linings

To comply with NCC 2022 Vol II Part 7.5.5 and where provided, external fibre-cement sheets and linings used as eaves and soffit linings must-
- (a)comply with AS/NZS 2908.2 or ISO 8336; and
- (b)be fixed in accordance with Table 7.5.5 and Figure 7.5.5 using-
  - (i) 2.8 × 30 mm fibre-cement nails; or
  - (ii) No. 8 wafer head screws (for 4.5 mm and 6 mm sheets only); or
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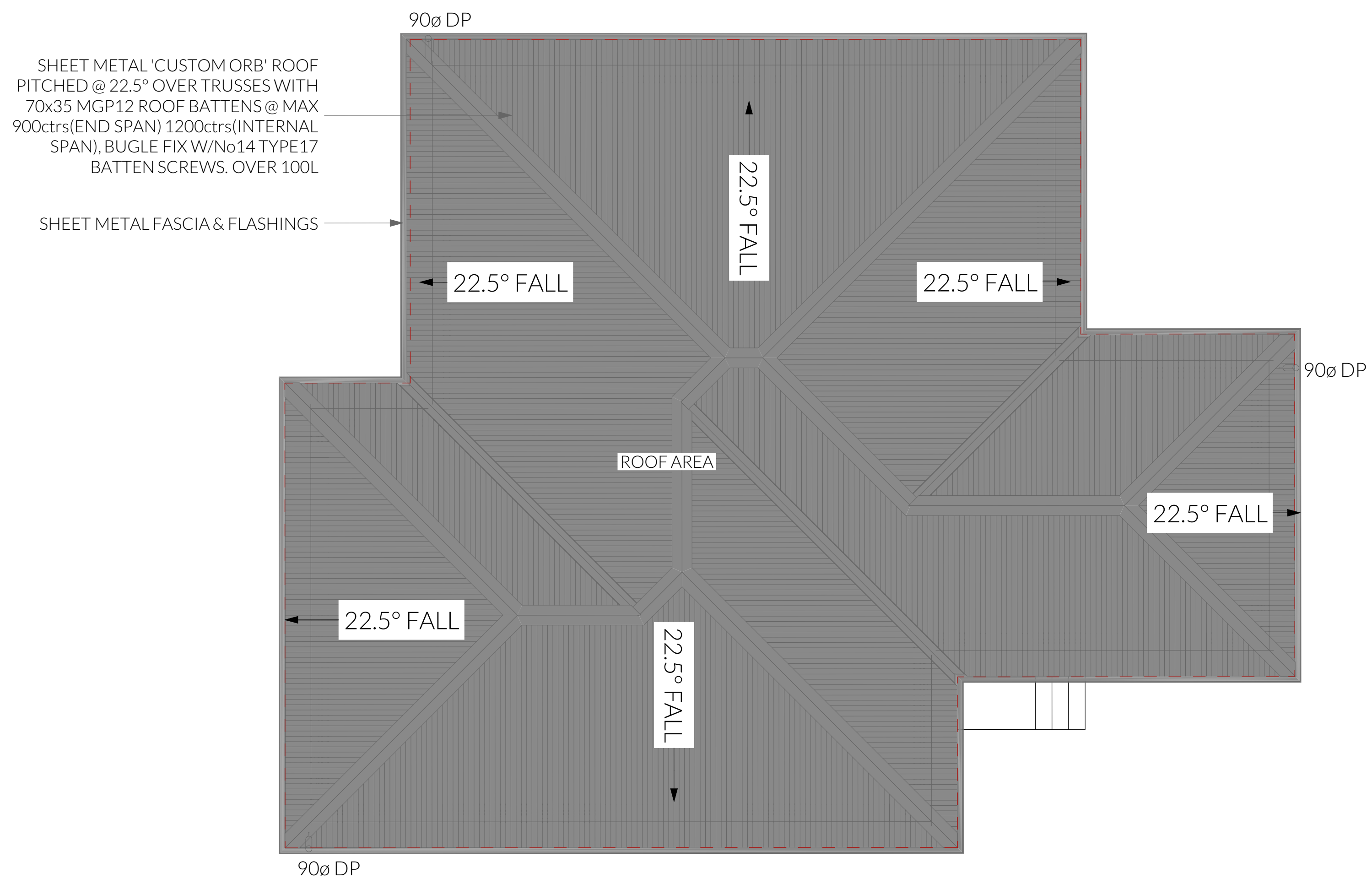
Refer to table 7.5.5 for trimmer and fastener spacings.

ROOF PITCH	VENTILATION OF OPENINGS (TABLE 10.8.3)
>15° AND <75°	7,000 mm2/m provided at the eaves and 5,000 mm2/m at high level, plus an additional 18,000 mm2/m at the eaves if the roof has a cathedral ceiling

(1)Ventilation openings are specified as a minimum free open area per metre length of the longest horizontal dimension of the roof.
(2)For the purposes of this Table, high level openings are openings provided at the ridge or not more than 900 mm below the ridge or highest point of the roof space, measured vertically.



Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

REQUIRED NUMBER OF ROOF VENTS:

ROOF PITCH >15° and <75°
HIP/GABLE ROOF

REQUIRED VENT AREA
Low Vents = 0.3479m² (49.7m x 7,000mm2)
High Vents = 0.2485m² (49.7m x 5,000mm2)

EAVE VENTS
BUILDERS EDGE EAVE VENT (EV4020)
9x 400X200mm(0.042m²) VENTS EVENLY SPACED
OR
25mm CONTINUOUS VENT

RIDGE VENT SYSTEM
RIDGE CAP (Continuous 5mm gap in sarking)

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Licence: CC6073Y

U3 - Roof Plan

Scale: 1:100 @ A3
Pg. No: A3.04
Revision: DA - 03
Approved by: JD

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments
		Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

N

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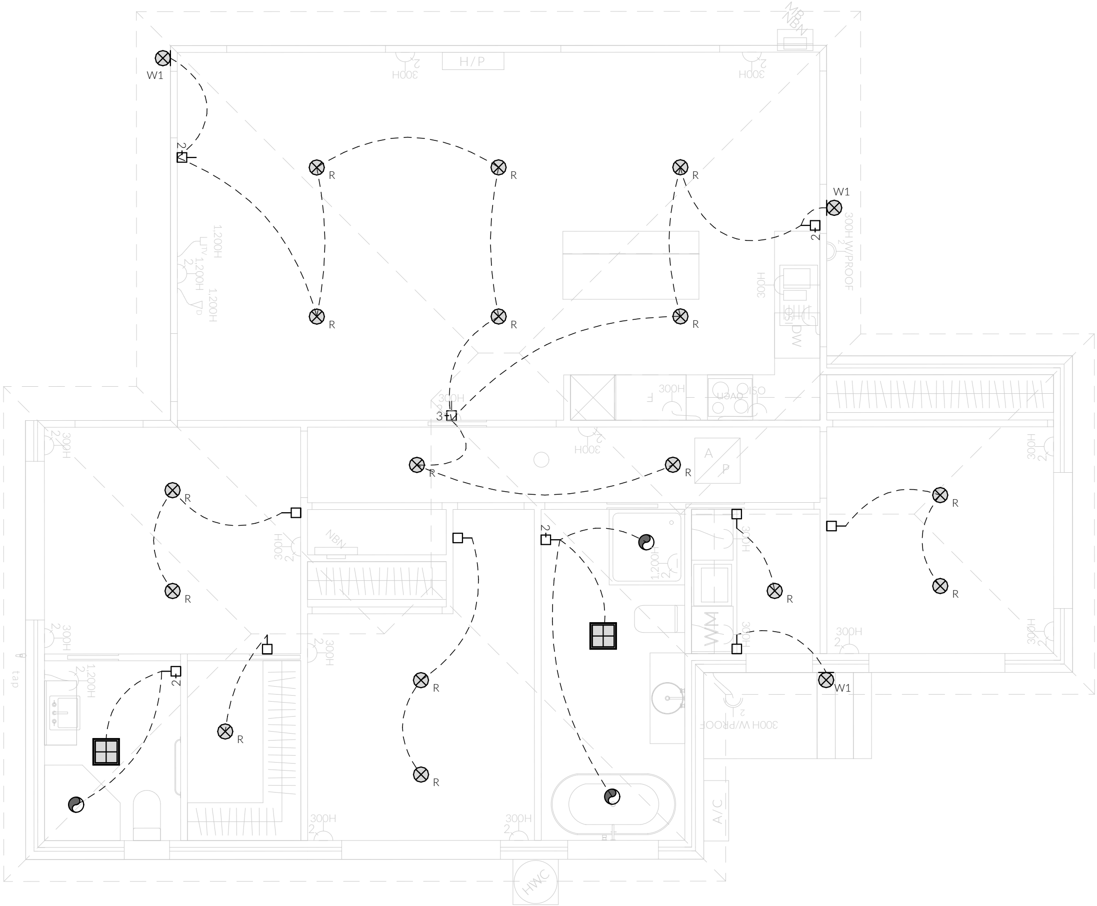
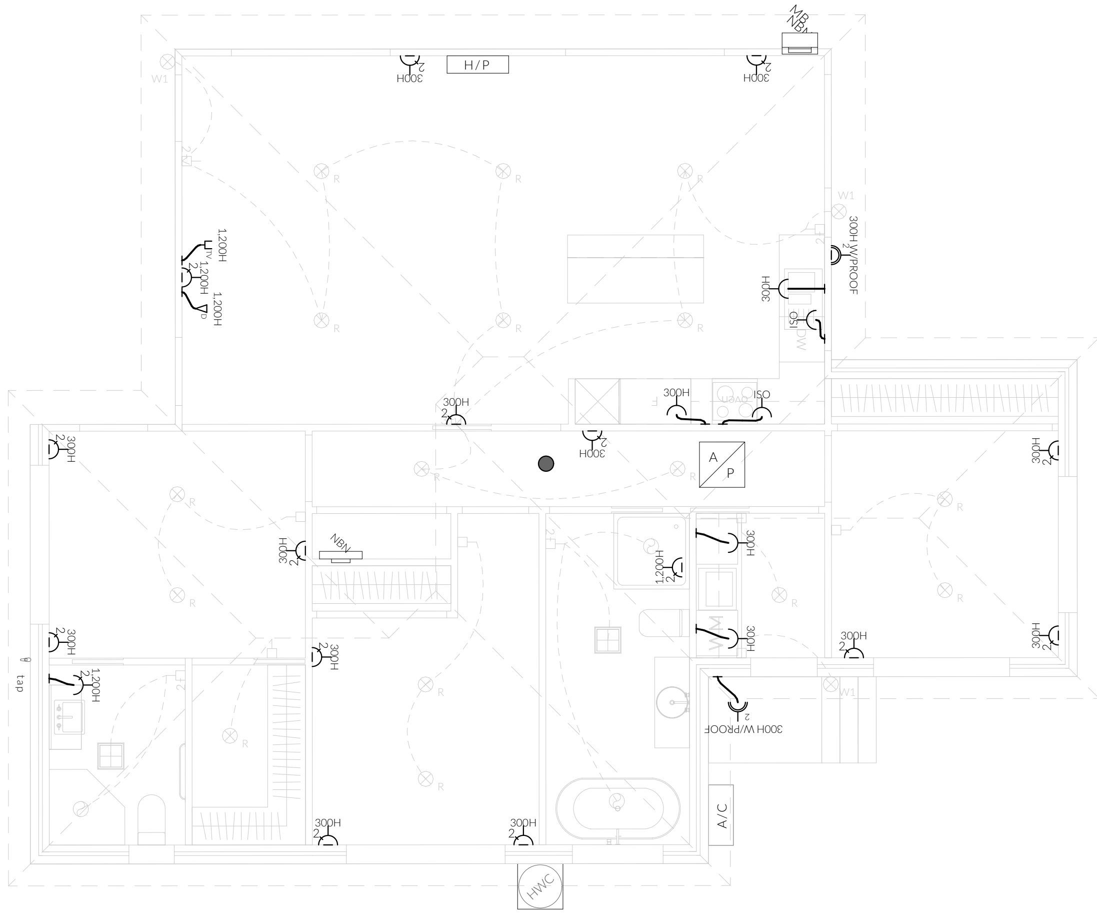
ELECTRICAL LEGEND - UNIT 3

Symbol	Description	Allowance	Quantity
1,200H	DATA - CAT 6 (RJ45) - 1 GANG		1
1,200H TV	DATA - TV CONNECTION		1
	FAN - 3 IN 1 (4 LAMP)	10W (LIGHT)	2
	FAN - CEILING - EXHAUST		3
300H	GPO - (2) DOUBLE		20
ISO	GPO - (2) DOUBLE (WITH COOKTOP ISOLATOR SWITCH)		2
300H W/PROOF	GPO - WEATHER PROOF DOUBLE		2
R	LIGHT - CEILING - DOWNLIGHT RECESSED	10W	16
W1	LIGHT - WALL MOUNTED - TYPE 1	10W	3
	SERVICE - SMOKE ALARM		1
	SWITCH - LIGHT 1 GANG		6
2	SWITCH - LIGHT 2 GANG		5



Electrical Plan - Light/Reflected Ceiling



Electrical Plan - Power

Smoke Alarms Part 9.5 of NCC 2022

Smoke alarms must-
(a)be located in-
(i)a Class 1a building in accordance with 9.5.2 and 9.5.4; and
(ii)a Class 1b building in accordance with 9.5.3 and 9.5.4; and

(b)comply with AS 3786, except that in a Class 10a private garage where the use of the area is likely to result in smoke alarms causing spurious signals, any other alarm deemed suitable in accordance with AS 1670.1 may be installed provided that smoke alarms complying with AS 3786 are installed elsewhere in the Class 1 building; and
(c)be powered from the consumer mains source where a consumer mains source is supplied to the building; and be interconnected where there is more than one alarm.

In a Class 1a building, smoke alarms must be located in-
(a)any storey containing bedrooms, every corridor or hallway associated with a bedroom, or if there is no corridor or hallway, in an area between the bedrooms and the remainder of the building; and
(b) each other storey not containing bedrooms.

Smoke alarms required by 9.5.2 and 9.5.3 must be installed on or near the ceiling, in accordance with the following:
(a)Where a smoke alarm is located on the ceiling it must be-
(i)a minimum of 300 mm away from the corner junction of the wall and ceiling; and
(ii)between 500 mm and 1500 mm away from the high point and apexes of the ceiling, if the room has a sloping ceiling.
(b)Where (a) is not possible, the smoke alarm may be installed on the wall, and located a minimum of 300 mm and a maximum of 500 mm off the ceiling at the junction with the wall.

Note: Exhaust Fans

Exhaust fans to comply with NCC 2022 Vol 2 Part 10.8.2 and have;
-An exhaust system installed in a kitchen, bathroom, sanitary compartment or laundry must have a minimum flow rate of-
(a)25 L/s for a bathroom or sanitary compartment; and
(b)40 L/s for a kitchen or laundry.
-Exhaust from a kitchen, kitchen range hood, bathroom, sanitary compartment or laundry must discharge directly or via a shaft or duct to outdoor air.
-Where a venting clothes dryer is installed, it must discharge directly or via a shaft or duct to outdoor air.
-An exhaust system that is not run continuously and is serving a bathroom or sanitary compartment that is not ventilated in accordance with 10.6.2(a) must-
(a)be interlocked with the room's light switch; and
(b)include a run-on timer so that the exhaust system continues to operate for 10 minutes after the light switch is turned off.

Note: Lighting

Lighting layout may change, owner to confirm with builder prior to purchase/installation of exact quantity and location of electrical services provided that installation is compliant with AS3000 and artificial lighting allowances do not exceed:
5W/m² in class 1a dwellings
4W/m² to veranda, balcony or the like
3W/m² in a class 10a dwelling associated with the class 1a dwelling

U.N.O - All downlights are to be Insulation Contact (IC) rated.

Preparation for future Solar Installation:

Should the solar design be required for future installation, 2/25mm solarflex (or similar) conduits marked "solar" are to be installed from the meter box to the roof space - See electrical plan.

Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

Notes

U.N.O ceilings are to be plasterboard.

- - D - - - - D Dimmable Circuit

- - T - - - - T Timer Circuit(as fan note)

PB - Plasterboard

CS - Cement Sheet Eaves

PW - Plywood Ceiling

TB -Timber Batten Ceiling

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U3 - Electrical Plan

Scale: 1:100 @ A3
Revision: DA - 03
Approved by: JD
Pg. No: A3.05

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
DA - 02	15/10/2024	RFI Amendments dated 14/11/2024
DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

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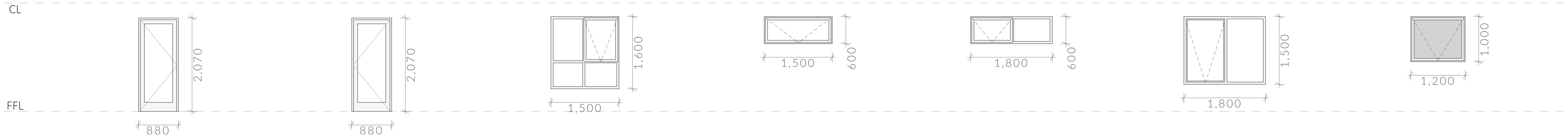
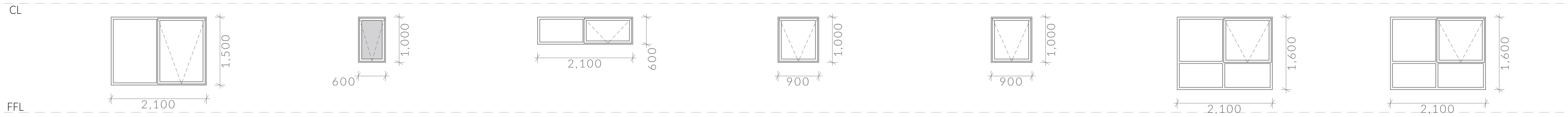
ID	D01	D02	W01	W02	W03	W04	W05
External View							
Sill Height	0	0	500	1,500	1,500	600	1,100
Notes							OBSCURE



ID	W06	W07	W08	W09	W10	W11	W12
External View							
Sill Height	600	1,100	1,500	1,100	1,100	500	500
Notes		OBSCURE					



Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

Glazing - 52mm Double Glazed (clear)

All windows & doors to be glazed with the minimum following values:

Window Type	U-Value	SHGC
Awning	4.1	0.57
Fixed	3.2	0.67

Values based on products from Clark Windows. Where Argon Gas is specified the U-Value is reduced by 0.1 across all products.

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U3 - Door & Window Schedule

Revision: DA - 03
Approved by: JD

Scale: 1:1 @ A3
Pg. No: A3.06

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

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DA - 02	20/11/2024	Flood report amendments Unit 3 FFL raised 100mm
DA - 03	11/12/2024	Council RFI

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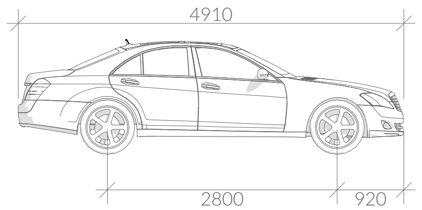
Vehicle Movement Notes

- Movement templates demonstrate the ability of vehicles to enter intersection in a forwards direction and leave in a forwards direction.

- The base dimensions of the vehicle template represent the B85 (85th Percentile) Vehicle

- The swept path of the vehicle represent the outer extents of the vehicle.



B85 Vehicle Dimensions

Width:	1870
Track:	1770
L-L Time:	6.0
Turning Radius:	5800

Parking Space requirements
As defined by the Parking and Sustainable Transport Code - Table C2.3

Parking Dimensions - 90°

Width:	2600	2800	3000	3200
Length:	5400	5400	5400	5400
Aisle Width:	6400	5800	5200	4800

Parking Dimensions - 45°

Width:	2600
Length:	5400
Aisle Width:	3500

Parking Dimensions - Parallel

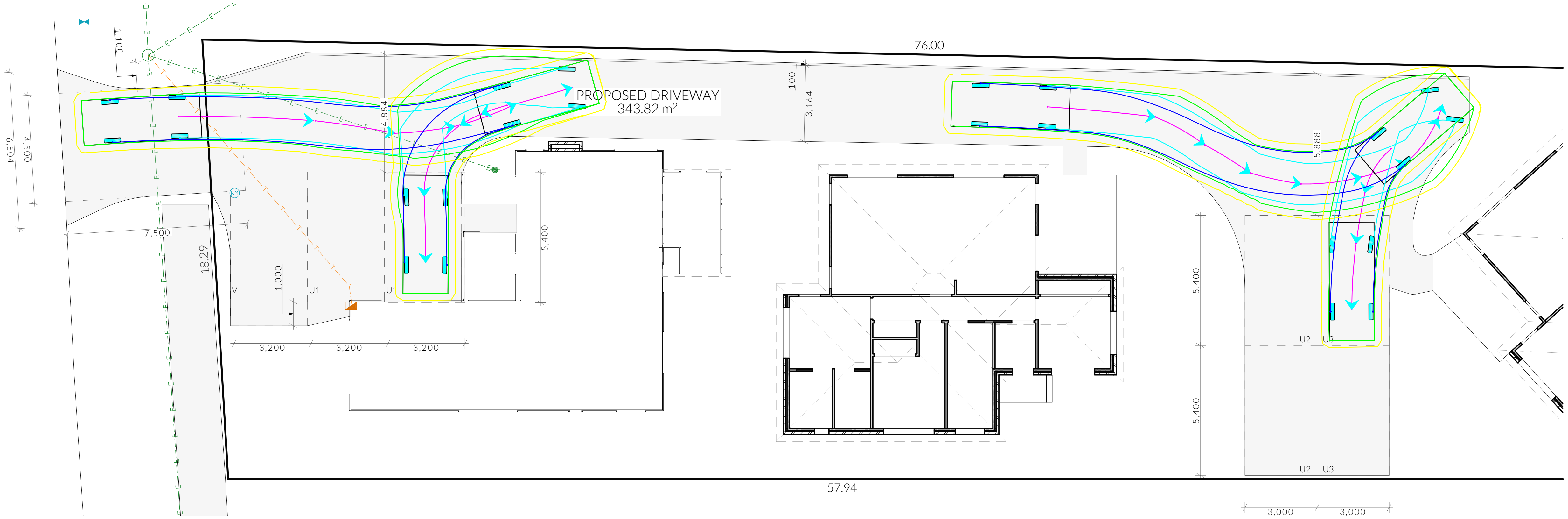
Width:	2300
Length:	6700
Aisle Width:	3600

Legend

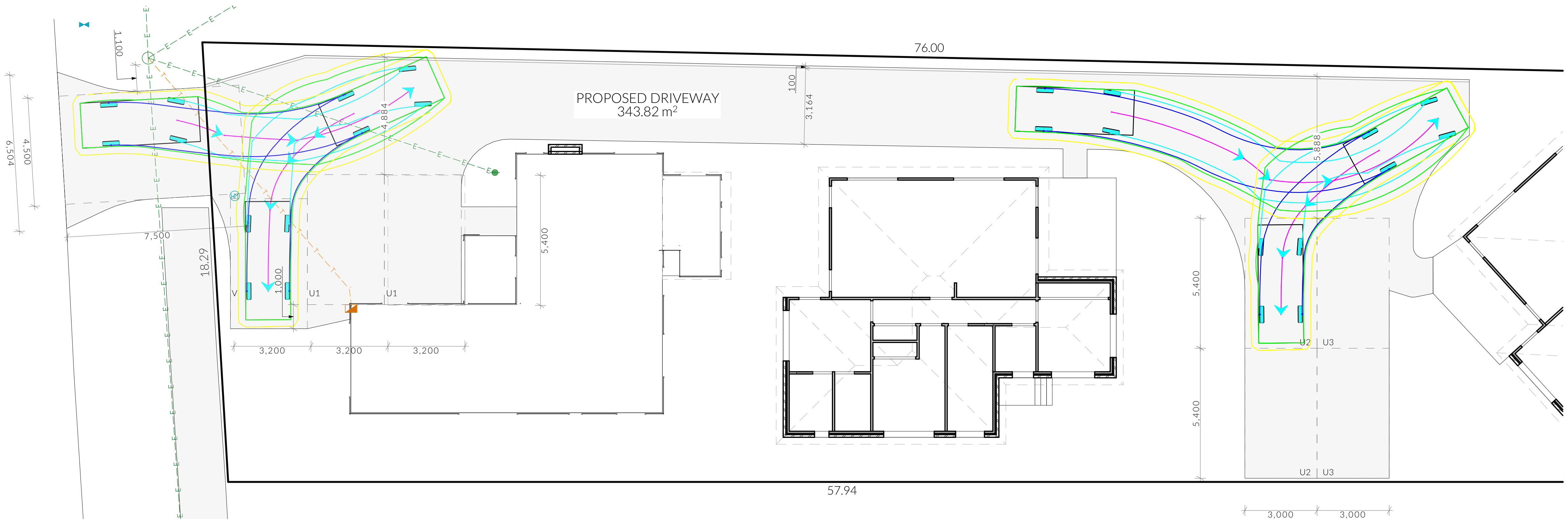
- Solar Bollard Lighting
- Spotlight with Sensor

Turning Path Legend

- LINE OF BODY
- 300mm BODY CLEARANCE
- DIRECTION OF TRAVEL



Maneuvering plan 1 (in)



Maneuvering plan 2 (in)

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Parking

Revision: DA - 03
Approved by: JD

Scale: 1:200 @ A3
Pg. No: C.01

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

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N

Vehicle Movement Notes

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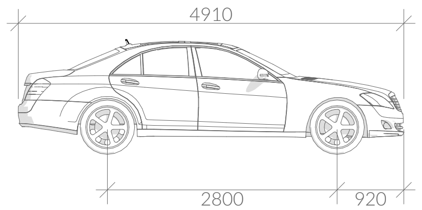


B85 Vehicle Dimensions

Width:	1870
Track:	1770
L-L Time:	6.0
Turning Radius:	5800

Parking Space requirements
As defined by the Parking and Sustainable Transport Code - Table C2.3

Parking Dimensions - 90°

Width:	2600	2800	3000	3200
Length:	5400	5400	5400	5400
Aisle Width:	6400	5800	5200	4800

Parking Dimensions - 45°

Width:	2600
Length:	5400
Aisle Width:	3500

Parking Dimensions - Parallel

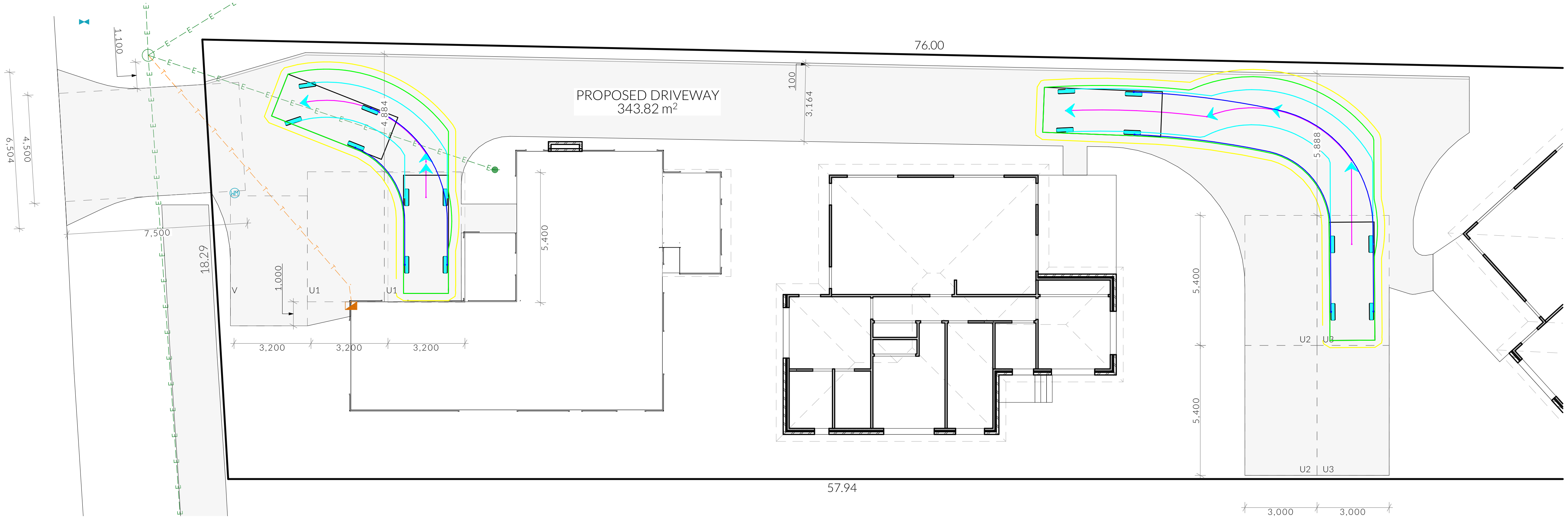
Width:	2300
Length:	6700
Aisle Width:	3600

Legend

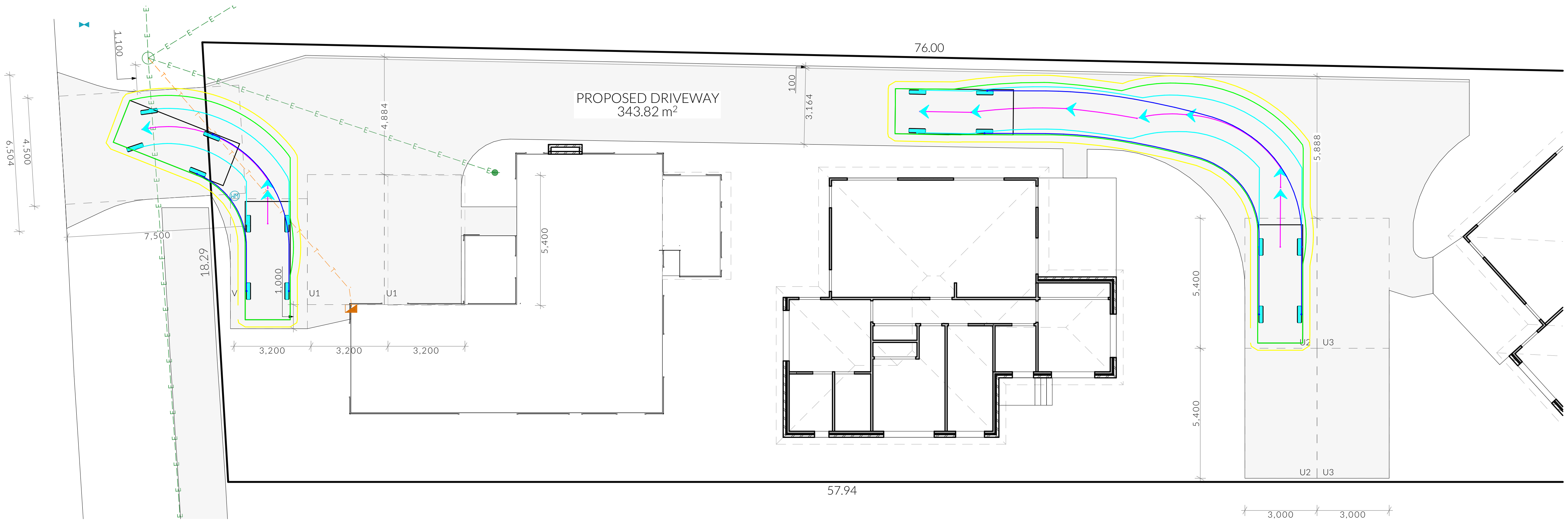
- Solar Bollard Lighting
- Spotlight with Sensor

Turning Path Legend

LINE OF BODY
300mm BODY CLEARANCE
DIRECTION OF TRAVEL



Maneuvering plan 3 (out)



Maneuvering plan 4 (out)

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Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

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Parking

Revision: DA - 03
Approved by: JD

Scale: 1:200 @A3
Pg. No: C.02

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
Building Surveyor: TBA

Issue	Date	Description
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Legend

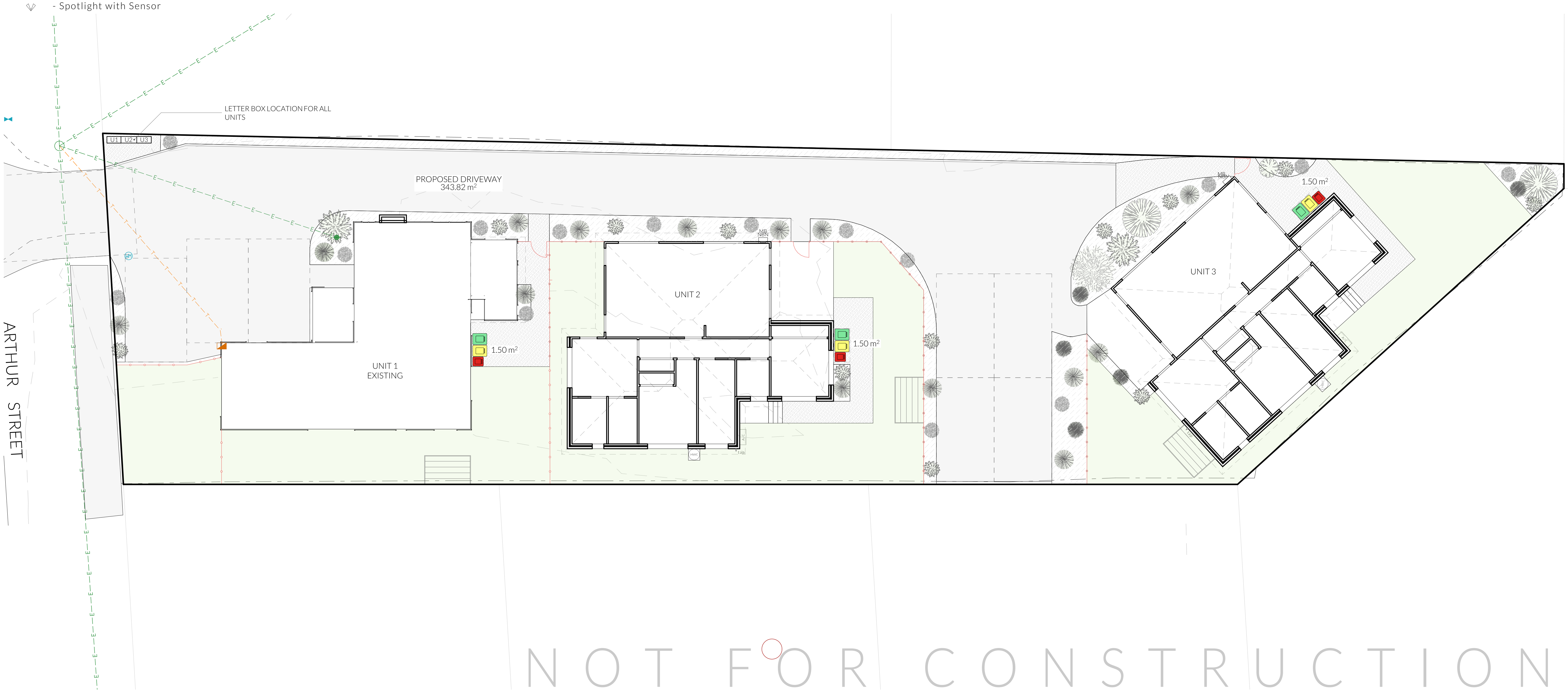
- General Waste Bin
- Recycling Bin
- Green Waste Bin
- Clothesline
- Air Conditioner unit
- Meter Box
- Hot Water Cylinder
- 1.8m to 2.1m Paling Fence
- 1.7m high Timber Screen
- 1.2m Timber Fence
- Solar Bollard Lighting
- Spotlight with Sensor

Legend

- Seeded Lawn
- Mulched Garden Bed
- Gravel Area - Fine
- Decorative Pebble
- Water
- Paving

Note

Refer to Planting Schedule & Details page for plant information.



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Landscaping Plan

Revision: DA - 03
Approved by: JD

Scale: 1:200 @ A3
Pg. No: L.01

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

Date: 27/08/2024
Drawn by: CJ
Job No: 041-2024
Engineer: TBA
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Planting Schedule

Symbol	Name	Qty	Pot Size	Height	Spread
	Abelia sp. or similar	2	tubestock	2,000	2,000
	Anigozanthos sp. or similar	12	35L	900	900
	Dianella tasmanica or similar	15	tubestock	1,000	1,000
	Eremophila sp. or similar	1	140mm	2,500	2,500
	Hebe sp. or similar	1	tubestock	1,000	1,000
	Lavandula sp. or similar	15	140mm	700	800
	Lomandra sp. or similar	5	tubestock	600	800
	Rhagosia sp. or similar	2	35L	1,500	1,800

Note

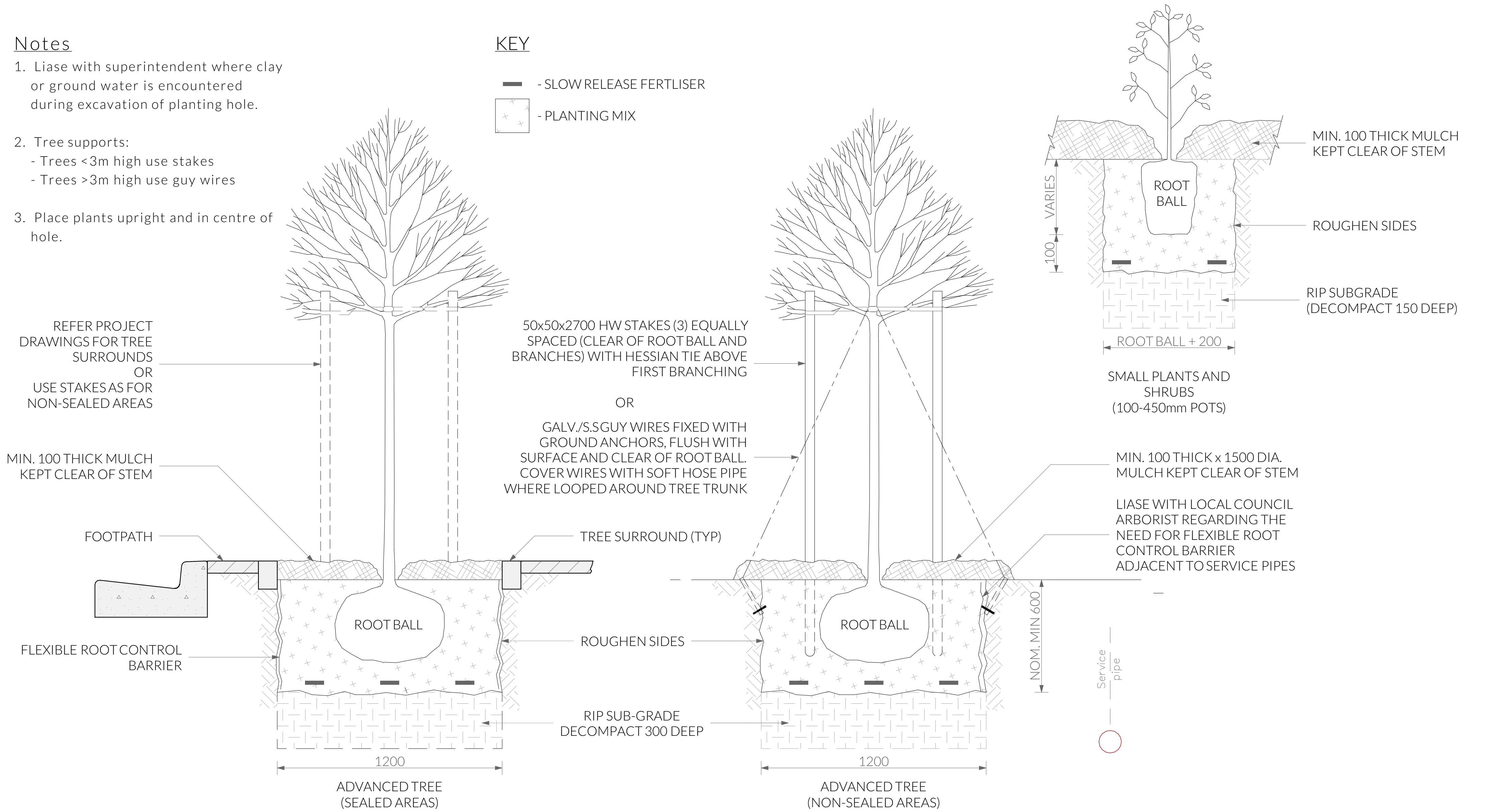
Plants have been selected to be drought tolerant and low maintenance once established, it is recommended that a dripper system or similar be put into place until established. Plant locations are indicative and may be altered where suitable growing conditions cannot be met. Garden areas to be mulched with 75mm cover of selected mulch and plants are to fertilised 6 monthly or where required until established. Garden edges are to be timber, steel, or brick. Plantings that are unsuccessful will be replaced where required.

Notes

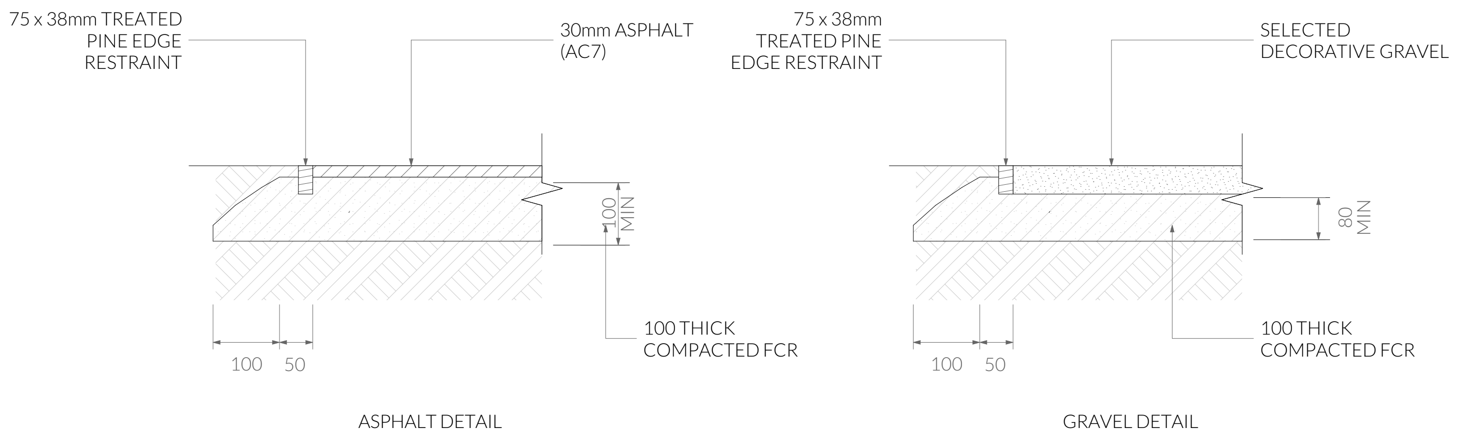
1. Liase with superintendent where clay or ground water is encountered during excavation of planting hole.

2. Tree supports:
   - Trees <3m high use stakes
   - Trees >3m high use guy wires

3. Place plants upright and in centre of hole.



Tree and Shrub Planting



Sorell Council
Development Application:5.2024.230.1 - Response to Request for Information - 10 Arthur Street, Sorell.pdf
Plan Reference:P4
Date received:11/12/2024

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Pavement Details 1:20

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Planting Schedule & Details
Scale: @ A3
Revision: DA - 03
Approved by: JD
Pg. No: L.02

Proposal: New Dwelling
Client: Steve Graham
Address: 10 Arthur Street, Sorell, 7172

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Job No: 041-2024
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