



Attachment to item number 5.1 -

Planning Report;

Bushfire Hazard Report;

Stormwater Assessment;

Onsite Wastewater Assessment; and

Traffic Impact Assessment

9 VALLEYFIELD ROAD &
123 ROSENDALE ROAD SORELL



Sorell Council

Development Application: Response to Request
for Information - 9 Valleyfield Rd & 123
Rosendale Rd, Sorell.pdf
Plans Reference: P5
Date Received: 12/04/2024

9 VALLEYFIELD ROAD & 123 ROSENDALE ROAD, SORELL

Subdivision -16 lots inclusive of balance

Last Updated -8 Feb 2024 - minor updates 12 April 2024

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ireneinc PLANNING & URBAN DESIGN

1. INTRODUCTION

1.1.1 Site description

The subject lots, 9 Valleyfield Road and 123 Rosendale Road are located along Iron Creek, approximately 2.5km from Sorell's centre. 9 Valleyfield accesses the road network via a 350m long gravel driveway which connects to Valleyfield Road, also a gravel road, that extends off the Arthur Highway. 123 Rosendale also has a long gravel access of approximately 480m that connects to Rosendale Road via a bridge over Iron Creek.



Figure 1: Site outlined in red with aerial image, contours, and road name annotations (The List Map 2023)

The land has a steep embankment adjoining Iron Creek, particularly in the southeastern corner with a sloping low-lying area in the southwestern corner. A portion of the site is documented to have salt marsh and wetland (Succulent saline herbland).

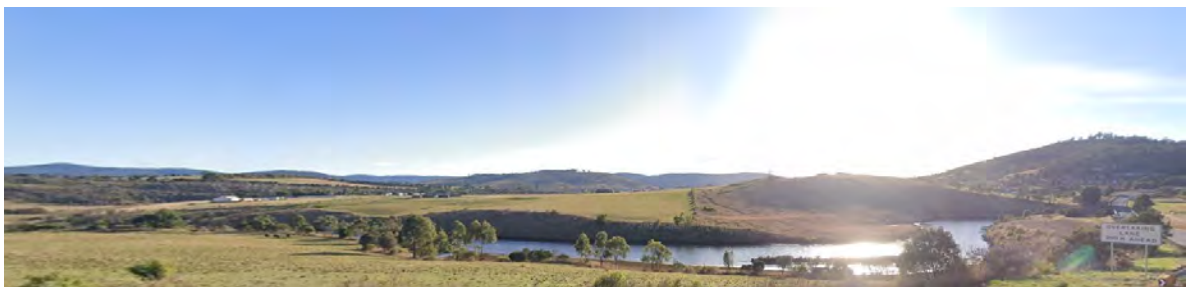


Figure 2: View of the site from Arthur Highway

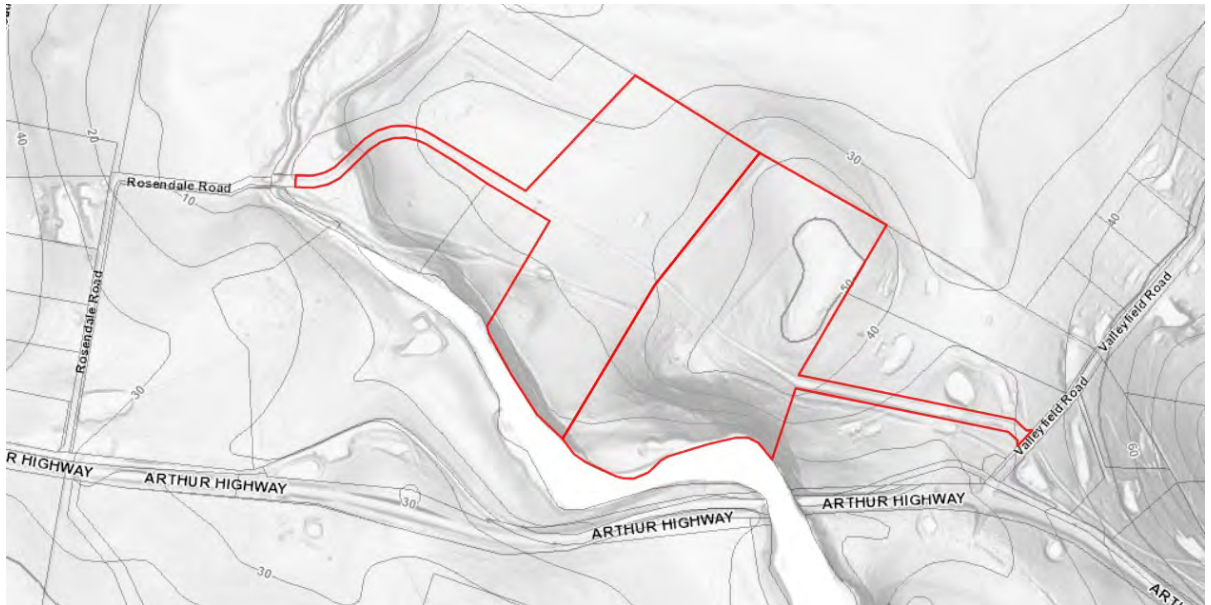


Figure 3: Site outlined in red with hill shade map, contours, and road name annotations (The List Map 2023)

9 Valleyfield Road has an existing dwelling and shed located 25m from the nearest boundary, with a partially formed gravel access through the property which stops at the edge of 123 Rosendale Road. The site and surrounding lots are located on a hill, which has a high point at the 50m contour. Surrounding lots vary between 1ha-10ha.

123 Rosendale Road has an existing dwelling and two sheds located on it, and an area for livestock. The land at 123 is gently sloping, with the house site located on a small ridgeline.

Directly north of the subject land is agricultural land, which is listed as Wattle Hill Vineyard however, the aerial imagery does not indicate the presence of a vineyard, and this may just be the registered business address. The use of the land is not known.

1.2 Proposal

1.2.1 Subdivision:

- The proposal is for the creation of 14 additional lots, 2 balance lots and a road lot.
- The wayleave easements are proposed for removal and the rerouting of electrical infrastructure into the road lot before connecting to the existing private property at 104 Rosendale Road via the northwestern boundary of the proposed lot 1.

TasNetwork have confirmed that the easement will be removed in conjunction with the overhead line's relocation and updated easement (Correspondence dated 19th March 2024, and early engagement meeting dated 9th November 2023).

Please note that the relocation of electricity infrastructure does not constitute development under Land Use and Planning Approvals Act, as per the Electricity Supply Industry Act 1995.

- The existing rights of way which burden and benefit both properties within this application are proposed for removal and to be replaced by public road.

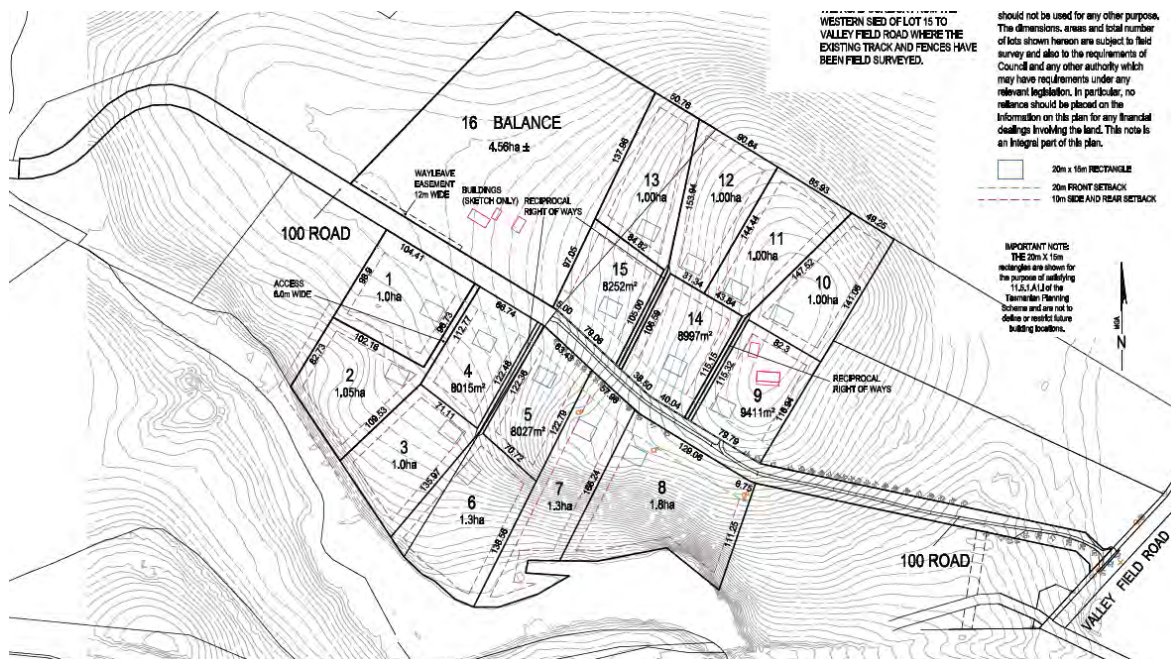


Figure 4: Proposal plan by Leary, Cox and Cripps (not to scale)

Table 1: Lot Sizes

Lot No.	Size
1	1 Ha
2	1.05 Ha
3	1 ha
4	8015m2
5	8027m2
6	1.3 Ha
7	1.3 Ha
8	1.8 Ha
9 (balance)	9411m2
10	1ha
11	1ha
12	1 ha
13	1ha
14	8997 m2
15	8252m2
16 (balance)	4.56ha
100 (Road)	

1.2.2 Associated Subdivision Works

The associated works for the creation of the subdivision include:

- Sealing of new road between Valleyfield Road and the northwestern edge of proposed lot 1, with a carriage width of 6.5m. No changes are required to the finish of the new road lot between lot 1 and Rosendale Road.
- Sealing of Valleyfield Road between Arthur Highway and the site entry.
- A new drainage culvert (piped) on the western boundary of Lot 1 and 2 directing stormwater from the new road lot to Iron Creek with appropriate treatment at the outlet to minimise erosion or spread of pollutants, to be detailed at detailed engineer design through condition.
- Upgrade existing drainage pipe located within new road lot approximately 110m west of Valleyfield Road.
- Relocation of powerlines to within the proposed road lot.

Please note that the relocation of electricity infrastructure does not constitute development under Land Use and Planning Approvals Act, as per the Electricity Supply Industry Act 1995.

2. TASMANIAN PLANNING SCHEME- SORELL

The relevant planning scheme for the subject site is the *Tasmanian Planning Scheme - Sorell*.

2.1 General Provisions

The following general provision 7.10 *Development Not Required to be Categorised* is relevant to the proposal. Subdivision is listed under Subclause 6.2.6 as development that is not required to be categorised into a use class.

7.10.1 An application for development that is not required to be categorised into one of the Use Classes under sub-clause 6.2.6 of this planning scheme and to which 6.8.2 applies, excluding adjustment of a boundary under sub-clause 7.3.1, may be approved at the discretion of the planning authority.

7.10.2 An application must only be approved under sub-clause 7.10.1 if there is no unreasonable detrimental impact on adjoining uses or the amenity of the surrounding area.

7.10.3 In exercising its discretion under sub-clauses 7.10.1 and 7.10.2 of this planning scheme, the planning authority must have regard to:

- (a) the purpose of the applicable zone;
- (b) the purpose of any applicable code;
- (c) any relevant local area objectives; and
- (d) the purpose of any applicable specific area plan.

This planning report addresses the relevant matters as described in General Provision 7.10.

2.2 Rural Living Zone

The site is located within the Rural Living Zone (Pink) and adjoins the Agricultural (brown), Rural (light brown) and Environmental Management (Green) Zones.



Figure 5: Site outlined in red with zone plan (List Map 2023)

The purpose of the Rural Living Zone is:

- 11.1.1 To provide for residential use or development in a rural setting where:*
(a) services are limited; or
(b) existing natural and landscape values are to be retained.
- 11.1.2 To provide for compatible agricultural use and development that does not adversely impact on residential amenity.*
- 11.1.3 To provide for other use or development that does not cause an unreasonable loss of amenity, through noise, scale, intensity, traffic generation and movement, or other off site impacts.*
- 11.1.4 To provide for Visitor Accommodation that is compatible with residential character*

The proposal is for a rural residential subdivision in an area that is not serviced within a rural setting abutting Iron Creek.

The scale of the subdivision regarding the number of lots satisfies the provisions of the scheme as detailed within this report. The lots have been designed to ensure that the natural and landscape values are retained by providing larger lots on the edges of the subdivision within key view lines of the site from public places and locating new building areas away from skylines and ridgelines.

A Traffic Impact Assessment accompanies this application which analyses the potential traffic generation as a result of the subdivision and finds there is no unreasonable impact on the efficiency of the road network with only minor changes observed in the performance. In addition, the new road provides alternative connectivity within the area which will benefit the amenity of the surrounding area, and some upgrades are recommended through condition which will also improve Valleyfield Road.

The new road lot requires stormwater management, and it is proposed to be drained into Iron Creek. Detailed design of the appropriate treatment and design of the outlet to minimise erosion, sedimentation or spread of pollutants can be secured through condition, along with any additional conditions required to minimise impact on the Creek for example a soil and water management plan, which is noted within the civil plans.

No other emissions are anticipated as a result of the subdivision, and the proposal is considered consistent with the zone's purpose.

2.3 Development Standards for Subdivision

11.5.1 Lot design																																					
<p>Objective: That each lot:</p> <p>(a) has an area and dimensions appropriate for use and development in the zone;</p> <p>(b) is provided with appropriate access to a road; and</p> <p>(c) contains areas which are suitable for residential development.</p>																																					
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, must:</p> <p>(a) have an area not less than specified in Table 11.1 and:</p> <p>(i) be able to contain a minimum area of 15m x 20m clear of:</p> <p>a. all setbacks required by clause 11.4.2 A2 and A3; and</p> <p>b. easements or other title restrictions that limit or restrict development;</p> <p>and</p> <p>(ii) existing buildings are consistent with the setback required by clause 11.4.2 A2 and A3;</p> <p>(b) be required for public use by the Crown, a council or a State authority;</p> <p>(c) be required for the provision of Utilities; or</p> <p>(d) be for the consolidation of a lot with another lot provided each lot is within the same zone.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have sufficient useable area and dimensions suitable for its intended use, having regard to:</p> <p>(a) the relevant requirements for development of existing buildings on the lots;</p> <p>(b) the intended location of buildings on the lots;</p> <p>(c) the topography of the site;</p> <p>(d) any natural or landscape values;</p> <p>(e) adequate provision of private open space; and</p> <p>(f) the pattern of development existing on established properties in the area,</p> <p>and must be no more than 20% smaller than the applicable lot size required by clause 11.5.1 A1.</p>																																				
RESPONSE																																					
<p>A1 a)</p> <p><u>Minimum Lot Size</u></p> <ul style="list-style-type: none">a) The minimum lot size in Table 11.1 is 1 hectare. The following table describes the proposed lot sizes (excluding the road lot) and has bolded the lots proposed below the minimum lot size: <table><tr><td>Lot No.</td><td>Size</td><td>Lot No.</td><td>Size</td></tr><tr><td>1</td><td>1 Ha</td><td>9 (balance)</td><td>9411m2</td></tr><tr><td>2</td><td>1.05 Ha</td><td>10</td><td>1ha</td></tr><tr><td>3</td><td>1 ha</td><td>11</td><td>1ha</td></tr><tr><td>4</td><td>8015m2</td><td>12</td><td>1 ha</td></tr><tr><td>5</td><td>8027m2</td><td>13</td><td>1ha</td></tr><tr><td>6</td><td>1.3 Ha</td><td>14</td><td>8997 m2</td></tr><tr><td>7</td><td>1.3 Ha</td><td>15</td><td>8252m2</td></tr><tr><td>8</td><td>1.8 Ha</td><td>16 (balance)</td><td>4.56ha</td></tr></table> <p>Lots 1,2, 3, 6, 7, 8, 10, 11, 12, 13 and 16 meet the minimum lot size requirements.</p>		Lot No.	Size	Lot No.	Size	1	1 Ha	9 (balance)	9411m2	2	1.05 Ha	10	1ha	3	1 ha	11	1ha	4	8015m2	12	1 ha	5	8027m2	13	1ha	6	1.3 Ha	14	8997 m2	7	1.3 Ha	15	8252m2	8	1.8 Ha	16 (balance)	4.56ha
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7	1.3 Ha	15	8252m2																																		
8	1.8 Ha	16 (balance)	4.56ha																																		

Lots 4, 5, 9 and 14-16 are less than 1 ha and require assessment against the performance criteria.

- a) i) a. The permitted setbacks are as follows:

11.4.2 A2 -20m from the frontage (road). All lots can accommodate a building area that complies with this setback. from the new road lot.

11.4.2 A3 - 10m from the side and rear boundaries. All lots can accommodate a building area that complies with this setback.

As demonstrated in the plan of subdivision, a minimum area of 20x15m has been shown which satisfies 11.4.2 A2 and A3.

- (a) i) b. The subject land has a ROW(s), wayleave easement and restrictive covenant, however the application proposes the removal of the ROWs and wayleave easement.

The wayleave easement will be relocated within this application to the new road load. Notwithstanding this, the 15x20m areas have been located outside of the wayleave easement.

The rights of way that burden and benefit the subject properties are proposed to be replaced by public road, though no building areas are impacted by these ROWs.

Concerning the restrictive covenant, all 15x20m areas shown within the plan of subdivision are sited on slopes of less than twenty per cent as demonstrated in the below table and are above known flood levels. Compliance with all remaining clauses depends on any future design of any building or structure.

Lot No	Degrees (sourced from The List Map 'Slope' layer)	Slope percentage (%)
1	2-4	3.5-7
2	6-9	10.5-15.8
3	3-5	5.2-8.7
4	2-4	3.5-7
5	5-8	8.7-14
6	8-11	14 -19.44
7	3-7	5.2-12.3
8	2-4	3.5-7
9	6-7	10.5-12.3
10	1-2	1.75-3.5
11	4-6	7-10.5
12	5-7	8.7-12.3
13	6-7	10.5-12.3
14	5-8	8.7-14
15	5-6	8.7-10.5
16	existing	existing

- a) iii) The below diagram indicates the minimum permitted setbacks of the existing shed and house at 9 Valleyfield Road and 123 Rosendale Road.



Figure 6: existing building on 9 Valleyfield Road with setbacks marked.



Figure 7: Existing building at 123 Rosendale Road with proposed boundaries in turquoise (The List Map)

The existing buildings comply with the permitted setbacks of the zone and satisfy a) iii).

P1

Lots 4, 5, 9, 14 and 15 do not comply with the minimum lot size of 1 ha described in Table 11.1 and require assessment under the performance criteria.

Each lot can accommodate a residential building envelope of 20x15m, is greater than 8000m² which is 20 per cent of the minimum requirements of Table 11.1, and has sufficient useable area and dimensions, having regard to:

- a) The existing buildings in Lot 9 comply with the permitted setbacks as discussed in the response to A1 a) iii).

- b) All lots provide a building area that can comply with 11.4.2 A2 and A3, and the existing buildings also meet the permitted frontage and side boundary setbacks whilst providing a BHMP of Bal 12.5.

Lot 2, whilst complying with 11.4.2 A2 and A3 does not comply with A4 (setback from the Agricultural Zone) due to the requirements for bushfire based on a Bal 12.5 assessment. This is not necessary for subdivision, but consideration is given for future development. It is possible that a building area could satisfy the setback from the Agricultural Zone with a higher BAL rating. Notwithstanding this, due to the presence of Iron Creek between Lot 2 and the opposite agricultural zone, this is considered sufficient to buffer any sensitive use and minimise any unreasonable impact on the adjoining agricultural zone.

The building areas have been sited in areas free of spatially specific hazards such as flooding, erosion and landslip and the lots have been designed to ensure compliance with bushfire standards.

The intended location of buildings are considered suitable for the intended rural living use.

- c) The building areas for the discretionary lots are on gently sloping areas within the site with slopes less than 20 per cent (maximum of 8 degrees) as detailed below

Lot No	Degrees (sourced from The List Map 'Slope' layer)	Slope percentage (%)
4	2-4	3.5-7
5	5-8	8.7-14
9	6-7	10.5-12.3
14	5-8	8.7-14
15	5-6	8.7-10.5

- d) The lots are not in areas within any known natural values, with the land being former rural/ agricultural land. There are no identified landscape values, and the building areas are not located on a ridgeline.
- e) The four lots are located in gently sloping areas, which provides sufficient useable space for open space with a minimum of 50x50 m areas located behind the building area for potential use for private open space.
- f) The area has undergone a significant transition over the last decade which has resulted in a variety of lot sizes as lots have transitioned from agricultural to rural to rural living. The below table describes the surrounding lots, which indicate that they range from 0.86 to 62ha in size.

Address	AREA (HA)
Flimby Host Farm' - 68 Rosendale Rd Sorell Tas 7172	0.86
7 Rosendale Rd Sorell Tas 7172	0.99
'Willesley' - 16 Nugent Rd Sorell Tas 7172	0.99
29 Valleyfield Rd Sorell Tas 7172	0.99
55 Valleyfield Rd Sorell Tas 7172	1
43 Valleyfield Rd Sorell Tas 7172	1
41 Valleyfield Rd Sorell Tas 7172	1
22 Valleyfield Rd Sorell Tas 7172	1

20 Valleyfield Rd Sorell Tas 7172	1
57 Valleyfield Rd Sorell Tas 7172	1.2
10 Valleyfield Rd Sorell Tas 7172	1.3
'Valley View' - 48 Nugent Rd Sorell Tas 7172	1.4
30 Nugent Rd Sorell Tas 7172	1.8
'Lavender Fields' - 36 Nugent Rd Sorell Tas 7172	1.8
40 Nugent Rd Sorell Tas 7172	1.9
104 Rosendale Rd Sorell Tas 7172	1.9
187 Arthur Hwy Sorell Tas 7172	2
92 Rosendale Rd Sorell Tas 7172	3.1
27 Valleyfield Rd Sorell Tas 7172	3.5
11 Valleyfield Rd Sorell Tas 7172	3.5
7 Valleyfield Rd Sorell Tas 7172	3.5
93 Rosendale Rd Sorell Tas 7172	5
69 Rosendale Rd Sorell Tas 7172	5.4
10 Rosendale Rd Sorell Tas 7172	9.8
'Thornhill' - 185 Arthur Hwy Sorell Tas 7172	11
52 Valleyfield Rd Sorell Tas 7172	15
'Wattle Hill Vineyard' - 208 Nugent Rd Sorell Tas 7172	62.4

The lot shapes also vary considerably with no clear relationship with topography as demonstrated in the below plan:



Figure 8: Study area indicated in blue with hillshade and contours (The List Map 2024)

Each lot within the plan of subdivision is considered to have a sufficient useable area and dimensions suitable for its intended rural living use and therefore satisfies the performance criteria.

A2

P2

<p>Each lot, or a lot proposed in a plan of subdivision, excluding for public open space, a riparian or littoral reserve or Utilities, must have a frontage not less than 40m.</p>	<p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a frontage or legal connection to a road by a right of carriageway, that is sufficient for the intended use, having regard to:</p> <ul style="list-style-type: none"> (a) the width of frontage proposed, if any; (b) the number of other lots which have the land subject to the right of carriageway as their sole or principal means of access; (c) the topography of the site; (d) the functionality and useability of the frontage;
<p>RESPONSE</p> <p>A2</p> <ul style="list-style-type: none"> • Lots 1, 4, 5, 7, 8, 9, 15, 15 and 16 all have frontages in excess of 40m. • Lots 2, 3, 6, 10, 11, 12 and 13 are internal lots with frontages of 3.6m for all except lot 2 which has a frontage of 6m. <p>The performance criteria must be addressed for Lots 2, 3, 6, 10, 11, 12 and 13</p> <p>P2</p> <p>Each lot has a frontage that is suitable for the rural living use, having regard to:</p> <ul style="list-style-type: none"> a) The frontage width for these lots is 3.6m for all except lot 2 which has a frontage width of 6m. b) Each lot, excluding lot 2, has frontage with two accesses side by side with reciprocal rights of way benefiting and burdening both lots. This provides the ability for shared driveway facilities in response to the bushfire requirements. c) The land has a steep embankment adjoining Iron Creek, particularly in the southeastern corner with a sloping low-lying area in the southwestern corner and is steeply sloped in the northern eastern portion. d) The frontage is sufficient for the intended purpose of providing access to the road and satisfies the relevant bushfire requirements. <p>As demonstrated, each lot has a frontage that is suitable for the rural living use and therefore satisfies P2.</p>	
<p>A3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with a vehicular access from the boundary of the lot to a road in accordance with the requirements of the road authority</p>	<p>P3</p> <p>Each lot, or a lot proposed in a plan of subdivision, must be provided with reasonable vehicular access to a boundary of a lot or building area on the lot, if any, having regard to:</p> <ul style="list-style-type: none"> (a) the topography of the site; (b) the length of the access; (c) the distance between the lot or building area and the carriageway;

	(d) the nature of the road and the traffic; (e) the anticipated nature of vehicles likely to access the site; and (f) the ability for emergency services to access the site
<p>RESPONSE</p> <p>The access from a boundary of a lot to a road can be designed in accordance with the requirements of the road authority as detailed engineering design through condition.</p> <p>A3 can be satisfied.</p>	

2.4 Rural Zone

A portion of Valleyfield Road within the Rural Zone is proposed to be sealed. This is classified as an existing Minor Utilities use (a no permit required use). There are no relevant use or development standards that relate to the works proposed within the zone.

3. CODES

3.1 Natural Assets Code

The subject site has areas mapped for the protection and management of natural assets as shown in the below map.

- The blue hatch is the waterway and coastal protection area.
- The green polygons for the priority vegetation area.
- The brown hatch is the Future Coastal Refugia.



Figure 9: Cadastre plan with site shown in red and natural assets mapping (The List Map 2023)

New lots include land mapped within the waterway and coastal protection area, future coastal refugia, and the Priority Vegetation Area.

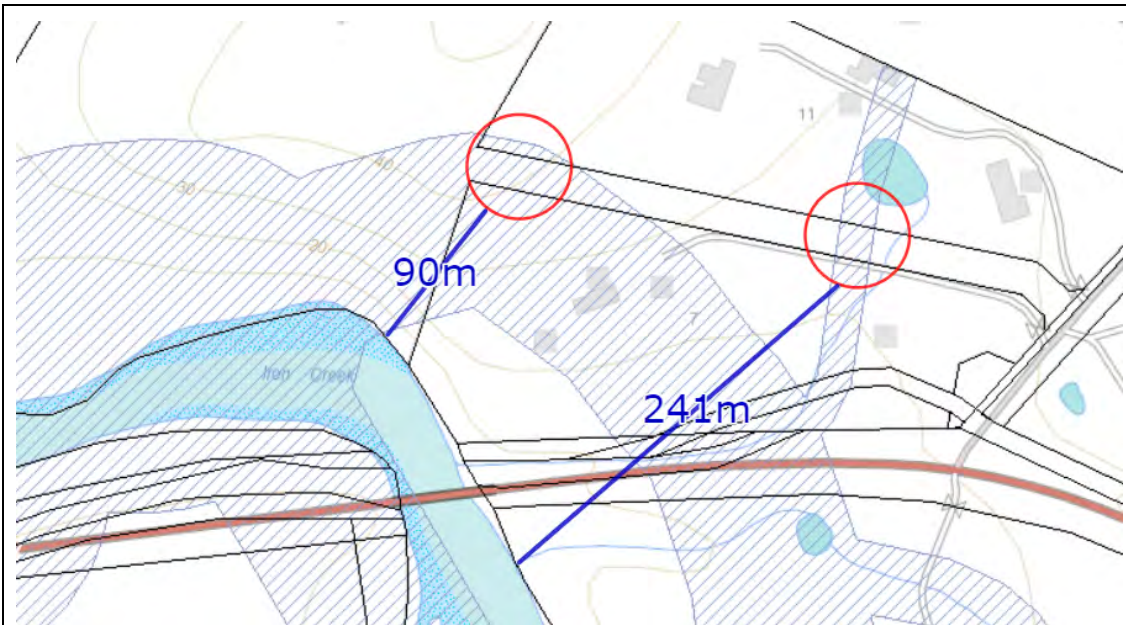
The portion of Valleyfield Road proposed to be sealed is also mapped in the Priority Vegetation Area, however, as no clearance is proposed there are no relevant standards to assess relating to the Priority Vegetation Area.

3.1.1 Development Standards

These standards relate to works required for stormwater and the construction of road within the Waterway and Coastal Protection Area and the Priority Vegetation Area.

<i>C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area</i>	
<i>Objective: That buildings and works within a waterway and coastal protection area or future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets.</i>	
<i>A1</i> <i>Buildings and works within a waterway and coastal protection area must:</i>	<i>P1.1</i> <i>Buildings and works within a waterway and coastal protection area must avoid or</i>

<p><i>(a) be within a building area on a sealed plan approved under this planning scheme;</i></p> <p><i>(b) in relation to a Class 4 watercourse, be for a crossing or bridge not more than 5m in width; or</i></p> <p><i>(c) if within the spatial extent of tidal waters, be an extension to an existing boat ramp, car park, jetty, marina, marine farming shore facility or slipway that is not more than 20% of the area of the facility existing at the effective date.</i></p>	<p><i>minimise adverse impacts on natural assets, having regard to:</i></p> <p><i>(a) impacts caused by erosion, siltation, sedimentation and runoff;</i></p> <p><i>(b) impacts on riparian or littoral vegetation;</i></p> <p><i>(c) maintaining natural streambank and streambed condition, where it exists;</i></p> <p><i>(d) impacts on in-stream natural habitat, such as fallen logs, bank overhangs, rocks and trailing vegetation;</i></p> <p><i>(e) the need to avoid significantly impeding natural flow and drainage;</i></p> <p><i>(f) the need to maintain fish passage, where known to exist;</i></p> <p><i>(g) the need to avoid land filling of wetlands;</i></p> <p><i>(h) the need to group new facilities with existing facilities, where reasonably practical;</i></p> <p><i>(i) minimising cut and fill;</i></p> <p><i>(j) building design that responds to the particular size, shape, contours or slope of the land;</i></p> <p><i>(k) minimising impacts on coastal processes, including sand movement and wave action;</i></p> <p><i>(l) minimising the need for future works for the protection of natural assets, infrastructure and property;</i></p> <p><i>(m) the environmental best practice guidelines in the Wetlands and Waterways Works Manual; and</i></p> <p><i>(n) the guidelines in the Tasmanian Coastal Works Manual.</i></p>
<p>RESPONSE</p> <p>This standard relates to the construction of the road in these locations:</p>	



A1

- a-c are not relevant to the proposed works and therefore the performance criteria must be addressed.

P1

The construction of the road avoids adverse impacts on natural assets, having regard to:

- The road is proposed to be sealed and drained in accordance with Tasmanian Standard Drawings. This will minimise erosion through the use of the land for vehicles. Runoff will be captured by the proposed stormwater system.
- No riparian or littoral vegetation is mapped in these locations and the land is former rural/agricultural land that has been used as an access to date.
- No impact on streambank condition as a result of the works.
- No impacts on the stream natural habitat due to the distance of the works from the Creek and the presence of development (single dwelling) within this setback.
- This is already a modified drainage course as a result of the existing development and construction of dams in the area.
- n/a
- no landfilling proposed.
- This is an existing access within a developed area for rural residential use.
- Cut and fill will be minimised to that necessary to secure the required levels for the road.
- A road does not constitute a building.
- The new road is not anticipated to impact coastal processes, including sand movement and wave action. The road will utilise existing drainage paths.
- as the road is over 90m away, this is considered sufficient to minimise the need for future protection works.

m) and n) The construction management plan can be developed in accordance with the manual and guidelines through condition, as Council require.

The proposal satisfies P1.

A3

Development within a waterway and coastal protection area or a future coastal refugia area must not involve a new stormwater point discharge into a watercourse, wetland or lake.

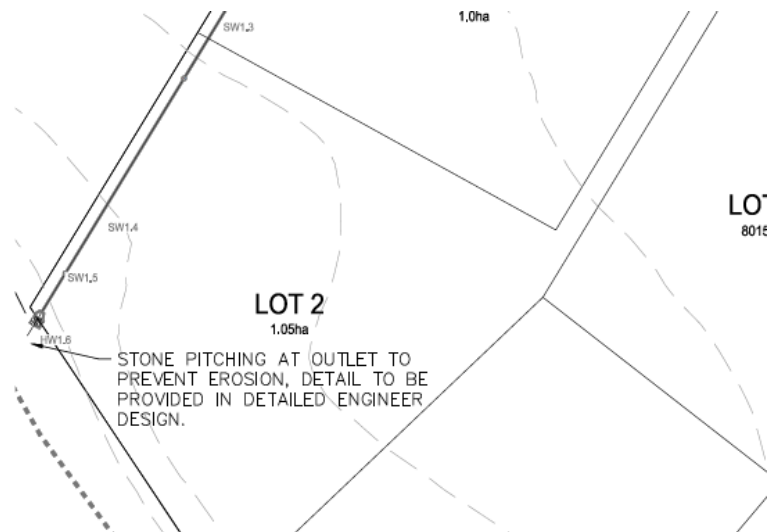
P3

Development within a waterway and coastal protection area or a future coastal refugia area involving a new stormwater point discharge into a watercourse, wetland or lake must avoid or minimise adverse impacts on natural assets, having regard to:

(a) the need to minimise impacts on water quality; and

(b) the need to mitigate and manage any impacts likely to arise from erosion, sedimentation or runoff.

This standard relates to the discharge point proposed which is in both the WWCPA and the FCRA.



A3

A3 cannot be complied with and the performance criteria must addressed.

P3

Due to the rural nature of the area, there is no public stormwater system to direct flows from the northwestern portion of the road, and Council have requested that the road be sealed in accordance with Tasmanian Standard drawings which necessitates the capture and management of runoff from the road. The stormwater engineer has confirmed that soakage is not a viable option, and therefore directing the stormwater to the Creek cannot be avoided.

a) A gross pollutant trap to Council standards to minimise impacts on water quality can be constructed by condition, along with a soil and water management plan which has

regard to the environmental best practice guidelines in the Wetlands and Waterways Works Manual; and the guidelines in the Tasmanian Coastal Works Manual.

b) A piped system with stone pitching is proposed to prevent erosion and dissipate flows.

The proposed stormwater discharge point into the Iron Creek demonstrates how it will minimise adverse impacts on natural assets and the satisfies P3.

3.1.2 Subdivision -Waterway and Coastal Protection Area or a Future Coastal Refugia Area

C7.7.1 Subdivision within a waterway and coastal protection area or a future coastal refugia area

Objective: That

(a) works associated with subdivision within a waterway and coastal protection area or a future coastal refugia area will not have an unnecessary or unacceptable impact on natural assets; and

(b) future development likely to be facilitated by subdivision is unlikely to lead to an unnecessary or unacceptable impact on natural assets

A1

Each lot, or a lot proposed in a plan of subdivision, within a waterway and coastal protection area or a future coastal refugia area, must:

(a) be for the creation of separate lots for existing buildings;

(b) be required for public use by the Crown, a council, or a State authority;

(c) be required for the provision of Utilities;

(d) be for the consolidation of a lot; or

(e) not include any works (excluding boundary fencing), building area, services, bushfire hazard management area or vehicular access within a waterway and coastal protection area or future coastal refugia area.

P1

Each lot, or a lot proposed in a plan of subdivision, within a waterway and coastal protection area or a future coastal refugia area, must minimise adverse impacts on natural assets, having regard to:

(a) the need to locate building areas and any associated bushfire hazard management area to be outside a waterway and coastal protection area or a future coastal refugia area; and

(b) future development likely to be facilitated by the subdivision.

RESPONSE

A1

a) through to d) are not relevant to the proposal. Regarding A1 e) the building areas, services etc associated with lots 1, 4 and 5 and 9-15 are outside of the waterway and coastal protection area and Future Coastal Refugia Area and comply with A1. However, the following works are proposed which are located in the Waterway and Coastal Protection Area:

- Works for stormwater management of the road are required within the overlays for the drainage into the creek; and

- the HMA of lots 2, 3, 6, 7 and 8 partially overlaps with the waterway and coastal protection code; and
- the indicative wastewater treatment area for lot 6 is within the overlay.

As the works are within the waterway and coastal protection area, the performance criteria must be addressed.

P1

a) This Lot 5 and 7's HMAs and the indicative lot 6 wastewater area are over 50m (between 50-100m) from the creek edge, noting Table C7.3 states that the waterway and coastal protection area extends 40m from the high tide mark, and are located within former agricultural land. The HMAs and the wastewater area will not impact the vegetation community of the Succulent saline hermland. It's not anticipated that the HMA and indicative wastewater area will have an adverse impact on the natural asset. Lot 2 and 3 have been allocated generous bushfire building areas, with option for the waterway area to be avoided in any future development application for a building. Notwithstanding this, the HMAs for these two lots are already within modified pasture and management of this area will have no new impacts on the waterway.

The discharge point for stormwater cannot be avoided, and appropriate design and appropriate treatment at the outlet to minimise erosion or spread of pollutants can be finalised at detailed engineer design through condition.

b) The subdivision potential of the lots affected by the overlays is low as they are either the permitted lot size or a minimum size required to respond to the values and hazards mapped within them including bushfire requirements. Future development potential is low.

Each lot, or a lot proposed in a plan of subdivision minimises adverse impacts on natural assets and the P1 is satisfied.

3.1.3 Subdivision -Priority Vegetation Area

C7.7.2 Subdivision within a priority vegetation area

Objective: That:

(a) works associated with subdivision will not have an unnecessary or unacceptable impact on priority vegetation; and

(b) future development likely to be facilitated by subdivision is unlikely to lead to an unnecessary or unacceptable impact on priority vegetation.

A1

Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must:

(a) be for the purposes of creating separate lots for existing buildings;

P1.1

Each lot, or a lot proposed in a plan of subdivision, within a priority vegetation area must be for:

...

<p><i>(b) be required for public use by the Crown, a council, or a State authority;</i></p> <p><i>(c) be required for the provision of Utilities;</i></p> <p><i>(d) be for the consolidation of a lot; or</i></p> <p><i>(e) not include any works (excluding boundary fencing), building area, bushfire hazard management area, services or vehicular access within a priority vegetation area.</i></p>	
<p>RESPONSE</p> <p>A1</p> <p>Lots 6, 7, 8 and the road lot are within the priority vegetation area. Lots 6, 7 and 8 have the building area, including the indicative wastewater area, accesses and bushfire hazard management outside of the priority vegetation overlay, and therefore satisfies A1 e).</p> <p>The road lot is required to facilitate the subdivision and is for Utilities (road connecting into the existing transport network) and complies with A1 c).</p> <p>A1 is satisfied.</p>	

3.3 Coastal Inundation Hazard Code

The site is subject to low (yellow), medium (orange) and high (red) coastal inundation as shown in the below map:



Figure 10: Coastal Inundation hazard bands

3.3.1 Exemptions

Works for stormwater management associated with the road are proposed within the overlay, and this is development for Minor Utilities and is therefore exempted by C11.4.1 d) (v).

3.3.2 Subdivision Standards

<i>C11.7.1 Subdivision within a coastal inundation hazard area</i>	
<i>Objective: That subdivision within a coastal inundation hazard area does not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation.</i>	
<p>A1</p> <p><i>Each lot, or a lot proposed in a plan of subdivision, within a coastal inundation hazard area, must:</i></p> <p><i>(a) be able to contain a building area, vehicle access, and services, that are wholly located outside a coastal inundation hazard area;</i></p> <p><i>(b) be for the creation of separate lots for existing buildings;</i></p> <p><i>(c) be required for public use by the Crown, a council or a State authority; or</i></p> <p><i>(d) be required for the provision of Utilities</i></p>	<p>P1</p> <p><i>Each lot, or a lot proposed in a plan of subdivision within a coastal inundation hazard area must not create an opportunity for use or development that cannot achieve and maintain a tolerable risk from coastal inundation, having regard to:</i></p>
<p>RESPONSE</p> <p>The proposal complies with A1 a) and no building areas, vehicle accesses or services are proposed within the coastal inundation area.</p> <p>A1 is satisfied.</p>	

3.4 Landslip Hazard Code

The land is subject to low (yellow) and medium (orange) landslip hazards. Lots 5, 6 and 10 are in the low landslip hazard area and lots 7 and 8 are in the medium landslip hazard area.

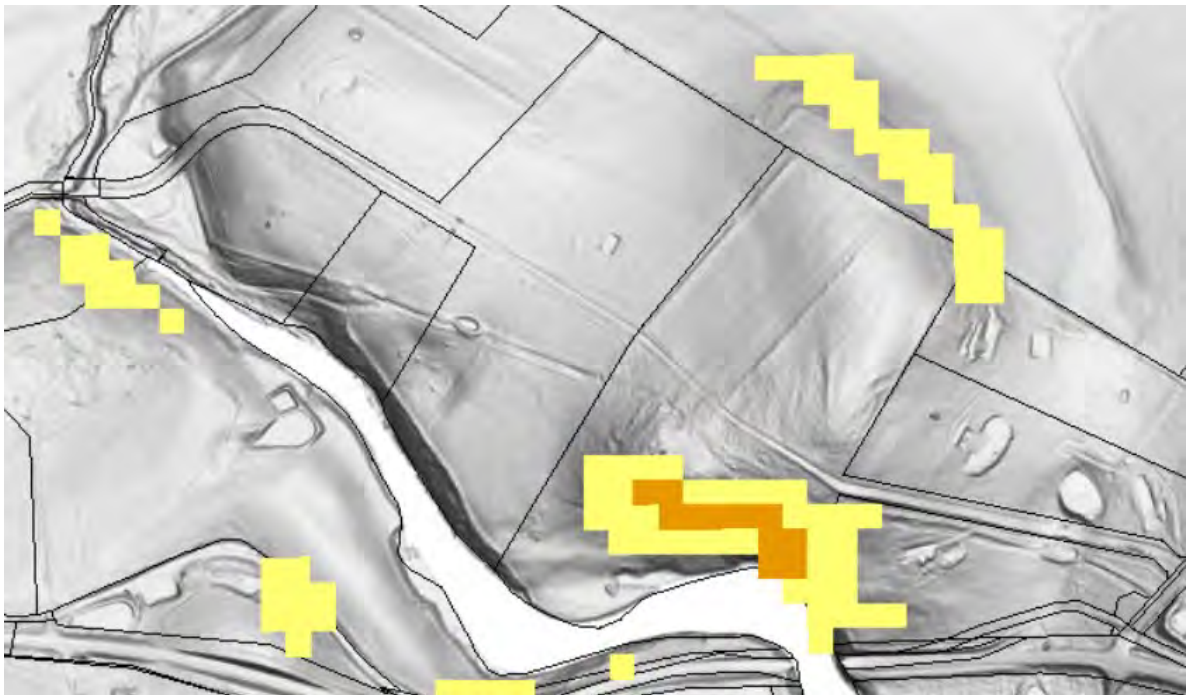


Figure 11: Landslip hazard (Yellow = low and orange = medium)

3.4.1 Exemptions

- Exemption C15.4.1 (e) development, including subdivision, on land within a low landslip hazard band, if it does not involve significant works is relevant to lots 5, 6, and 10.
- Exemption C15.4.1 (i) subdivision of land within a medium landslip hazard band if: (i) it does not involve significant works; or (ii) it does not create a new road, or extend an existing road.
- No new road or extension to an existing road is proposed within the landslip hazard overlay.

The above exemptions are relevant to the subdivision of lots 7 & 8 which will be further discussed below.

Significant Works

Significant works means:

(a) excavation equal to or greater than 1m in depth, including temporary excavations for the installation or maintenance of services or pipes;

(b) excavation or land filling of greater than 100m³ whether or not material is sourced on the site or imported;

Lots 7 and 8 do not require excavation within the landslip hazard area as part of this application, nor would any future use or development based on a building area of 15x20m, vehicle access, wastewater and stormwater water disposal areas necessitate excavation as a result of the subdivision design.

(c) felling or removal of vegetation over a contiguous area greater than 1000m²;

Regarding vegetation management for bushfire, the existing vegetation is former agricultural land and no felling or removal is required to manage the existing vegetation. The vegetation will be retained but modified to a low-fuel state consistent with the Bushfire Hazard Management Plan.

(d) the collection, pooling or storage of water in a dam, pond, tank or swimming pool with a volume of more than 45 000L;

No collection, pooling or storage of water in a dam, pond, tank or swimming pool is proposed within the landslip hazard area as part of the subdivision, nor does any future use and development rely on this.

(e) removal, redirection, or introduction of drainage for surface or groundwater; and

The accompanying stormwater report states:

There will be no concentrated surface water flows discharging onto the Landslide Hazard areas as a result of the development. This is the case for stormwater from new public drainage infrastructure, and also from the private lots...

The new road will intercept some of the existing surface water flows that flow toward the Landslide Hazard area, which will now drain via the roadside swale drain and then stormwater pipe to Iron Creek. This will reduce the amount of stormwater flowing in the Landslide Hazard area and reduce the risk of Landslide there.

(f) discharge of stormwater, sewage, water storage overflow or other wastewater.

The engineering drawings have shown that wastewater areas including reserve areas, and onsite stormwater disposal areas for future use and development of a four-bedroom dwelling, and a total impervious area of 400m² can be accommodated outside the mapped landslip hazard areas with Lots 7 and 8.

As demonstrated within the civil plans, the development does not constitute *significant works* within the landslip hazard overlay areas within any of the lots affected by the code.

It is noted the exemptions to not preclude future buildings within the landslip hazard area, only works that form significant works or create a new road/ extend a road. Under exemption C15.4.1 d) a future single dwelling could propose a dwelling within the low and medium landslip hazard band without requiring planning approval, as it requires authorisation under the Building Act 2016.

The proposal is exempted from the Landslip Hazard Code. Notwithstanding this, if Council take an alternate view, C15.7.1 Subdivision within a landslip hazard area A1 a) states Each lot, or a lot proposed in a plan of subdivision, within a landslip hazard area be able to contain a building area, vehicle access, and services, that are wholly located outside a landslip hazard area. The engineering drawings clearly indicate a building area of a minimum of 15x20m, services and vehicle access can be wholly located outside a landslip hazard area. If the application required assessment under C15.7.1, it would comply with A1 a).

3.5 Bushfire Prone Areas Code

A report has been prepared by GES Solutions which demonstrates that each lot including the road can comply with the relevant bushfire standards.

3.6 Safeguarding of Airports Code -152m

The site is wholly within the obstacle limitation area with an AHD limit of 152m and most of this site is in the noise exposure area.



Figure 12: Noise Exposure area in hatch with cadastre plan (The List Map 2023)

The following exemption is applicable for the obstacle limitation area:

development that is not more than the AHD height specified for the site of the development in the relevant airport obstacle limitation area.

No development exceeding the allowable AHD is proposed.

3.6.1 C16.7 Development Standards for Subdivision

C16.7.1 Subdivision

Objective: To provide for subdivision:

(a) that allows for sensitive use to be suitably located to avoid exposure to excessive aircraft noise; and

(b) so that future development for sensitive use does not compromise the operation of airports.

<p>A1</p> <p><i>Each lot, or a lot proposed in a plan of subdivision, within an airport noise exposure area must be:</i></p> <p><i>(a) be for the creation of separate lots for existing buildings;</i></p> <p><i>(b) be required for public use by the Crown, a council or a State authority;</i></p> <p><i>(c) be required for the provision of Utilities;</i></p> <p><i>(d) be for the consolidation of lots;</i></p> <p><i>(e) be for the creation of a lot that contains a building area not less than 10m x 15m entirely located outside of the airport noise exposure area; or</i></p> <p><i>(f) not be intended for a sensitive use.</i></p>	<p>P1</p> <p><i>Each lot, or a lot proposed in a plan of subdivision, within an airport noise exposure area must not create an opportunity for a sensitive use to be exposed to excessive aircraft noise, having regard to:</i></p> <p><i>(a) the location, orientation and elevation of the site relative to aircraft flight paths;</i></p> <p><i>(b) the current and future type and frequency of aircraft operating from the airport;</i></p> <p><i>(c) the type of use and the operational requirements for the use;</i></p> <p><i>(d) the layout and construction of buildings associated with the use;</i></p> <p><i>(e) the need to not compromise the future operation of the airport;</i></p> <p><i>(f) the requirements of any relevant airport master plan; and</i></p> <p><i>(g) any advice from the airport operator or Airservices Australia.</i></p>
<p>A1</p> <p>a) to d) are not relevant to the proposal.</p> <p>e) The entire site is covered by this overlay and e) cannot be satisfied.</p> <p>f) The proposal is intended for a residential subdivision and cannot satisfy f).</p> <p>The proposal does not satisfy A1 and the performance criteria must be addressed.</p> <p>P1</p> <p>An ANEF Assessment has been prepared by NVC and the following response has been extracted from page 4 of the assessment:</p> <p><i>(a) The location of site is approximately 8.4 km from the ANEF 20 contour, and perpendicular to the flight path of the airport. This places the proposed site well outside of the flight path, and thus orientation and elevation will have minimal effect on the noise levels within the building.</i></p> <p><i>(b) The type of aircraft operating from the airport in the future are not expected to change markedly, and thus instantaneous noise levels are not expected to change. Long term noise levels may increase in the area in the future due to frequency of aircraft pass-by, but given the current and expected volumes of air traffic, the change is expected to be negligible. This is quantified in the ANEF contours for 2042 (see Figure 3.1).</i></p> <p><i>(c) The type of use is proposed residential subdivision but is a significant distance from ANEF 20 contour, approximately 8.4 km.</i></p>	

(d) The layout of the buildings has a negligible effect regarding noise. The proposed construction is to utilise double glazing, and as the glazing is the weakest point, will reduce aircraft noise levels internally.

(e) The proposal is not deemed to compromise the future operation of the airport regarding noise.

(f) As noted from Figure 3.1, the proposed site is entirely outside the ANEF 20 contours, and thus the site does not require any specific building construction to protect from airport noise intrusion. The proposal is thus deemed to be in accordance with AS 2021:2015.

(g) No requirements relevant to noise, due to the proposed residence being outside the ANEF 20 contour.

In summary, the proposal is deemed to comply with all requirements relevant to noise, specifically AS 2021:2015, and thus, residential amenity is unlikely to be compromised due to the operation of the airport. The proposal is therefore deemed to comply with clause C16.7.1-P1 of the Tasmanian Planning Scheme.

The proposal is considered to satisfy the performance criteria.

4. CONCLUSION

The proposal is for the creation of 14 additional rural residential lots and two balance lots, and the creation of a road lot connecting Valleyfield Road to Rosendale Road including works in the existing Valleyfield Road Reservation. Works for stormwater servicing are proposed including a new culvert draining into Iron Creek.

The proposal triggers discretion with respect to the following clauses and has demonstrated compliance with the performance criteria:

- General Provision 7.10 Development Not Required to be Categorised
- Rural Living Zone 11.5.1 Lot design P1 and P2
- C7.6.1 Buildings and works within a waterway and coastal protection area or a future coastal refugia area P1 and P3.
- C7.7.1 Subdivision within a waterway and coastal protection area or a future coastal refugia area P1
- Safeguarding of Airports Code C16.7.1 Subdivision P1

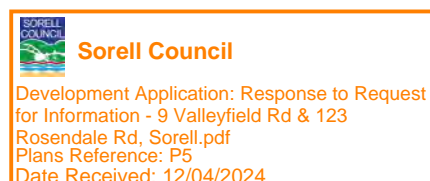
This report has demonstrated the proposal can either satisfy the remaining permitted clauses in the scheme or is exempt. The application demonstrates that the lots are suitable for the intended use which is further supported by the plans which show a building area for each lot, the indicative wastewater area and the hazard management areas.



Proposed Subdivision
9 Valleyfield Road, Sorell
Bushfire Hazard Report



Applicant: Annecy Pty Ltd
February 2024, J9772v1



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Appendix A - Plan of Subdivision

Appendix B - BAL assessment tables

Appendix C - Bushfire Hazard Management Plan

Appendix D - Planning Certificate

1.0 Introduction

This Bushfire Hazard Report has been completed to form part of supporting documentation for a planning permit application for a sixteen lot subdivision. The proposed subdivision occurs in a Bushfire-prone Area defined by the Tasmanian Planning Scheme – Sorell (the Scheme). This report has been prepared by Mark Van den Berg a qualified person under Part 4a of the *Fire Service Act 1979* of Geo Environmental Solutions Pty Ltd for Annecy Pty Ltd

The report considers all the relevant standards of Code C13 of the planning scheme, specifically;

- The requirements for appropriate Hazard Management Areas (HMA's) in relation to building areas;
- The requirements for Public and Private access;
- The provision of water supplies for firefighting purposes;
- Compliance with the planning scheme, and
- The provision of a Bushfire Hazard Management Plan to facilitate appropriate compliant future development.

2.0 Proposal

The proposal is for the subdivision of land resulting in sixteen lots as described by the proposed plan of subdivision in appendix A. Public access to new lots will be provided by a new public roadway. The development is proposed to occur in a single stage. Lots 16 and 9 contain existing residential development, all other lots are undeveloped.

3.0 Site Description

The subject site comprises private land on two titles at 9 Valleyfield Road and 123 Rosedale Road, Sorell, title references 130391/2 and 179945/2 respectively (figure 1). The site occurs in the municipality of the Sorell, this application is administered through the Tasmanian Planning Scheme – Sorell which makes provision for subdivision. The proposed development occurs within the Rural Living zone. The site is located to the east of the Sorell settled area, approximately 1.65 km north north-east of Mount Garrett (figure 1). The surrounding landscape is characterised by grasslands with scattered native vegetation remnants, landscape scale native vegetation units other than grassland are greater than 4 km from the proposal. Land use adjacent to the proposal comprises residential development on lots of various sizes and agriculture, the subdivision area is bounded to the south and south-west by Iron Creek. (figure 2).

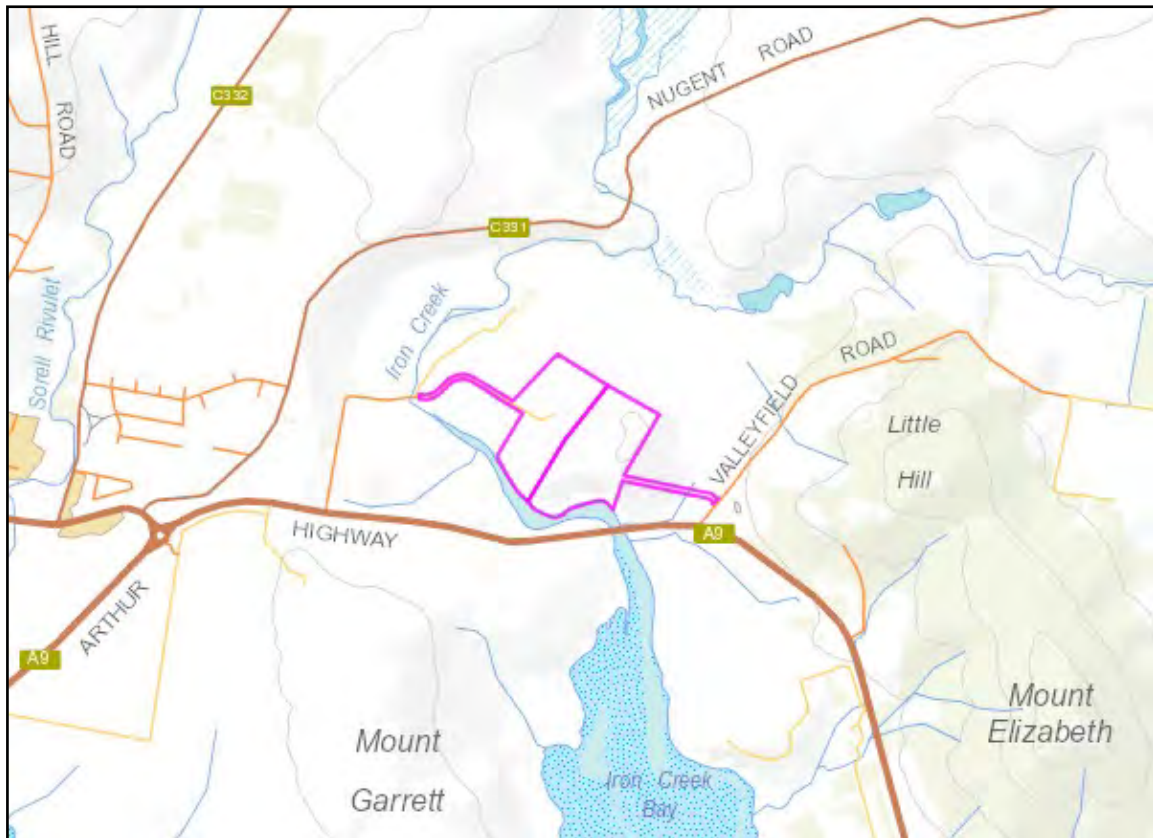


Figure 1. The site in a topographical context, pink line defines the parent lot (approximate).



Figure 2. Aerial photo of the site, pink line denotes the parent lot (approximate).

4.0 Bushfire Hazard Assessment

4.1 Vegetation

The site and adjacent lands within 100 metres of the proposed building areas carry Grassland vegetation (figures 3 to 5). The highest risk vegetation occurs to the south of proposed lots 7 and 8.

4.2 slopes

The effective slopes in relation to the proposed building areas are variable and range from upslope to 26 degrees downslope, slope may influence the bushfire attack at the site particularly for lots 7 and 8.



Figure 3. Grassland vegetation within and adjacent to lot 8 and lot 7 looking west from lot 8.



Figure 4. Grassland vegetation within lots 14 & 15, and Lots 1, 4, & 5.



Figure 5. Grassland vegetation within lots 4, 5 & 7, lots 15, 14 & 9.

4.3 Bushfire Attack Level

An assessment of vegetation and topography was undertaken within and adjacent to the proposed building areas for each lot. A bushfire attack level assessment in accordance with AS3959-2018 (method 1, simplified procedure) was completed which has determined the bushfire attack level for each building area. The building areas and bushfire attack levels are identified on the BHMP.

5.0 Bushfire Prone Areas Code

Code C13 of the planning scheme articulates requirements for the provision of hazard management areas, standards for access and firefighting water supplies and requirements for hazard management for staged subdivisions.

5.1 Hazard Management Areas

Hazard management areas are required to be established and/or maintained for all lots, they provide an area around the building within which fuels are managed to reduce the impacts of direct flame contact, radiant heat and ember attack on the building. Lots 9 and 16 have existing residential development and will require the establishment of hazard management areas prior to sealing of titles.

The Bushfire Hazard Management Plan (BHMP) shows building areas (for habitable buildings) and associated Hazard Management Areas for each lot, guidance for establishment and maintenance of HMA's is provided below. Where existing residential development occurs, the building area includes the foot print of the existing residential buildings.

5.1.1 Building areas

Building areas for habitable buildings are shown on the BHMP. Each building area has been assessed and a Bushfire Attack Level (BAL) assigned to it. If future buildings are located within the building area and hazard management areas comply with the minimum setbacks for the building area, the buildings may be constructed to the bushfire attack level assigned to that lot. If associated structures like sheds or other non-habitable buildings exist or are proposed, they do not need to conform to a BAL unless they are within 6 metres of the habitable building.

5.1.2 Hazard Management Area requirements

A hazard management area is the area, between a habitable building or building area and the bushfire prone vegetation which provides access to a fire front for firefighting, is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through, but is not limited to the following strategies;

- Remove fallen limbs, sticks, leaf and bark litter;
- Maintain grass at less than a 100mm height;
- Avoid or minimise the use of flammable mulches (especially against buildings);
- Thin out under-story vegetation to provide horizontal separation between fuels;
- Prune low-hanging tree branches (<2m from the ground) to provide vertical separation between fuel layers;
- Remove or prune larger trees to establish and maintain horizontal separation between tree canopies;
- Minimise the storage of flammable materials such as firewood;
- Maintain vegetation clearance around vehicular access and water supply points;
- Use low-flammability plant species for landscaping purposes where possible;
- Clear out any accumulated leaf and other debris from roof gutters and other debris accumulation points.

It is not necessary to remove all vegetation from the hazard management area, trees and shrubs may provide protection from wind borne embers and radiant heat under some circumstances if other fuels are appropriately managed.

5.2 Public and firefighting Access

5.2.1 Public Roads

A new public roadway will be constructed between Rosendale Road and Valleyfield Road to service the proposed lots. The new roadway will be design and constructed to achieve the following minimum specifications.

- (a) two-wheel drive, all-weather construction;
- (b) load capacity of at least 20t, including for bridges and culverts;
- (c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road;
- (d) minimum vertical clearance of 4m;
- (e) minimum horizontal clearance of 2m from the edge of the carriageway;
- (f) cross falls of less than 3 degrees (1:20 or 5%);
- (g) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads;
- (h) curves have a minimum inner radius of 10m;
- (i) dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7 metres in width;
- (j) dead-end or cul-de-sac roads have a turning circle with a minimum 12m outer radius; and
- (k) carriageways less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with Australian Standard AS1743-2001 Road signs-Specifications.

5.2.2 Property access

5.2.2.1 Lots 1 to 8 and Lots 10 to 15 (for building compliance)

If property access is greater than 30 metres in length, the following specifications will apply and are required to achieve building compliance.

- a) All-weather construction;
- b) Load capacity of at least 20 tonnes, including for bridges and culverts;
- c) Minimum carriageway width of 4 metres;
- d) Minimum vertical clearance of 4 metres;
- e) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
- f) Cross falls of less than 3° (1:20 or 5%);
- g) Dips less than 7° (1:8 or 12.5%) entry and exit angle;
- h) Curves with a minimum inner radius of 10 metres;
- i) Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed roads; and
- j) Terminate with a turning area for fire appliances provided by one of the following:
 - (i) A turning circle with a minimum inner radius of 10 metres;
 - (ii) A property access encircling the building; or
 - (iii) A hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.

If property access is less than 30 metres in length to the firefighting water connection point, there are no minimum specifications required to achieve building compliance.

5.2.2.2 Lots 9 and 16

There is existing property access to the existing residential buildings on both lots. In this circumstance both existing accesses will provide safe access and egress to occupants and emergency services personnel. The existing accesses are consistent with specifications detailed at s5.2.2.1, however, as new crossovers will be developed as part of public roadway works any new property access work will be required to comply with s5.2.2.1 above.

5.3 Water supplies for firefighting

The subdivision and resultant lots are not serviced by a reticulated water supply system, therefore, a dedicated, static, firefighting water supply will be provided for each building area in accordance with table 1 below. Lots 1 to 8 and Lots 10 to 15 will require a compliant firefighting water supply to achieve building compliance. The firefighting water supply for existing residential development on lots 9 and 16 will be required prior to the sealing of titles.

Table 1. Requirements for Static Water Supplies dedicated for Firefighting.

Element		Requirement
A.	Distance between building area to be protected and water supply	The following requirements apply: (a) The building area to be protected must be located within 90 metres of the firefighting water point of a static water supply; and (b) The distance must be measured as a hose lay, between the firefighting water point and the furthest part of the building area
B.	Static Water Supplies	A static water supply: (a) May have a remotely located offtake connected to the static water supply; (b) May be a supply for combined use (firefighting and other uses) but the specified minimum quantity of firefighting water must be available at all times; (c) Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including firefighting sprinkler or spray systems; (d) Must be metal, concrete or lagged by non-combustible materials if above ground; and (e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959:2018, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by: (i) metal; (ii) non-combustible material; or (iii) fibre-cement a minimum of 6 mm thickness.
C.	Fittings, pipework and accessories (including stands and tank supports)	Fittings and pipework associated with a firefighting water point for a static water supply must: (a) Have a minimum nominal internal diameter of 50mm; (b) Be fitted with a valve with a minimum nominal internal diameter of 50mm; (c) Be metal or lagged by non-combustible materials if above ground; (d) Where buried, have a minimum depth of 300mm; (e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to firefighting equipment; (f) Ensure the coupling is accessible and available for connection at all times; (g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length); (h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and (i) Where a remote offtake is installed, ensure the offtake is in a position that is: (i) Visible; (ii) Accessible to allow connection by firefighting equipment;

		(iii) At a working height of 450 – 600mm above ground level; and (iv) Protected from possible damage, including damage by vehicles.
D.	Signage for static water connections	The firefighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must: (a) comply with water tank signage requirements within AS 2304:2019; or (b) comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.
E.	Hardstand A hardstand area for fire appliances must be provided:	(a) No more than three metres from the firefighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); (b) No closer than six metres from the building area to be protected; (c) With a minimum width of three metres constructed to the same standard as the carriageway; and (d) Connected to the property access by a carriageway equivalent to the standard of the property access.

6.0 Compliance

6.1 Planning Compliance

Table 2 summarises the compliance requirements for subdivisions in bushfire prone areas against Code C13 as they apply to this proposal. A planning certificate has been issued for the associated BHMP as being compliant with the relevant standards as outlined below and is located in appendix D.

Table 2. Compliance with Code C13 of the Tasmanian Planning Scheme – Sorell

Clause	Compliance
C13.4 Use or development exempt from this code	Not applicable.
C13.5 1 Vulnerable Uses	Not applicable.
E13.5.2 Hazardous Uses	Not applicable
C13.6.1 Subdivision: Provision of hazard management areas	The Bushfire Hazard Management Plan is certified by an accredited person. Each lot within the subdivision has a building area and associated hazard management area shown which is suitable for BAL-12.5 and BAL-19 construction standards. Hazard management areas are able to be contained within each individual lot, therefore there is no requirement for part 5 agreements or easements to facilitate hazard management off site. The proposal is compliant with the acceptable solution at A1(b).
C13.6.2 Subdivision: Public and firefighting access	One new public roadway is proposed, minimum specifications for its construction are provided consistent with the requirements of table C13.1. Minimum standards for property access have been specified for all Lots consistent with table C13.2. The proposal is compliant with the acceptable solution at A1(b). The Bushfire Hazard Management Plan is certified by an accredited person.
C13.6.3 Subdivision: Provision of water supply for firefighting purposes	The subdivision is not serviced by a reticulated water supply system. Static water supplies for all lots are required and have been specified in accordance with table C13.5 and are shown on the BHMP. The proposal is compliant with the acceptable solution at A2(b)

6.2 Building Compliance (for future development)

Future residential development may not require assessment for bushfire management requirements at the planning application stage. Subsequent building applications will require demonstrated compliance with the Directors Determination. If future development is undertaken in compliance with the Bushfire Hazard Management Plan associated with this report, a building surveyor may rely upon it for building compliance purposes if it is not more than 6 years old.

7.0 Summary

The proposed development occurs within a bushfire-prone area. The vegetation is classified as Grassland, with the highest risk presented by vegetation to the south and south-west of the building areas on lots 7 and 8.

A bushfire hazard management plan has been developed and shows building areas with hazard management areas and construction standards, the location of new public roadways and proposed property accesses and requirements for the provision of firefighting water supplies.

Additional planning compliance requirements are necessary for lots 9 & 16:

- Lots 9 and 16 have existing residential development and will require the establishment of hazard management areas prior to sealing of titles.
- A static firefighting water supply will be required prior to the sealing of titles for lots 9 and 16
- Any new property access work for lots 9 & 16 will need to comply with the specifications of s5.2.2.1.

8.0 Limitations Statement

This Bushfire Hazard Report has been prepared in accordance with the scope of services between Geo-Environmental Solutions Pty. Ltd. (GES) and the applicant. To the best of GES's knowledge, the information presented herein represents the Client's requirements at the time of printing of the report. However, the passage of time, manifestation of latent conditions or impacts of future events may result in findings differing from that described in this report. In preparing this report, GES has relied upon data, surveys, analyses, designs, plans and other information provided by the Client and other individuals and organisations referenced herein. Except as otherwise stated in this report, GES has not verified the accuracy or completeness of such data, surveys, analyses, designs, plans and other information.

The scope of this study does not allow for the review of every possible bushfire hazard condition and does not provide a guarantee that no loss of property or life will occur as a result of bushfire. As stated in AS3959-2018 "It should be borne in mind that the measures contained in this Standard cannot guarantee that a building will survive a bushfire event on every occasion. This is substantially due to the degree of vegetation management, the unpredictable nature and behaviour of fire, and extreme weather conditions". In addition, no responsibility is taken for any loss which is a result of actions contrary to AS3959-2018 or the Tasmanian Planning Commission Bushfire code.

This report does not purport to provide legal advice. Readers of the report should engage professional legal practitioners for this purpose as required. No responsibility is accepted for use of any part of this report in any other context or for any other purpose by third party.

9.0 References

Building Regulations 2016 (Tas.) Division 6.

Determination, Director of Building Control – Bushfire-Hazard Areas. Version 1.1, April 2021.

Consumer, Building and Occupational Services, Department of Justice, Tasmania

Standards Australia 2018, *Construction of buildings in bushfire prone areas*, Standards Australia, Sydney.

Tasmanian Planning Scheme – State Planning Provisions. C13 Bushfire-prone Areas Code.

Tasmanian Planning Commission, Hobart. 2022.

Appendix A - Site Plan



Appendix B – BAL Assessment tables

Table 1. Bushfire Attack Level (BAL) Assessment – Lot 1

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North	Grassland [^]	>0 to 5° downslope	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
East	Grassland [^]	upslope	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South	Grassland [^]	>10° to 15° downslope	0 to >100 metres	22 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
West	Grassland [^]	>0 to 5° downslope	0 to 100 metres	16 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 2. Bushfire Attack Level (BAL) Assessment for Lot 2

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North	Grassland [^]	upslope	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
East	Grassland [^]	upslope	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South	Grassland [^]	>10° to 15° downslope	0 to 100 metres	22 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
West	Grassland [^]	>15° to 20° downslope	0 to 100 metres	25 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 3. Bushfire Attack Level (BAL) Assessment for Lot 3

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland^	upslope	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland^	>5° to 10° downslope	0 to 100 metres	19 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-west	Grassland^	>5° to 10° downslope	0 to 70 metres	19 metres	BAL-12.5
	Grassland^	excluded >20°	70 to 100 metres		
	--	--	--		
	--	--	--		
North-west	Grassland^	>10° to 15° downslope	0 to 100 metres	22 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 4. Bushfire Attack Level (BAL) Assessment for Lot 4

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	upslope	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	upslope	0 to 50 metres	14 metres	BAL-12.5
	Scrub [^]	upslope	50 to 80 metres		
	Grassland [^]	upslope	80 to 100 metres		
	--	--	--		
South-west	Grassland [^]	>10° to 15° downslope	0 to 100 metres	22 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>0 to 5° downslope	0 to 100 metres	16 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 5. Bushfire Attack Level (BAL) Assessment for Lot 5

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	upslope	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Scrub [^]	upslope	0 to 40 metres	19 metres	BAL-19
	Grassland [^]	upslope	40 to 100 metres		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	>15° to 20° downslope	0 to 100 metres	17 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>10° to 15° downslope	0 to 100 metres	15 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 6. Bushfire Attack Level (BAL) Assessment for Lot 6

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland^	upslope	0 to 20 metres	20 metres	BAL-19
	Scrub^	upslope	20 to 80 metres		
	Grassland^	flat 0°	80 to 100 metres		
	--	--	--		
South-east	Grassland^	>15° to 20° downslope	0 to 80 metres	17 metres	BAL-19
	Exclusion 2.2.3.2 (e, f)^	flat 0°	80 to >100 metres		
	--	--	--		
	--	--	--		
South-west	Grassland^	>10° to 15° downslope	0 to 100 metres	15 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland^	flat 0°	0 to 100 metres	10 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		

^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

* Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 7. Bushfire Attack Level (BAL) Assessment for Lot 7

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	flat 0°	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	flat 0°	0 to 44 metres	10 metres	BAL-19
	Grassland [^]	>15° to 20° downslope	44 to 100 metres		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	>15° to 20° downslope	0 to 52 metres	17 metres	BAL-19
	Grassland [^]	29° downslope	52 to 76 metres		
	Grassland [^]	13° downslope	76 to 100 metres		
	--	--	--		
North-west	Grassland [^]	>5° to 10° downslope	0 to >100 metres	13 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 8. Bushfire Attack Level (BAL) Assessment for Lot 8

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland^	upslope	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland^	flat 0°	0 to 100 metres	10 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		
South-west	Grassland^	>15° to 20° downslope	0 to 52 metres	17 metres	BAL-19
	Grassland^	32°	52 to 68 metres		
	Exclusion 2.2.3.2 (e, f)^	>15° to 20° downslope	68 to >100 metres		
	--	--	--		
North-west	Grassland^	>0 to 5° downslope	0 to 53 metres	11 metres	BAL-19
	Grassland^	>5° to 10° downslope	53 to 100 metres		
	--	--	--		
	--	--	--		

^ Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^^ Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 9. Bushfire Attack Level (BAL) Assessment for Lot 9 - existing residential development

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North	Grassland [^]	flat 0°	0 to 75 metres	14 metres	BAL-12.5
	Grassland [^]	>0 to 5° downslope	75 to 100 metres		
	--	--	--		
	--	--	--		
East	Grassland [^]	>10° to 15° downslope	0 to 100 metres	22 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South	Grassland [^]	>5° to 10° downslope	0 to 100 metres	19 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
West	Grassland [^]	>5° to 10° downslope	0 to 100 metres	19 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 10. Bushfire Attack Level (BAL) Assessment for Lot 10

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	>10° to 15° downslope	0 to 100 metres	22 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	>5° to 10° downslope	0 to 100 metres	19 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	flat 0°	0 to 50 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>5° to 10° downslope	0 to 100 metres	19 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 11. Bushfire Attack Level (BAL) Assessment for Lot 11

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	>10° to 15° downslope	0 to 100 metres	15 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	upslope	0 to 60 metres	10 metres	BAL-19
	Grassland [^]	>5° to 10° downslope	60 to 100 metres		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	flat 0°	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>5° to 10° downslope	0 to 100 metres	13 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 12. Bushfire Attack Level (BAL) Assessment for Lot 12

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	>10° to 15° downslope	0 to 100 metres	15 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	upslope	0 to 100 metres	10 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	flat 0°	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>5° to 10° downslope	0 to 100 metres	13 metres	BAL-19
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 13. Bushfire Attack Level (BAL) Assessment for Lot 13

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	>10° to 15° downslope	0 to 100 metres	22 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	upslope	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	flat 0°	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>0 to 5° downslope	0 to 100 metres	16 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 14. Bushfire Attack Level (BAL) Assessment for Lot 14

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	flat 0°	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	upslope	0 to 75 metres	14 metres	BAL-12.5
	Grassland [^]	>0 to 5° downslope	75 to 100 metres		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	>0 to 5° downslope	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>0 to 5° downslope	0 to 100 metres	16 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 15. Bushfire Attack Level (BAL) Assessment for Lot 15

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	flat 0°	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	upslope	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	flat 0°	0 to 100 metres	20 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>0 to 5° downslope	0 to 100 metres	16 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Table 16. Bushfire Attack Level (BAL) Assessment for Lot 16 - existing residential development

Azimuth	Vegetation Classification	Effective Slope	Distance to Bushfire-prone vegetation	Hazard management area width	Bushfire Attack Level
North-east	Grassland [^]	flat 0°	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-east	Grassland [^]	upslope	0 to 100 metres	14 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
South-west	Grassland [^]	>0 to 5° downslope	0 to 100 metres	16 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		
North-west	Grassland [^]	>0 to 5° downslope	0 to 100 metres	16 metres	BAL-12.5
	--	--	--		
	--	--	--		
	--	--	--		

[^] Vegetation classification as per AS3959-2018 and Figures 2.4 (A) to 2.4 (H).

^{*} Low threat vegetation as per Bushfire Prone Areas Advisory Note (BHAN) No.1-2014, version 3, 8/11/2017.

^{^^} Exclusions as per AS3959-2018, section 2.2.3.2, (a) to (f).

Appendix C

Bushfire Hazard Management Plan



BUSHFIRE HAZARD MANAGEMENT PLAN

Bushfire Hazard Management Plan, 9 Valleyfield Road, Sorell.
February 2024. J9772v1.
Tasmanian Planning Scheme - Sorell

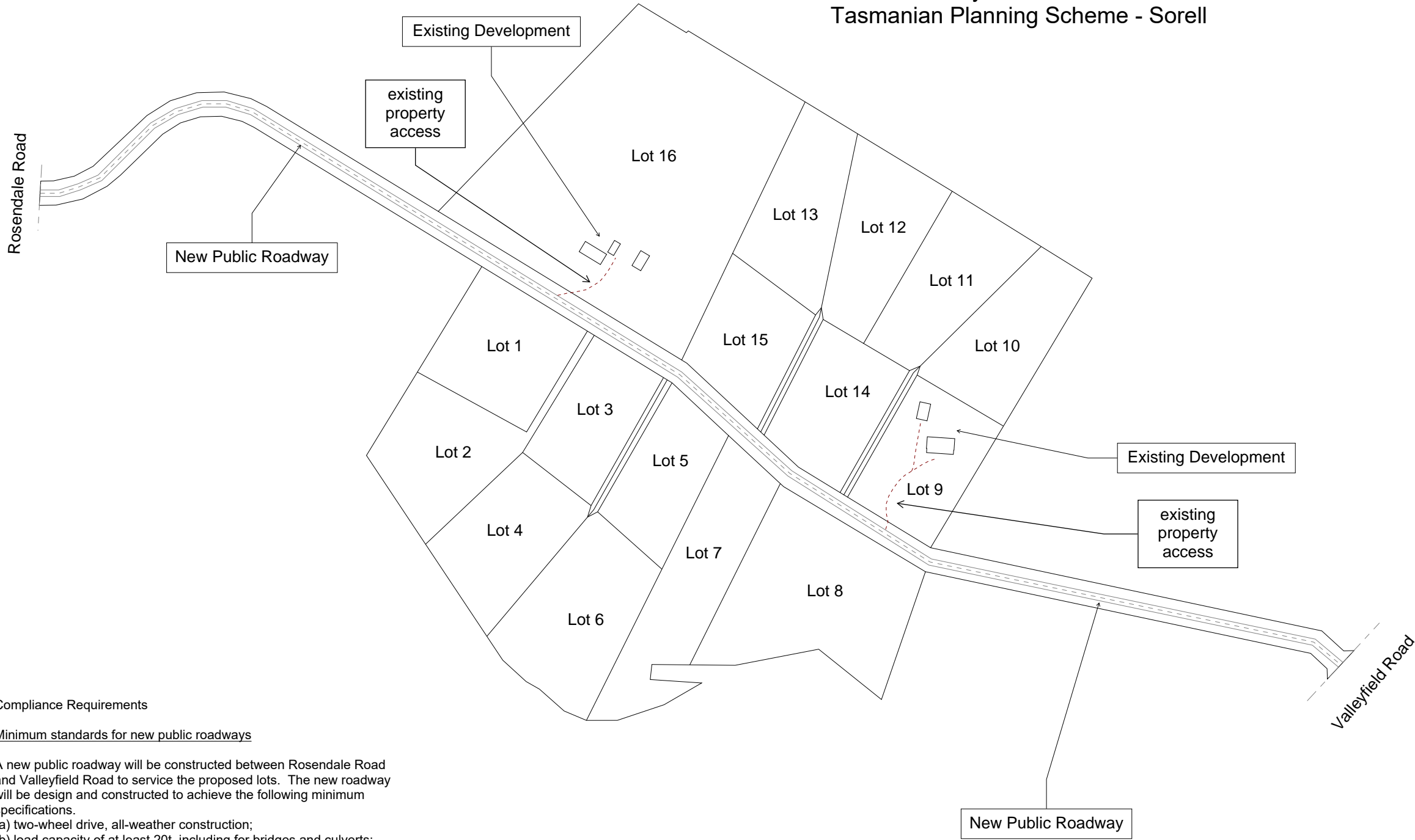


GEO-ENVIRONMENTAL

SOLUTIONS

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Index and Public Access Plan



Compliance Requirements

Minimum standards for new public roadways

A new public roadway will be constructed between Rosendale Road and Valleyfield Road to service the proposed lots. The new roadway will be design and constructed to achieve the following minimum specifications.

- (a) two-wheel drive, all-weather construction;
- (b) load capacity of at least 20t, including for bridges and culverts;
- (c) minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road;
- (d) minimum vertical clearance of 4m;
- (e) minimum horizontal clearance of 2m from the edge of the carriageway;
- (f) cross falls of less than 3 degrees (1:20 or 5%);
- (g) maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18%) for unsealed roads;
- (h) curves have a minimum inner radius of 10m;
- (i) dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7 metres in width;
- (j) dead-end or cul-de-sac roads have a turning circle with a minimum 12m outer radius; and
- (k) carriageways less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with Australian Standard AS1743-2001 Road signs-Specifications.

Note: Hazard management areas to be established to widths specified for each lot from the facades of the new building work.

New Crossovers subject to final civil design.

The requirements of sections 5.1, 5.2, 5.3 of the Bushfire Hazard Report are required to be implemented for lots 9 & 16 prior to the sealing of titles.

Certification No. J9772

Mark Van den Berg
Acc. No. BFP-108
Scope 1, 2, 3A, 3B, 3C.

Do not scale from these drawings. Dimensions to take precedence over scale. Written specifications to take precedence over diagrammatic representations.	Annecy Group Pty. Ltd. 21 Tamborine Close, Mountain Creek, QLD 4557	C.T.: 130391/2 & 179945/2 PID: 1882412 & 9176738	Date: 07/02/2024	Bushfire Hazard Management Plan 9 Valleyfield Road, Sorell. February 2024. J9772v1. Bushfire Management Report 9 Valleyfield Road, Sorell. February 2024. J9772v1.	Drawing Number: A01	Sheet 1 of 4 Prepared by: MvdB
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Compliance Requirements

Property Access

If property access length is 30 metres or greater and access is required for a fire appliance to connect to a firefighting water point.
The following design and construction requirements apply to property access:

- (a) All-weather construction;
- (b) Load capacity of at least 20 tonnes, including for bridges and culverts;
- (c) Minimum carriageway width of 4 metres;
- (d) Minimum vertical clearance of 4 metres;
- (e) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
- (f) Cross falls of less than 3° (1:20 or 5%);
- (g) Dips less than 7° (1:8 or 12.5%) entry and exit angle;
- (h) Curves with a minimum inner radius of 10 metres;
- (i) Maximum gradient of 15° (1:3.5 or 28%) for sealed roads, and 10° (1:5.5 or 18%) for unsealed roads; and
- (j) Terminate with a turning area for fire appliances provided by one of the following:

- (i) A turning circle with a minimum outer radius of 10 metres;
- (ii) A property access encircling the building; or
- (iii) A hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long

- (k) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.

Water Supplies for Firefighting

The site is not serviced by a reticulated water supply, therefore a dedicated, static firefighting water supply will be provided in accordance with the following:

A) Distance between building area to be protected and water supply
The following requirements apply:

- (a) The building area to be protected must be located within 90 metres of the fire fighting water point of a static water supply; and
- (b) The distance must be measured as a hose lay, between the fire fighting water point and the furthest part of the building area.

B) Static Water Supplies
A static water supply:

- (a) May have a remotely located offtake connected to the static water supply;
- (b) May be a supply for combined use (fire fighting and other uses) but the specified minimum quantity of fire fighting water must be available at all times;
- (c) Must be a minimum of 10,000 litres per building area to be protected. This volume of water must not be used for any other purpose including fire fighting sprinkler or spray systems;
- (d) Must be metal, concrete or lagged by non-combustible materials if above ground; and
- (e) If a tank can be located so it is shielded in all directions in compliance with Section 3.5 of AS 3959-2009, the tank may be constructed of any material provided that the lowest 400 mm of the tank exterior is protected by:

- (i) metal;
- (ii) non-combustible material; or
- (iii) fibre-cement a minimum of 6 mm thickness.

C) Fittings and pipework associated with a fire fighting water point for a static water supply must:

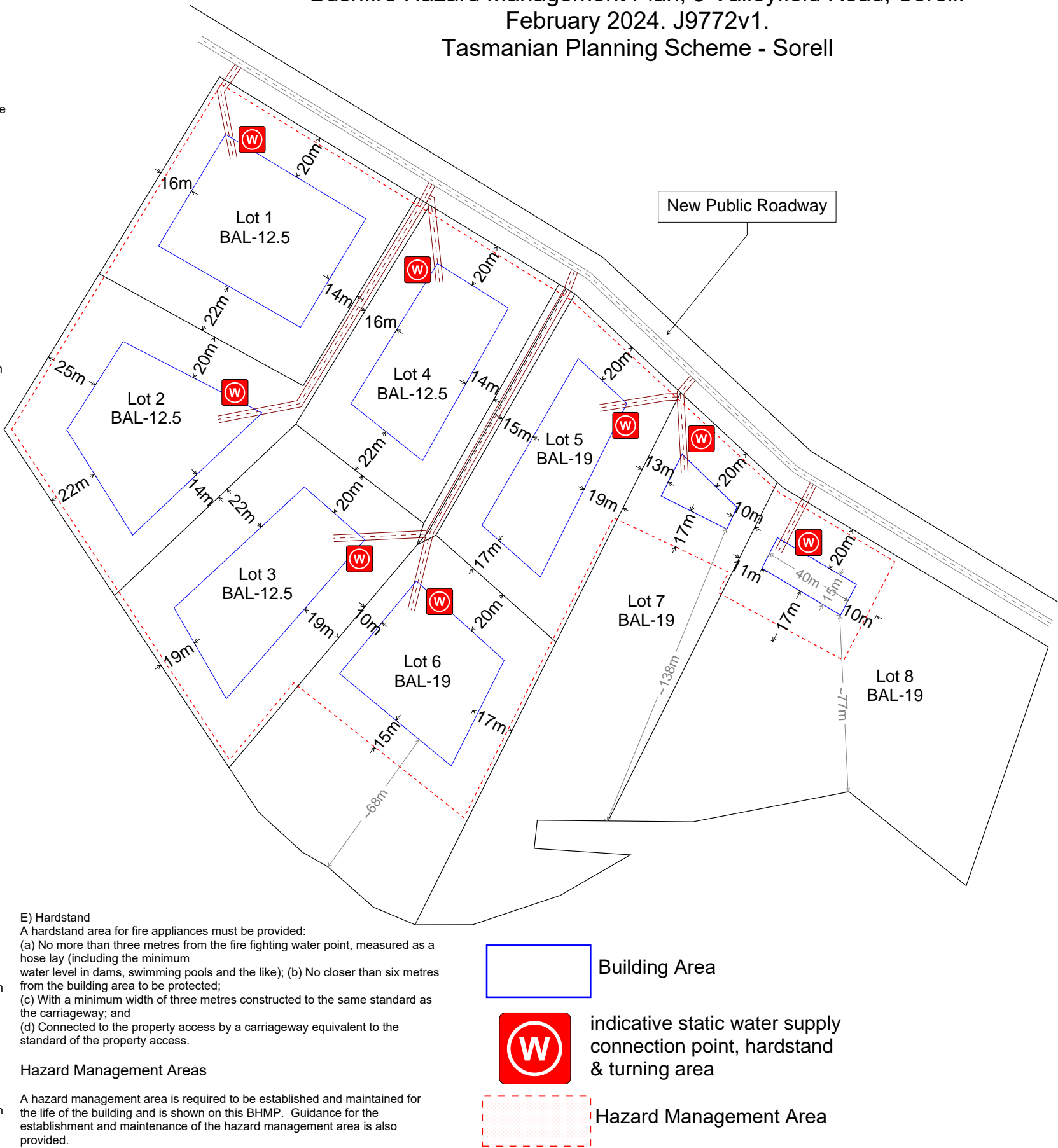
- (a) Have a minimum nominal internal diameter of 50mm; (2) Be fitted with a valve with a minimum nominal internal diameter of 50mm;
- (b) Be fitted with a valve with a minimum nominal internal diameter of 50mm;
- (c) Be metal or lagged by non-combustible materials if above ground;
- (d) Where buried, have a minimum depth of 300mm (compliant with AS/NZS 3500.1-2003 Clause 5.23);
- (e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment;
- (f) Ensure the coupling is accessible and available for connection at all times;
- (g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length);
- (h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and
- (i) Where a remote offtake is installed, ensure the offtake is in a position that is:

- (i) Visible;
- (ii) Accessible to allow connection by fire fighting equipment,
- (iii) At a working height of 450 – 600mm above ground level; and
- (iv) Protected from possible damage, including damage by vehicles.

D) Signage for static water connections
The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service

BUSHFIRE HAZARD MANAGEMENT PLAN

Bushfire Hazard Management Plan, 9 Valleyfield Road, Sorell.
February 2024. J9772v1.
Tasmanian Planning Scheme - Sorell



GEO-ENVIRONMENTAL

SOLUTIONS

29 Kirksway Place, Battery Point.
T| 62231839 E| office@geosolutions.net.au

Note: Hazard management areas to be established to widths specified for each lot from the facades of the new building work.

New Crossovers subject to final civil design.

The requirements of sections 5.1, 5.2, 5.3 of the Bushfire Hazard Report are required to be implemented for lots 9 & 16 prior to the sealing of titles.

Hazard Management Area

A hazard management area is the area, between a habitable building or building area and the bushfire prone vegetation, which provides access to a fire front for firefighting, which is maintained in a minimal fuel condition and in which there are no other hazards present which will significantly contribute to the spread of a bushfire. This can be achieved through, but is not limited to the following actions;

- Remove fallen limbs, sticks, leaf and bark litter;
- Maintain grass at less than a 100mm height;
- Remove pine bark and other flammable mulch (especially from against buildings);
- Thin out under-story vegetation to provide horizontal separation between fuels;
- Prune low-hanging tree branches (<2m from the ground) to provide (vertical separation between fuel layers);
- Prune larger trees to maintain horizontal separation between canopies;
- Minimise the storage of flammable materials such as firewood;
- Maintain vegetation clearance around vehicular access and water supply points;
- Use low-flammability species for landscaping purposes where appropriate;
- Clear out any accumulated leaf and other debris from roof gutters and other accumulation points.

It is not necessary to remove all vegetation from the hazard management area, trees may provide protection from wind borne embers and radiant heat under some circumstances.

Certification No. J9772

Mark Van den Berg
Acc. No. BFP-108
Scope 1, 2, 3A, 3B, 3C.

Do not scale from these drawings.
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Annecy Group Pty. Ltd.
21 Tamborine Close,
Mountain Creek, QLD
4557

C.T.: 130391/2 & 179945/2
PID: 1882412 & 9176738

Date: 07/02/2024

Bushfire Hazard Management Plan 9 Valleyfield Road, Sorell. February 2024. J9772v1.
Bushfire Management Report 9 Valleyfield Road, Sorell. February 2024. J9772v1.

Drawing Number:
A01

Sheet 2 of 4
Prepared by:
MvdB



BUSHFIRE HAZARD MANAGEMENT PLAN

Bushfire Hazard Management Plan, 9 Valleyfield Road, Sorell.
February 2024. J9772v1.
Tasmanian Planning Scheme - Sorell

Compliance Requirements

Property Access

If property access length is 30 metres or greater and access is required for a fire appliance to connect to a firefighting water point.
The following design and construction requirements apply to property access:
(a) All-weather construction;
(b) Load capacity of at least 20 tonnes, including for bridges and culverts;
(c) Minimum carriageway width of 4 metres;
(d) Minimum vertical clearance of 4 metres;
(e) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
(f) Cross falls of less than 3° (1:20 or 5%);
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(k) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.

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A static water supply:
(a) May have a remotely located offtake connected to the static water supply;
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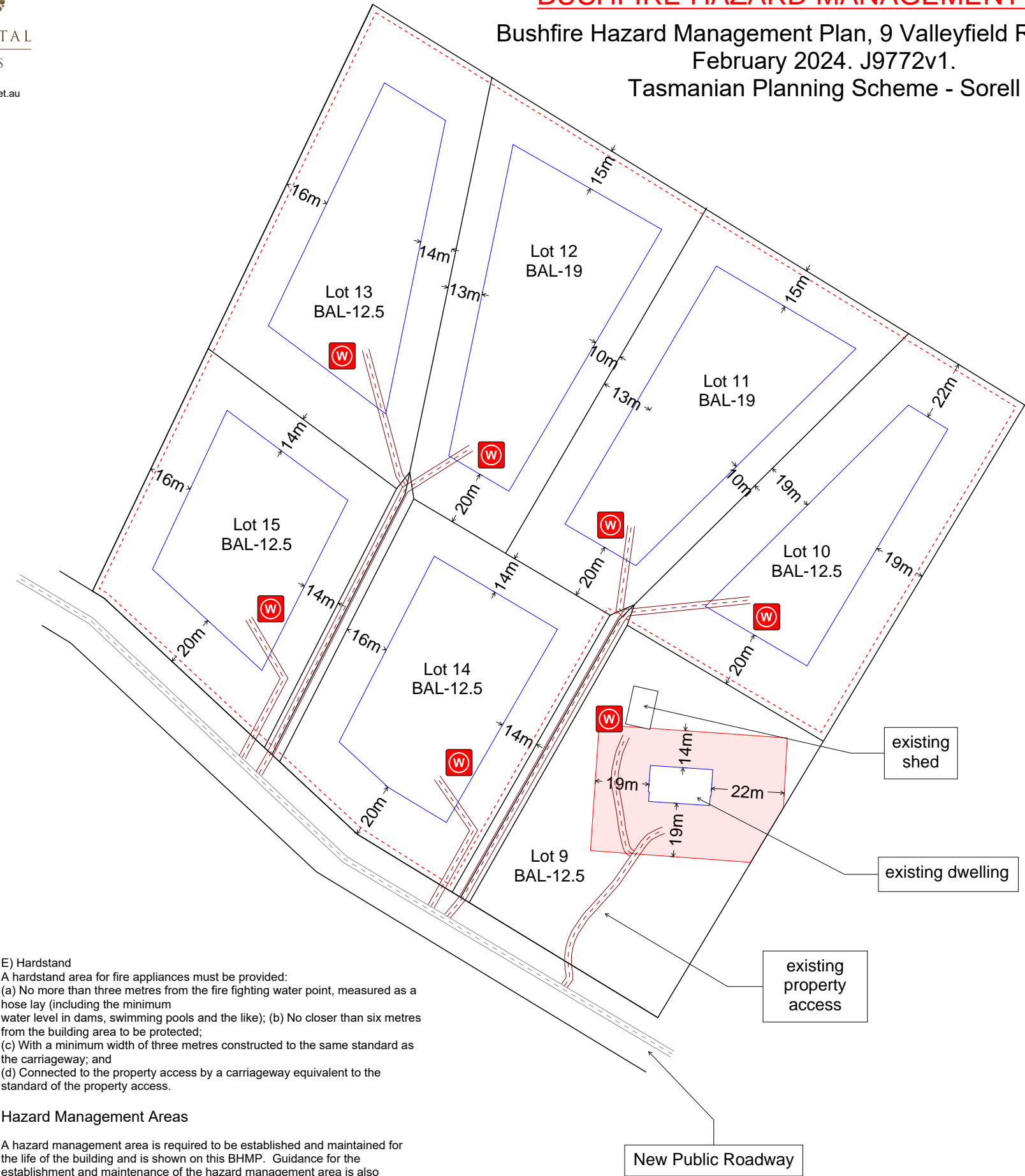
C) Fittings and pipework associated with a fire fighting water point for a static water supply must:
(a) Have a minimum nominal internal diameter of 50mm; (2) Be fitted with a valve with a minimum nominal internal diameter of 50mm;
(b) Be fitted with a valve with a minimum nominal internal diameter of 50mm;
(c) Be metal or lagged by non-combustible materials if above ground;
(d) Where buried, have a minimum depth of 300mm (compliant with AS/NZS 3500.1-2003 Clause 5.23);
(e) Provide a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment;
(f) Ensure the coupling is accessible and available for connection at all times;
(g) Ensure the coupling is fitted with a blank cap and securing chain (minimum 220 mm length);
(h) Ensure underground tanks have either an opening at the top of not less than 250 mm diameter or a coupling compliant with this Table; and
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The fire fighting water point for a static water supply must be identified by a sign permanently fixed to the exterior of the assembly in a visible location. The sign must comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service

E) Hardstand
A hardstand area for fire appliances must be provided:
(a) No more than three metres from the fire fighting water point, measured as a hose lay (including the minimum water level in dams, swimming pools and the like); (b) No closer than six metres from the building area to be protected;
(c) With a minimum width of three metres constructed to the same standard as the carriageway; and
(d) Connected to the property access by a carriageway equivalent to the standard of the property access.

Hazard Management Areas

A hazard management area is required to be established and maintained for the life of the building and is shown on this BHMP. Guidance for the establishment and maintenance of the hazard management area is also provided.



Building Area

indicative static water supply connection point, hardstand & turning area

Hazard Management Area

Note: Hazard management areas to be established to widths specified for each lot from the facades of the new building work.

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Bushfire Management Report 9 Valleyfield Road, Sorell. February 2024. J9772v1.

Drawing Number:
A01

Sheet 3 of 4
Prepared by:
MvdB



BUSHFIRE HAZARD MANAGEMENT PLAN

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Hazard Management Areas

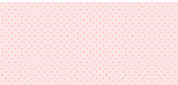
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Building Area



indicative static water supply connection point & hardstand



Hazard Management Area



GEO-ENVIRONMENTAL

SOLUTIONS

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Scope 1, 2, 3A, 3B, 3C.

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Bushfire Management Report 9 Valleyfield Road, Sorell. February 2024. J9772v1.

Drawing Number:
A01

Sheet 4 of 4
Prepared by:
MvdB

Appendix D

Planning Certificate

BUSHFIRE-PRONE AREAS CODE

CERTIFICATE¹ UNDER S51(2)(d) *LAND USE PLANNING AND APPROVALS ACT 1993*

1. Land to which certificate applies

The subject site includes property that is proposed for use and development and includes all properties upon which works are proposed for bushfire protection purposes.

Street address:

9 Valleyfield Road & 123 Rosendale Road, Sorell

Certificate of Title / PID:

179945/2 & 130391/2

2. Proposed Use or Development

Description of proposed Use and Development:

Sixteen lot subdivision with construction of new public roadway

Applicable Planning Scheme:

Tasmanian Planning Scheme – Sorell

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Plan of Subdivision	Leary, Cox & Crips	03/11/2023	1363020
Bushfire Hazard Report 9 Valleyfield Road, Sorell February 2024. J9772v1	Mark Van den Berg	07/02/2024	1
Bushfire Hazard Management Plan 9 Valleyfield Road, Sorell February 2024. J9772v1	Mark Van den Berg	07/02/2024	1

¹ This document is the approved form of certification for this purpose and must not be altered from its original form.

4. Nature of Certificate

The following requirements are applicable to the proposed use and development:

<input type="checkbox"/>	E1.4 / C13.4 – Use or development exempt from this Code	
	Compliance test	Compliance Requirement
<input type="checkbox"/>	E1.4(a) / C13.4.1(a)	Insufficient increase in risk

<input type="checkbox"/>	E1.5.1 / C13.5.1 – Vulnerable Uses	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.5.1 P1 / C13.5.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.5.1 A2 / C13.5.1 A2	Emergency management strategy
<input type="checkbox"/>	E1.5.1 A3 / C13.5.1 A2	Bushfire hazard management plan

<input type="checkbox"/>	E1.5.2 / C13.5.2 – Hazardous Uses	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.5.2 P1 / C13.5.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.5.2 A2 / C13.5.2 A2	Emergency management strategy
<input type="checkbox"/>	E1.5.2 A3 / C13.5.2 A3	Bushfire hazard management plan

<input checked="" type="checkbox"/>	E1.6.1 / C13.6.1 Subdivision: Provision of hazard management areas	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.1 P1 / C13.6.1 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.1 A1 (a) / C13.6.1 A1(a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.1 A1 (b) / C13.6.1 A1(b)	Provides BAL-19 for all lots (including any lot designated as 'balance').
<input type="checkbox"/>	E1.6.1 A1(c) / C13.6.1 A1(c)	Consent for Part 5 Agreement

<input checked="" type="checkbox"/>	E1.6.2 / C13.6.2 Subdivision: Public and fire fighting access	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.2 P1 / C13.6.2 P1	<i>Planning authority discretion required. A proposal cannot be certified as compliant with P1.</i>
<input type="checkbox"/>	E1.6.2 A1 (a) / C13.6.2 A1 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.2 A1 (b) / C13.6.2 A1 (b)	Access complies with relevant Tables

<input checked="" type="checkbox"/>	E1.6.3 / C13.1.6.3 Subdivision: Provision of water supply for fire fighting purposes	
	Acceptable Solution	Compliance Requirement
<input type="checkbox"/>	E1.6.3 A1 (a) / C13.6.3 A1 (a)	Insufficient increase in risk
<input type="checkbox"/>	E1.6.3 A1 (b) / C13.6.3 A1 (b)	Reticulated water supply complies with relevant table.
<input type="checkbox"/>	E1.6.3 A1 (c) / C13.6.3 A1 (c)	Water supply consistent with the objective
<input type="checkbox"/>	E1.6.3 A2 (a) / C13.6.3 A2 (a)	Insufficient increase in risk
<input checked="" type="checkbox"/>	E1.6.3 A2 (b) / C13.6.3 A2 (b)	Static water supply complies with relevant Table
<input type="checkbox"/>	E1.6.3 A2 (c) / C13.6.3 A2 (c)	Static water supply consistent with the objective

5. Bushfire Hazard Practitioner

Name:

Mark Van den Berg

Phone No:

03 62231839

Postal
Address:

29 Kirksway Place
Battery Point Tas. 7004

Email
Address:

mvandenberg@geosolutions.net.au

Accreditation No:

BFP – 108

Scope:

1, 2, 3a, 3b & 3c

6. Certification

I certify that in accordance with the authority given under Part 4A of the *Fire Service Act* 1979 that the proposed use and development:

☐

Is exempt from the requirement Bushfire-Prone Areas Code because, having regard to the objective of all applicable standards in the Code, there is considered to be an insufficient increase in risk to the use or development from bushfire to warrant any specific bushfire protection measures, or

☒

The Bushfire Hazard Management Plan/s identified in Section 3 of this certificate is/are in accordance with the Chief Officer's requirements and compliant with the relevant **Acceptable Solutions** identified in Section 4 of this Certificate.

Signed:
certifier



Name:

Mark Van den Berg

07/02/2024

Certificate
Number:

J9772

(for Practitioner Use only)

STORMWATER ASSESSMENT

FOR A PROPOSED 15 LOT SUBDIVISION AT

9 VALLEYFIELD RD, SORELL
& 123 ROSENDALE RD, SORELL

I.C.E. Project No: 23201

Client name: Tom McLelland

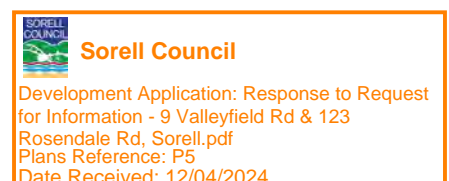
Document No. 23201-03 (Rev A)

10/04/2024

Document Approved by:



Stephen Cole BEng (Civil & Environmental) CPEng
Principal Civil / Structural Engineer
Integral Consulting Engineers Pty Ltd
WST Accreditation: Engineer Civil CC5900 T



1. Introduction

This stormwater management report presents a hydrological analysis of the proposed stormwater infrastructure for the 9 Valleyfield Road Subdivision in Sorell. It evaluates the effects of post-development conditions on stormwater runoff. Calculations for the assessment have been done using Civil 3d software by Autodesk.

The analysis is based on simulations of the 1% Annual Exceedance Probability (AEP) rainfall event, incorporating climate change considerations. These simulations were conducted using Autodesk's Civil 3D software. The design of all drainage infrastructure is optimized for this specific rainfall event. Consequently, no calculations are provided for the (minor) 5% AEP rainfall event.

Appendices include plots generated by the design software, and this report references key findings from both the assessment and those plots. Furthermore, it outlines measures designed to mitigate damage and erosion to both the infrastructure and the receiving water bodies.

2. Stormwater Assessment Calculations

Calculations for the assessment have been done using Civil 3d software by Autodesk. The detailed results of these calculations are in the design drawings for the proposed development, 23201 H01 – H08, presented in Appendix 1.

The data behind these calculations is presented in Appendix 2.

3. Existing Site Conditions and Stormwater Runoff

Site overview

The proposed development consists of two properties, 9 Valleyfield Rd and 123 Rosendale Rd, Sorell. The total area of these properties is 17.3Ha.

The existing site is covered by predominantly pasture with some patches of exposed rock, weeds, and in the south east corner of the site, very steep slopes with exposed rock.

There is also currently one house and three sheds on the site.

Aspect varies between westerly and southerly. Slope varies from flat at the top of the hill, to 25% fall outside of the landslide hazard areas, and up to 50% (1 in 2) in the Landslide hazard areas.

There is good natural surface drainage over the site.

The average annual rainfall approx. 495mm (source: BOM Hobart Airport station, 10km away from the site)

There is no reticulated water or sewer to the site.

Soil Conditions:

Six test holes were augered using a 75mm hand auger to get a representation of soil conditions at the site. Test Hole Results are presented in table 1 below.

Description	TH1	TH2	TH3	TH4	TH5	TH6
Sandy topsoil, dry and clayey	0 - 0.13	0 – 0.06	0 – 0.2	0 -0.18	0 – 0.23	0 – 0.17
Clay, dark brown, very stiff	0.13 – 0.54	0.06 – 0.32	0.2 – 0.48	0.18 – 0.54		0.17 – 0.82
Sandy clay, loose and crumbly	0.54 – 0.6	0.32 – 0.46	0.48 – 0.6	0.54 – 0.6		0
Refusal on assumed rock base	0.6	0.46	0.6	0.6	0.23	0.82

Table 1: Soil Test Hole Results

The soils consist of a thin layer of clayey topsoil, a heavy clay subsoil then rock. The depth to rock in the test holes varied from minimum 0.23m, to maximum 0.82m. Some small patches of rock outcrop were visible on the surface.

Pre development Run-off

Run-off from the current site follows the existing natural drainage lines as sheet surface flows. An exception to this is where there is the vehicle access running east west through the property. This would discharge some concentrated water. The concentrated water would flow through the property and discharge into Iron Creek, and does not flow through any neighbouring properties.

The estimated pre-development surface water run-off leaving the site for the 1% AEP event is: 2.82m³/sec. This includes a 15% increase in rainfall intensity to allow for the effects of climate change.

The catchment that flows into the culvert on the access road to the development is not part of the subject property. For simplicity this area has still been included in the pre and post development calculations. The reasoning for this is it only contributes a small proportion of the contributing catchment, the catchment conditions do not change as a result of the development.

4. Stormwater Runoff from the Proposed Development

Changes to the catchment conditions:

The proposed subdivision works and the associated development of the lots will result in the following changes to the catchment conditions for the site:

New sealed road crossing the site from approximately east to west.

New driveways, dwellings and possibly shed constructed on each lot.

Stormwater Runoff from Private Lots

Stormwater: Lots 1-3, 6, 9, 14 and 15 will be able to drain run-off from hardstand areas to the street frontage, Iron Creek, or a Council stormwater main passing through the property. The remainder of the lots will need to dispose of run-off from impervious areas on site.

An assessment for disposal of stormwater from roof areas has been done for the two lots that have more than half of the lot covered by a Landslide Hazard Overlay, Lots 7 and 8. Details for that assessment are shown in Appendix 3, and drawing H08 in Appendix 1. This assessment demonstrates that if onsite stormwater disposal is required in those lots, then there is sufficient space available for it outside of the landslide hazard areas, in addition to the onsite wastewater disposal areas.

All of the other lots have sufficient capacity for onsite stormwater disposal in addition to the onsite wastewater disposal areas.

Stormwater flows in the Landslide Hazard Areas

There will be no concentrated surface water flows discharging onto the Landslide Hazard areas as a result of the development. This is the case for stormwater from new public drainage infrastructure, and also from the private lots as referred to above.

The new road will intercept some of the existing surface water flows that flow toward the Landslide Hazard area, which will now drain via the roadside swale drain and then stormwater pipe to Iron Creek. This will reduce the amount of stormwater flowing in the Landslide Hazard area and reduce the risk of Landslide there.

Stormwater Treatment

Sorell Council's stormwater policy requires stormwater treatment from the development in accordance with the State Stormwater Strategy.

My opinion is that stormwater treatment infrastructure for this development would be impractical for Council to maintain. Furthermore, with the catchment to remain as mostly a previous catchment, the amount of pollutants removed would be minimal.

Comparison of Pre and Post Development Run-off

The estimated post-development surface water run-off leaving the site for the 1% AEP event is: 3.19m³/sec. This is an increase of 13% compared with the pre development amount.

5. Stormwater Infrastructure Capacity and Overland Flows

Stormwater Drainage Infrastructure

The stormwater drainage infrastructure for the subdivision consists of:

- Roadside swale drains
- Piped culverts under the road and vehicle accesses.
- DN750 pipe from the road to Iron Creek.

Results for the hydraulic calculations for all of these items are provided in Appendix 1. These results demonstrate that all of this infrastructure can contain all of stormwater flows through them, for the 1% AEP rainfall event plus a 15% increase in rainfall intensity to allow for the effects of climate change.

Overland Flows

The stormwater drainage infrastructure for the development has all been designed to convey the 1% AEP rainfall event (+15% for Climate Change), as described in the previous section. Therefore there will be no concentrated surface water flows leaving the site, other than from the pipe discharge into iron Creek.

Some of the development areas is within catchment areas that flow towards neighbouring property boundaries and not toward the new drainage infrastructure. This is the case for pre and post-development for these locations. This run off will be as sheet flow, and will not be concentrated.

Therefore all overland flows from the development can be discharged via gravity flows without concentrating runoff into adjoining properties.

6. Protection of Drainage Infrastructure and Erosion Control

There are two aspects of the drainage infrastructure that will require erosion prevention measures. How these are addressed in the drawings are described below:

Roadside swale drains

Roadside swale drains will be loamed and seeded with durable grass seed, and maintained until the grass is established. This is expected to be sufficient to prevent erosion in these areas.

Stormwater Pipe Discharge into Iron Creek

The design drawings have a DN750 stormwater pipe that discharges into Iron Creek. A rock mattress has been specified at the discharge location. This is expected to be sufficient to prevent erosion in this location.

7. Conclusion

This report and the associated calculations demonstrate that the subdivision design drawings sufficiently address all of the stormwater management requirements with the exception of stormwater quality. This includes requirements for:

- Capacity of stormwater infrastructure;
- Management of overland flows for the 1% AEP rainfall event;
- Allowance for the effects of climate change;
- Prevention of erosion;
- Management of stormwater within the private lots;

My opinion is that treatment of stormwater quality for this development is impractical, and will carry a maintenance burden for the Council that is disproportionate to the benefit from having stormwater treatment. Therefore I request that this requirement be relaxed for this development.

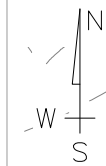
8. Appendices

Appendix 1: Detailed Results of Stormwater Calculations

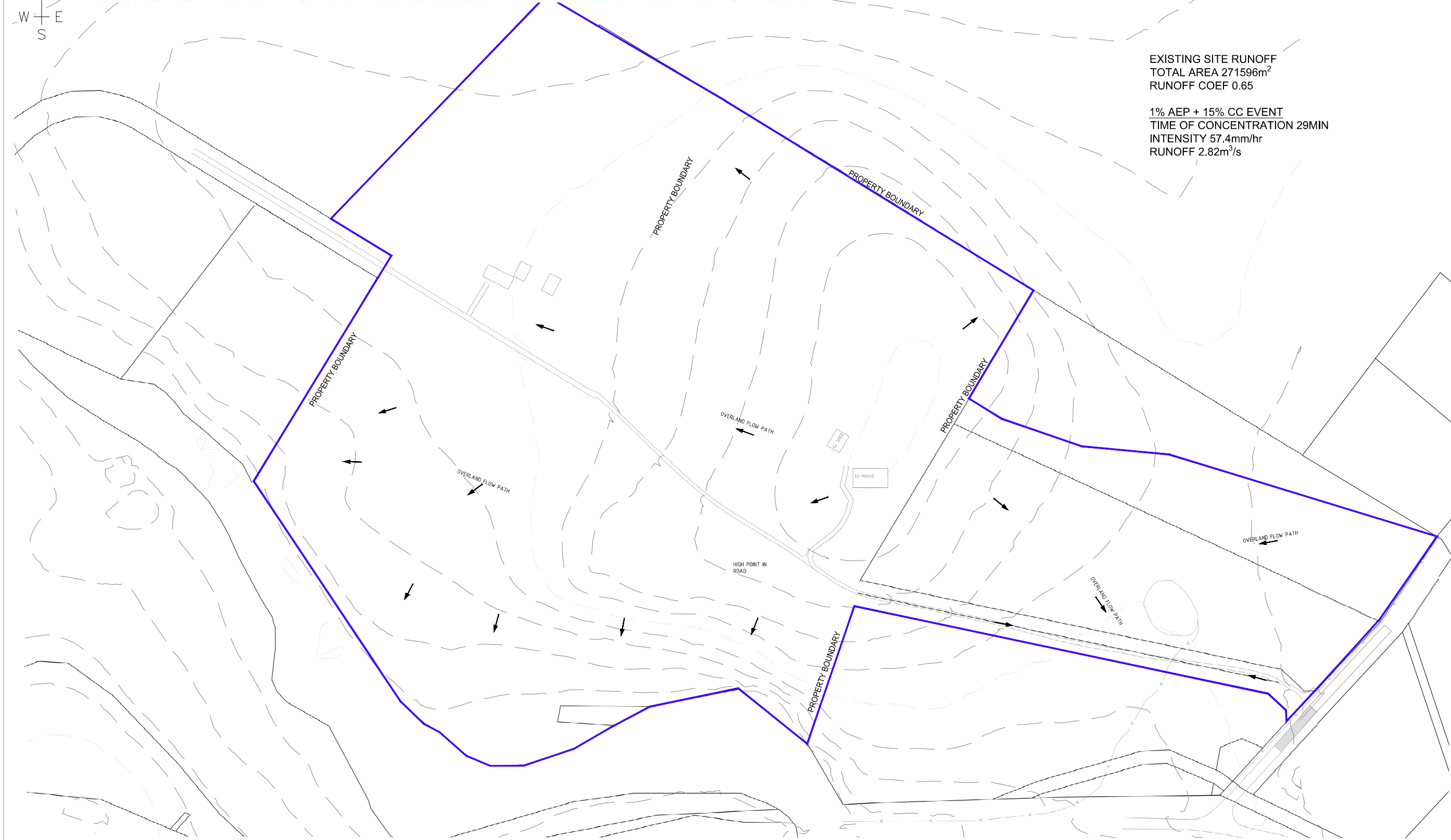
Appendix 2: Detailed Stormwater Calculations

Appendix 3: Stormwater Onsite Soakage System Assessment

Appendix 4: Photos



Appendix 1: Detailed Results of Stormwater Calculations



EXISTING SITE RUNOFF
TOTAL AREA 271596m²
RUNOFF COEF 0.65

1% AEP + 15% CC EVENT
TIME OF CONCENTRATION 29MIN
INTENSITY 57.4mm/hr
RUNOFF 2.82m³/s

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APPROVED:

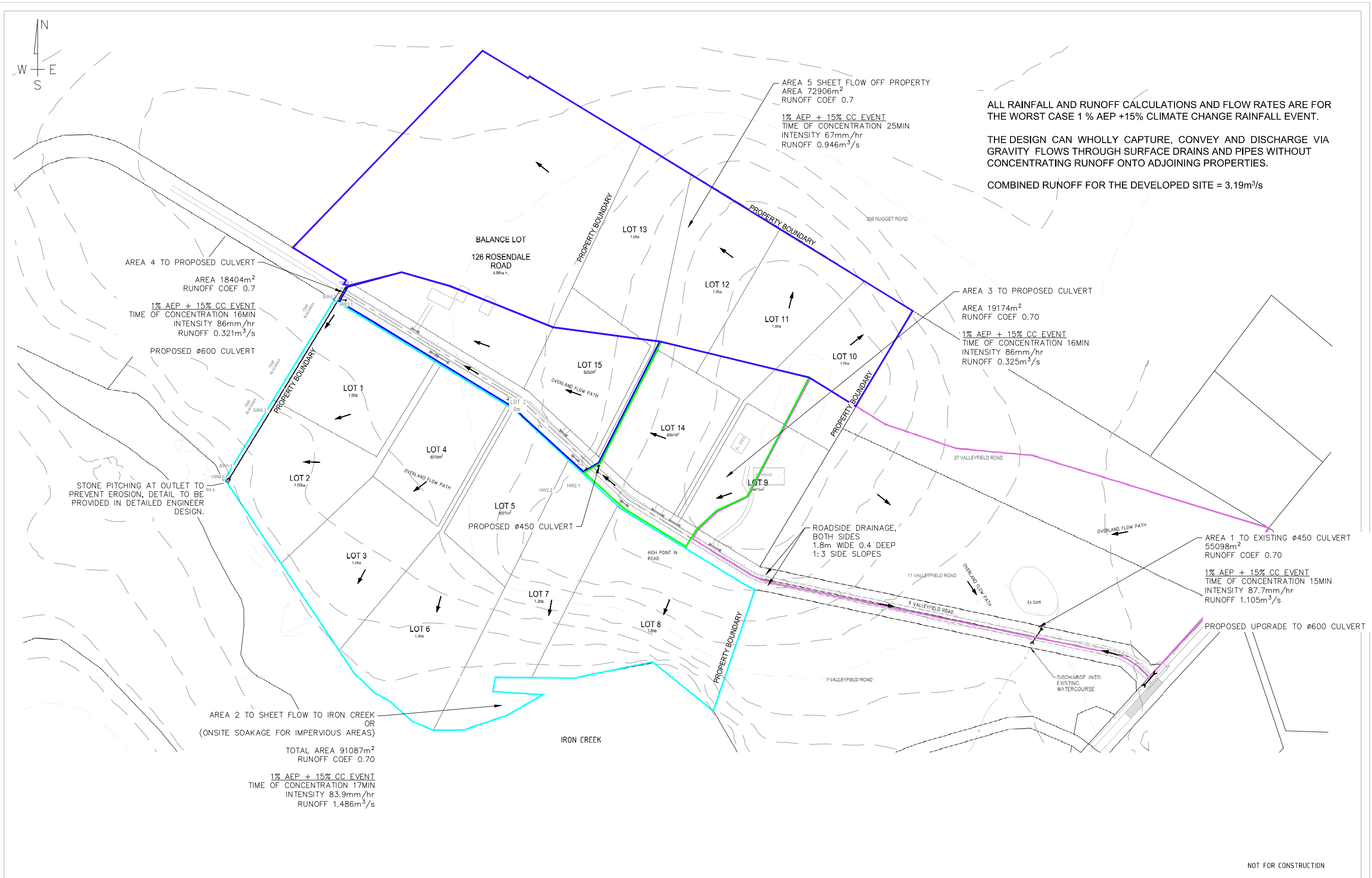
Stephen Cole, Principal Engineer
B Eng (Civil & Environmental), CPEng
WSE Accreditation: Engineer Civil CC5900 T

No.	AMENDMENT DESCRIPTION	DATE
A	CHANGES TO ADDRESS PLANNING RFI	09/04/2024

15 LOT SUBDIVISION 9 VALLEYFIELD RD, SORELL STORMWATER RUNOFF ASSESSMENT - EXISTING SITE	SCALE SCALE DRAWN E.LEGG DATE FEB 2024
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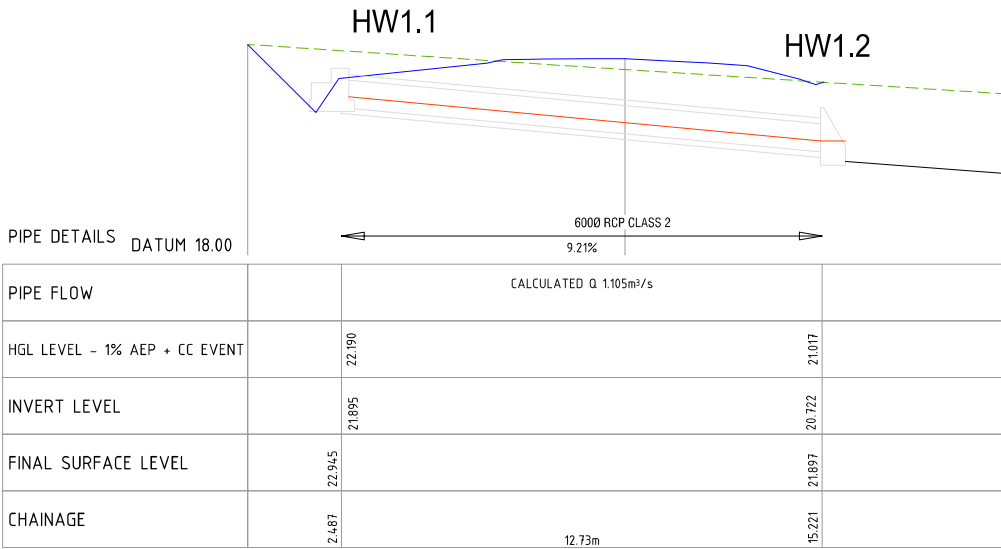
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23201- H01

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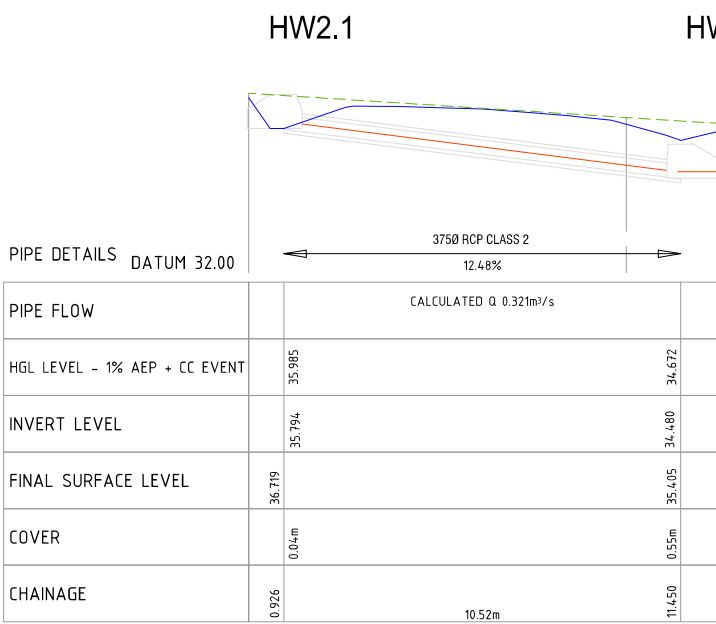


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	<div><div>01020304050mm</div><div>PRINT REDUCTION BAR A1 SHEET</div></div>		A CHANGES TO ADDRESS PLANNING RFI09/04/2024		STORMWATER RUNOFF ASSESSMENT - DEVELOPED SITE	
	<div><div>Integral Consulting Engineers</div><div>Civil & Structural & Project Management</div><div>m: 0417 680 474</div><div>e: team@integralengineers.com.au</div><div>w: www.integralengineers.com.au</div><div>a: Unit 10, 11 Morrison St, Hobart, 7000</div></div>		APPROVED:		SCALE SCALE	
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					DRAWN E.LEGG	
DATE FEB 2024						
23201- H02						
				REVISION		
				A		

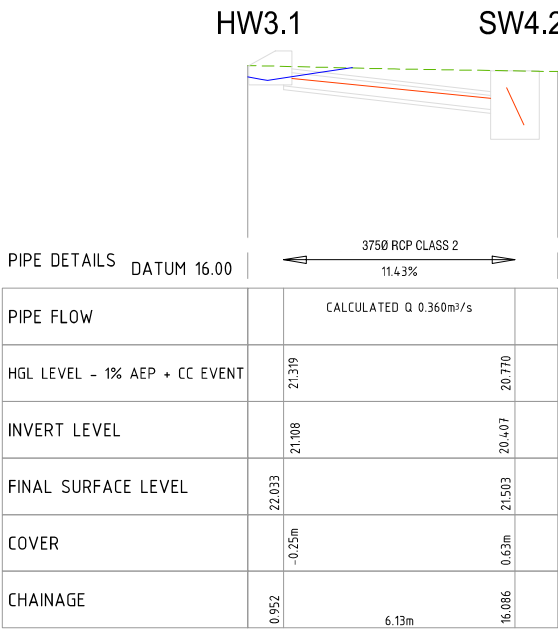
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STORMWATER PIPE 1 LONGSECTION



STORMWATER PIPE 2 LONGSECTION



STORMWATER PIPE 3 LONGSECTION

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WST Accreditation: Engineer Civil CC5900 T

No.	AMENDMENT DESCRIPTION	DATE
A	CHANGES TO ADDRESS PLANNING RFI	09/04/2024

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
STORMWATER PIPES 1, 2 & 3 HGL LONGSECTION

SCALE 1:200
DRAWN E.LEGG
DATE FEB 2024

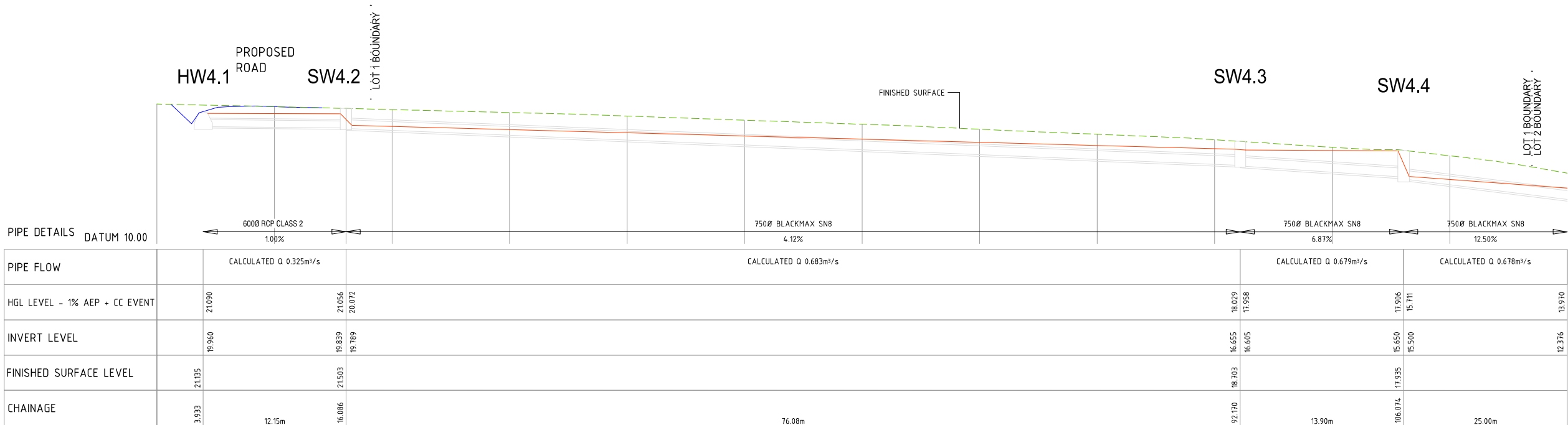
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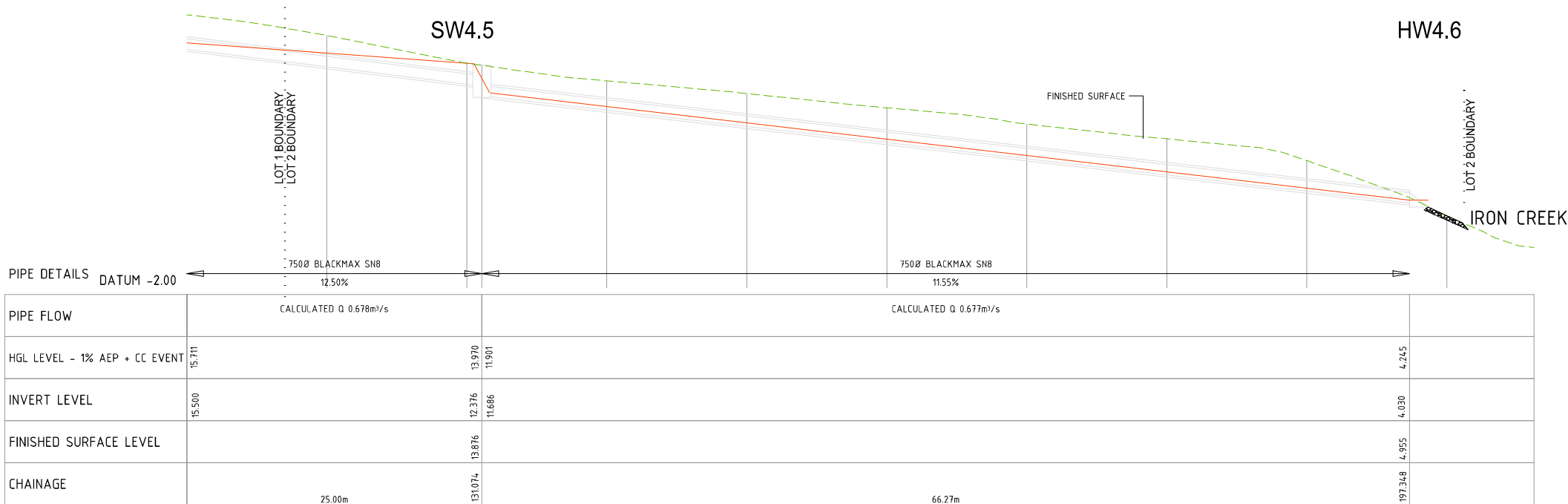
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STORMWATER PIPE 2 LONGSECTION



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No.	AMENDMENT DESCRIPTION	DATE
A	CHANGES TO ADDRESS PLANNING RFI	09/04/2024

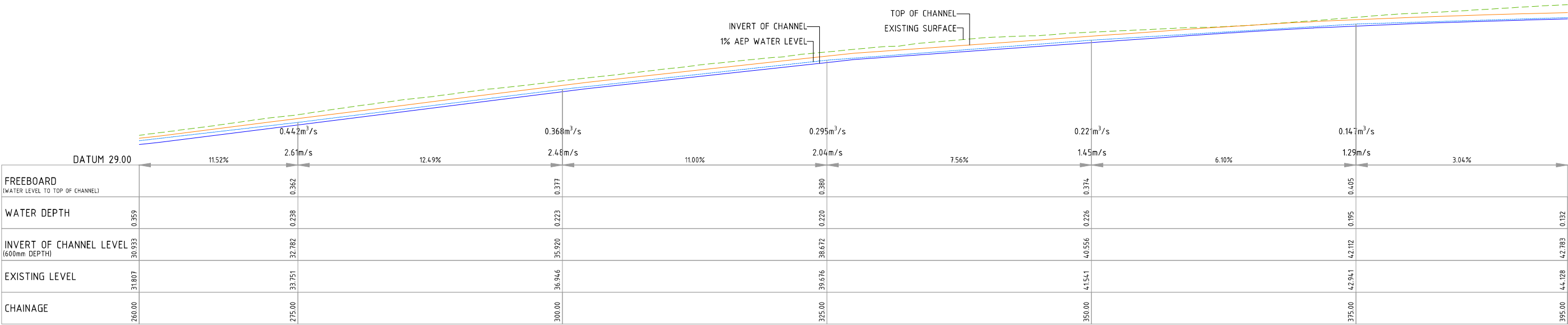
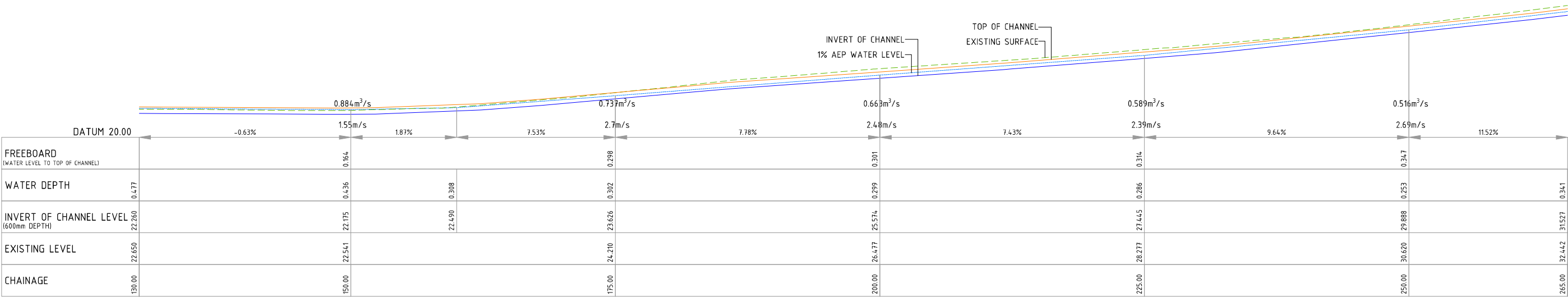
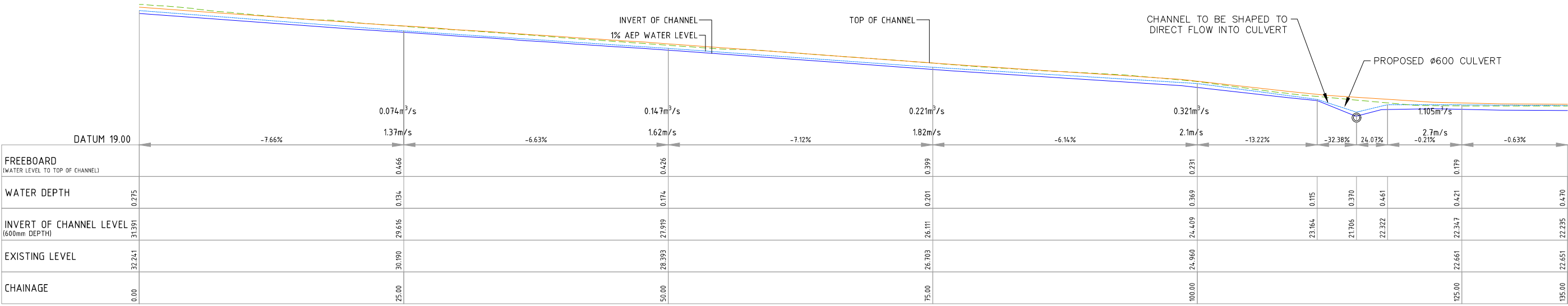
15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
STORMWATER PIPE 4 HGL LONGSECTION
SCALE 1:200
DRAWN E.LEGG
DATE FEB 2024

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No.	AMENDMENT DESCRIPTION	DATE
A	CHANGES TO ADDRESS PLANNING RFI	09/04/2024

15 LOT SUBDIVISION

9 VALLEYFIELD RD, SORELL

ROAD DRAINAGE HIGH SIDE SWALE HGL LONGSECTION CH0.00 - 395

SCALE 1:200

DRAWN E.LEGG

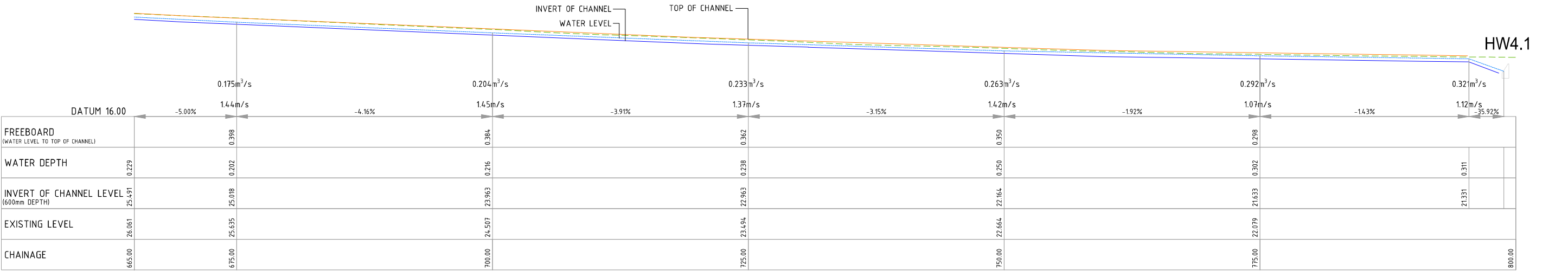
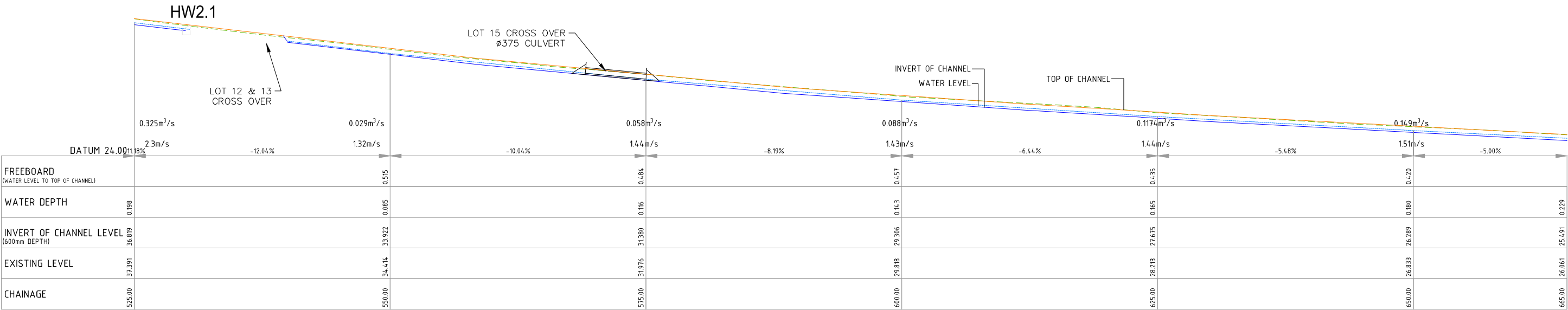
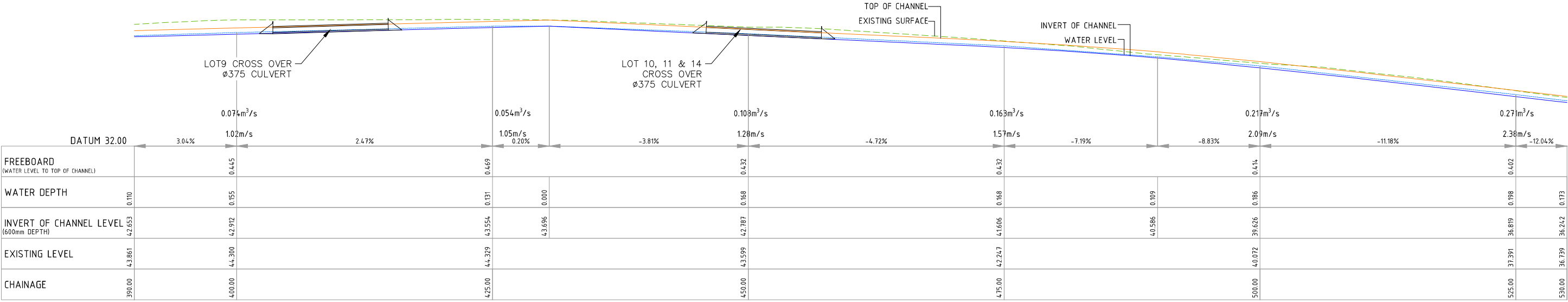
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No.

AMENDMENT DESCRIPTION

DATE

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CHANGES TO ADDRESS PLANNING RH

09/04/2024

15 LOT SUBDIVISION

9 VALLEYFIELD RD, SORELL

ROAD DRAINAGE HIGH SIDE SWALE HGL LONGSECTION CH390- 797

SCALE

1:200

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DATE

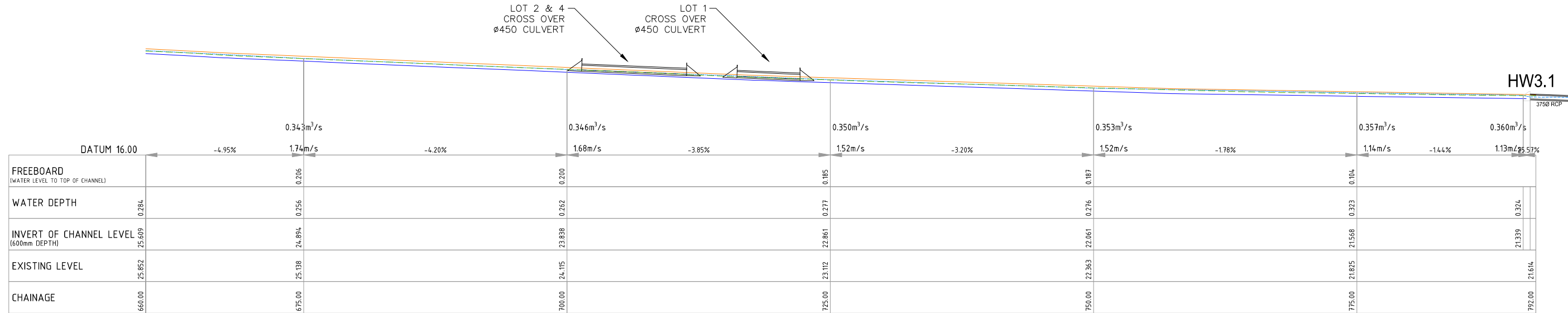
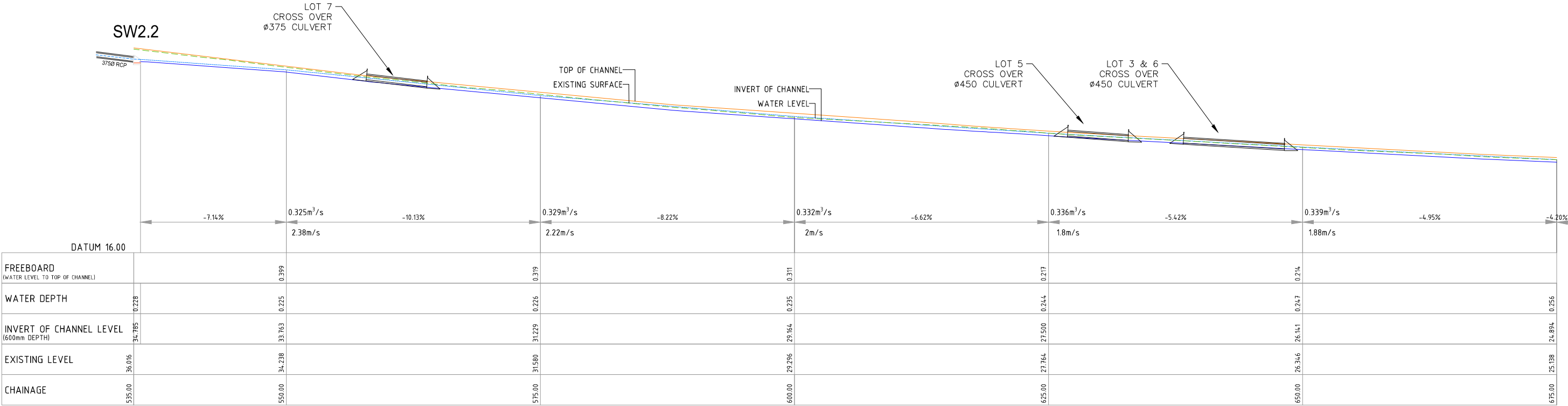
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NSW Accreditation Engineer CMC5900 T

No.	AMENDMENT DESCRIPTION	DATE
A	CHANGES TO ADDRESS PLANNING RH	09/04/2024

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
ROAD DRAINAGE LOW SIDE SWALE HGL LONGSECTION CH550-801

SCALE 1:200

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DATE FEB 2024

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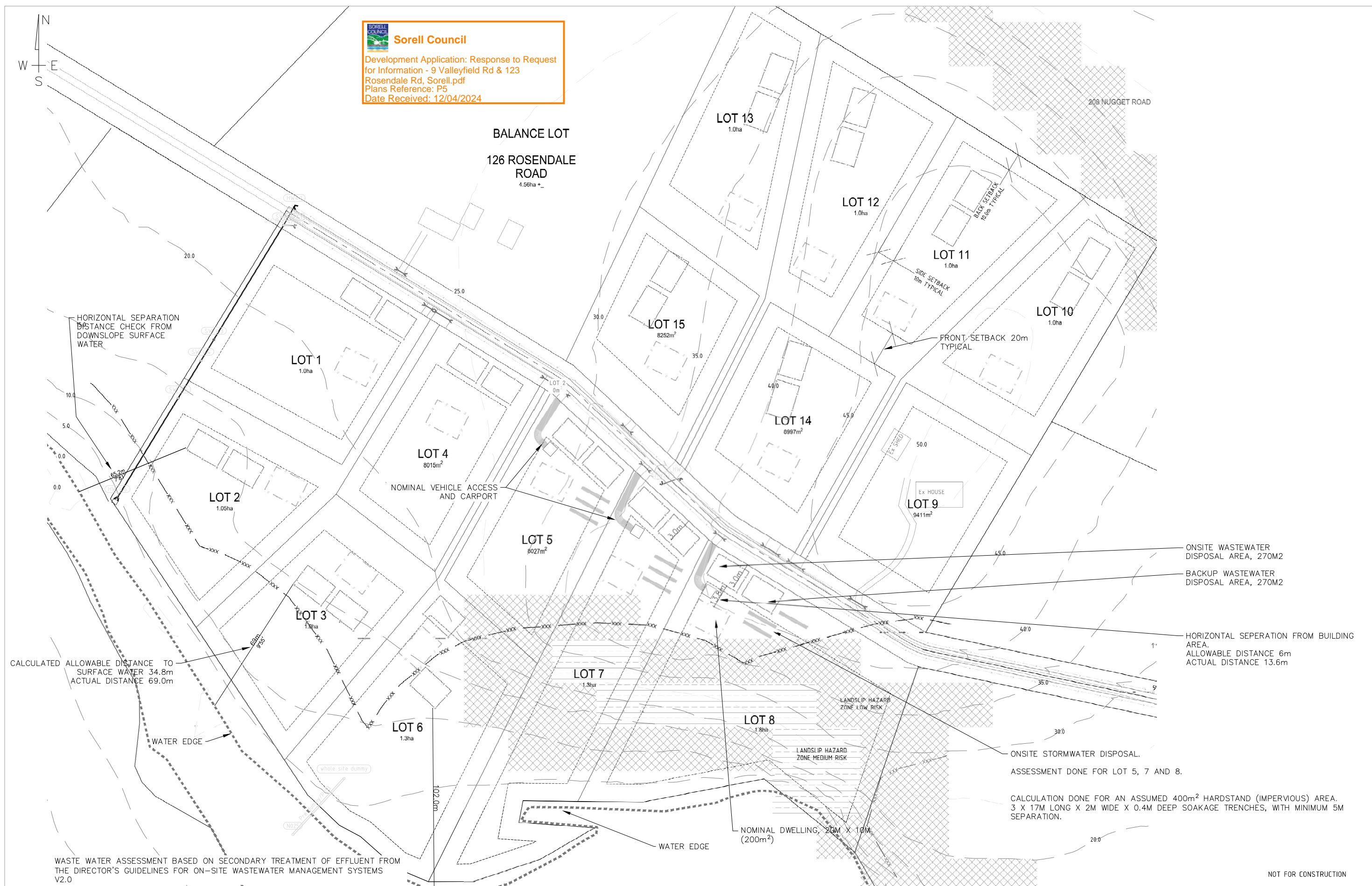
23201- H07

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 **Sorell Council**
Development Application: Response to Request
for Information - 9 Valleyfield Rd & 123
Rosendale Rd, Sorell.pdf
Plans Reference: P5
Date Received: 12/04/2024



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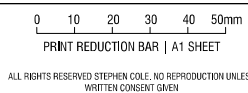
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APPROVED: 

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No.	AMENDMENT DESCRIPTION	DATE
A	FOR PLANNING APPLICATION	01/02/2024
B	CHANGES TO ADDRESS PLANNING RFI	09/04/2024

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
ONSITE WASTEWATER & STOMRWATER DISPOAL PLAN

SCALE	1:1000
DRAWN	E.LEGG
DATE	FEB 2024

DRAWING No.
23201- H08

3

Appendix 2: Detailed Stormwater Calculations

Whole Site Pre development																								
#Line	Pipe	From	To	3D Length (m)	Drainage (sq. m)	Runoff Co	Area X "C" (sq. m)	Area X "C" (sq. m)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)
1	P013	NO25	whole site	43.139	271596	0.65	176537.4	176537.4	30.6	30.6	57.401	2.815	0	2.815	0.8	2.293	4.561	5.6	0.128	17.294	16 N/A	3.00%		
#Line	Struct. ID	D (m)	Q (cu. m/se (m)	L (m/s)	V (m)	d (m)	dc (m)	v^2/2g (m)	EGLO (m)	HGLO (m)	Sf (m)	Total Pipe (m)	EGU (m)	HGLU (m)	Ea (m)	EGLa (m)	U/STOC (m)	Surface E (m)	Step4* (m)	Step7* (m)	Step14* (m)			
0	NO25	(m)	(cu. m/se (m)	(m/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	whole site	0.8	0.946	43.139	4.339	0.358	0.593	0.96	17.318	16.358	0	0	18.612	17.652	1.318	18.612	---	18.269	N/A	Case A	N/A			
*URBAN DRAINAGE DESIGN MANUAL - Hydraulic Engineering Circular No.22 Third Edition																								
#Line	Struct. ID	Exit Ho (m)	Hf (m)	Hb (m)	Hc (m)	He (m)	Hj (m)	Total (m)	Ei (m)	y+P/gam (m)	DI (m)	Eai (m)	CB (m)	C-theta (m)	Cp (m)	Ha (m)	Ea (m)							
0	NO25	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	whole site	0	1.294	0	0	0	0	1.294	2.4	0.801	2	3.199	0	0	0	0	3.199							
Area 3 Post																								
#Line	Pipe	From	To	3D Length (m)	Drainage (sq. m)	Runoff Co	Area X "C" (sq. m)	Area X "C" (sq. m)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)
1	P013	NO25	whole site	43.139	91087	0.7	63760.9	63760.9	17.22	17.22	83.913	1.486	0	1.486	0.8	2.293	4.561	4.849	0.148	17.294	16 N/A	3.00%		
#Line	Struct. ID	D (m)	Q (cu. m/se (m)	L (m/s)	V (m)	d (m)	dc (m)	v^2/2g (m)	EGLO (m)	HGLO (m)	Sf (m)	Total Pipe (m)	EGU (m)	HGLU (m)	Ea (m)	EGLa (m)	U/STOC (m)	Surface E (m)	Step4* (m)	Step7* (m)	Step14* (m)			
0	NO25	(m)	(cu. m/se (m)	(m/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	whole site	0.8	1.486	43.139	4.849	0.469	0.72	1.199	17.669	16.469	0	0	18.962	17.763	1.669	18.962	---	18.269	N/A	Case A	N/A			
*URBAN DRAINAGE DESIGN MANUAL - Hydraulic Engineering Circular No.22 Third Edition																								
#Line	Struct. ID	Exit Ho (m)	Hf (m)	Hb (m)	Hc (m)	He (m)	Hj (m)	Total (m)	Ei (m)	y+P/gam (m)	DI (m)	Eai (m)	CB (m)	C-theta (m)	Cp (m)	Ha (m)	Ea (m)							
0	NO25	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	whole site	0	0	0	0	0	0	0	1.669	0.469	1.056	1.327	0	0	0	0	1.669							
Area 5 Post																								
#Line	Pipe	From	To	3D Length (m)	Drainage (sq. m)	Runoff Co	Area X "C" (sq. m)	Area X "C" (sq. m)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)	Time of C (min)
1	P013	NO25	whole site	43.139	71906	0.7	50334.2	50334.2	25.2	25.2	67.63	0.946	0	0.946	0.8	2.293	4.561	4.339	0.166	17.294	16 N/A	3.00%		
#Line	Struct. ID	D (m)	Q (cu. m/se (m)	L (m/s)	V (m)	d (m)	dc (m)	v^2/2g (m)	EGLO (m)	HGLO (m)	Sf (m)	Total Pipe (m)	EGU (m)	HGLU (m)	Ea (m)	EGLa (m)	U/STOC (m)	Surface E (m)	Step4* (m)	Step7* (m)	Step14* (m)			
0	NO25	(m)	(cu. m/se (m)	(m/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	whole site	0.8	0.946	43.139	4.339	0.358	0.593	0.96	17.318	16.358	0	0	18.612	17.652	1.318	18.612	---	18.269	N/A	Case A	N/A			
*URBAN DRAINAGE DESIGN MANUAL - Hydraulic Engineering Circular No.22 Third Edition																								
#Line	Struct. ID	Exit Ho (m)	Hf (m)	Hb (m)	Hc (m)	He (m)	Hj (m)	Total (m)	Ei (m)	y+P/gam (m)	DI (m)	Eai (m)	CB (m)	C-theta (m)	Cp (m)	Ha (m)	Ea (m)							
0	NO25	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	whole site	0	0	0	0	0	0	0	1.318	0.358	0.672	0.98	0	0	0	0	1.318							

SW line 1																			
#Line	Pipe	From	To	3D Length (m)	Drainage (sq. m)	Drainage (sq. m)	Runoff Co	Area X "C" (sq. m)	Area X "C" (sq. m)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)
1	PIPE 1.1	HW1.1	HW1.2	12.789	64784.46	64784.46	0.7	45349.12	45349.12	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36	15.36
#Line	Struct. ID	D	Q	L	V	d	dc	v^2/2g	EGL o	HGL o	Sf	Total Pipe EGL	HGU	Ea	EGL a	U/S TOC	Surface E	Step 4*	Step 7*
0	HW1.2	(m)	(cu. m/se (m)	(m/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	HW1.1	0.75	1.105	12.789	6.845	0.295	0.643	2.39	23.406	21.017	0	0	24.58	22.19	2.685	24.58	21.472	21.897	Case A
*URBAN DRAINAGE DESIGN MANUAL - Hydraulic Engineering Circular No. 22 Third Edition																			
#Line	Struct. ID	Exit Ho	Hf	Hb	Hc	He	Hl	Total	E	y+P/gam DI	Eai	CB	C-theta	Cp	Ha	Ea			
0	HW1.2	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)			
1	HW1.1	0	0	0	0	0	0	0	2.685	0.295	0.922	1.137	0	0	0.051	0	2.685		
SW line 2																			
#Line	Pipe	From	To	3D Length (m)	Drainage (sq. m)	Drainage (sq. m)	Runoff Co	Area X "C" (sq. m)	Area X "C" (sq. m)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)	Time of Cc (min)
1	PIPE 2.1	HW2.1	HW2.2	10.605	19129.47	19129.47	0.7	13390.42	13390.42	16.068	16.068	16.068	16.068	16.068	16.068	16.068	16.068	16.068	16.068
#Line	Struct. ID	D	Q	L	V	d	dc	v^2/2g	EGL o	HGL o	Sf	Total Pipe EGL	HGU	Ea	EGL a	U/S TOC	Surface E	Step 4*	Step 7*
0	HW2.2	(m)	(cu. m/se (m)	(m/s)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)
1	HW2.1	0.375	0.321	10.605	5.658	0.191	0.364	1.633	36.305	34.672	0	0	37.618	35.985	1.824	37.618	34.855	35.405	Case A
*URBAN DRAINAGE DESIGN MANUAL - Hydraulic Engineering Circular No. 22 Third Edition																			
#Line	Struct. ID	Exit Ho	Hf	Hb	Hc	He	Hl	Total	E	y+P/gam DI	Eai	CB	C-theta	Cp	Ha	Ea			
0	HW2.2	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)	(m)			
1	HW2.1	0	0	0	0	0	0	0	1.824	0.191	1.515	0.861	0	0	0.171	0	1.824		

Appendix 3: Stormwater Onsite Soakage System Assessment

p: 6220 1336
e: team@integralengineers.com.au
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a: Unit 10, 11 Morrison St, Hobart 7000
ABN: 23 627 152 041

INTEGRAL CONSULTING ENGINEERS
Civil ∞ Structural ∞ Project Management

Date 22/03/2024
Job No. 23201
Page 1 of 1

PROJECT: 9 Valleyfield Rd, Sorell **SUBJECT: Stormwater Onsite Soakage System -**
Subdivision **Individual Lot**

ARI: 20 years
Catchment: 400 m²
Run-off Co-eff: 0.9
Soakage Area Dimensions: 50 m long
2 m wide
0.4 m deep
Soakage trench volume: 40 m³
Arch volume 2.455
Useable storage volume: 17.47 m³ 40% void space in aggregate plus volume in arch
% of side wall height for soakage area 50%
Soakage area 110 m²
ksat 0.25 m/day
ksat 0.00017 m/min
0.01910 m³/min
27.5 m³/day

Duration	Duration (Min)	Rainfall Intensity (mm/h)	Rainfall Depth (mm)	Run-off Volume (m ³)	Soakage out of trench over storm event (m ³)	Required storage (m ³)	Available storage (m ³)
5 min	5	102	8.5	3.1	0.095	2.96	17.47
10 min	10	75	12.5	4.5	0.191	4.31	17.47
30 min	30	38.4	19.2	6.9	0.573	6.34	17.47
1hr	60	25.2	25.2	9.1	1.146	7.93	17.47
6hr	360	10.4	62.4	22.5	6.88	15.59	17.47
24hr	1440	4.86	116.6	42.0	27.50	14.49	17.47
72hr	4320	2.29	164.9	59.4	82.50	-23.14	17.47

Therefore, the required soakage trench size for absorption of stormwater run-off from up to 400m² of roof and hardstand area for a lot in the subdivision for storm events up to the 5% AEP is:

50.000 m long
2.000 m wide
0.400 m deep

The stormwater soakages trenches can be located entirely outside of the Landslide Hazard Area for each lot.



Stephen Cole
B Eng (Civil & Environmental), CPEng
WST Accreditation No. CC 5900 T

Appendix 4: Photos



Photo 1: Lot 8



Photo 2: Lot 10 / Lot 11.



Photo 3: Lot 1 / Lot 2



Photo 4: View of site including Landslip Hazard Area from Arthur Highway



Photo 5: View of site including Landslip Hazard Area and Iron Creek.

Annecy Group
21 Tamborine Close
Mountain Creek, QLD 4557

27 November 2023

Ref: 23118 9 Valley Rd & 123 Rosdendale Rd - ANEF Assessment

Attention: Tom McClelland

9 VALLEYFIELD ROAD & 123 ROSDENDALE ROAD - ANEF ASSESSMENT

A multi-residential development is proposed at 9 Valleyfield Rd & 123 Rosdendale Rd, Sorell. The site is within an 'Airport Noise Exposure Area' under the 'Safeguarding of Airports Code' in the Tasmanian Planning Scheme. Therefore, the developer has requested a noise assessment to demonstrate that the proposal satisfies the Performance Criteria of clause C16.7.1 under the Scheme. NVC has been engaged to conduct such an assessment, the results of which are contained in this letter.

1. ASSESSMENT CRITERIA

The Tasmanian Planning Scheme contains requirements relevant to the development of subdivisions in an aircraft zone. Specifically, Clause C16.7.1, which is reproduced below:

C16.7.1 Subdivision

Objective:	<p>To provide for subdivision:</p> <p>(a) that allows for sensitive use to be suitably located to avoid exposure to excessive aircraft noise; and</p> <p>(b) so that future development for sensitive use does not compromise the operation of airports.</p>
Acceptable Solutions	Performance Criteria
<p>A1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within an airport noise exposure area must be:</p> <p>(a) be for the creation of separate lots for existing buildings;</p> <p>(b) be required for public use by the Crown, a council or a State authority;</p> <p>(c) be required for the provision of Utilities;</p> <p>(d) be for the consolidation of lots;</p> <p>(e) be for the creation of a lot that contains a building area not less than 10m x 15m entirely located outside of the airport noise exposure area; or</p> <p>(f) not be intended for a sensitive use.</p>	<p>P1</p> <p>Each lot, or a lot proposed in a plan of subdivision, within an airport noise exposure area must not create an opportunity for a sensitive use to be exposed to excessive aircraft noise, having regard to:</p> <p>(a) the location, orientation and elevation of the site relative to aircraft flight paths;</p> <p>(b) the current and future type and frequency of aircraft operating from the airport;</p> <p>(c) the type of use and the operational requirements for the use;</p> <p>(d) the layout and construction of buildings associated with the use;</p> <p>(e) the need to not compromise the future operation of the airport;</p> <p>(f) the requirements of any relevant airport master plan; and</p> <p>(g) any advice from the airport operator or Airservices Australia.</p>



Sorell Council

Development Application: Response to
Request for Information - 123 Rosendale
Road and 9 Valleyfield Road, Sorell.pdf
Plan Reference: P3
Date received: 23/02/2024

2. BACKGROUND INFORMATION - RELEVANT STANDARDS

Intrusion and mitigation of aircraft noise in Australia is covered by AS 2021:2015¹, which stipulates building siting and construction requirements for adequate isolation for residential development from aircraft noise, depending on the predicted noise emissions from the airport and the building's separation distance from it.

AS 2021 first requires the determination of noise exposure of a building site, which defines the level of noise control required. The preferred method of determining this exposure is by reference to the Australian Noise Exposure Forecast (ANEF) system. AS2021 states the following regarding ANEF at Appendix A1:

"The NEF system is a scientifically based computational procedure for determining aircraft noise exposure levels around aerodromes. It can be used for assessing average community response to aircraft noise and for land use planning around aerodromes. In the Australian NEF system, noise exposure levels are calculated in Australian Noise Exposure Forecast (ANEF) units, which take into account the following features of aircraft noise:

- (a) The intensity, duration, tonal content and spectrum of audible frequencies of the noise of aircraft take offs, approaches to landing, and reverse thrust after landing (for practical reasons, noise generated on the aerodrome from aircraft taxiing and engine running during ground maintenance is not included).*
- (b) The forecast frequency of aircraft types and movements on the various flight paths, including flight paths used for circuit training.*
- (c) The average daily distribution of aircraft arrivals and departures in both daytime and night-time (daytime defined as 0700 hours to 1900 hours, and night-time defined as 1900 hours to 0700 hours).*

ANEF charts are provided for most aerodromes throughout Australia. The charts are simply plans of the aerodrome and the surrounding localities on which noise exposure contours of 20, 25, 30, 35 and 40 ANEF units have been drawn. These contours indicate land areas around an aerodrome which are exposed to aircraft noise of certain levels as defined by Clause 1.5.6; the higher the ANEF value the greater the noise exposure.

In the areas outside 20 ANEF, noise from sources other than aircraft tends to predominate over aircraft noise..."

Regarding suitability for residential development, AS 2021 states:

"If the building site is outside the 20 ANEF contour, noise from sources other than aircraft may dominate; therefore, there is usually no need to proceed further in this Standard as the construction of the building need not specifically be designed to provide protection against aircraft noise intrusion."

¹ AS 2021:2015 Acoustics - Aircraft noise intrusion - Building siting and construction, Standards Australia.

3. HOBART AIRPORT ANEF CONTOURS

Hobart Airport has published ANEF contours, issued in 2022, which include the proposed changes under the 2022 Hobart Airport Master Plan². The report includes ANEF predictions up to the year 2042. The 2042 ANEF contours are shown in Figure 3.1, below. The location of the project site, 9 Valleyfield Road & 123 Rosdendale Road, is shown in red.



FIGURE 3.1: HOBART AIRPORT ANEF CONTOURS - YEAR 2042

It is noted that, due to higher than anticipated aircraft movements over Primrose Sands, Carlton and Carlton River, a Noise Abatement Procedure (NAP) trial has been proposed³. The modelled noise contours resulting from this proposed trial do not affect the Sorell area, and thus do not influence the aircraft noise levels expected to be experienced on the subject site.

² Hobart Airport Master Plan ANEF - Report, T070 Aviation Australia, 2022.

³ Hobart Airport Noise Abatement Procedure (NAP) trial proposal - Flight Path Design Assessment Outcome, Airservices Australia, 2023.

4. ASSESSMENT

Relevant each section of the Performance Criteria under clause C16.7.1-P1 of the Scheme, the following is noted:

- (a) The location of site is approximately 8.4 km from the ANEF 20 contour, and perpendicular to the flight path of the airport. This places the proposed site well outside of the flight path, and thus orientation and elevation will have minimal effect on the noise levels within the building.
- (b) The type of aircraft operating from the airport in the future are not expected to change markedly, and thus instantaneous noise levels are not expected to change. Long term noise levels may increase in the area in the future due to frequency of aircraft pass-by, but given the current and expected volumes of air traffic, the change is expected to be negligible. This is quantified in the ANEF contours for 2042 (see Figure 3.1).
- (c) The type of use is proposed residential subdivision but is a significant distance from ANEF 20 contour, approximately 8.4 km.
- (d) The layout of the buildings has a negligible effect regarding noise. The proposed construction is to utilise double glazing, and as the glazing is the weakest point, will reduce aircraft noise levels internally.
- (e) The proposal is not deemed to compromise the future operation of the airport regarding noise.
- (f) As noted from Figure 3.1, the proposed site is entirely outside the ANEF 20 contours, and thus the site does not require any specific building construction to protect from airport noise intrusion. The proposal is thus deemed to be in accordance with AS 2021:2015.
- (g) No requirements relevant to noise, due to the proposed residence being outside the ANEF 20 contour.

In summary, the proposal is deemed to comply with all requirements relevant to noise, specifically AS 2021:2015, and thus, residential amenity is unlikely to be compromised due to the operation of the airport.

The proposal is therefore deemed to comply with clause C16.7.1-P1 of the Tasmanian Planning Scheme.

Should you have any queries, please do not hesitate to contact me directly.

Kind regards,



Samuel Williamson

ONSITE WASTEWATER ASSESSMENT

FOR A PROPOSED 15 LOT SUBDIVISION AT

9 VALLEYFIELD RD, SORELL
& 123 ROSENDALE RD, SORELL

I.C.E. Project No: 23201

Client name: Tom McLelland

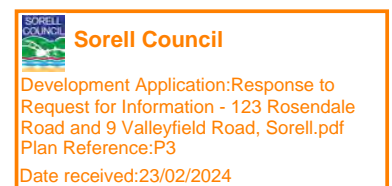
Document No. 23201-02 (Rev A)

01/02/2024

Document Approved by:



Stephen Cole BEng (Civil & Environmental) CPEng
Principal Civil / Structural Engineer
Integral Consulting Engineers Pty Ltd
WST Accreditation: Engineer Civil CC5900 T



1. Introduction and Background Information

This report assesses the onsite wastewater disposal potential for each new lot for a proposed 15 lot subdivision, at 9 Velleyfield Rd, Sorell and 123 Rosendale Rd, Sorell.

Client: Tom McLelland

Past Land Use: Low intensity agricultural, rural residential

Underlying Geology: Mesozoic Basalt

Geological Map: MRT 1:250,000, Accessed via ListMap

Local Meteorology: Average annual rainfall approx. 495mm (source: BOM Hobart Airport station, 10km away from the site)

Local Services:

Water: no reticulated service.

Sewer: no reticulated service.

Stormwater: Lots 1-3, 6, 9, 14 and 15 will be able to drain run-off from hardstand areas to the street frontage, Iron Creek, or a Council stormwater main passing through the property. The remainder of the lots will need to dispose of run-off from impervious areas on site.

2. Planning Scheme Requirements

Planning Scheme zoning and associated requirements

The land is zoned "Rural Living Zone A" under the Tasmanian Planning Scheme State Planning Provisions. Section 11.5.3, A2 and P2, state the requirements for sewerage and wastewater in this zone.

A2	P2
Each lot, or a lot proposed in a plan of subdivision, excluding within Rural Living Zone C or Rural Living Zone D or for public open space, a riparian or littoral reserve or Utilities, must: (a) be connected to a reticulated sewerage system; or (b) be connected to a reticulated sewerage system if the frontage of each lot is within 30m of a reticulated sewerage system and can be connected by gravity feed.	Each lot, or a lot proposed in a plan of subdivision, excluding within Rural Living Zone C or Rural Living Zone D or for public open space, a riparian or littoral reserve or Utilities, must be capable of accommodating an on-site wastewater treatment system adequate for the future use and development of the land.

There is no reticulated sewerage system within 30m of the subject properties. Therefore the Acceptable Solution A2 is not achievable, and the Performance Solution P2 is applicable.

The report addresses the performance solution 11.5.3 P2 for the proposed development.

Applicable Planning Overlays:

There are four planning scheme Code Overlays relevant to the site:

- Landslip Hazard Code (Low and Medium Landslip Hazard Bands)
- Natural Assets Code (Waterway and Coastal Protection Area)
- Bushfire Prone Areas Code
- Safeguarding of Airports Code (Airport Noise Exposure Area, Airport obstacle limitation area).

3. Field Investigation

Date of field Investigations: Wed 24 Jan (Evan Legg; Test holes augered), Thu 25 Jan (Stephen Cole).

Preceding Weather Conditions: Fine

Soil Profiles:

Six test holes were augered using a 75mm hand auger to get a representation of soil conditions at the site. Test hole locations are indicated in the Onsite Wastewater and Stormwater Disposal Plan (Appendix 1). Test Hole Results are presented in table 1 below.

Description	TH1	TH2	TH3	TH4	TH5	TH6
Sandy topsoil, dry and clayey	0 - 0.13	0 – 0.06	0 – 0.2	0 -0.18	0 – 0.23	0 – 0.17
Clay, dark brown, very stiff	0.13 – 0.54	0.06 – 0.32	0.2 – 0.48	0.18 – 0.54		0.17 – 0.82
Sandy clay, loose and crumbly	0.54 – 0.6	0.32 – 0.46	0.48 – 0.6	0.54 – 0.6		0
Refusal on assumed rock base	0.6	0.46	0.6	0.6	0.23	0.82

Table 1: Soil Test Hole Results

The soils consist of a thin layer of clayey topsoil, a heavy clay subsoil then rock. The depth to rock in the test holes varied from minimum 0.23m, to maximum 0.82m. Some small patches of rock outcrop were visible on the surface.

Slope & Aspect: Aspect varies between westerly and southerly. Slope varies from flat at the top of the hill, to 25% fall outside of the landslide hazard areas, and up to 50% (1 in 2) in the Landslide hazard areas.

Drainage: Good natural surface drainage over the site.

Groundwater: No water table evident in test toles,

4. Assessment

Methodology

The suitability of the site for onsite wastewater disposal is assessed by:

- Consideration of the Planning Scheme Overlays for the site
- Consideration for Nutrient Balance and Sustainable Wastewater Application
- Determining the required onsite wastewater disposal areas and setbacks for each lot and assessing whether these can be accommodated for each lot. Details for that assessment are shown in this section and presented in the Onsite Wastewater and Stormwater Disposal Plan in Appendix 1.
- Determining the required onsite stormwater disposal areas for each lot where applicable.

Addressing of Planning Scheme Code Overlays

There is no permanent surface water on the lots. Iron Creek is immediately south-west of the lots.

The four Planning Scheme Code Overlays applicable to the site are listed below, together with a description of how they are addressed:

- Landslip Hazard Code (Low and Medium Landslip Hazard Bands) – All wastewater disposal areas can be located outside of the landslip hazard zones
- Natural Assets Code (Waterway and Coastal Protection Area) All wastewater disposal areas can be located sufficient setback distance from the surface water, in accordance with the Director's Guidelines for On-site Wastewater (2017).
- Bushfire Prone Areas Code – Not applicable
- Safeguarding of Airports Code (Airport Noise Exposure Area, Airport obstacle limitation area – Not applicable

Nutrient Balance and Sustainable Wastewater Application

The clayey soils have a high cation exchange capacity (CEC) for retention of nutrients. The soils across the site area are classified according to AS1547-2012 as Category 6 – Medium to Heavy Clay.

The soils returned Emerson dispersion test results of class 5. This is only very minor dispersion after shaking of the sample.

Therefore, the soils have a high capacity to retain nutrients in applied wastewater.

Wastewater Disposal Area Required

The capability of the proposed new lots to support a typical residential dwelling and on-site wastewater disposal have been evaluated using the required disposal areas and setbacks as specified in the Director's Guidelines for On-site Wastewater (2017).

The site is unsuited to the installation of a traditional septic tank and trenches due to the shallow depth to bedrock. Secondary treatment of wastewater, or primary treatment with a raised mound will be required. For the purpose of this assessment secondary treatment is assumed.

To determine the disposal area required the following parameters have been used:

- Four bedroom home with six occupants (equivalent of 3 bedrooms with 2 occupants per bedroom)
- Category 6 (Medium to Heavy Clay) soils.
- Secondary treatment

The calculated disposal area is 3 bedrooms equivalent x 90m² per bedroom = 270m². A reserve disposal area with the same area is also allowed for on each lot.

Setback Distances to Boundaries and Sensitive Features

The setback distance required from wastewater disposal areas to boundaries, watercourses, and buildings is dependant on the slope in the relevant location. Calculations for relevant setbacks have been done using a spreadsheet.

Only the "critical" situations have been calculated. These are the situations with the steepest slopes and in the closest proximity to relevant features. For simplicity, the setbacks in the locations with gentle slopes and not close to relevant features have not been shown.

A screenshot of that spreadsheet is shown in Appendix 3. All of these setbacks calculated in the table are able to be achieved.

Allowance for onsite Stormwater Disposal

Lots 1-3, 6, 9, 14 and 15 will be able to drain run-off from hardstand areas to the street frontage, Iron Creek, or a Council stormwater main passing through the property. The remainder of the lots will need to dispose of run-off from impervious areas on site.

An assessment for disposal of stormwater from roof areas has been done for the two lots that have more than half of the lot covered by a Landslide Hazard Overlay, Lots 7 and 8. Details for that assessment are shown in Appendix 1. This assessment demonstrates that if onsite stormwater disposal is required in those lots, then there is sufficient space available for it outside of the landslide hazard areas, in addition to the onsite wastewater disposal areas.

All of the other lots that would require onsite disposal of stormwater have more space available than Lots 7 and 8 and therefore also have sufficient capacity for onsite stormwater disposal in addition to the onsite wastewater disposal areas.

5. Conclusion

This assessment demonstrates that the subdivision proposal allows sufficient space on each lot for wastewater disposal (including a backup disposal area and stormwater disposal area if needed), meets the requirements of the Planning Scheme and Building Code, and has adequate setbacks to boundaries and sensitive features.

The disposal areas and setbacks for each lot are shown in Appendix 1.

The actual design for the wastewater systems for each lot will need to be determined when assessing the development proposal for those individual lots.

6. Appendices

Appendix 1: Onsite Wastewater and Stormwater Disposal Plan

Appendix 2: Wastewater Disposal Area Setback Calculations

Appendix 3: Photos

The site plan illustrates a residential development with 15 lots, each containing a house. Six test holes are marked with red circles and labeled: Test Hole 1 (near Lot 1), Test Hole 2 (near Lot 14), Test Hole 3 (near Lot 11), Test Hole 4 (near Lot 13), Test Hole 5 (near Lot 5), and Test Hole 6 (near Lot 1). The plan includes several engineering annotations:

- LOT 1** through **LOT 15** are labeled with their respective areas.
- Test Hole 1** is located near Lot 1, with a note: "HORIZONTAL SEPARATION FROM BUILDING ALLOWABLE DISTANCE 8m ACTUAL DISTANCE 13.0m".
- Test Hole 2** is located near Lot 14, with a note: "HORIZONTAL SEPARATION FROM BUILDING ALLOWABLE DISTANCE 8m ACTUAL DISTANCE 13.0m".
- Test Hole 3** is located near Lot 11, with a note: "HORIZONTAL SEPARATION FROM BUILDING ALLOWABLE DISTANCE 8m ACTUAL DISTANCE 13.0m".
- Test Hole 4** is located near Lot 13, with a note: "HORIZONTAL SEPARATION FROM BUILDING ALLOWABLE DISTANCE 8m ACTUAL DISTANCE 13.0m".
- Test Hole 5** is located near Lot 5, with a note: "HORIZONTAL SEPARATION FROM BUILDING ALLOWABLE DISTANCE 8m ACTUAL DISTANCE 13.0m".
- Test Hole 6** is located near Lot 1, with a note: "HORIZONTAL SEPARATION FROM BUILDING ALLOWABLE DISTANCE 8m ACTUAL DISTANCE 13.0m".
- LOT 1** is labeled "LOT 1 1.0m".
- LOT 2** is labeled "LOT 2 1.0m".
- LOT 3** is labeled "LOT 3 1.0m".
- LOT 4** is labeled "LOT 4 1.0m".
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- LOT 128** is labeled "LOT 1

Appendix 2: Wastewater Disposal Area Setback Calculations

	A1			A2			A3		
	Horizontal separation distance from a building to a land application area must comply with one of the following:			Horizontal separation distance from downslope surface water to a land application area must comply with (a) or (b)			Horizontal separation distance from a property boundary to a land application area must comply with either of the following:		
	(a) be no less than 6m; or (b) If secondary treated effluent and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a downslope building.			(a) be no less than 100m; or (b) be no less than the following: (i) if primary treated effluent, 15m plus 7m for every degree of average gradient to downslope surface water; or (ii) if secondary treated effluent and subsurface application, 15m plus 2m for every degree of average gradient to down slope surface water.			(a) be no less than 40m from a property boundary; or (b) be no less than: (i) 1.5m from an upslope or level property boundary; and (ii) If primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) If secondary treated effluent and subsurface application, 15m plus 1m for every degree of average gradient from a downslope property boundary.		
	Primary or secondary:	Secondary		Primary or secondary:	Secondary			Secondary	
	Distance slope factor	0.25		Distance slope factor	2		Distance slope factor	1	
LOT	APPLICABLE	SLOPE	DISTANCE	APPLICABLE	SLOPE	DISTANCE	APPLICABLE	SLOPE	DISTANCE
1	yes	4	3						
2				yes	10	35			
3				yes	9.9	35			
4	yes	4	3						
5	yes	6	3.5						
6			2	yes	6	27			
7	yes	2	2.5						
8	yes		6	yes	22	59			
9									
10							yes	8	9.5
11							yes	8	9.5
12							yes	8	9.5
13							yes	8	9.5
14							yes	8	9.5
15							yes	8	9.5

Appendix 3: Photos



Photo 1: Test hole 1, Lot 8



Photo 2: Test hole 3, Lot 10 / Lot 11.



Photo 3: Test Hole 6, Lot 1 / Lot 2



Photo 4: View of site including Landslip Hazard Area from Arthur Highway



Photo 5: View of site including Landslip Hazard Area and Iron Creek.



9 VALLEYFIELD ROAD, SORELL PROPOSED RESIDENTIAL SUBDIVISION

TRAFFIC IMPACT ASSESSMENT REPORT



Sorell Council

Development Application: Response to
Request for Information - 123 Rosendale
Road and 9 Valleyfield Road, Sorell.pdf
Plan Reference: P3

Date received: 23/02/2024

SALT³

9 VALLEYFIELD ROAD, SORELL PROPOSED RESIDENTIAL SUBDIVISION

Client: Ireneinc Planning & Urban Design

Report Reference: 23603T

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1 INTRODUCTION

SALT has been engaged by Ireneinc Planning & Urban Design to undertake a traffic engineering assessment for the proposed rural residential subdivision at 9 Valleyfield Road in Sorell.

The following tasks were undertaken while preparing this report:

- The subject site, nearby environs, and surrounding road network have been inspected;
- Traffic volume data was collected at the intersections of Valleyfield Road and Rosendale Road with Arthur Highway;
- Development plans have been reviewed and design advice has been provided;
- The application has been assessed against all the relevant town planning scheme and other standard design requirements; and
- The expected traffic impacts of the proposal have been assessed.

The following sets out SALT's findings with respect to the traffic engineering matters of the proposed development.

2 EXISTING CONDITIONS

2.1 LOCATION & LAND USE

The site is located on the northern side of Arthur Highway in Sorell. The site is bordered by rural land in the north, Iron Creek in the south, and existing single residential dwellings in the east and west.

The subject site comprises 2 lots, with the addresses being 9 Valleyfield Road (eastern lot, ±11.5778 ha in extent) and 123 Rosendale Road (western lot, ±9.5515 ha in extent); the subject site has an overall area of 21.1293 ha. Each lot is currently occupied by a single dwelling, as well as ancillary buildings, e.g., sheds. Valleyfield Road provides access to the eastern part of the site, while the western part of the site is accessed via Rosendale Road.

The surrounding land use is primarily rural / agricultural, which includes a limited number of services and small businesses throughout the area.

Figure 1 below shows the locality of the site with respect to the surrounding road network and nearby towns, and **Figure 2** below shows an aerial view of the subject site.



Figure 1 Subject site location (Source: LISTmap)



Figure 2 Aerial view of subject site (Source: Nearthmap)

2.2 ZONING

The site is in an area that falls under the jurisdiction of Sorell Council, which is zoned 'Rural Living Zone A'. The site is subject to the following overlays and codes:

- Bushfire-prone areas;
- Airport obstacle limitation area;
- Airport noise exposure area;
- Landslip hazard;
- Coastal inundation hazard;
- Priority vegetation;
- Future coastal refugia area; and
- Waterway and coastal protection area;

The area within which the subject site is located is not included in the Sorell Local Provisions Schedule. The zoning map is provided in **Figure 3** below. Please note that no overlays are shown for purposes of clarity.

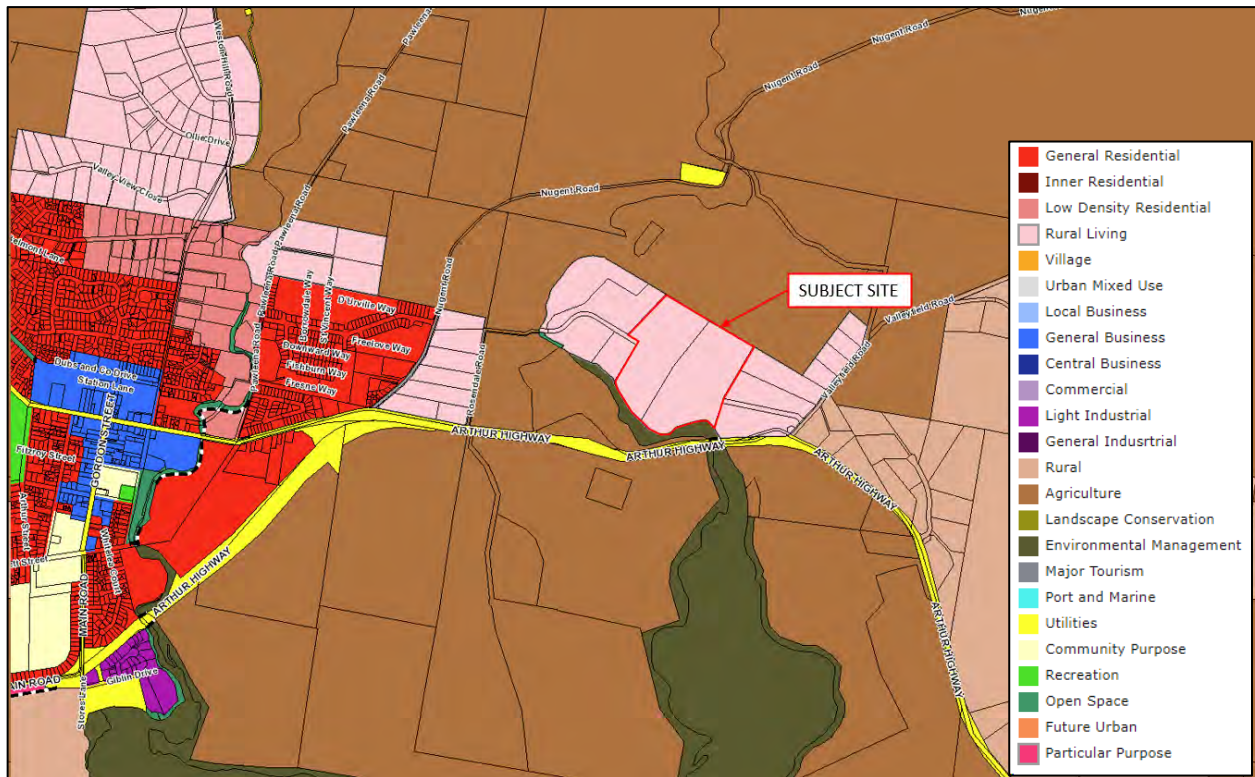


Figure 3 Subject site zoning map (Source: LISTmap)

2.3 ROAD NETWORK

2.3.1 ARTHUR HIGHWAY

Arthur Highway is a National State highway under the care and management of the Department of State Growth (DSG) and is separated from the subject site by Iron Creek. Initially it follows an east-west alignment but then changes to a north-south alignment – it connects Sorell in the west with Port Arthur in the south-east. Arthur Highway is a sealed two-lane single-carriageway road with an approximate width of 9.0m. This includes a 3.5m wide traffic lane in each direction and 1.0m wide paved shoulders on both sides. Generally, kerb and channel has not been provided on either side of the carriageway. There are left and right-turn deceleration lanes at the Valleyfield Road intersection, whilst at Rosendale Road there is a left-turn deceleration lane and a right-turn passing lane (otherwise known as an overtaking lane). The posted speed limit varies between 80 km/h and 100 km/h.

2.3.2 VALLEYFIELD ROAD

Valleyfield Road is a local road under the care and management of Council. It follows various alignments and provides several properties with access to Arthur Highway. Valleyfield Road is a two-way unsealed road with an approximate width of 5.0m; vehicles generally travel in the middle of the carriageway when no other vehicles are present. The subject site will be served by a private access road that bisects the site and intersects with Valleyfield Road approximately 110m north of Arthur Highway. This access road is an unsealed single-track with varying widths along the section, but an average width of about 2.7m has been measured. Vehicles would therefore be required to move to the side to allow passing; there is however sufficient verge on the northern side to accommodate this. It is noted that this can be expected to occur only very seldomly since the access road serves a single property.

A low point on the private access road is located approximately 130m west of Valleyfield Road, with a fall of $\pm 20\text{m}$ ($\pm 8.7\%$ / 1:11.5 gradient) between the site's eastern boundary and this low point. The rise between the low point and the intersection with Valleyfield Road is $\pm 10\text{m}$ ($\pm 7.7\%$ / 1:13 gradient).

There are no posted speed limits; the general rural default for unsealed roads outside built-up areas of 80 km/h thus applies. It is nevertheless noted that motorists should 'drive to the conditions' as per the Tasmanian Speed Zoning Guidelines. It was accordingly observed during the site visit that an operating speed of about 40 – 50 km/h is more appropriate, while about 30 – 40 km/h was observed as a suitable operating speed on the access road.

Figure 4 to Figure 7 below show views of Valleyfield Road and the Valleyfield access road.



Figure 4 Valleyfield Road looking north



Figure 5 Valleyfield Road looking south



Figure 6 Valleyfield access road looking east



Figure 7 Valleyfield access road looking west

2.3.3 ROSENDALE ROAD

Rosendale Road is a local road under the care and management of Council. It starts with a north-south alignment and ends with an east-west alignment, and it provides several properties with access to Arthur Highway. Rosendale Road is a two-way unsealed road with an approximate width of 5.0m; vehicles generally travel in the middle of the carriageway when no other vehicles are present. Rosendale Road terminates at its crossing of Iron Creek at approximate chainage 660m from Arthur Highway; a private access road that commences at the bridge will serve the subject site. This access road is an unsealed road with varying widths along the section, but an average width of 3.2m has been measured. Vehicles would therefore be required to move to the side to allow passing; there is however sufficient verge on both sides to accommodate this. It is noted that this can be expected to occur only very seldomly since the access road serves only four lots. Although a suitable alignment already exists between the Valleyfield and Rosendale private access roads, a link has not yet been established. The bridge over Iron Creek has an effective width of 4.9m.

There are no posted speed limits; the general rural default for unsealed roads outside built-up areas of 80 km/h thus applies. It is nevertheless noted that motorists should 'drive to the conditions' as per the Tasmanian Speed Zoning Guidelines. It was accordingly observed during the site visit that an operating speed of about 40 – 50 km/h is more appropriate, while about 30 – 40 km/h was observed as a suitable operating speed on the access road.

The section of the private access road on the subject site is relatively flat. A rise of $\pm 13\text{m}$ ($\pm 16.3\%$ / 1:6 gradient) occurs along the access road between the bridge (i.e., low point) and the elevated flat section.

Figure 8 to Figure 13 below show views of Rosendale Road and the Rosendale access road.



Figure 8 Rosendale Road looking north



Figure 9 Rosendale Road looking south



Figure 10 Rosendale Road looking east



Figure 11 Rosendale Road bridge over Iron Creek



Figure 12 Rosendale access road looking east



Figure 13 Rosendale access road looking west

2.4 SUSTAINABLE TRANSPORT

There are no sustainable transport options in the area. The closest bus stop is in the town of Sorell, about 3.0 km from the subject site.

2.5 EXISTING TRAFFIC VOLUMES

SALT conducted weekday AM and PM peak hour traffic surveys on Wednesday 16 November 2023 at the Valleyfield Road / Arthur Highway intersection. The traffic surveys were undertaken during the typical on-road peak hours, which may not necessarily be the actual peak hours. Furthermore, the surveys included turning volumes at 15-minute intervals as well as light and heavy vehicle classification.

The weekday AM and PM peak hour volumes are shown diagrammatically in **Figure 14** and **Figure 15** below.

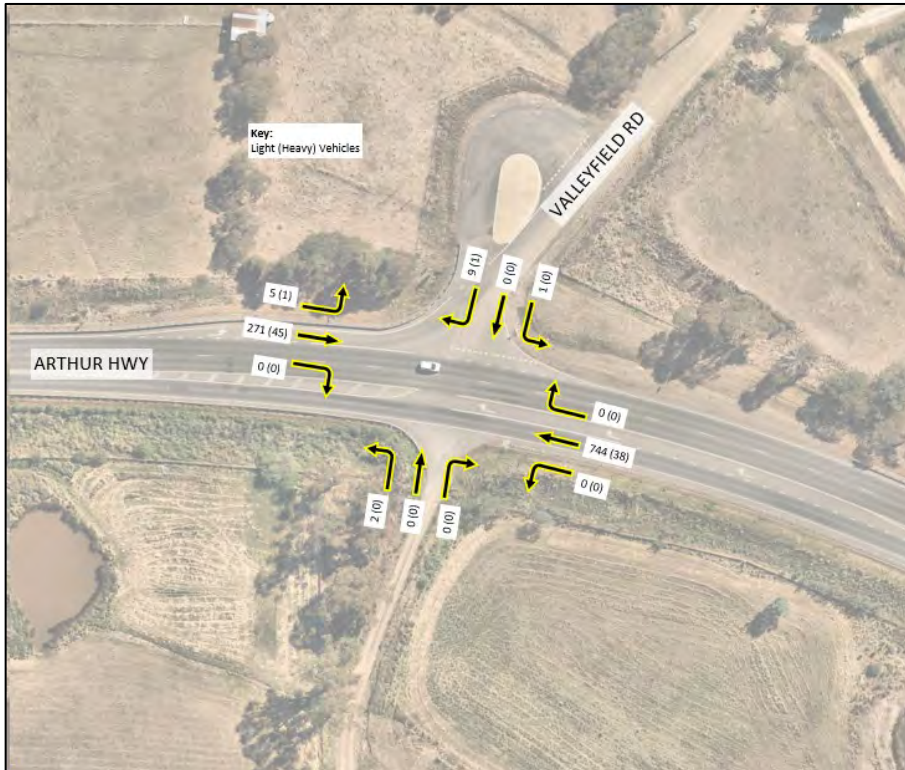


Figure 14 Weekday AM peak hour traffic volumes (7:30 – 8:30am)

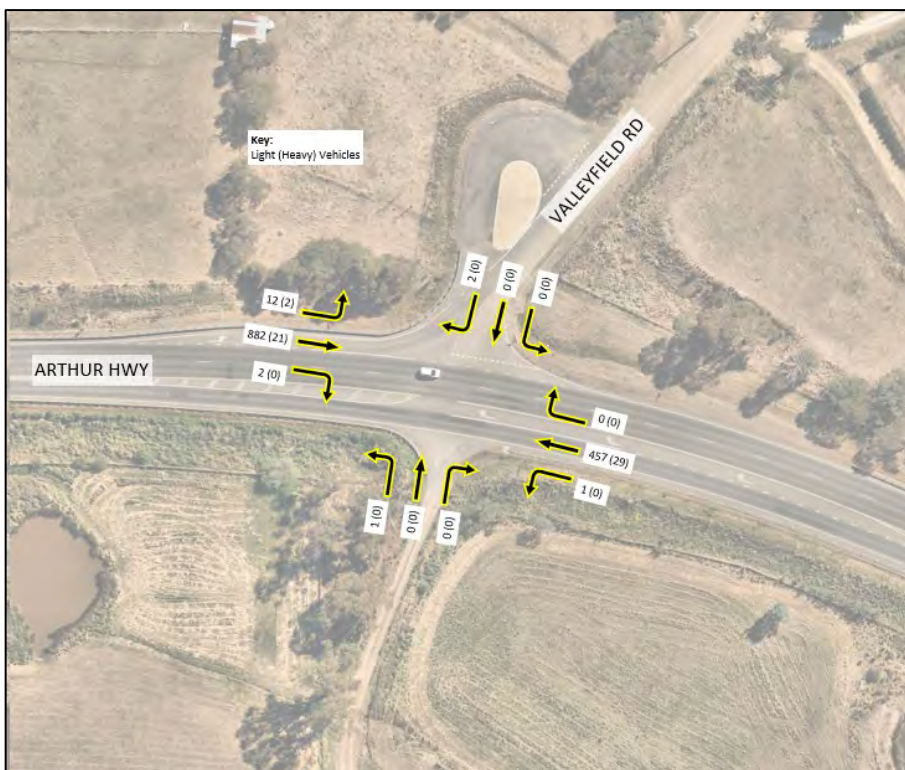


Figure 15 Weekday PM peak hour traffic volumes (4:00 – 5:00pm)

It is noted that no lengthy delays or significant vehicle queueing were observed during either peak hour.

In addition to the traffic surveys described above, classified 15-minute 'spot' surveys were also conducted at the Rosendale Road / Arthur Highway intersection during the same AM and PM peak periods – these surveys consisted of turning movements to / from the Rosendale Road approach only.

The results of the 'spot' surveys were as follows:

- Weekday AM peak 15-minute period (7:00 – 7:15am)
 - Rosendale Road southbound left-turn – 0
 - Rosendale Road southbound right-turn – 3
 - Arthur Highway eastbound left-turn – 0
 - Arthur Highway westbound right-turn – 0
- Weekday PM peak 15-minute period (5:15 – 5:30pm)
 - Rosendale Road southbound left-turn – 7
 - Rosendale Road southbound right-turn – 2
 - Arthur Highway eastbound left-turn – 8
 - Arthur Highway westbound right-turn – 2

It is noted that no lengthy delays or significant vehicle queueing were observed during either peak period.

2.6 CRASH HISTORY

A review of the Tasmanian vehicle crash data for the most recent 5-year period, ending 19 February 2021, has shown the following in terms of crashes on Arthur Highway:

- 10 x property damage only crashes:
 - 1 x DCA 120: Wrong side / other head on (not overtaking)*;
 - 2 x DCA 130: Vehicles in same lane / rear end;
 - 2 x DCA 132: Vehicles in same lane / right rear*;
 - 1 x DCA 139: Other same direction (including vehicle rolling backwards);
 - 1 x DCA 149: Other manoeuvring;
 - 1 x DCA 152: Pulling out;
 - 1 x DCA 167: Animal (not ridden); and
 - 1 x DCA 191: Load or missile struck vehicle.
- 1 x first aid crash:
 - 1 x DCA 110: Cross traffic.
- 6 x minor crashes:
 - 1 x DCA 113: Right rear*;
 - 1 x DCA 120: Wrong side / other head on (not overtaking);
 - 1 x DCA 149: Other manoeuvring;
 - 1 x DCA 173: Right off carriageway into object or parked vehicle;
 - 1 x DCA 184: Out of control on carriageway; and
 - 1 x DCA 189: Other curve.

(In the list above, "" indicates crashes that occurred at the Valleyfield Road / Arthur Highway intersection, while "#" indicates crashes that occurred at the Rosendale Road / Arthur Highway intersection.)*

The crash trend during the 5-year period shows a generally low level of severity – most of the crashes were property damage only crashes, followed by minor crashes.

The crash history review area is shown in **Figure 16** below. It is noted that the crash history shown in **Figure 16** below includes data that precedes the 5-year period up to 19 February 2021; this data was excluded from the crash history review.

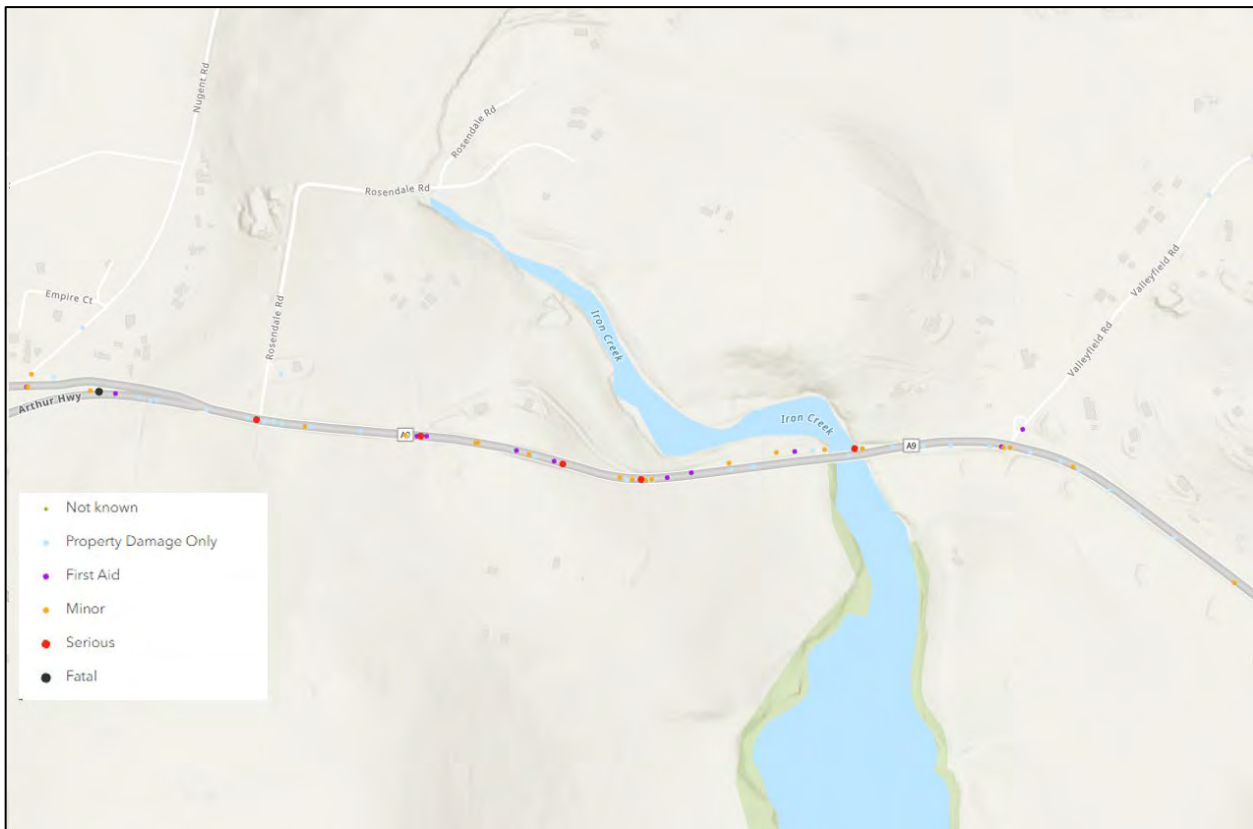


Figure 16 Crashes since 1 January 2009 (Source: ArcGIS / Department of State Growth)

3 PROPOSAL

The proposal is to develop a 15-lot residential subdivision. The lot sizes will range from about 0.8 – 1.8 ha, with an average lot size of approximately 1.03 ha. A 16th lot, about 5.7 ha in size, will take up the balance of the subject site, with no development currently planned on this lot.

The subject site will be served by both Valleyfield Road and Rosendale Road, with Valleyfield Road being the primary access route.

The proposed subdivision layout is shown in **APPENDIX 1** at the end of this report.

4 VEHICLE ACCESS & DESIGN MATTERS

4.1 ROAD NETWORK

Access to the subdivision will be provided by existing private access roads, one of which intersects with Valleyfield Road in the east, and the other being an extension of Rosendale Road in the west. A suitable alignment between these access roads already exists; however, a link has not yet been provided (i.e., both access roads are dead ends). This link must be established to create a continuous route between Valleyfield Road and Rosendale Road.

Both Valleyfield Road and Rosendale Road are currently unsealed, except for these roads' approaches at their intersections with Arthur Highway. The private access roads are also unsealed.

It is recommended that sealing the eastern part of the access route, i.e., the section that connects with Valleyfield Road, as well as section of Valleyfield Road between Arthur Highway and the access road, be included as a condition for permit approval – refer to **Figure 17** below. Conversely, it is not recommended that sealing of the western part of the access route (i.e., Rosendale Road) be included as a condition for permit approval.

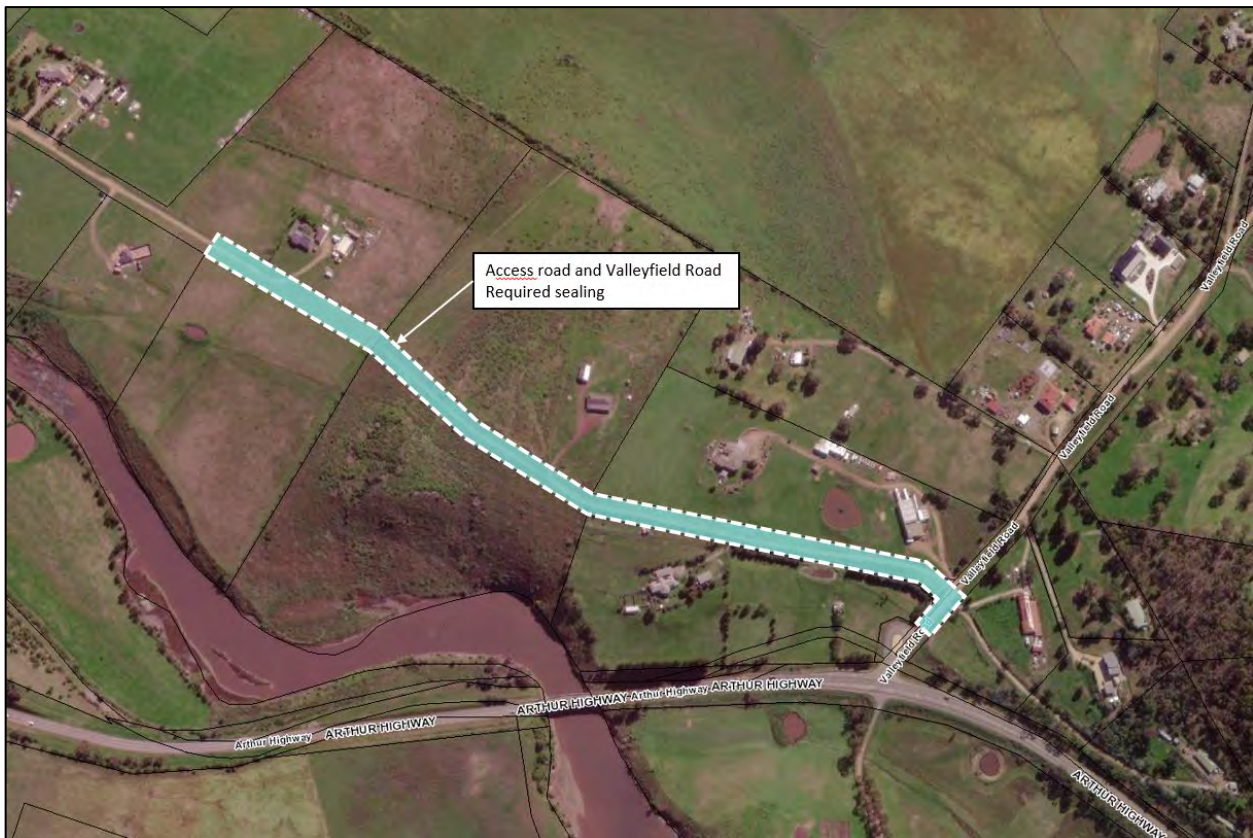


Figure 17 Required sealing of access road and Valleyfield Road

The above recommendations are based on the following:

- It is expected that access to and from the subject site will almost exclusively occur via the eastern Valleyfield Road access route. This is based on the following:
 - Most of the lots will be located in the eastern part of the subject site;
 - The intersection of Valleyfield Road with Arthur Highway was upgraded in March 2020 to include an overtaking lane as well as dedicated turning lanes on Arthur Highway, resulting in better access than what is currently provided at the Rosendale Road intersection.
 - A sealed pavement will be provided between all proposed lots and Valleyfield Road, which will encourage residents to follow this route rather than a narrower, gravel carriageway being Rosendale Road;
- Rosendale Road has a comparatively narrow road reserve – which has already undergone widening, refer to **Section 4.2** – and the potential requirement of additional widening to accommodate a sealed road (based on existing conditions) is not considered appropriate, especially since an alternative exists that includes wider road reserves; and
- The volume of traffic that would choose to use Rosendale Road is extremely low in traffic engineering terms – estimated at 2 peak hour vehicle movements (refer to **Section 5**). Rosendale Road was observed to carry up to 19 movements in a 15-minute period, hence the percentage increase would be very low. It would therefore be unequitable to burden one landowner with sealing a road that currently carries significantly more traffic than would be added.

4.2 ROAD CROSS SECTIONS

The width of the proposed access road reserve is 20m, while Valleyfield Road is accommodated within a road reserve that is approximately 18.5m wide – this includes a $\pm 4.9\text{m}$ widening on the western side. Rosendale Road has a narrower road reserve that varies between approximately 13.5 – 15.5 m, which includes a $\pm 3.9\text{m}$ widening on the eastern and southern sides.

The recommended seal of Valleyfield Road must be to the same standards and specifications as the existing sealed northern approach of the Arthur Highway intersection.

Table 1 below provides details in terms of the recommended road cross sections for the eastern access road, as per the Tasmanian Standard Drawings (Version 3, December 2020), which must be read with the relevant sections, parts, and clauses of the Sorell Council Transport Asset Management Plan (April 2021), the Tasmanian Municipal Standard Specifications (March 2020), the Tasmanian Subdivision Guidelines (October 2013), and the Tasmanian Planning Scheme – State Planning Provisions. The cross-section details are attached as **APPENDIX 2**.

Table 1 Recommended road cross sections (Tasmanian Standard Drawings TSD-R02-v3)

Street Type	Carriageway Width	Sealed Traffic Width	Verge	Edge Treatment ²	Surface Treatment ⁴
Local Access (AADT < 200) ¹	6.5m (20m Road Reserve)	5.5m Dual Lane	0.5m Both sides	0.4m Sealed ³ 0.5m Gravel	Two coat 'Hot Bitumen' spray seal. Aggregate 10/7 or 14/7 optional.

¹ Refer to **Section 5.1**.

² Edge treatment can be either sealed or gravel.

³ 0.4 metres of shoulder sealed if edge line is to be installed.

⁴ Surface type to be determined with consideration to vehicle types / turning movement, location and grade.

As stated in **Section 2.2**, the site is subject to the Bushfire-prone areas overlay and thus triggers the Bushfire-prone areas code (Clause C13.0) of the planning scheme. The requirements for roads (Table C13.1 to Clause C13.6.2) and property accesses (Table C13.2 to Clause C13.6.2) are detailed in **Table 2** and **Table 3** below.

Table 2 Bushfire-prone areas code standards for roads (Table C13.1 to Clause C13.6.2)

Element	Requirement <i>(Unless the development standards in the zone require a higher standard, the following apply.)</i>	Response
A – Roads	Two-wheel drive, all-weather construction;	The proposed seal will comply with this requirement.
	Load capacity of at least 20 tonnes, including for bridges and culverts;	The proposed seal will comply with this requirement.
	Minimum carriageway width is 7m for a through road, or 5.5m for a dead-end or cul-de-sac road;	It is recommended that the 6.5m width requirement, as per TSD-R02-v3, be maintained. The objective of the 7m width requirement is to ensure that passing between a firetruck and other vehicles can comfortably be accommodated on the carriageway. Given that the through road will almost exclusively be used by traffic related to the proposed subdivision, which volumes will be minimal (refer to Section 5.1), a carriageway width of 6.5m is considered adequate to accommodate the expected traffic in possible emergency situations. In addition, the short distance of the access road between the western boundary of the subject site and Valleyfield Road (±800m) further supports this recommendation.

Element	Requirement <i>(Unless the development standards in the zone require a higher standard, the following apply.)</i>	Response
		TSD-R02-v3 is attached at the end of this report as APPENDIX 2 .
	Minimum vertical clearance of 4m;	The road will comply with this requirement.
	Minimum horizontal clearance of 2m from the edge of the carriageway;	The road will comply with this requirement.
	Cross falls of less than 3 degrees (1:20 or 5%);	The proposed seal will comply with this requirement – refer to APPENDIX 2 .
	Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18% for unsealed roads);	The existing road already complies with this requirement – refer to Section 2.3.2 . The proposed seal will comply with this requirement.
	Curves have a minimum inner radius of 10m;	The road will comply with this requirement.
	Dead-end or cul-de-sac roads are not more than 200m in length unless the carriageway is 7m in width;	Not applicable. The existing dead-end road will be linked with another dead-end road to create a new through road.
	Dead-end or cul-de-sac roads have a turning circle with a minimum 12m outer radius; and	Not applicable. The existing dead-end road will be linked with another dead-end road to create a new through road.
	Carriageway less than 7m wide have 'No Parking' zones on one side, indicated by a road sign that complies with <i>Australian Standard AS1743:2018 Road signs-Specifications</i> .	On-street parking will be appropriately controlled to ensure compliance with this requirement.

Table 3 Bushfire-prone areas code standards for property access (Table C13.2 to Clause C13.6.2)

Element ¹	Requirement <i>(The following design and construction requirements apply to property access.)</i>	Response
B – Property access length is 30m or greater; or access is required for a fire appliance	All-weather construction;	The relevant accessways must comply with this requirement.
	Load capacity of at least 20t, including for bridges and culverts;	The relevant accessways must comply with this requirement.
	Minimum carriageway width of 4m;	The 'panhandles' currently have proposed widths of 3.6m, which must be widened to ensure compliance with this requirement.

Element ¹	Requirement <i>(The following design and construction requirements apply to property access.)</i>	Response
to a fire fighting water point.	Minimum vertical clearance of 4m;	The relevant accessways must comply with this requirement.
	Minimum horizontal clearance of 0.5m from the edge of the carriageway;	The relevant accessways must be sufficiently wide to ensure compliance with this requirement.
	Cross falls of less than 3 degrees (1:20 or 5%);	The relevant accessways must comply with this requirement.
	Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;	The relevant accessways must comply with this requirement.
	Curves with a minimum inner radius of 10m;	The relevant accessways must comply with this requirement.
	Maximum gradient of 15 degrees (1:3.5 or 28%) for sealed roads, and 10 degrees (1:5.5 or 18% for unsealed roads); and	The relevant accessways must comply with this requirement.
	Terminate with a turning area for fire appliances provided by one of the following: <ul style="list-style-type: none"> ▪ A turning circle with a minimum outer radius of 10m; or ▪ A property access encircling the building; or ▪ A hammerhead "T" or "Y" turning head 4m wide and 8m long. 	The relevant accessways must comply with this requirement.

¹ The proposed subdivision includes several 'panhandle' lots that have access lengths greater than 30m, which triggers Element B.

4.3 PEDESTRIAN ACCESS

Clause 11.2 of the Tasmanian Subdivision Guidelines (October 2013) states that: "Subject to Clause 14, footpaths and kerb and channel are not required in rural roads." Clause 14.2, in turn, states that: "The Council may at its discretion require a rural road to contain footpaths and/or kerb and channel on one or both sides of the pavement." The provision of footpaths in conjunction with the proposed seal is thus not a strict requirement.

Footpaths have not been provided in the surrounding area; there is thus not an existing pedestrian footpath network that any new footpaths can integrate with. It is thus recommended that the provision of footpaths not be a condition for permit approval.

4.4 EMERGENCY AND SERVICE VEHICLE ACCESS

Table 2 and **Table 3** above detail the requirements for emergency vehicle access. Likewise, Council's waste collection service will obtain satisfactory access, with all movements able to be carried out in a forward direction.

4.5 SIGHT DISTANCE

The available sight distance on Valleyfield Road to the north of the Valleyfield Road / Eastern access road intersection is ±90m, which is slightly less than the safe intersection sight distance (SISD) requirement of 97m as per Table 3.2 to Clause 3.2.2 of the Austroads Guide to Road Design Part 4a – the requirement is based on a design speed of 50 km/h (refer to the description of Valleyfield Road in **Section 2.3.2**). Although not compliant with the minimum required SISD, the available sight distance is nevertheless regarded as being suitable in this case since this is an existing situation and there is no sight distance related historical crash data along this section of Valleyfield Road. Furthermore, it is expected that the recommended sealing of the access road (refer to **Section 4.1**)

will include a realignment of the access road at the Valleyfield Road intersection towards the south, which will improve the sight distance. This is shown in **Figure 18** below.

The available sight distance on Valleyfield Road to the south of the Valleyfield Road / Eastern access road intersection is $\pm 105\text{m}$, which complies with the minimum required SISD.



Figure 18 Proposed eastern access road realignment

5 TRAFFIC GENERATION, DISTRIBUTION, AND IMPACT

5.1 TRAFFIC GENERATION

A peak hour trip rate of 0.85 trips per dwelling has been adopted as per the RTA Guide to Traffic Generating Developments, which means that the proposed 15-lot subdivision can be expected to generate approximately 13 peak hour vehicle trips. Similarly, a daily trip generation rate of 9 daily trips per dwelling has been adopted, which translates into an expected trip generation of about 135 daily trips, with 13 of those occurring in each commuter peak hour.

The following inbound / outbound splits are typical for residential developments:

- AM Peak Hour: 20% inbound / 80% outbound; and
- PM Peak Hour: 60% inbound / 40% outbound.

Applying these splits to the expected traffic generation of 13 vehicle trips results in the following:

- AM Peak Hour: 3 inbound / 10 outbound; and
- PM Peak Hour: 8 inbound / 5 outbound.

5.2 TRAFFIC DISTRIBUTION

The estimated traffic distribution to and from the proposed residential development is based on the location and layout of the surrounding road network, as well as the characteristics of the surrounding area. An additional consideration is the existing traffic directional splits on Arthur Highway, which were determined from the traffic volume survey data – the data showed that, for both the AM and PM peak hours, the eastbound / westbound directional split was about 50 / 50.

Based on the above, it is estimated that the traffic will distribute as follows:

- Access road:
 - 90% of trips will be to / from the east (i.e., towards Valleyfield Road); and
 - 10% of trips will be to / from the west (i.e., towards Rosendale Road).
- Arthur Highway:
 - 30% of trips will be to / from the east (i.e., towards Forcett); and
 - 70% of trips will be to / from the west (i.e., towards Sorell).

In addition to the above, it is also expected that all the trips that distribute to / from the site towards Rosendale Road will exclusively distribute towards Sorell.

The corresponding traffic distributions are shown in **Figure 19** and **Figure 20** below.



Figure 19 Expected peak hour traffic distribution on access road



Figure 20 Expected peak hour traffic distribution at Valleyfield Road / Arthur Highway intersection

5.3 TRAFFIC IMPACT

The proposal is expected to result in 135 new daily vehicle trips being added to the surrounding road network, with 13 of those occurring in each commuter peak hour. Given that the existing volumes on Valleyfield Road and Rosendale Road are low – refer to **Section 2.5** – the additional traffic due to the proposal will have a minimal impact on these roads.

The traffic operations of the Valleyfield Road / Arthur Highway intersection were analysed using SIDRA Intersection v9.1. SIDRA is a micro-analytical traffic evaluation tool that provides estimates of capacity and performance statistics on a lane-by-lane basis. Key performance criteria include:

Degree of Saturation (DOS):	This represents the ratio of traffic volume to capacity. Generally speaking, a DOS of below 0.9 indicates acceptable performance. A DOS of over 1.0 indicates that capacity has been exceeded.
Level of Service (LOS):	An index of the operational performance of traffic based on service measures such as delay, degree of saturation, density, and speed during a given flow period. A guide to LOS ratings is provided in Table 4 below.
Average Delay:	The average delay time that can be expected for a given movement.
95th Percentile Queue:	The maximum queue length that can be expected in 95% of all observed queue lengths during the hour.

Table 4 Level of Service ratings

Level of Service	Control delay per vehicle in seconds (d) (Including geometric delay)			Degree of Saturation (v/c ratio) (x)
	Signals	"SIDRA Roundabout LOS" option	Sign Control	
A	$d \leq 10$	$d \leq 10$	$d \leq 10$	$0 < x \leq 0.85$
B	$10 < d \leq 20$	$10 < d \leq 20$	$10 < d \leq 15$	$0 < x \leq 0.85$
C	$20 < d \leq 35$	$20 < d \leq 35$	$15 < d \leq 25$	$0 < x \leq 0.85$
D	$35 < d \leq 55$	$30 < d \leq 55$	$25 < d \leq 35$	$0 < x \leq 0.85$
E	$55 < d \leq 80$	$50 < d \leq 70$	$35 < d \leq 50$	$0.85 < x \leq 0.95$
F	$80 < d$	$70 < d$	$50 < d$	$1.00 < x$

The key performance factors are summarised in **Table 5** below, while the results are presented in detail in **APPENDIX 3** at the end of this report.

Table 5 Key SIDRA analysis results (weekday AM and PM peak hours, year 2023)

Intersection	Approach	Peak Hour	Movement	Degree of Saturation (DOS)	Average Delay (s)	Level of Service (LOS)	95% Back of Queue (m)
Valleyfield Road / Arthur Highway	North	Weekday AM	L	0.004	5.2	A	0.1
			T	-	-	-	-
			R	0.189	45.8	E	3.9
		Weekday PM	L	0.003	6.8	A	0.1
			T	-	-	-	-
			R	0.066	47.6	E	1.3
	South	Weekday AM	L	0.004	8.9	A	0.1
			T	-	-	-	-
			R	-	-	-	-
		Weekday PM	L	0.001	5.8	A	0.0
			T	-	-	-	-
			R	-	-	-	-
	East	Weekday AM	L	-	-	-	-
			T	0.427	0.1	A	0.0
			R	0.001	8.8	A	0.0
			L	0.268	7.0	A	0.0

Intersection	Approach	Peak Hour	Movement	Degree of Saturation (DOS)	Average Delay (s)	Level of Service (LOS)	95% Back of Queue (m)
	West	Weekday PM	T	0.268	0.1	A	0.0
			R	0.006	15.4	C	0.1
		Weekday AM	L	0.005	7.2	A	0.0
			T	0.092	0.1	A	0.0
			R	-	-	-	-
		Weekday PM	L	0.012	7.1	A	0.0
			T	0.245	0.2	A	0.2
			R	0.245	8.5	A	0.2

The SIDRA results indicate that:

- Most of the movements on Arthur Highway (eastern and western approaches) operate at Level of Service A, with the only exception being the right-turn on the eastern approach, which operates at Level of Service C during the weekday PM peak hour;
- The right-turn movement on Valleyfield Road (northern approach) operates at Level of Service E during both peak hours;
- Overall, the intersection operates at low Degrees of Saturation, with generally very good Levels of Service being evident, and only minimal queue formation.

Regarding the Level of Service for the right-turn out of Valleyfield Road in **Table 5** above, the right-turn demand on the northern approach is very low (16 and 5 vehicles during the weekday AM and PM peak hours, respectively), as is also indicated by the relevant Degrees of Saturation and Queue Lengths. It is expected that the longer delays are due to gap acceptance not being modelled correctly, i.e., SIDRA uses gap acceptance values that are too high. Additionally, high degrees of platooning were observed in both directions on Arthur Highway whilst the traffic surveys were being undertaken, meaning that suitable gaps were available for right-turning traffic on the northern approach, which coincided with very little delay and no queueing being observed. The model was therefore accordingly calibrated with appropriate platooning parameters to better reflect queueing and delays based on the observed conditions, although it is noted that the delays are still conservatively higher than observed on site.

In addition to the above, the current performance of the intersection was analysed using the existing peak hour traffic volumes, and it was found that the performance of right-turning traffic on the northern approach is similar to the post-development conditions, as follows:

- Existing weekday AM peak hour northern approach right-turn performance results:
 - Degree of Saturation – 0.098
 - Average Delay (s) – 37.6
 - Level of Service – E
 - 95% Back of Queue (m) – 2.1
- Existing weekday PM peak hour northern approach right-turn performance results:
 - Degree of Saturation – 0.020
 - Average Delay (s) – 36.8
 - Level of Service – E
 - 95% Back of Queue (m) – 0.4

When comparing the existing and post-development conditions, only minor changes are observed in the performance measures.

6 CONCLUSION

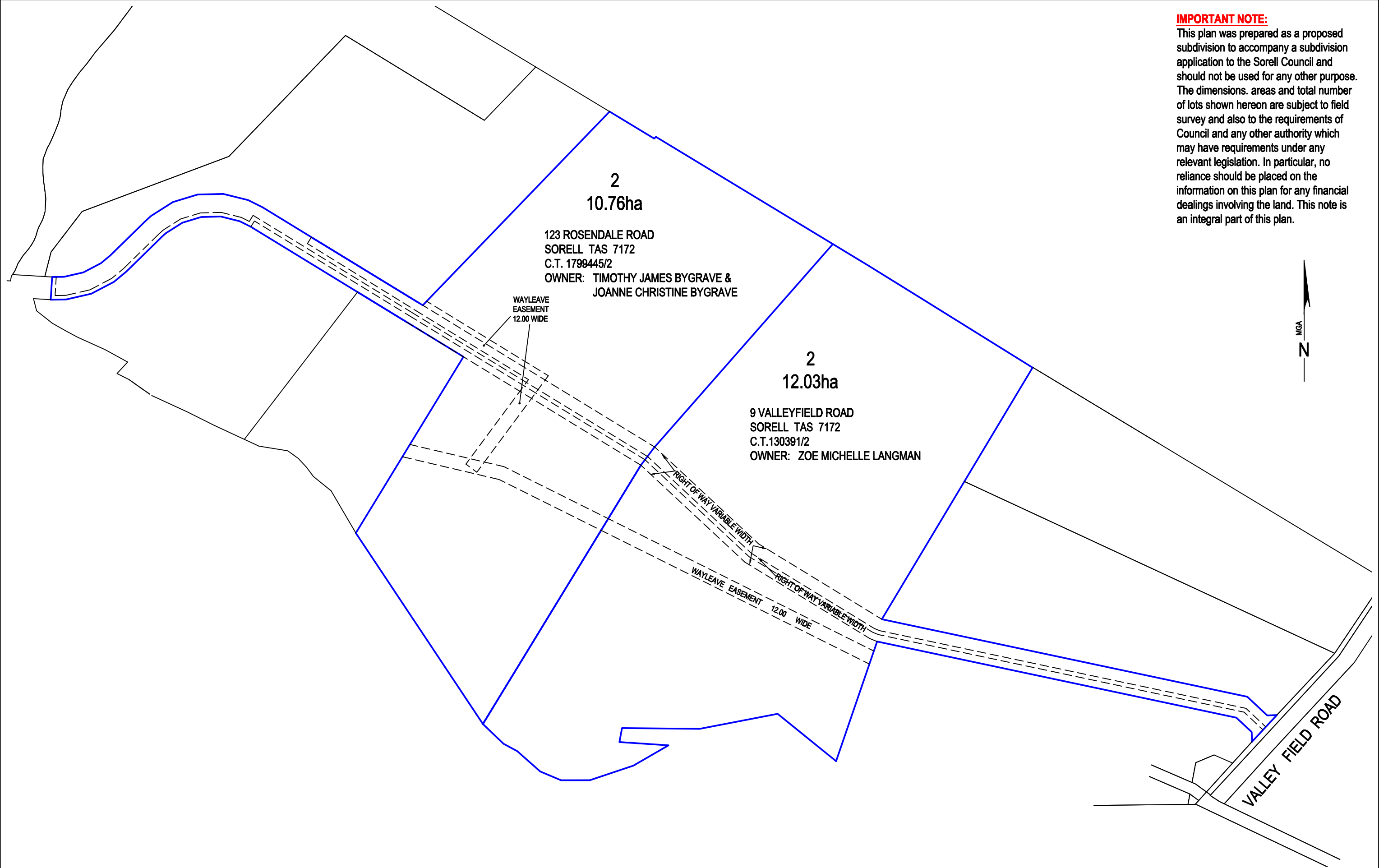
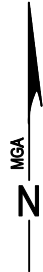
Based on the considerations outlined in this report, it is concluded that:

- It is proposed to create a continuous link between Valleyfield Road and Rosendale Road by connecting the eastern and western private access roads – a 20m wide road reserve will also be provided across the subject site;
- It is also proposed to seal the Valleyfield access road to a width of 6.5m between the subject site and Valleyfield Road, and to also seal the section of Valleyfield Road between the access road and Arthur Highway;
- The Tasmanian Subdivision Guidelines (October 2013) state that footpaths are required in rural roads. Accordingly, the provision of footpaths is not recommended, with an additional reason being the absence of a pedestrian footpath network in the area;
- The bushfire-prone areas code requires a minimum carriageway width of 7m for a through road. It is however recommended that the 6.5m carriageway width as per the Tasmanian Standard Drawings be maintained due to the very low traffic volumes expected on the access road;
- The existing surrounding road network will be able to adequately accommodate the expected additional traffic generated by the proposed subdivision; and
- We find there is no imperative to seal the section of Rosendale Road between Arthur Highway and the subject site.


As such there are no traffic engineering grounds to prevent the issue of a planning permit, subject to adoption of the above design requirements and recommendations that can be included within a suitable permit condition relating to the preparation of detailed design (civil) drawings.

APPENDIX 1 PROPOSED SUBDIVISION LAYOUT

IMPORTANT NOTE:
This plan was prepared as a proposed subdivision to accompany a subdivision application to the Sorell Council and should not be used for any other purpose. The dimensions, areas and total number of lots shown hereon are subject to field survey and also to the requirements of Council and any other authority which may have requirements under any relevant legislation. In particular, no reliance should be placed on the information on this plan for any financial dealings involving the land. This note is an integral part of this plan.



AMENDMENTS		
No.	Revision/Issue	Date



LEARY COX & CRIPPS
LAND & ENGINEERING SURVEYORS

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Project Name and Address

**9 VALLEYFIELD ROAD
SORELL
TAS 7172**

Drawing Title

**SUBDIVISION PLAN
CURRENT TITLE LAYOUT**

Client
TOM MCCLELLAND

SCALE
0 30 60 120
1:3000 at A3

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1.00m

Date
3-11-2023

SHEET
1 of 4

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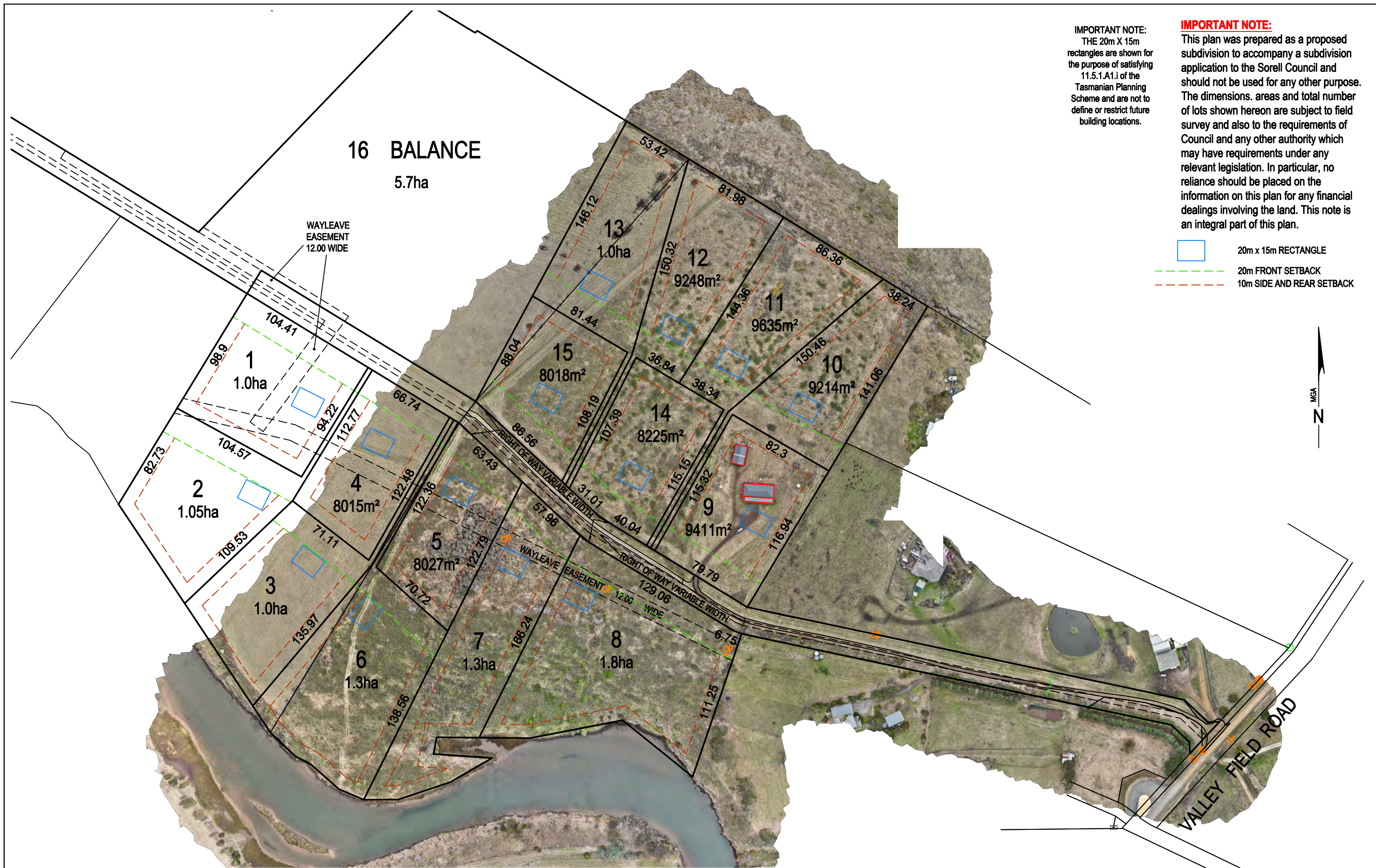
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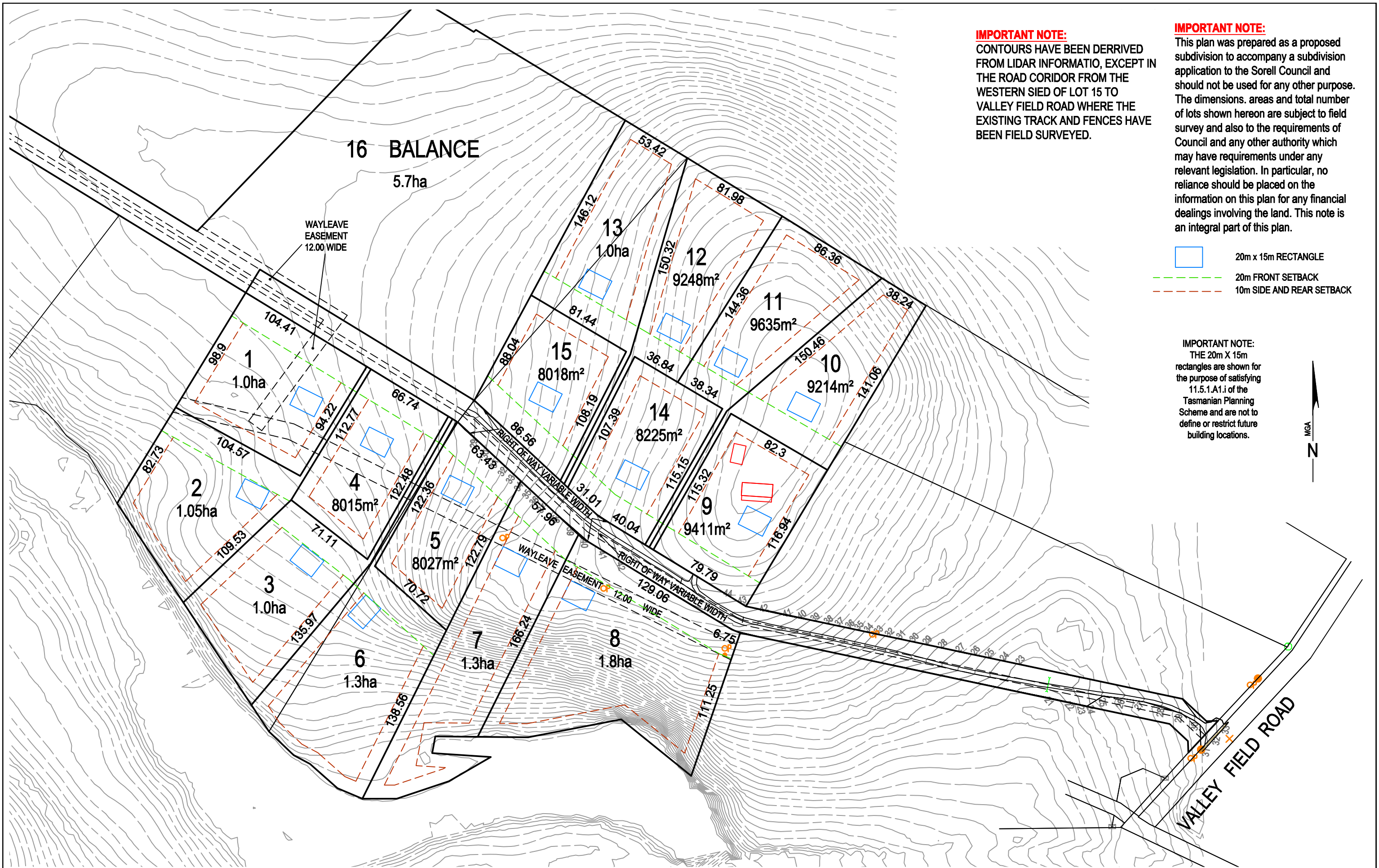
IMPORTANT NOTE:
THE 20m X 15m
rectangles are shown for
the purpose of satisfying
11.5.1.A1.i of the
Tasmanian Planning
Scheme and are not to
define or restrict future
building locations.

IMPORTANT NOTE:
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subdivision to accompany a subdivision
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Council and any other authority which
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relevant legislation. In particular, no
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information on this plan for any financial
dealings involving the land. This note is
an integral part of this plan.

- 20m x 15m RECTANGLE
- 20m FRONT SETBACK
- 10m SIDE AND REAR SETBACK



AMENDMENTS			 LEARY COX & CRIPPS LAND & ENGINEERING SURVEYORS	Unit G04 40 Mollie Street, HOBART TAS 7000 P 03 6118 2030 E admin@lccsurvey.com	Project Name and Address 9 VALLEYFIELD ROAD SORELL TAS 7172	Drawing Title SUBDIVISION PLAN ORTHO PHOTO	Client TOM MCCLELLAND	SCALE 0 20 40 100 1:2500 at A3	Contour Interval 1.00m Date 3-11-2023	FILE REF: 13620		
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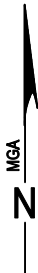


IMPORTANT NOTE:
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IMPORTANT NOTE:
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- 20m x 15m RECTANGLE
- 20m FRONT SETBACK
- 10m SIDE AND REAR SETBACK

IMPORTANT NOTE:
THE 20m X 15m rectangles are shown for the purpose of satisfying 11.5.1.A1.i of the Tasmanian Planning Scheme and are not to define or restrict future building locations.

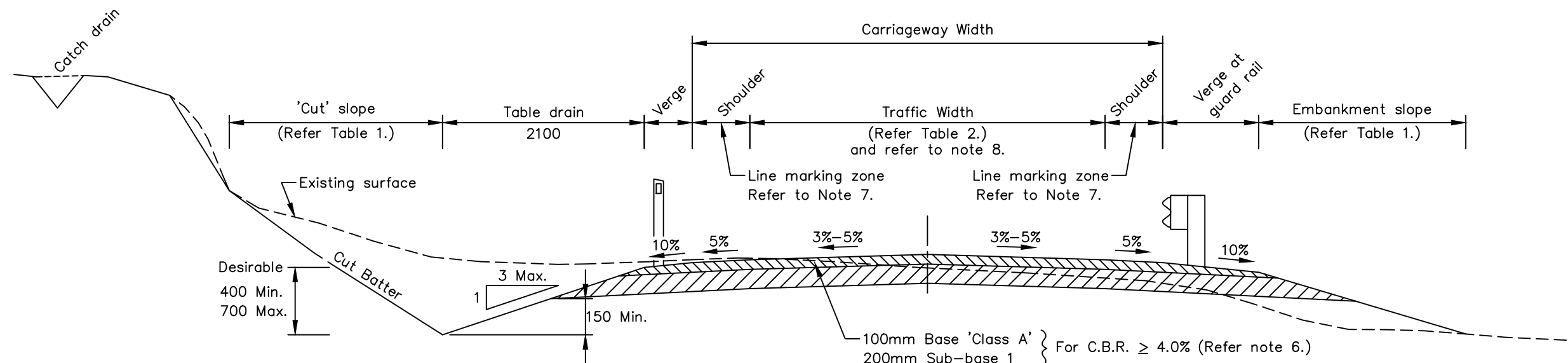


AMENDMENTS			Project Name and Address		Drawing Title		SCALE	Contour Interval		FILE REF:	
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										Vert:	

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APPENDIX 2 TASMANIAN STANDARD DRAWING TSD-R02-V3



TYPICAL CROSS SECTION
SCALE 1 : 50



TABLE 1

SOIL / ROCK TYPE	EMBANKMENT		CUTTING	
	Vertical	Horizontal	Vertical	Horizontal
Solid Rock	—	—	1.00	0.25
Loose Rock	1.00	2.00	1.00	1.33
Sand	1.00	3.00	1.00	3.00
Stiff Clay	1.00	1.00	1.00	1.00
Soft Clay	1.00	3.00	1.00	1.50

TABLE 2

		EXISTING INFRASTRUCTURE	NEW DEVELOPMENT								
CODE*	A.A.D.T.	(w) SEALED TRAFFIC WIDTH	(w) SEALED TRAFFIC WIDTH	SEALED SHOULDER	GRAVEL SHOULDER	VERGE	CARRIAGEWAY WIDTH	LOGGING ROUTE	HEAVY VEHICLES	BUS ROUTE	Bends with < 50m sight line
S1	< 30	4000 (S)	—	—	500	NO	5000	NO	< 5%	NO	w + 1000
S2	30 – 100	4000 (S)	—	—	1000	NO	6000	YES < 5%	< 5%	YES	w + 1000
S3	100 – 300	5500 (D)	5500 (D)	400 <small>Refer Note 7.</small>	500	500	6500	YES	< 10%	YES	w + 500
S4	300 – 2000	6000 (D)	6000 (D)	400 <small>Refer Note 7.</small>	500	500	7000	YES	> 10%	YES	w + 500
S5	> 2000	7000 (D)	7000 (D)	500	500	500	9000	YES	> 10%	YES	w + 500

*To satisfy a Road Class (eg. S3) the capability to comply with all A.A.D.T, LOGGING ROUTE, HEAVY VEHICLE and BUS ROUTE is necessary.
(S) – SINGLE LANE
(D) – DUAL LANE

NOTES

- Alignment to satisfy min. Design speed.
- Roadside table drains, cut off drains and culverts to be installed to suit topography.
- Provision for widening or passing bays may be required where sight distance requirements cannot be met or there are limited options for vehicles to pull off the road.
- Refer Sheets TSD–R25 and TSD–R28 Guide Post. Safety barrier and terminal installation to be in accordance with AS5100:2017
- Refer to Austroads AGRD–10: Part 6 Roadside Design, Safety and Barriers.
- Design of pavements to consider project traffic loading, sub–grade strength and comply with the procedures in either:
 - A.R.R.B. A.P.R.G. Report no. 21, A Guide to the Design of New Pavements for Light Traffic.
 - Austroads Guid to Pavement Technology 2019
 - 'A Guide To The Structural Design Of Road Pavements'
- 0.4 metres of shoulder sealed if edge line is to be installed.
- Two coat 'Hot Bitumen' spray seal. Aggregate 10/7 or 14/7 optional.
- Surface type to be determined with consideration to, Vehicle types/turning movement, location and grade.

SCALES: AS SHOWN
(All scales are correct at A3)

XRef File: TSD-R02-v3.dwg

REFERENCES

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ISSUE DATE:

18-09-2020

DWG No.

TSD-R02-v3

APPENDIX 3 SIDRA RESULTS

MOVEMENT SUMMARY

Site: 101 [Arthur / Valleyfield - Sc. 1 AM (Site Folder: Arthur Highway / Valleyfield Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Scenario 1: 2023 Existing AM Peak Hour

Site Category: Base Year

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lot 294 Access															
1	L2	All MCs	2	0.0	2	0.0	0.004	8.9	LOS A	0.0	0.1	0.63	0.65	0.63	57.6
Approach			2	0.0	2	0.0	0.004	8.9	LOS A	0.0	0.1	0.63	0.65	0.63	57.6
East: Arthur Hwy															
5	T1	All MCs	823	4.9	823	4.9	0.427	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.6
Approach			823	4.9	823	4.9	0.427	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.6
North: Valleyfield Rd															
7	L2	All MCs	1	0.0	1	0.0	0.001	5.2	LOS A	0.0	0.0	0.26	0.48	0.26	59.0
9	R2	All MCs	11	10.0	11	10.0	0.098	37.6	LOS E	0.3	2.1	0.88	0.94	0.88	42.9
Approach			12	9.1	12	9.1	0.098	34.7	LOS D	0.3	2.1	0.82	0.90	0.82	43.7
West: Arthur Hwy															
10	L2	All MCs	6	16.7	6	16.7	0.004	7.3	LOS A	0.0	0.0	0.00	0.63	0.00	65.6
11	T1	All MCs	333	14.2	333	14.2	0.092	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach			339	14.3	339	14.3	0.092	0.2	NA	0.0	0.0	0.00	0.01	0.00	79.7
All Vehicles			1176	7.6	1176	7.6	0.427	0.5	NA	0.3	2.1	0.01	0.01	0.01	79.2

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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Project: Y:\2023\23603 - 9 Valleyfield Rd, Sorell\07 Analysis\23603SID003.sip9

MOVEMENT SUMMARY

Site: 101 [Arthur / Valleyfield - Sc. 1 PM (Site Folder: Arthur Highway / Valleyfield Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Scenario 1: 2023 Existing PM Peak Hour

Site Category: Base Year

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lot 294 Access															
1	L2	All MCs	1	0.0	1	0.0	0.001	5.8	LOS A	0.0	0.0	0.47	0.50	0.47	60.0
Approach			1	0.0	1	0.0	0.001	5.8	LOS A	0.0	0.0	0.47	0.50	0.47	60.0
East: Arthur Hwy															
4	L2	All MCs	1	0.0	1	0.0	0.268	7.0	LOS A	0.0	0.0	0.00	0.00	0.00	72.6
5	T1	All MCs	512	6.0	512	6.0	0.268	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
Approach			513	6.0	513	6.0	0.268	0.1	NA	0.0	0.0	0.00	0.00	0.00	79.8
North: Valleyfield Rd															
9	R2	All MCs	2	0.0	2	0.0	0.020	36.8	LOS E	0.1	0.4	0.89	0.95	0.89	43.8
Approach			2	0.0	2	0.0	0.020	36.8	LOS E	0.1	0.4	0.89	0.95	0.89	43.8
West: Arthur Hwy															
10	L2	All MCs	15	14.3	15	14.3	0.009	7.2	LOS A	0.0	0.0	0.00	0.63	0.00	65.7
11	T1	All MCs	951	2.3	951	2.3	0.245	0.2	LOS A	0.0	0.2	0.00	0.00	0.00	79.9
12	R2	All MCs	2	0.0	2	0.0	0.245	8.5	LOS A	0.0	0.2	0.01	0.00	0.01	68.2
Approach			967	2.5	967	2.5	0.245	0.3	NA	0.0	0.2	0.00	0.01	0.00	79.7
All Vehicles			1483	3.7	1483	3.7	0.268	0.3	NA	0.1	0.4	0.00	0.01	0.00	79.7

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

NA (TWSC): Level of Service is not defined for major road approaches or the intersection as a whole for Two-Way Sign Control (HCM LOS rule).

Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

Arrival Flows used in performance calculations are adjusted to include any Initial Queued Demand and Upstream Capacity Constraint effects.

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MOVEMENT SUMMARY

Site: 101 [Arthur / Valleyfield - Sc. 2 AM (Site Folder: Arthur Highway / Valleyfield Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Scenario 2: 2023 Development Traffic Added AM Peak Hour

Site Category: Future Conditions 1

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lot 294 Access															
1	L2	All MCs	2	0.0	2	0.0	0.004	8.9	LOS A	0.0	0.1	0.63	0.65	0.63	57.6
Approach			2	0.0	2	0.0	0.004	8.9	LOS A	0.0	0.1	0.63	0.65	0.63	57.6
East: Arthur Hwy															
5	T1	All MCs	823	4.9	823	4.9	0.427	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.6
6	R2	All MCs	1	0.0	1	0.0	0.001	8.8	LOS A	0.0	0.0	0.33	0.59	0.33	58.2
Approach			824	4.9	824	4.9	0.427	0.2	NA	0.0	0.0	0.00	0.00	0.00	79.6
North: Valleyfield Rd															
7	L2	All MCs	4	0.0	4	0.0	0.004	5.2	LOS A	0.0	0.1	0.26	0.49	0.26	59.0
9	R2	All MCs	17	6.3	17	6.3	0.189	45.8	LOS E	0.5	3.9	0.90	0.96	0.94	39.8
Approach			21	5.0	21	5.0	0.189	37.7	LOS E	0.5	3.9	0.77	0.87	0.81	41.8
West: Arthur Hwy															
10	L2	All MCs	8	12.5	8	12.5	0.005	7.2	LOS A	0.0	0.0	0.00	0.63	0.00	65.8
11	T1	All MCs	333	14.2	333	14.2	0.092	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.9
Approach			341	14.2	341	14.2	0.092	0.3	NA	0.0	0.0	0.00	0.02	0.00	79.7
All Vehicles			1188	7.5	1188	7.5	0.427	0.9	NA	0.5	3.9	0.02	0.02	0.02	78.8

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

Minor Road Approach LOS values are based on average delay for all vehicle movements.

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Two-Way Sign Control Capacity Model: SIDRA Standard.

Delay Model: SIDRA Standard (Control Delay: Geometric Delay is included).

Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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MOVEMENT SUMMARY

Site: 101 [Arthur / Valleyfield - Sc. 2 PM (Site Folder: Arthur Highway / Valleyfield Road)]

Output produced by SIDRA INTERSECTION Version: 9.1.1.200

Scenario 2: 2023 Development Traffic Added PM Peak Hour

Site Category: Future Conditions 1

Give-Way (Two-Way)

Vehicle Movement Performance															
Mov ID	Turn	Mov Class	Demand Flows [Total HV] veh/h %		Arrival Flows [Total HV] veh/h %		Deg. Satn v/c	Aver. Delay sec	Level of Service	95% Back Of Queue [Veh. Dist] veh m		Prop. Que	Eff. Stop Rate	Aver. No. of Cycles	Aver. Speed km/h
South: Lot 294 Access															
1	L2	All MCs	1	0.0	1	0.0	0.001	5.8	LOS A	0.0	0.0	0.47	0.50	0.47	60.0
Approach			1	0.0	1	0.0	0.001	5.8	LOS A	0.0	0.0	0.47	0.50	0.47	60.0
East: Arthur Hwy															
4	L2	All MCs	1	0.0	1	0.0	0.268	7.0	LOS A	0.0	0.0	0.00	0.00	0.00	72.6
5	T1	All MCs	512	6.0	512	6.0	0.268	0.1	LOS A	0.0	0.0	0.00	0.00	0.00	79.8
6	R2	All MCs	2	0.0	2	0.0	0.006	15.4	LOS C	0.0	0.1	0.68	0.77	0.68	51.4
Approach			515	5.9	515	5.9	0.268	0.1	NA	0.0	0.1	0.00	0.00	0.00	79.7
North: Valleyfield Rd															
7	L2	All MCs	2	0.0	2	0.0	0.003	6.8	LOS A	0.0	0.1	0.45	0.55	0.45	57.8
9	R2	All MCs	5	0.0	5	0.0	0.066	47.6	LOS E	0.2	1.3	0.91	0.96	0.91	39.4
Approach			7	0.0	7	0.0	0.066	35.9	LOS E	0.2	1.3	0.78	0.84	0.78	42.3
West: Arthur Hwy															
10	L2	All MCs	20	10.5	20	10.5	0.012	7.1	LOS A	0.0	0.0	0.00	0.63	0.00	65.9
11	T1	All MCs	951	2.3	951	2.3	0.245	0.2	LOS A	0.0	0.2	0.00	0.00	0.00	79.9
12	R2	All MCs	2	0.0	2	0.0	0.245	8.5	LOS A	0.0	0.2	0.01	0.00	0.01	68.2
Approach			973	2.5	973	2.5	0.245	0.4	NA	0.0	0.2	0.00	0.02	0.00	79.6
All Vehicles			1496	3.7	1496	3.7	0.268	0.5	NA	0.2	1.3	0.01	0.02	0.01	79.4

Site Level of Service (LOS) Method: Delay (SIDRA). Site LOS Method is specified in the Parameter Settings dialog (Options tab).

Vehicle movement LOS values are based on average delay per movement.

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Queue Model: SIDRA queue estimation methods are used for Back of Queue and Queue at Start of Gap.

Gap-Acceptance Capacity Formula: SIDRA Standard (Akçelik M3D).

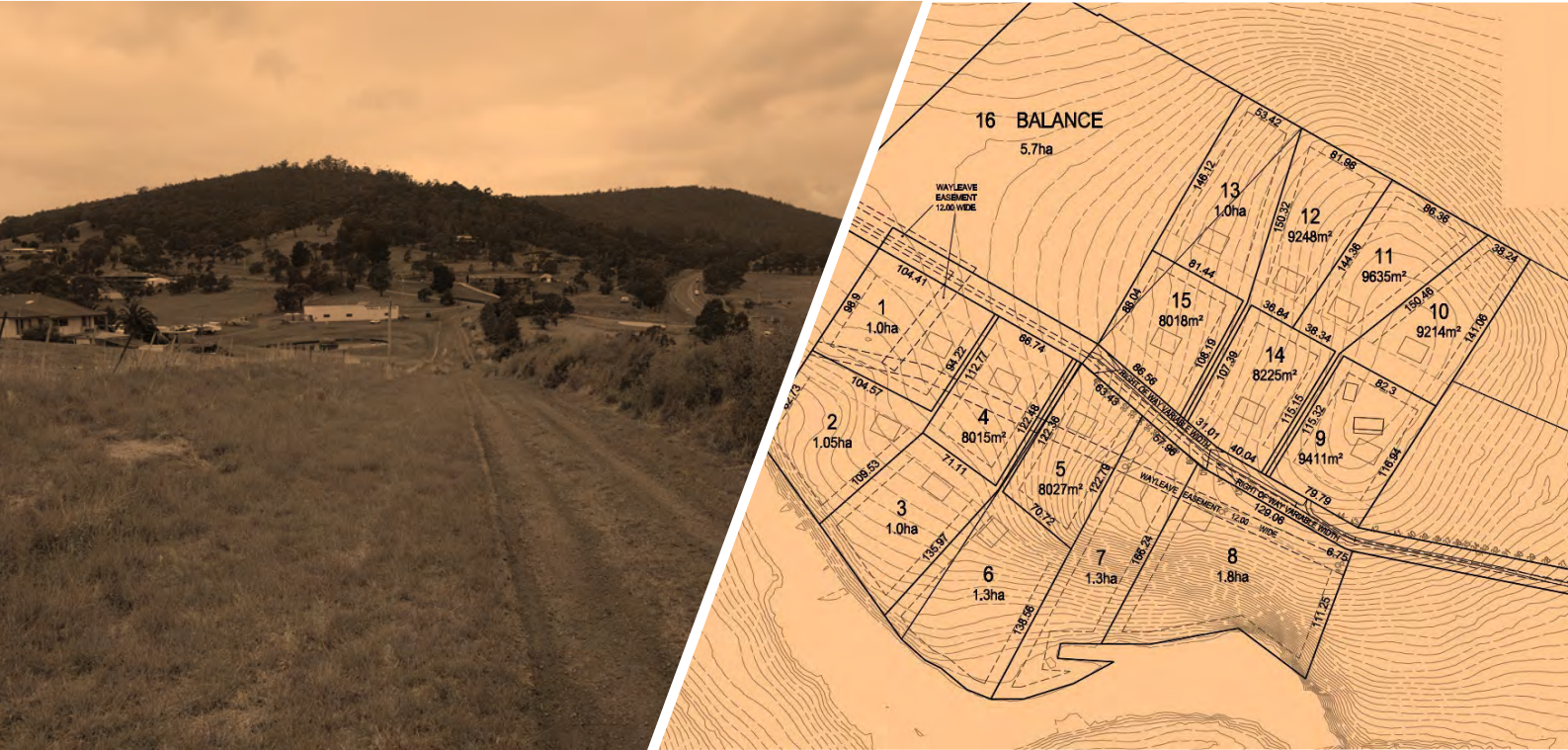
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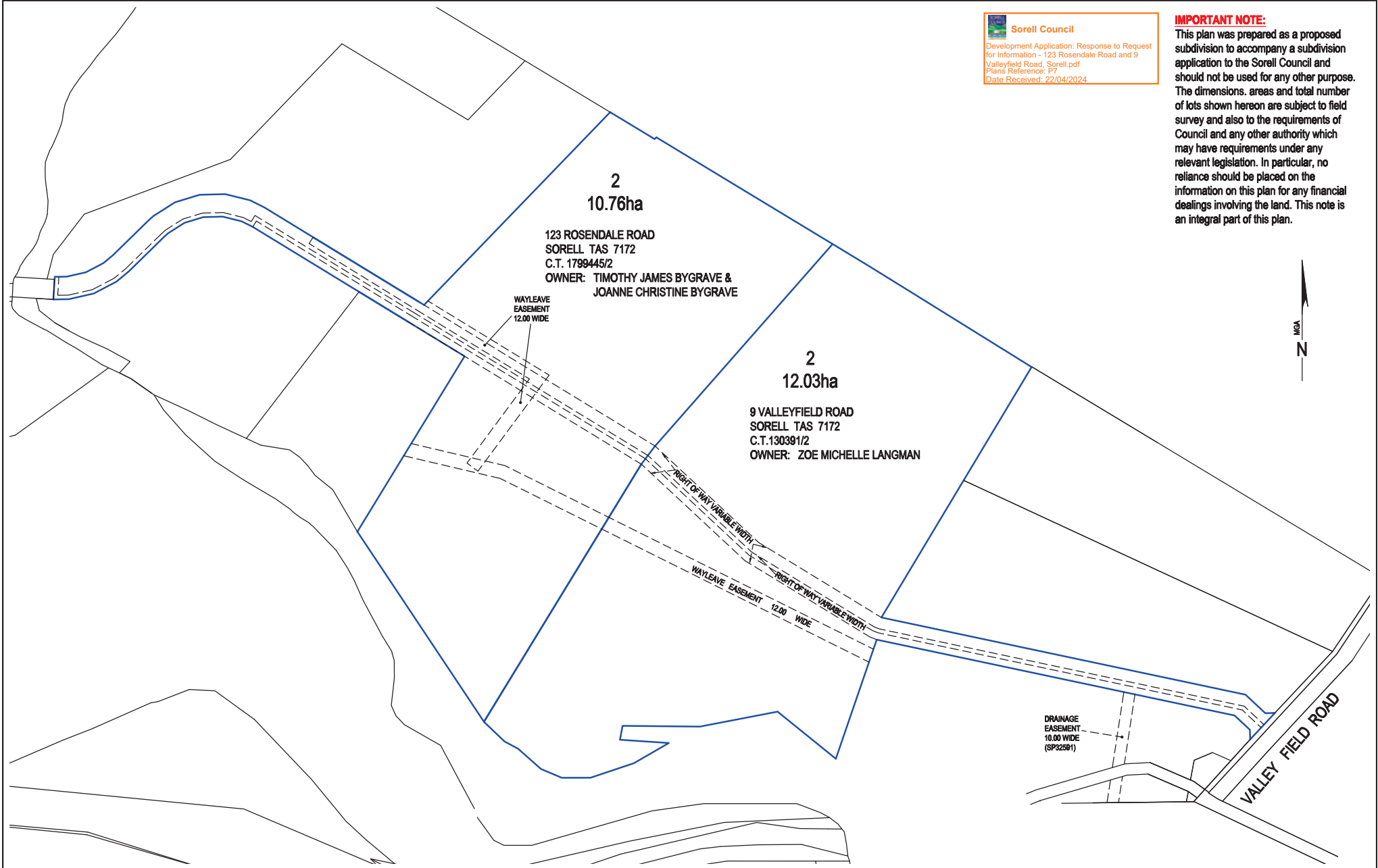




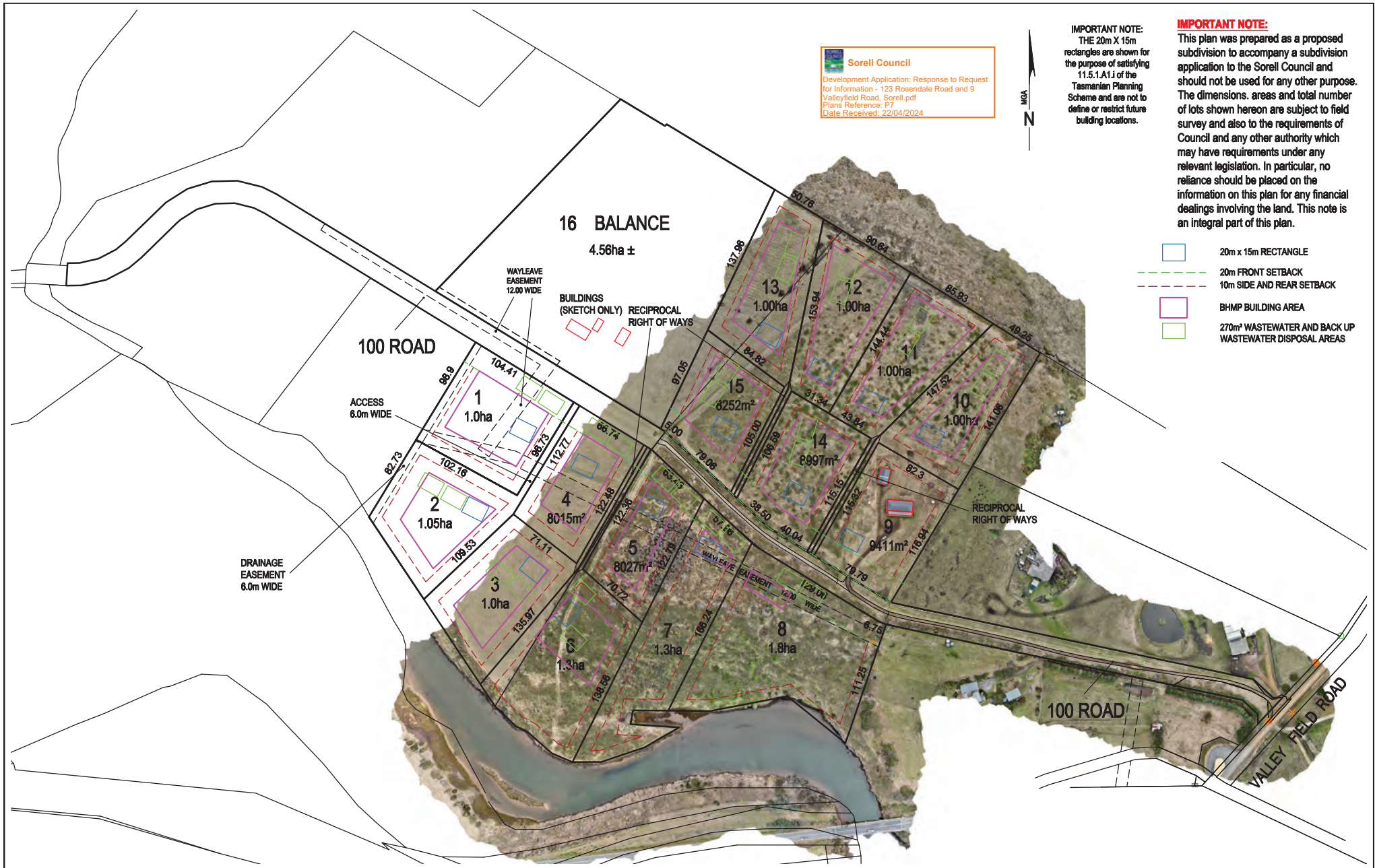
Sorell Council

Development Application: Response to Request
for Information - 123 Rosendale Road and 9
Valleyfield Road, Sorell.pdf
Plans Reference: P7
Date Received: 22/04/2024

IMPORTANT NOTE:
This plan was prepared as a proposed subdivision to accompany a subdivision application to the Sorell Council and should not be used for any other purpose. The dimensions, areas and total number of lots shown hereon are subject to field survey and also to the requirements of Council and any other authority which may have requirements under any relevant legislation. In particular, no reliance should be placed on the information on this plan for any financial dealings involving the land. This note is an integral part of this plan.



AMENDMENTS			Project Name and Address		Drawing Title		Scale		Contour Interval		FILE REF	
No.	Revision/Issue	Date	9 VALLEYFIELD ROAD SORELL TAS 7172		SUBDIVISION PLAN CURRENT TITLE LAYOUT		0	30	60	120	1.00m	13630
A	LOT CHANGES	15-12-20	Unit G04 40 Mole Street, HOBART TAS 7000 P 03 6118 2030 E admin@lccsurvey.com		Client TOM MCCLELLAND		1:3000 at A3		Date 3-11-2023		SHEET 1 of 4	
B	MINOR CHANGES	12-01-24										
C	WITH 12.0 HECTARE TO LAND ACQUISITION BY STATE PLANNING AND DEVELOPMENT	1-3-2024										
D	WATERWAY EASEMENT, 10.00 METER EASEMENT WATERWAY EASEMENT, 10.00 METER EASEMENT	12-4-2024										
E	MOVED WASTE WATER AREAS	18-4-2024										
			LEARY COX & CRIPPS LAND & ENGINEERING SURVEYORS				THIS DOCUMENT IS, AND SHALL REMAIN, THE PROPERTY OF LEARY, COX & CRIPPS, LAND & ENGINEERING SURVEYORS. THE DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. UNAUTHORIZED USE OF THE DOCUMENT IN ANY WAY IS PROHIBITED.		DRAWN MC		Geocoid Ref 1363020	
									DATE AHD83		1363020 AHD83	



Sorell Council
Development Application: Response to Request
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Plans Reference: P7
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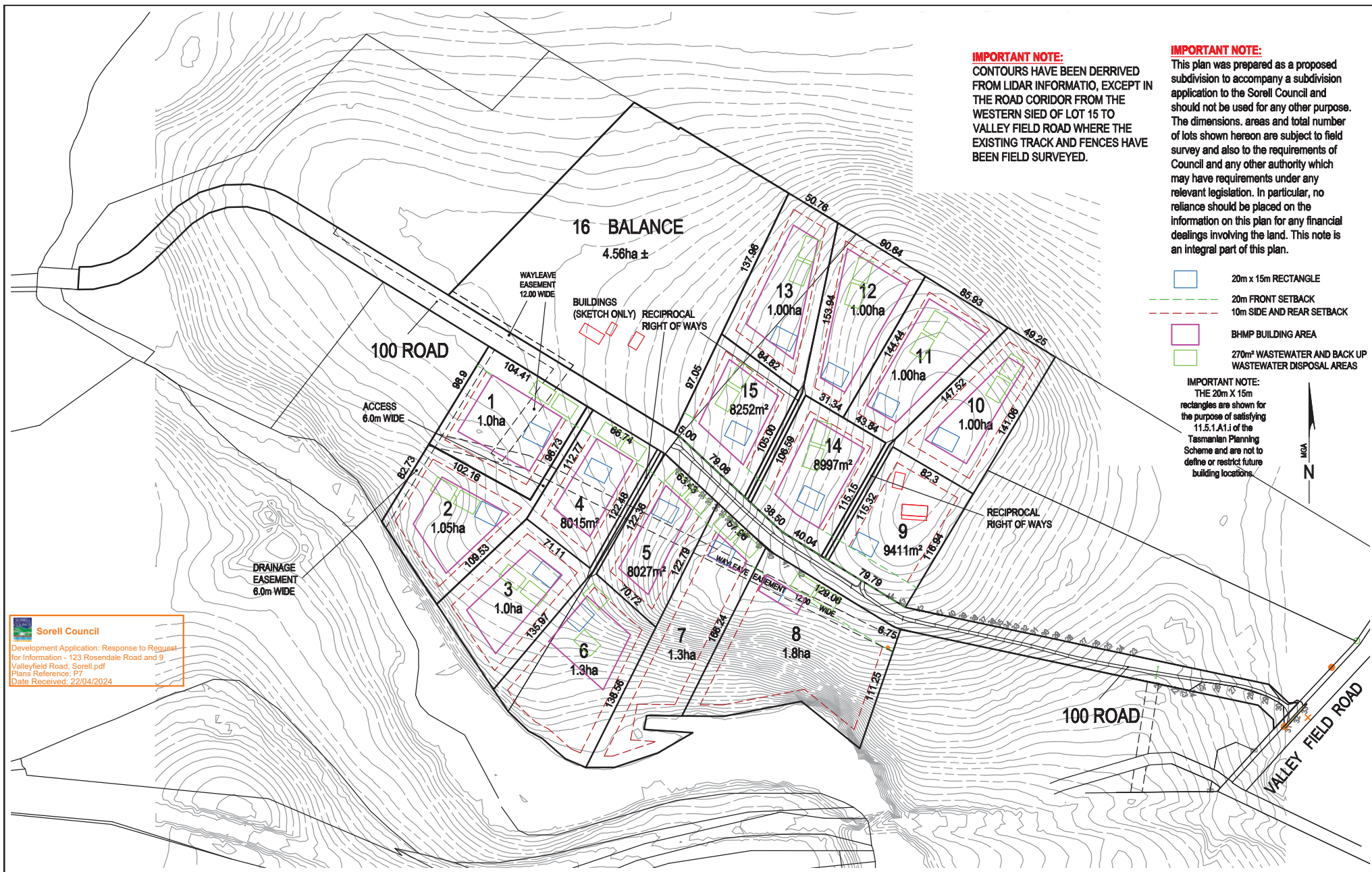


IMPORTANT NOTE:
THE 20m X 15m
rectangles are shown for
the purpose of satisfying
11.5.1.A1j of the
Tasmanian Planning
Scheme and are not to
define or restrict future
building locations.

IMPORTANT NOTE:
This plan was prepared as a proposed
subdivision to accompany a subdivision
application to the Sorell Council and
should not be used for any other purpose.
The dimensions, areas and total number
of lots shown hereon are subject to field
survey and also to the requirements of
Council and any other authority which
may have requirements under any
relevant legislation. In particular, no
reliance should be placed on the
information on this plan for any financial
dealings involving the land. This note is
an integral part of this plan.

- 20m x 15m RECTANGLE
- 20m FRONT SETBACK
- 10m SIDE AND REAR SETBACK
- BHMP BUILDING AREA
- 270m² WASTEWATER AND BACK UP
WASTEWATER DISPOSAL AREAS

AMENDMENTS			Project Name and Address	Drawing Title	Client	SCALE 0 30 60 120 1:3000 at A3	Certificate 1.00m Date 3-11-2023	FILE REF: 13630	
No.	Revision/Issue	Date						Geocid Ref	AutoCAD Ref
A	LOT CHANGES	15-12-23	9 VALLEYFIELD ROAD SORELL TAS 7172	SUBDIVISION PLAN ORTHOPHOTO	TOM MCCLELLAND			1363020	1363020
B	MINOR CHANGES	12-01-24							
C	LOT 1 & 2 ADJACENT TO ROAD ACCESS	1-3-2024							
D	WASTE WATER AREAS, BHP BUILDING AREAS, WASTEWATER AND BACK UP WASTEWATER AREAS	12-4-2024							
E	MOVED WASTE WATER AREAS	18-4-2024							
			Unit G04 40 Mole Street, HOBART TAS 7000 P 03 6118 2030 E admin@lccsurvey.com					DRAWN MC	DATUM Ver: AHD83
			Leary Cox & Cripps LAND & ENGINEERING SURVEYORS						



IMPORTANT NOTE:
CONTOURS HAVE BEEN DERIVED FROM LIDAR INFORMATION, EXCEPT IN THE ROAD CORRIDOR FROM THE WESTERN SIDE OF LOT 15 TO VALLEY FIELD ROAD WHERE THE EXISTING TRACK AND FENCES HAVE BEEN FIELD SURVEYED.

IMPORTANT NOTE:
This plan was prepared as a proposed subdivision to accompany a subdivision application to the Sorell Council and should not be used for any other purpose. The dimensions, areas and total number of lots shown hereon are subject to field survey and also to the requirements of Council and any other authority which may have requirements under any relevant legislation. In particular, no reliance should be placed on the information on this plan for any financial dealings involving the land. This note is an integral part of this plan.

- 20m x 15m RECTANGLE
- 20m FRONT SETBACK
- 10m SIDE AND REAR SETBACK
- BHMP BUILDING AREA
- 270m² WASTEWATER AND BACK UP WASTEWATER DISPOSAL AREAS

IMPORTANT NOTE:
THE 20m X 15m rectangles are shown for the purpose of satisfying 11.5.1A1 of the Tasmanian Planning Scheme and are not to define or restrict future building locations.



Sorell Council
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Plans Reference: P7
Date Received: 22/04/2024

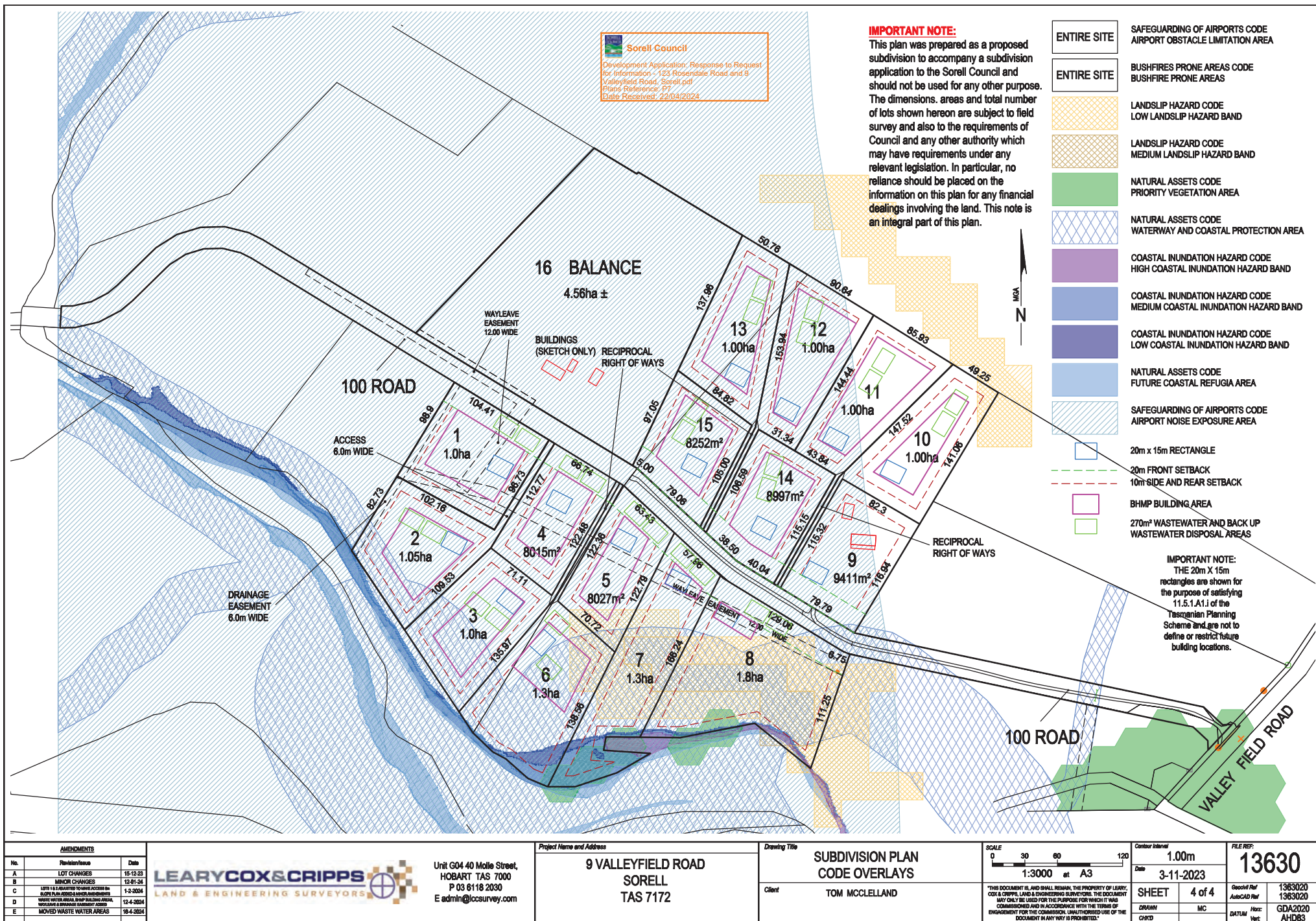
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No.	Revision/Issue	Date	9 VALLEYFIELD ROAD SORELL TAS 7172		AREAS PLAN		0 30 60 120 1:3000 at A3		TOM MCCLELLAND		N/A 27-11-2023		13630 1363020	
A	LOT CHANGES	15-12-23												
B	MINOR CHANGES	12-01-24												
C	LOT 15 & 16 ADJACENT TO ROAD CORRIDOR	1-3-2024												
D	WASTEWATER DISPOSAL AREAS	12-4-2024												
E	MOVED WASTE WATER AREAS	18-4-2024												

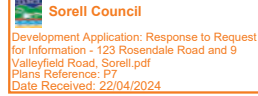
LEARY COX & CRIPPS
LAND & ENGINEERING SURVEYORS

Unit G04 40 Mole Street,
HOBART TAS 7000
P 03 6118 2030
E admin@lccsurvey.com

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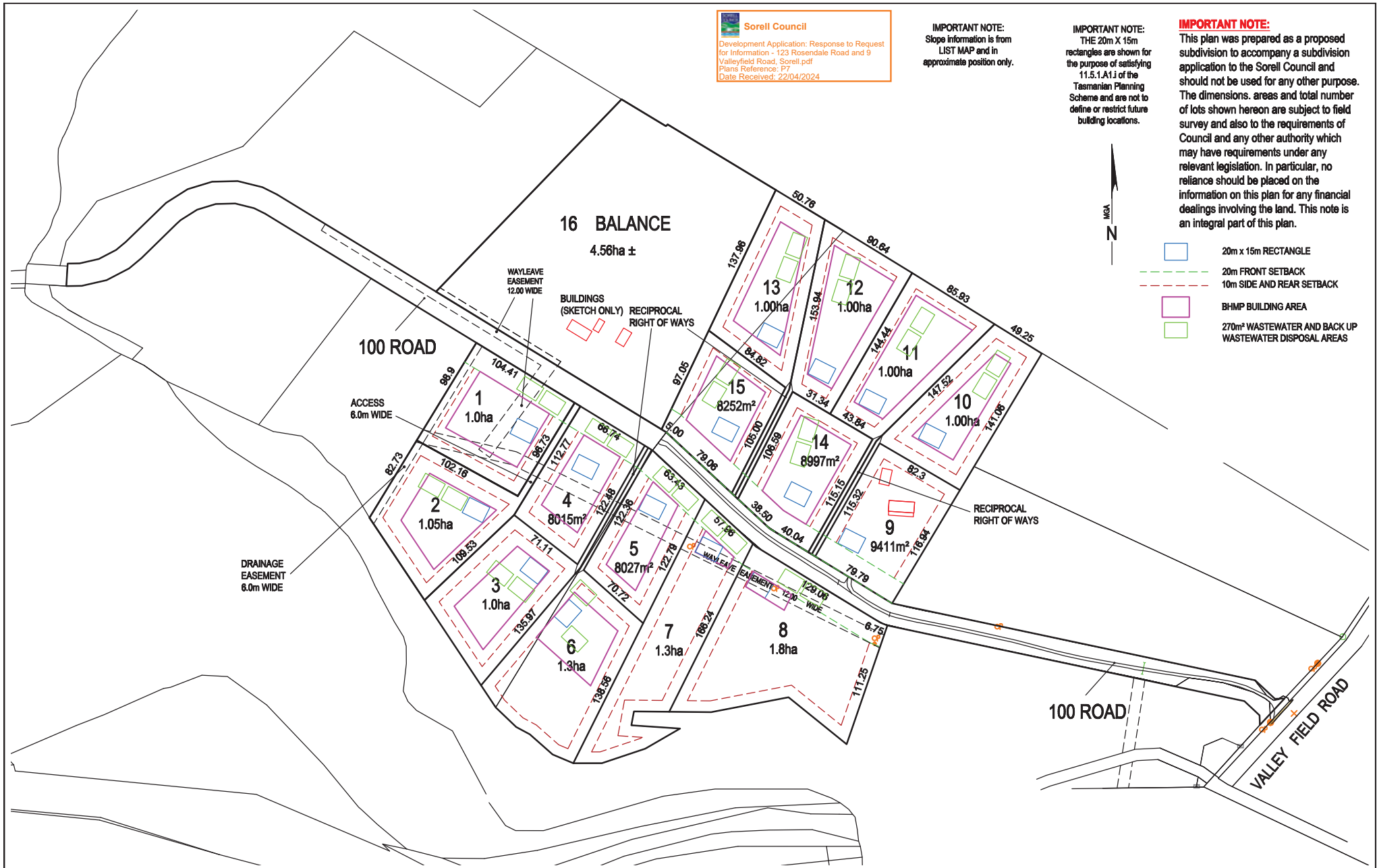
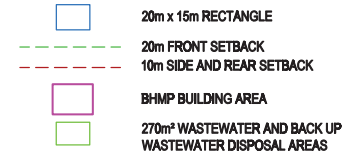
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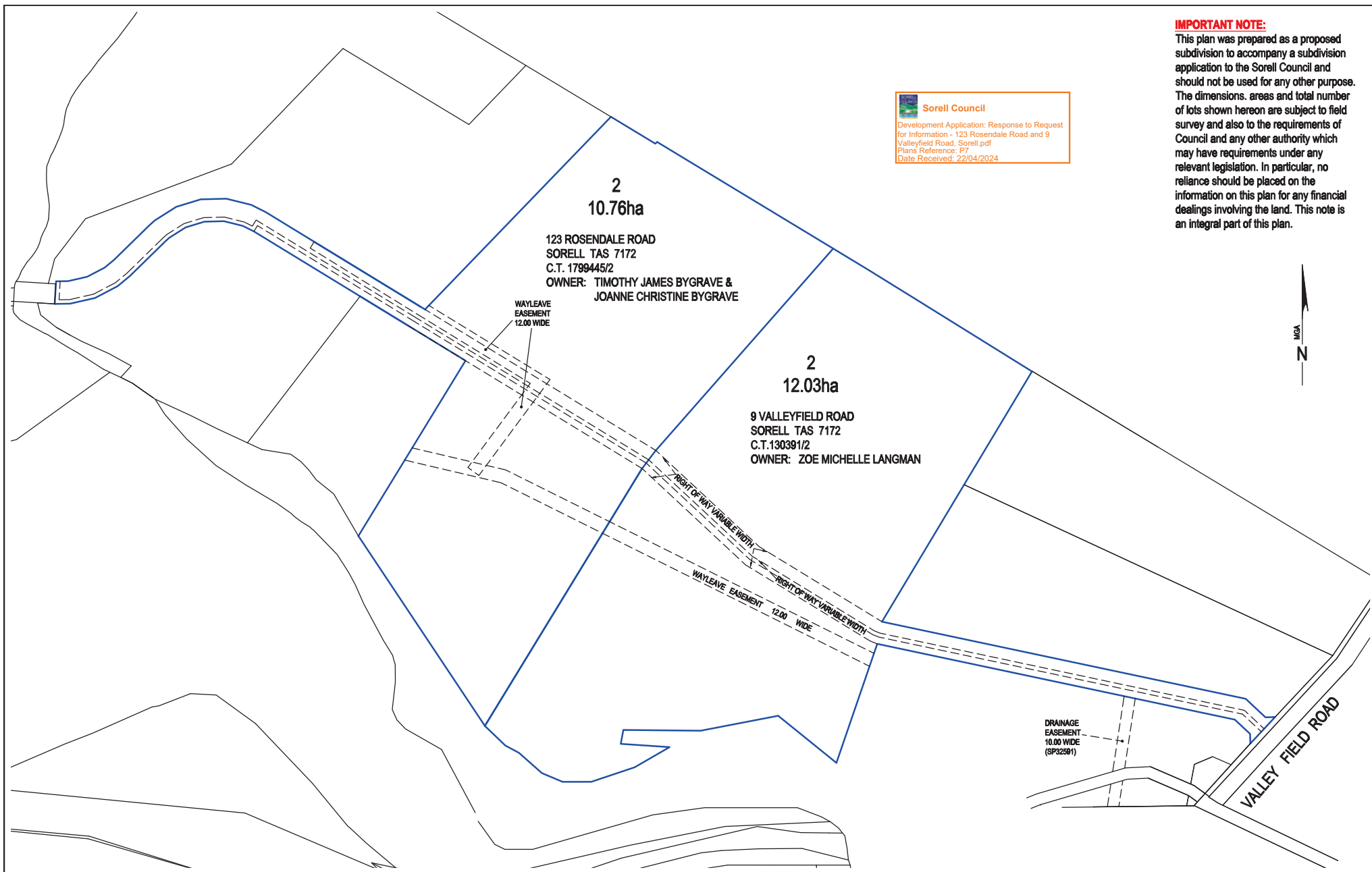
IMPORTANT NOTE:
THE 20m X 15m rectangles are shown for the purpose of satisfying 11.5.1A1j of the Tasmanian Planning Scheme and are not to define or restrict future building locations.

IMPORTANT NOTE:
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AMENDMENTS				Unit G04 40 Malle Street, HOBART TAS 7000 P 03 6118 2030 E admin@lccsurvey.com	Project Name and Address 9 VALLEYFIELD ROAD SORELL TAS 7172	Drawing Title SUBDIVISION PLAN SLOPE FROM LISTMAP	Client TOM MCCLELLAND	SCALE 0 30 60 120 1:3000 at A3	Contour Interval 1.00m	FILE REF: 13630	
No.	Revision/Issue	Date									
A	LOT CHANGES	15-12-23									
B	MINOR CHANGES	12-01-24									
C	UPPER 1:2.5 GRAVELLING TRUNKING ACCESS IN SLOPE PLAN AND 4.5 METER MINOR AMENDMENTS	13-03-2024									
D	WATERLINE & DRAINAGE REVISIONS TO ACCESS	12-4-2024									
E	MOVED WASTE WATER AREAS	18-6-2024									

Date	3-11-2023	Checked Ref	1363020
SHEET	2 of 4	Audit Ref	1363020
DRAWN	MC	HAZ	GD42020
CHXD		Vert.	AHD83



Sorell Council
Development Application: Response to Request
for Information - 123 Rosendale Road and 9
Valleyfield Road, Sorell.pdf
Plans Reference: P7
Date Received: 22/04/2024

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AMENDMENTS			Project Name and Address	Drawing Title	Client	SCALE 0 30 60 120 1:3000 at A3	Contour Interval 1.00m Date 3-11-2023	FILE REF: 13630	
No.	Revision/Issue	Date						Geocoid Ref	AutoCAD Ref
A	LOT CHANGES	15-12-20	9 VALLEYFIELD ROAD SORELL TAS 7172	SUBDIVISION PLAN CURRENT TITLE LAYOUT	TOM MCCLELLAND	THIS DOCUMENT IS, AND SHALL REMAIN, THE PROPERTY OF LEARY COX & CRIPPS, LAND & ENGINEERING SURVEYORS. THE DOCUMENT MAY ONLY BE USED FOR THE PURPOSE FOR WHICH IT WAS COMMISSIONED AND IN ACCORDANCE WITH THE TERMS OF ENGAGEMENT FOR THE COMMISSION. UNAUTHORISED USE OF THE DOCUMENT IN ANY WAY IS PROHIBITED.	SHEET 1 of 4	1363020	1363020
B	MINOR CHANGES	12-01-24						DRAWN	MC
C	WITH 1:2.5 SLOPES TO ROAD, JOANNE BYGRAVE & TIMOTHY JAMES BYGRAVE	1-5-2024						DATUM	Ver:
D	MINOR CHANGES TO ROAD, JOANNE BYGRAVE & TIMOTHY JAMES BYGRAVE	12-4-2024						GDA2020	AHD83
E	MOVED WASTE WATER AREAS	18-4-2024							

LEARY COX & CRIPPS
LAND & ENGINEERING SURVEYORS

Unit G04 40 Mole Street,
HOBART TAS 7000
P 03 6118 2030
E admin@lccsurvey.com

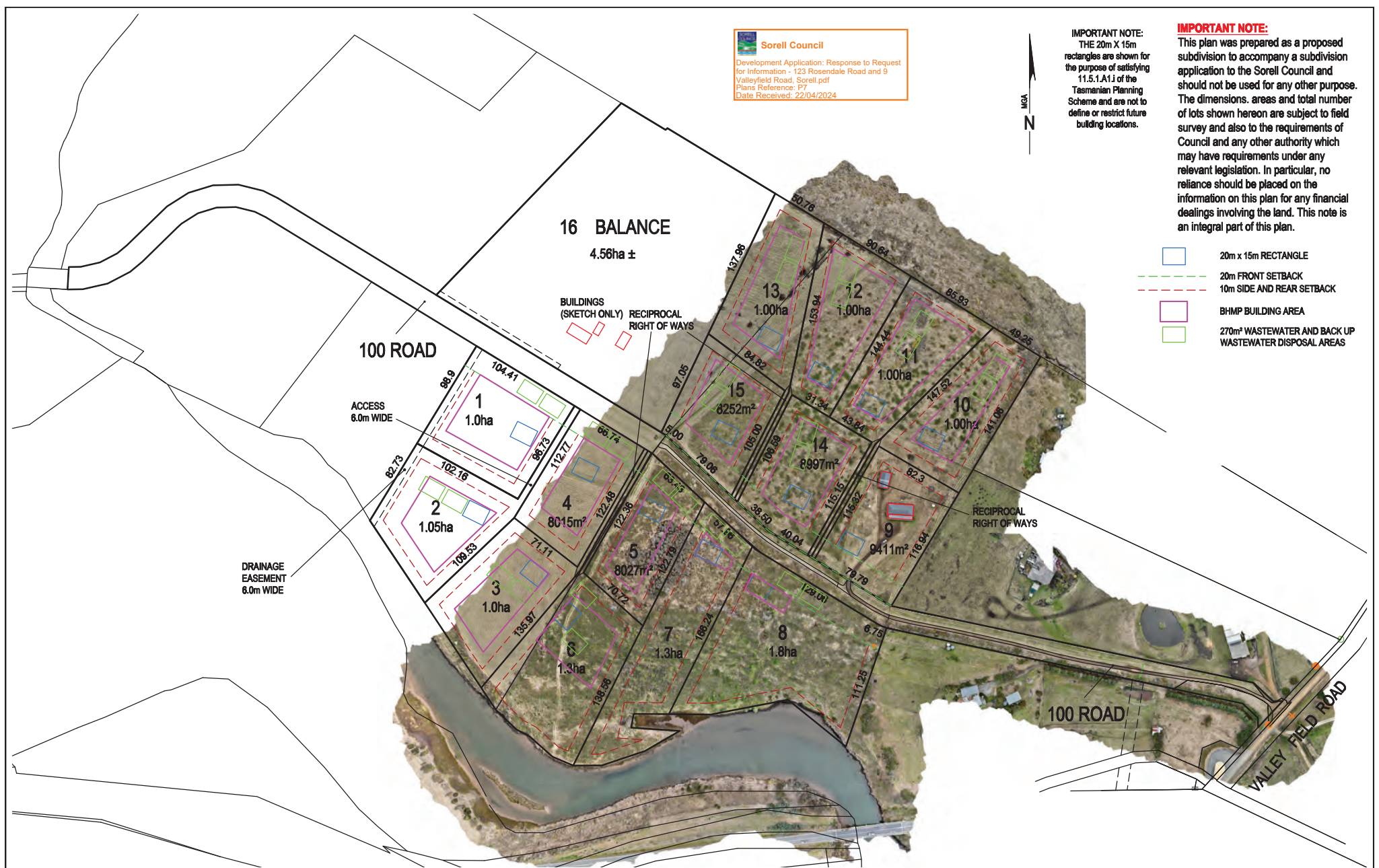
Sorell Council
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IMPORTANT NOTE:
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11.5.1.A1j of the
Tasmanian Planning
Scheme and are not to
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building locations.

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- 20m x 15m RECTANGLE
- 20m FRONT SETBACK
- 10m SIDE AND REAR SETBACK
- BHMP BUILDING AREA
- 270m² WASTEWATER AND BACK UP
WASTEWATER DISPOSAL AREAS



AMENDMENTS		
No.	Revision/Issue	Date
A	LOT CHANGES	15-12-23
B	MINOR CHANGES	12-01-24
C	LOT 1 & 2 ADJACENT TO ROAD ACCESS	1-3-2024
D	REMOVED WASTEWATER AREAS, BHP BUILDING AREAS, WASTEWATER AND BACKUP WASTEWATER AREAS	12-4-2024
E	MOVED WASTE WATER AREAS	18-4-2024



Unit G04 40 Mole Street,
HOBART TAS 7000
P 03 6118 2030
E admin@lccsurvey.com

Project Name and Address
**9 VALLEYFIELD ROAD
SORELL
TAS 7172**

Drawing Title
**SUBDIVISION PLAN
ORTHOPHOTO**

Client
TOM MCCLELLAND

SCALE
0 30 60 120
1:3000 at A3

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Scale Interval
1.00m

Date
3-11-2023

SHEET
2 of 4

DRAWN
MC

CHECKED
CHTD

FILE REF:
13630

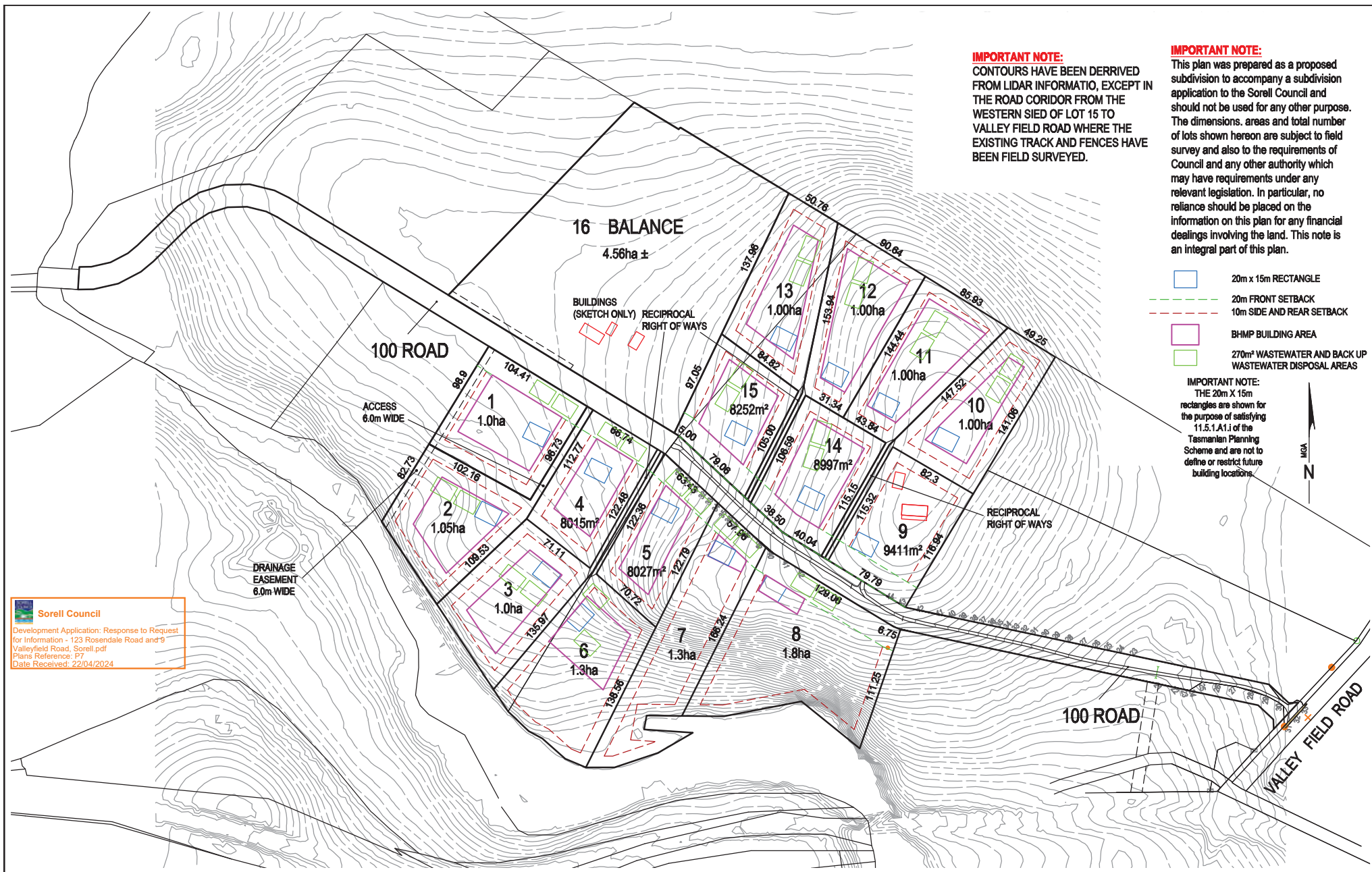
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1363020

AutoCAD Ref
1363020

DATUM
GDA2020

Horizontal
AHD83

Vertical



Soresell Council
 Development Application: Response to Request for Information - 123 Rosendale Road and 9 Valleyfield Road, Soresell.pdf
 Plans Reference: P7
 Date Received: 22/04/2024

AMENDMENTS			<div>Unit G04 40 Mole Street, HOBART TAS 7000 P 03 6118 2030 E admin@lccsurvey.com</div> <div><div>LEARYCOX & CRIPPS</div><div>LAND & ENGINEERING SURVEYORS</div></div>	Project Name and Address		Drawing Title		SCALE		Client		Date		FILE REF:	
No.	Revision/Issue	Date		9 VALLEYFIELD ROAD SORELL TAS 7172		AREAS PLAN		0 30 60 120 1:3000 at A3		TOM MCCLELLAND		N/A 27-11-2023		13630	
A	LOT CHANGES	15-12-23													
B	MINOR CHANGES	12-01-24													
C	LOT 15 & 16 WASTEWATER TREATMENT PLANT	1-3-2024													
D	WASTEWATER TREATMENT PLANT	12-4-2024													
E	MOVED WASTE WATER AREAS	18-4-2024													

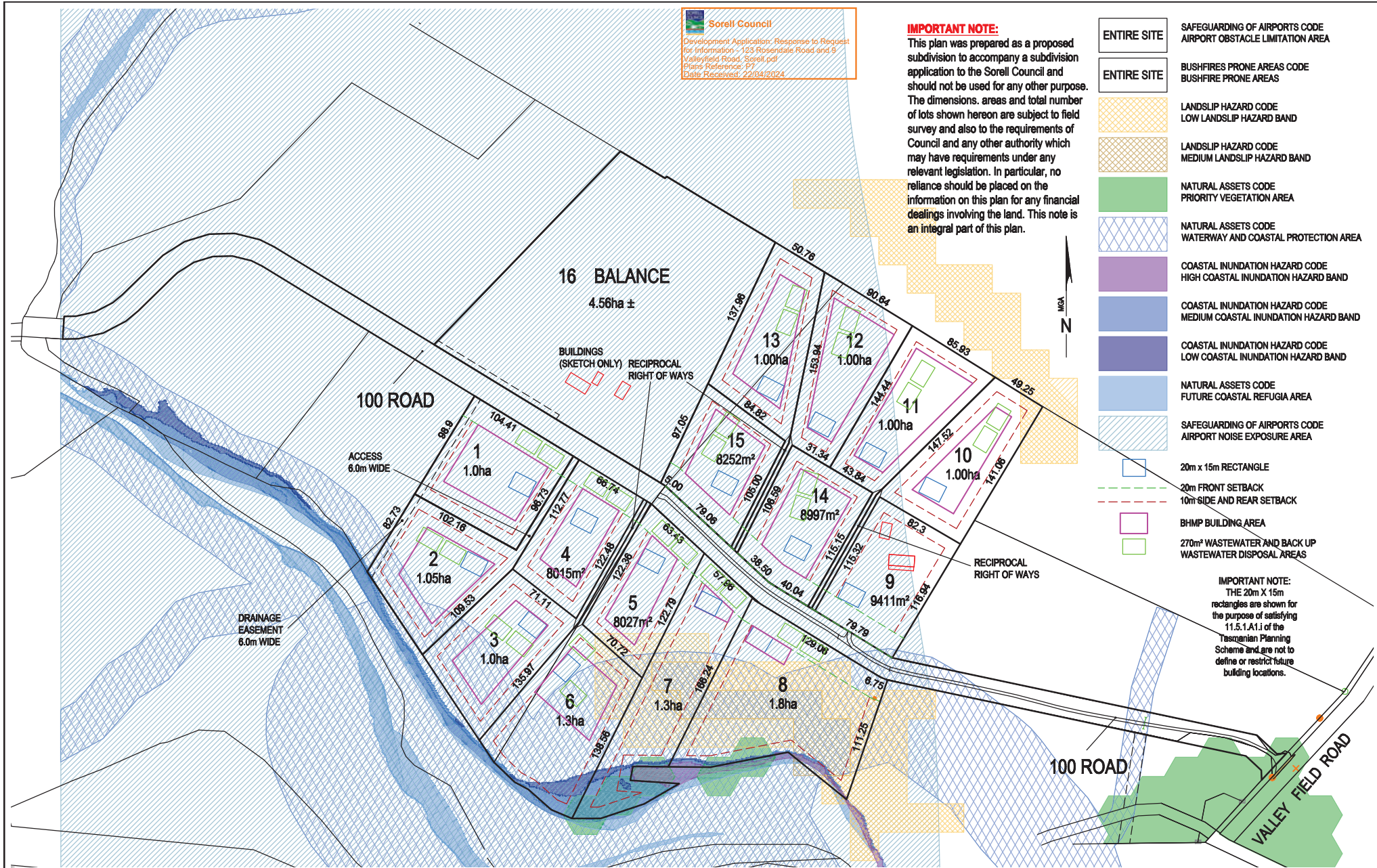
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- ENTIRE SITE** SAFEGUARDING OF AIRPORTS CODE AIRPORT OBSTACLE LIMITATION AREA
- ENTIRE SITE** BUSHFIRES PRONE AREAS CODE BUSHFIRE PRONE AREAS
- LANDSLIP HAZARD CODE** LOW LANDSLIP HAZARD BAND
- LANDSLIP HAZARD CODE** MEDIUM LANDSLIP HAZARD BAND
- NATURAL ASSETS CODE** PRIORITY VEGETATION AREA
- NATURAL ASSETS CODE** WATERWAY AND COASTAL PROTECTION AREA
- COASTAL INUNDATION HAZARD CODE** HIGH COASTAL INUNDATION HAZARD BAND
- COASTAL INUNDATION HAZARD CODE** MEDIUM COASTAL INUNDATION HAZARD BAND
- COASTAL INUNDATION HAZARD CODE** LOW COASTAL INUNDATION HAZARD BAND
- NATURAL ASSETS CODE** FUTURE COASTAL REFUGIA AREA
- SAFEGUARDING OF AIRPORTS CODE** AIRPORT NOISE EXPOSURE AREA
- 20m x 15m RECTANGLE**
- 20m FRONT SETBACK**
- 10m SIDE AND REAR SETBACK**
- BHMP BUILDING AREA**
- 270m² WASTEWATER AND BACK UP WASTEWATER DISPOSAL AREAS**

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AMENDMENTS		
No.	Revision/Issue	Date
A	LOT CHANGES	15-12-23
B	MINOR CHANGES	12-01-24
C	LOT 16 BALANCE TOTALS ACCORDING TO PLANS PLAN AREA & WASTEWATER DISPOSAL AREAS	1-3-2024
D	WASTEWATER DISPOSAL AREAS AND WASTEWATER DISPOSAL AREAS	12-4-2024
E	MOVED WASTE WATER AREAS	18-4-2024

LEARY COX & CRIPPS
LAND & ENGINEERING SURVEYORS

Unit G04 40 Mole Street,
HOBART TAS 7000
P 03 6118 2030
E admin@lccsurvey.com

Project Name and Address
**9 VALLEYFIELD ROAD
SORELL
TAS 7172**

Drawing Title
**SUBDIVISION PLAN
CODE OVERLAYS**

Client
TOM MCCLELLAND

SCALE
0 30 60 120
1:3000 at A3

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Client Ref
1.00m

Date
3-11-2023

Geocoid Ref
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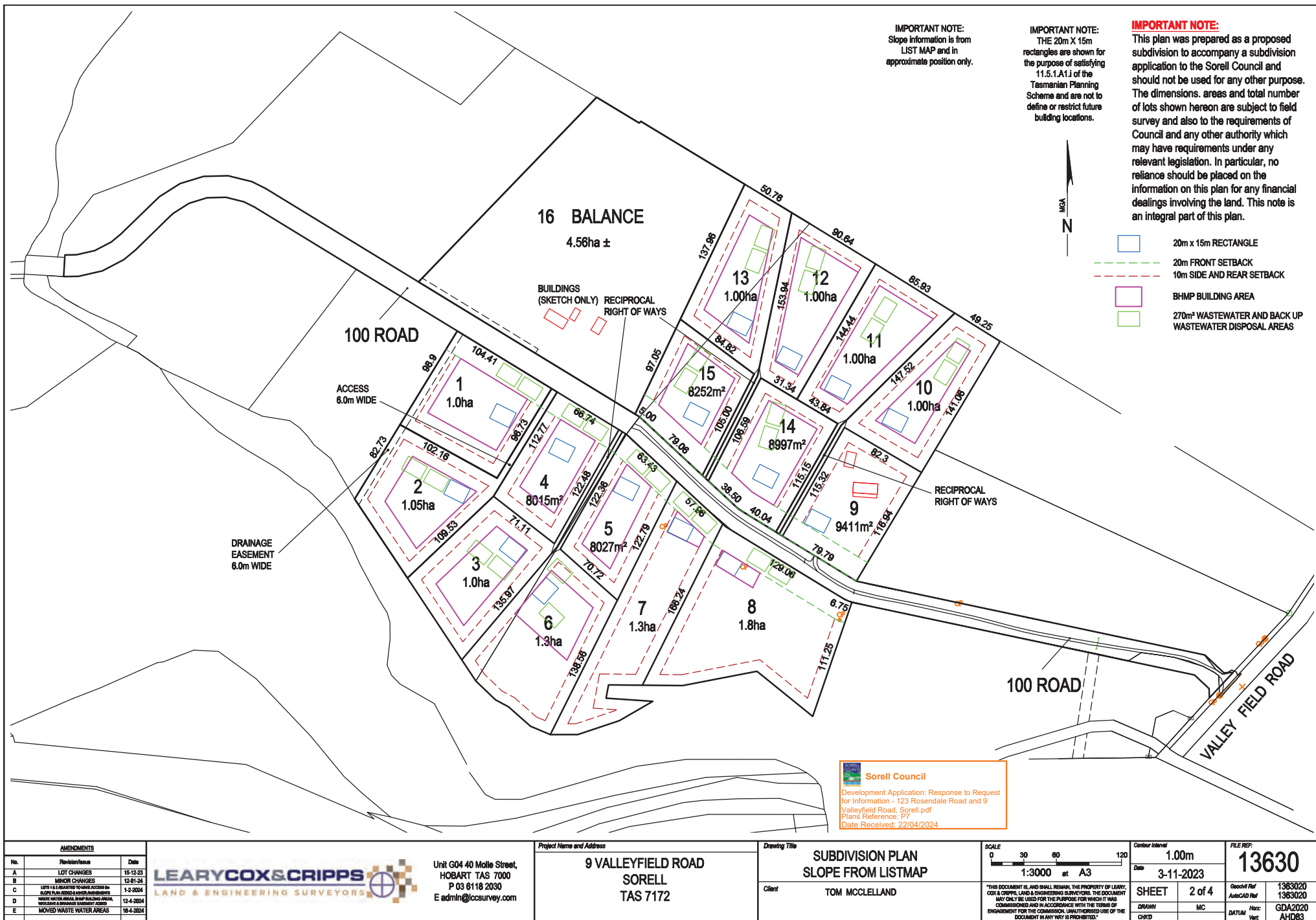
AutoCAD Ref
1363020

DRAWN
MC

CHKD
CHD

DATUM
GDA2020

VERT
AHD83



1. BEFORE COMMENCING ANY EARTHWORKS YOU MUST CONTACT DIAL BEFORE YOU DIG 1100 REGARDING THE LOCATION OF UNDERGROUND ASSETS ON SITE
2. PRIOR TO COMMENCING WORKS, THE CONTRACTOR MUST SUBMIT AN APPLICATION FOR (WS02A) AND RECEIVE A PERMIT TO CONSTRUCT NEW TASWATER INFRASTRUCTURE (WS02P).
3. PIPE DEPTHS ARE SHOWN TO INVERT ONLY. ALLOW EXTRA 100MM DEPTH FOR BEDDING
4. ALL CONCRETE IS GRADE N25 U.N.O.
5. CONNECTIONS TO EXISTING TASWATER AND COUNCIL SERVICES TO BE TO TASWATER AND COUNCIL STANDARDS AND APPROVAL
6. ALL AREAS OF FILL OR DISTURBANCE TO BE REINSTATED WITH MINIMUM OF 100MM OF APPROVED TOPSOIL & SEEDED WITH APPROVED SEED MIX
7. MARKERS TO BE PLACED FOR TELSTRA CONDUIT LOCATION UNDER ACCESSES

FILL TO COMPRISE OF GRANULAR MATERIAL COMPACTED IN 300MM MAXIMUM LAYERS WITH COMPACTION EQUIPMENT TO ACHIEVE A FINAL COMPACTION OF 90% MODIFIED MAXIMUM COMPACTION. TOPSOIL TO BE STRIPPED AND SURFACE BENCHED IF CROSS SLOPE IS 10% OR MORE PRIOR TO PLACING FILL.

SOIL & WATER MANAGEMENT IS TO COMPLY WITH BEST PRACTICE TO PREVENT ANY TRANSFER OF SOIL MATERIAL OUTSIDE OF THE AREA SPECIFICALLY NECESSARILY DISTURBED FOR CONSTRUCTION OF THE SUBDIVISION. PARTICULAR ATTENTION SHALL BE PAID TO ENSURE THAT NO SOIL MATERIAL IS TRACKED ONTO ROADS & FOOTPATHS OR TO ENTER COUNCILS STORMWATER SYSTEM. ALL ASPECTS & PROTECTION MEASURES IN CONNECTION WITH SOIL & WATER MANAGEMENT ARE TO COMPLY WITH THE REQUIREMENTS COUNCILS DEVELOPMENT ENGINEER. THE CONTRACTOR SHALL SUBMIT A SOIL & WATER MANAGEMENT PLAN PRIOR TO STARTING WORK ON SITE.

1. ALL WORKS TO BE UNDERTAKEN IN ACCORDANCE WITH THE TASMANIAN COUNCILS STANDARDS FOR SUBDIVISIONS AND IPWEA AND AWA STANDARD DRAWINGS WHERE APPLICABLE.
2. ALL SERVICES WITHIN THE ROAD RESERVATION TO BE LOCATED IN ACCORDANCE WITH TSD -G02
3. ALL PIPEWORK UNDER ROADS AND DRIVEWAYS TO BE BACKFILLED WITH FCR.
4. ALL SIDE ENTRY PITS TO BE CONSTRUCTED IN ACCORDANCE WITH TSD-SW09 OR TSD-SW10 UNLESS OTHERWISE APPROVED BY THE MUNICIPAL ENGINEER.

C01 DRAWING INDEX & NOTES	H01 STORMWATER RUNOFF ASSESSMENT – EXISTING SITE CONDITIONS
C02 OVERALL PLAN 1	H02 STORMWATER RUNOFF ASSESSMENT –POST DEVELOPMENT CONDITIONS
C03 OVERALL PLAN 2	H03 STORMWATER PIPE 1, 2 & 3 LONGSECTIONS
C04 STORMWATER PIPE 1, 2 & 3 LONGSECTIONS	H04 STORMWATER PIPE 4 LONGSECTIONS
C05 STORMWATER PIPE 4 LONGSECTIONS	H05 ROAD DRAINAGE HIGH SIDE SWALE LONGSECTION CH0.0–395
C06 OUTLET EROSION CONTROL DETAIL	H06 ROAD DRAINAGE HIGH SIDE SWALE LONGSECTION CH390–797
C07 ROAD LONGSECTION CH0–395	H07 ROAD DRAINAGE LOW SIDE SWALE LONGSECTION CH535–791
C08 ROAD LONGSECTION CH390–801	H08 ONSITE WASTE WATER & STORMWATER DISPOSAL PLAN
C09 ROAD CROSS SECTIONS CH0–130	
C10 ROAD CROSS SECTIONS CH140–260	
C11 ROAD CROSS SECTIONS CH270–360	
C12 ROAD CROSS SECTIONS CH370–500	
C13 ROAD CROSS SECTIONS CH500–640	
C14 ROAD CROSS SECTIONS CH650–770	
C15 ROAD CROSS SECTIONS CH780–801	
C16 ROAD LONGSECTIONS CH 0–801	





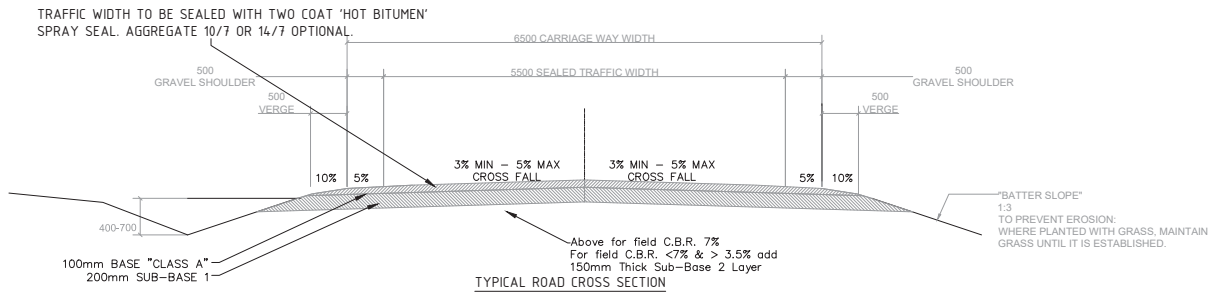
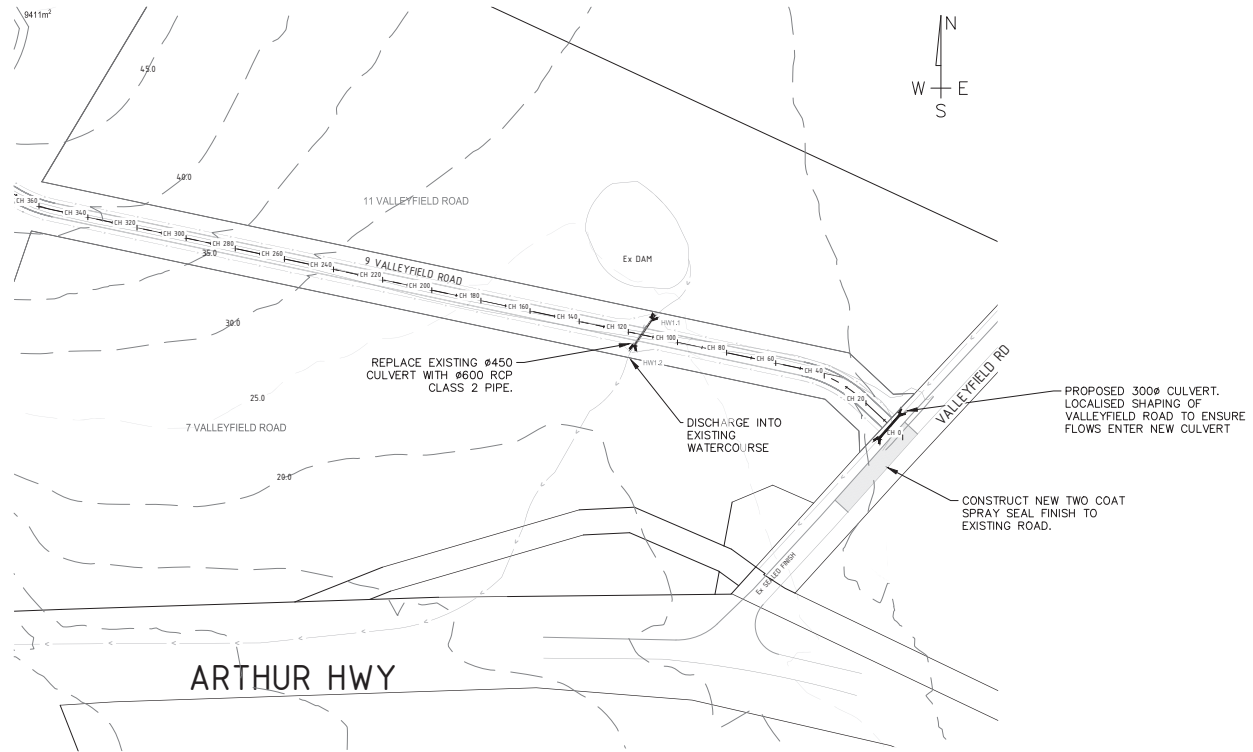
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Development Application: Response to Request
for Information - 123 Rosendale Road and 9
Valleyfield Road, Sorell.pdf
Plans Reference: P7
Date Received: 22/04/2024



CLIENT: ANNECY GROUP PTY LTD		<div>No. AMENDMENT DESCRIPTION DATE</div> <div>A FOR PLANNING APPLICATION 01/02/2024</div> <div>B CHANGES TO ADDRESS PLANNING RH 09/04/2024</div>		15 LOT SUBDIVISION 9 VALLEYFIELD RD, SORELL OVERALL PLAN 1			
<div>0 10 20 30 40 50mm</div> <div>PRINT REDUCTION BAR A1 SHEET</div> <div>ALL RIGHTS RESERVED. STEPHEN COLE. NO REPRODUCTION UNLESS WRITTEN CONSENT GIVEN.</div>		<div>Integral Consulting Engineers</div> <div>Civil + Structural + Project Management</div> <div>tel: 0417 682 424</div> <div>enquiries@integraleng.com.au</div> <div>www.integraleng.com.au</div> <div>807 Accommodation, Stargate, 2008 Dunedin, 9013 New Zealand</div>		<div>APPROVED: </div> <div>Stephen Cole, Principal Engineer</div> <div>B Eng Civil & Environmental, UPNG</div> <div>NZS Accredited: Stargate Ltd 12/08/17</div>		<div>SCALE: 1:1000</div> <div>DRAWN: E.LEGG</div> <div>DATE: FEB 2024</div>	
				<div>DRAWING No. 23201- C02</div> <div>REVISION </div>			



Sorell Council

Development Application: Response to Request for Information - 123 Rosendale Road and 9 Valleyfield Road, Sorell.pdf
Plans Reference: P7
Date Received: 22/04/2024

NOTES		CLIENT: ANNECY GROUP PTY LTD		No.		DATE		15 LOT SUBDIVISION	
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2. THE LAYOUT OF ROADS AND SERVICES ARE SUBJECT TO CHANGE WITHOUT NOTICE.				B		09/04/2024		OVERALL PLAN 2	
3. LOT BOUNDARIES ARE SUBJECT TO CHANGE - REFER TO SURVEYORS PLANS FOR ACCURATE BOUNDARY LOCATIONS.								SCALE 1:1000	
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5. YOU MUST CONTACT DIAL BEFORE YOU DO TO CHECK THE LOCATIONS OF ANY SITE SERVICES BEFORE WORK STARTS.								DATE FEB 2024	
								DRAWING No. 23201-C03	
								REVISION (B)	



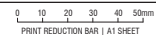
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CLIENT: ANNECY GROUP PTY LTD



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Integral Consulting Engineers

Civil • Structural • Project Management

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E: team@integralengineers.com.au
W: www.integralengineers.com.au
A: Unit 10, 11 Marion St, Hobart, 7000

APPROVED

Stephen Cole, Principal Engineer
B Eng (Civil & Environmental), CPEng
WST Accreditation, Engineer Civil CC5000 T

No.	AMENDMENT DESCRIPTION	DATE
A	FOR PLANNING APPLICATION	01/02/20
B	CHANGES TO ADDRESS PLANNING RFI	09/04/20

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
STORMWATER PIPE 1, 2 & 3 LONGSECTION

SCALE 1:200

SCALE	1:200
DRAWN	E. LEGG

DRAWN	E.LEGG
DATE	FEB 2024

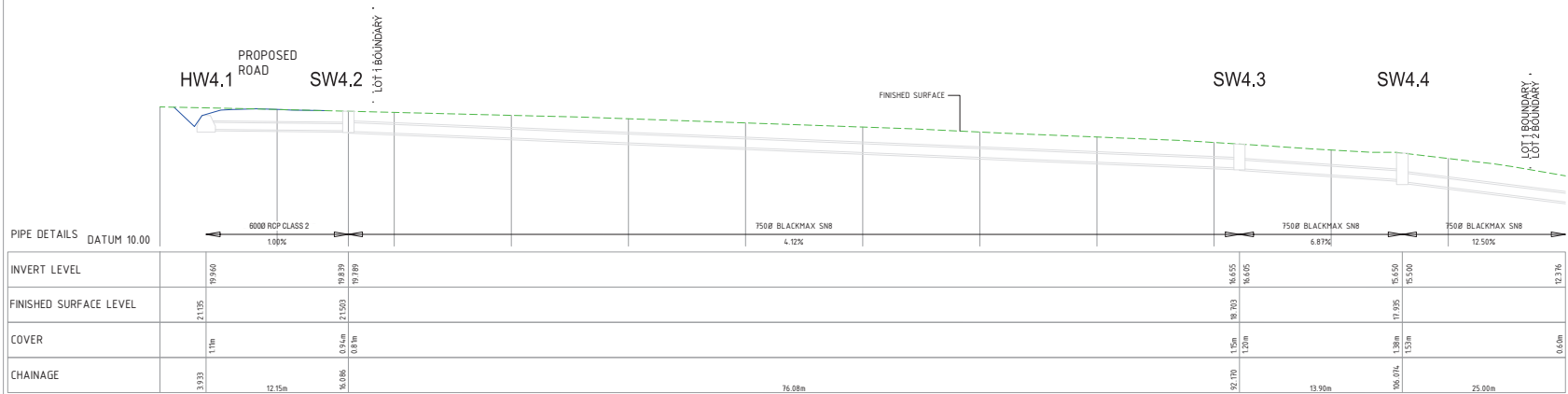
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23201- C04

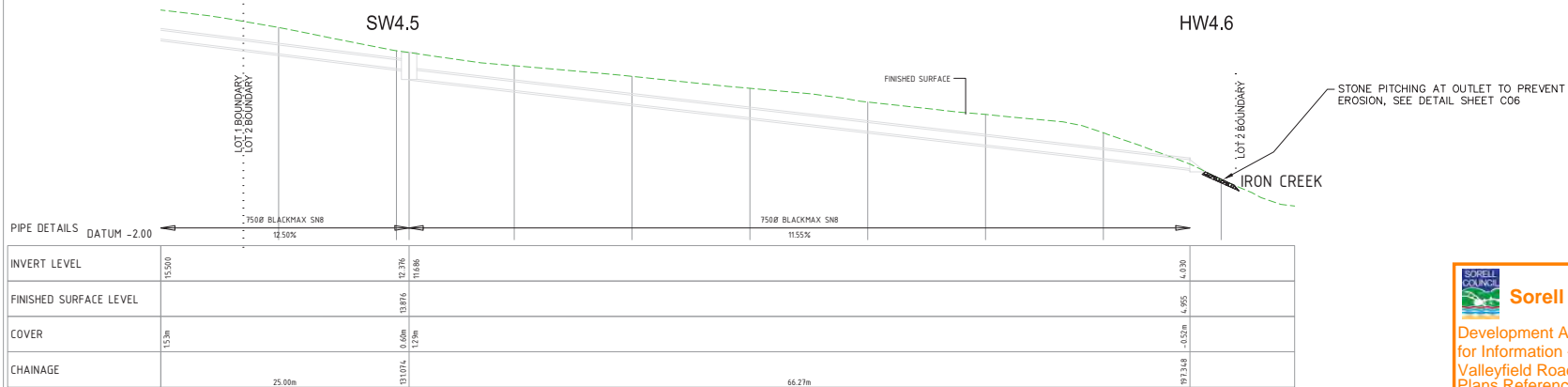
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STORMWATER PIPE 4 LONGSECTION



STORMWATER PIPE 4 LONGSECTION

 **Sorell Council**

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Plans Reference: P7
Date Received: 22/04/2024

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Integral Consulting Engineers

10/17 601 414
www.integralconsulting.com.au
10/17 601 414
10/17 601 414

APPROVED:

Stephen Cole, Principal Engineer
8 Day Creek & Fairweather, Off Day
10/17 601 414
10/17 601 414

No.	AMENDMENT DESCRIPTION	DATE
A	FOR PLANNING APPLICATION	01/02/2024
B	CHANGES TO ADDRESS PLANNING RP	08/04/2024

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
STORMWATER PIPE 4 LONGSECTION

SCALE: 1:200
DRAWN: E.LEGG
DATE: FEB 2024

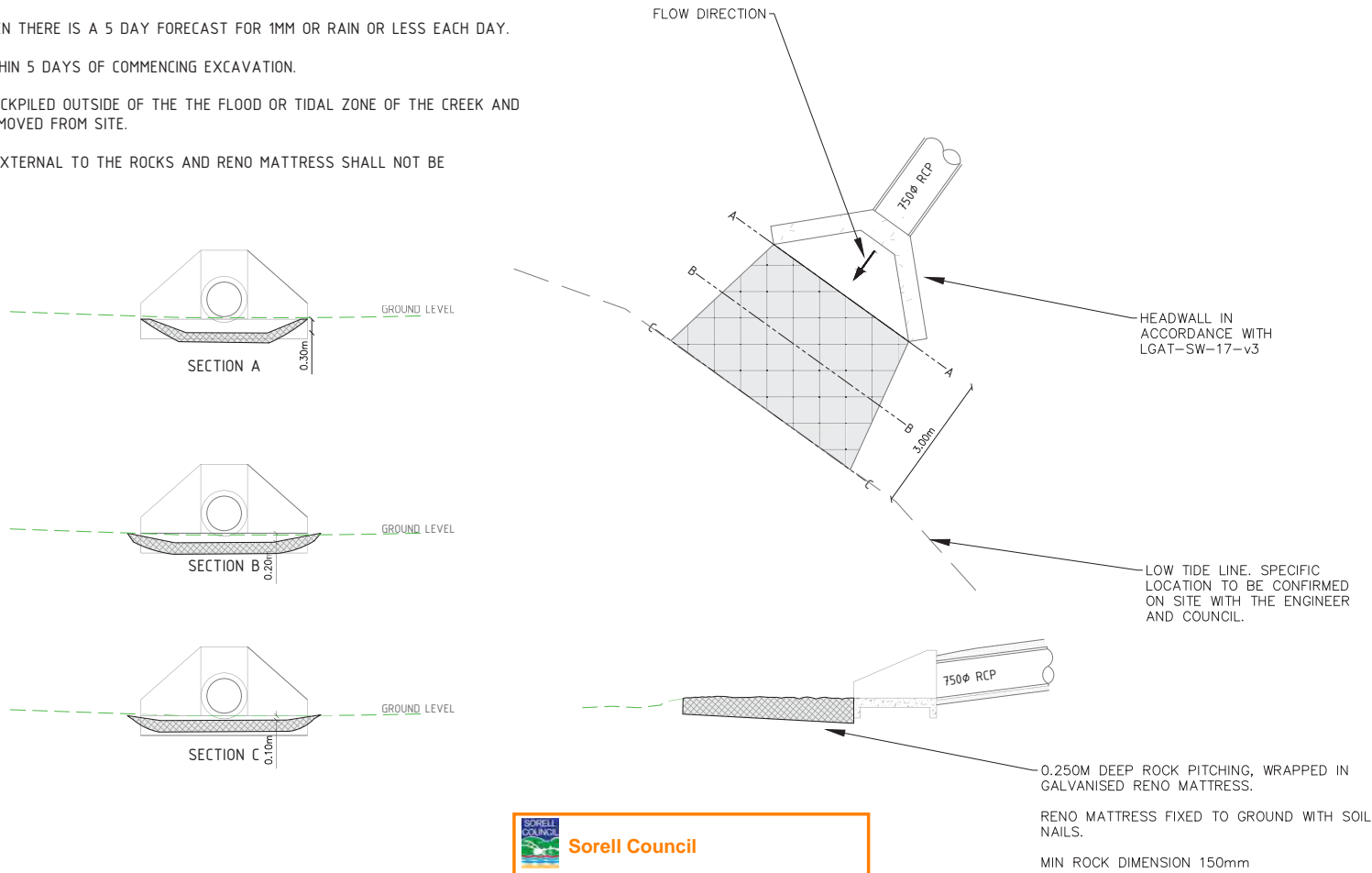
DRAWING No.
23201-C05

REVISION
B

EROSION MINIMISATION NOTES:

WORK TO CONSTRUCT THE STONE PITCHING AT THE OUTLET TO BE DONE WITH THE FOLLOWING LIMITATIONS:

1. STONE PITCHING TO BE CONSTRUCTED PRIOR TO ROADSIDE SWALE DRAINS BEING CONNECTED TO STORMWATER PIPE.
1. COMMENCE EXCAVATION ONLY WHEN THERE IS A 5 DAY FORECAST FOR 1MM OR RAIN OR LESS EACH DAY.
2. ALL WORK TO BE COMPLETED WITHIN 5 DAYS OF COMMENCING EXCAVATION.
3. EXCAVATED MATERIAL TO BE STOCKPILED OUTSIDE OF THE THE FLOOD OR TIDAL ZONE OF THE CREEK AND CONTAINED BY A SILT FENCE, OR REMOVED FROM SITE.
4. THE EXISTING GROUND SURFACE EXTERNAL TO THE ROCKS AND RENO MATTRESS SHALL NOT BE DISTURBED.



Sorell Council

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Dial - Structural & Project Management

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Unit 10, 11 Monmouth St, Hobart, TAS 7000

APPROVED:

Stephen Cole, Principal Engineer

8 Day Civil & Environmental, CPD
NSW Accredited Engineer Civil 0238801

No.	AMENDMENT DESCRIPTION	DATE
A	CHANGES TO ADDRESS PLANNING RFI	09/04/2024

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
OUTLET DETAIL

SCALE: 1:200
DRAWN: E.L.EGG
DATE: FEB 2024

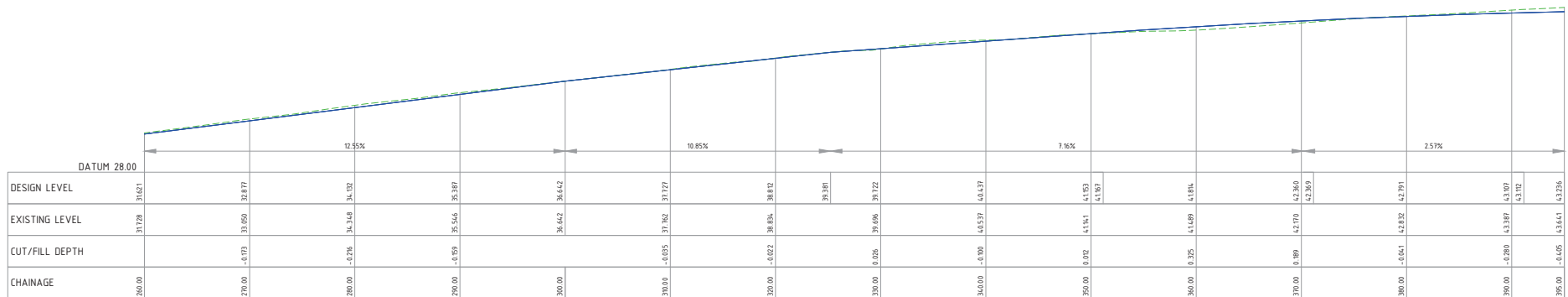
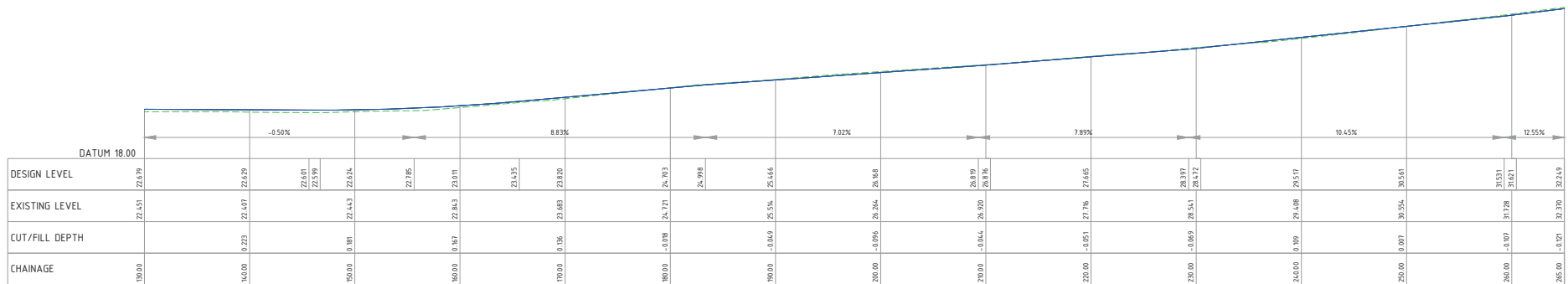
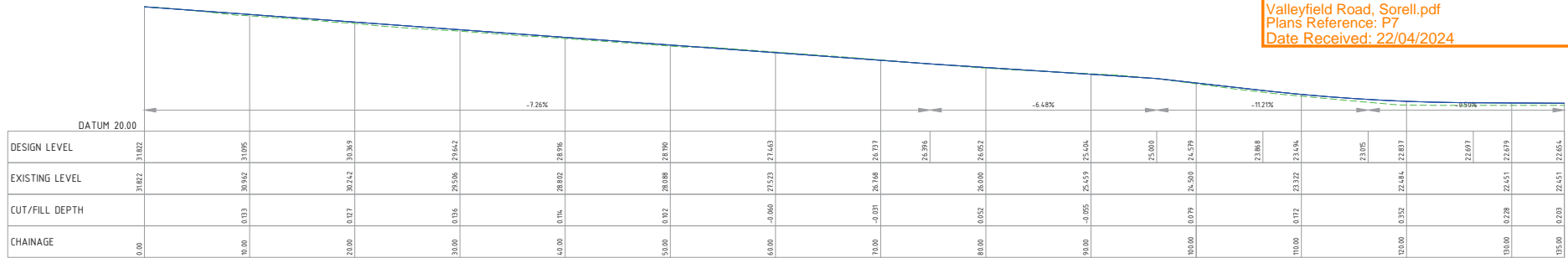
DRAWING No.
23201-C06

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Plans Reference: P7
Date Received: 22/04/2024



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NOTES		CLIENT: ANNECY GROUP PTY LTD		APPROVED: 		DATE: 08/04/2024		15 LOT SUBDIVISION 9 VALLEYFIELD RD, SORELL ROAD LONGSECTION CH0.00 - 395		DRAWING No. 23201- C07		REVISION B	
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5. YOU MUST CONTACT DIAL BEFORE YOU DIG TO CHECK THE LOCATIONS OF ANY SITE SERVICES BEFORE WORK STARTS.				P 15 Gas Civil & Environmental, 0746 8007 Accreditation Engineer Date 02/08/21									



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Date Received: 22/04/2024									
DATUM 32.00									
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POSTING LEVEL	43.387	43.395	43.392	43.627	43.879	44.914	44.902		
BT/FILL DEPTH									
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Integral Consulting Engineers


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011 947 100 421

www.integralconsulting.com.au

Unit 15 To 15 Business Dr, Rydalmere NSW

APPROVED:



Daniel C. Phipps, Principal Engineer

8 Bay (East & Westwindsor), Coffs Harbour

NSW 2450 Australia - Engineer - CofC 230001

No. AMENDMENT DESCRIPTION DATE

A FOR PLANNING APPLICATION 01/02/2024

B CHANGES TO ADDRESS PLANNING RP 08/04/2024

15 LOT SUBDIVISION

9 VALLEYFIELD RD, SORELL

ROAD LONGSECTIONS CH390-801.12

SCALE 1:100

DRAWN E.LEGG

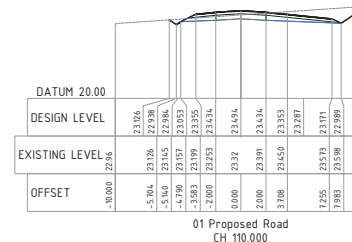
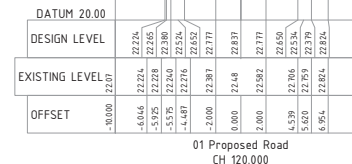
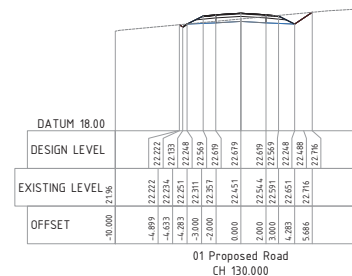
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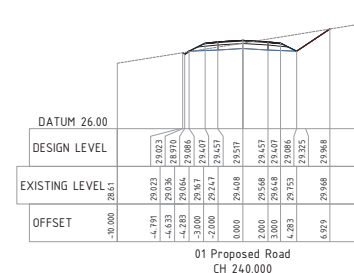
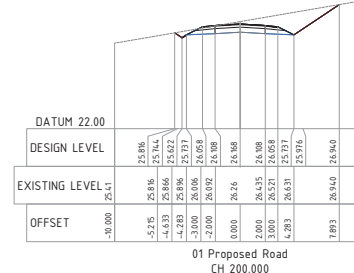
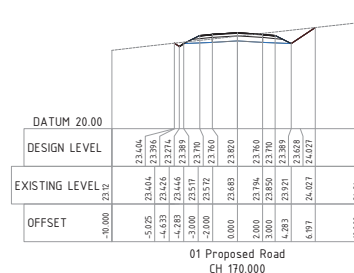
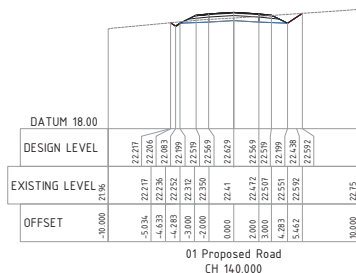
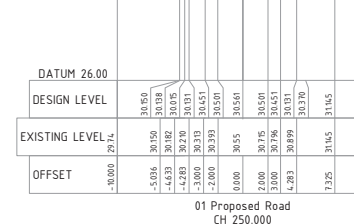
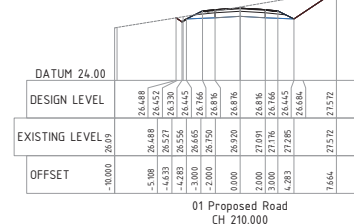
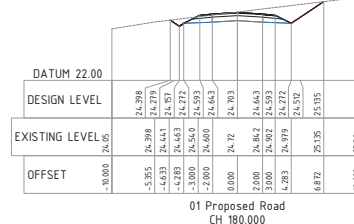
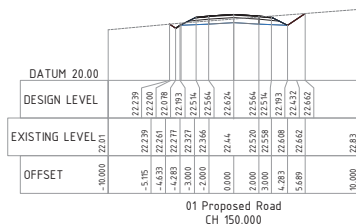
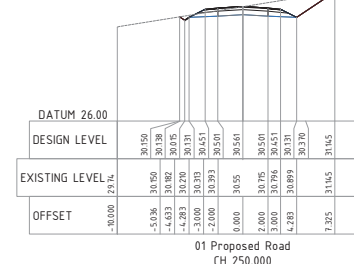
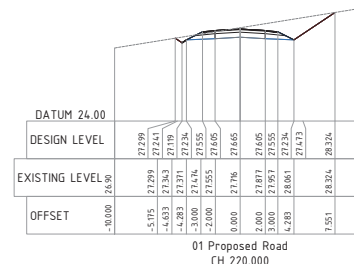
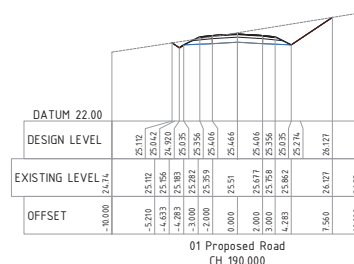
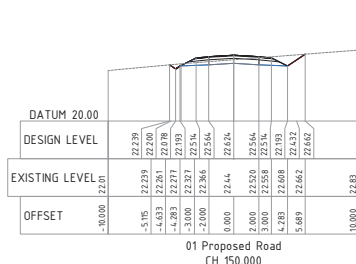
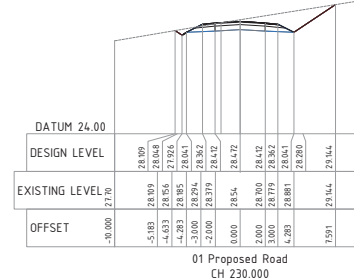
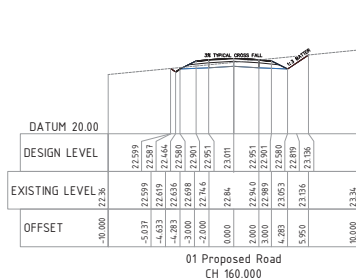
Stephen Cole, Principal Engineer
B Eng (Civil & Environmental), CPEng
WSE Accreditation: Engineer Civil CE0001

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Unit 10, 11 Belmont St, Mount Waverley, VIC 3149

APPROVED:

Stephen Cole, Principal Engineer
8 Day Civil & Environmental, CPEng
NSW Accreditation Engineer (Ref 023890 T)

No.	AMENDMENT DESCRIPTION	DATE
A	FOR PLANNING APPLICATION	01/02/2024
B	CHANGES TO ADDRESS PLANNING BR	08/04/2024

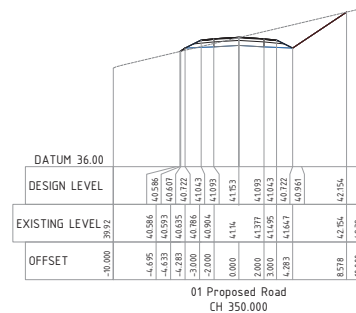
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SCALE 1:100
DRAWN E.LEGG
DATE FEB 2024

DRAWING No.
23201-C10

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| 23201- C11 | (B) |



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Stephen Cole, Principal Engineer
B Eng (Civil & Environmental), CEng
1983 Association, Institution of Civil Engineers

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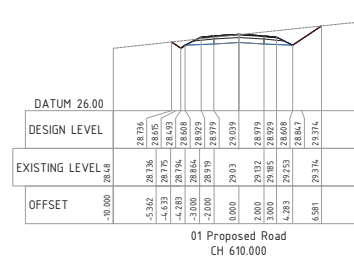
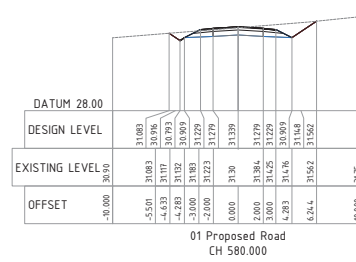
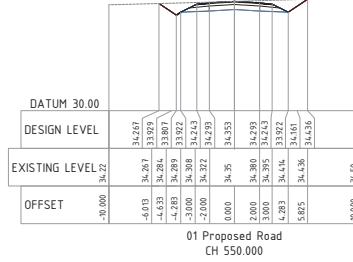
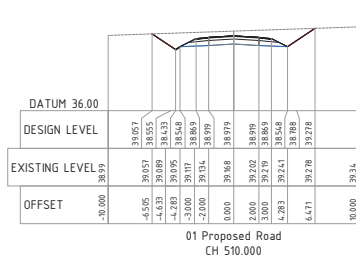
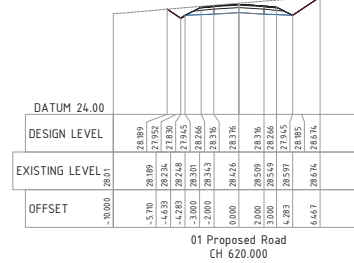
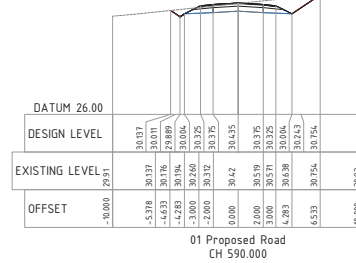
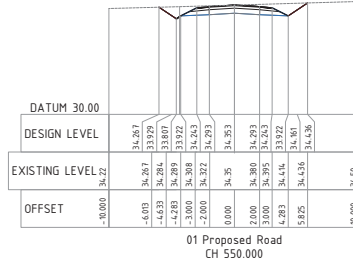
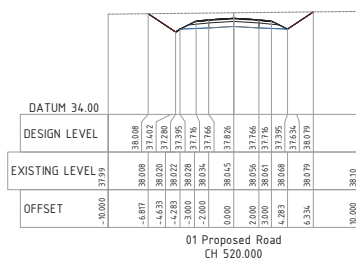
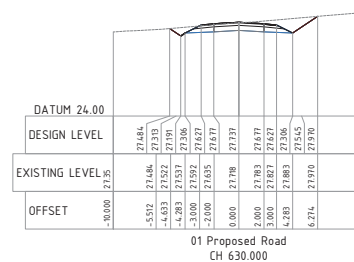
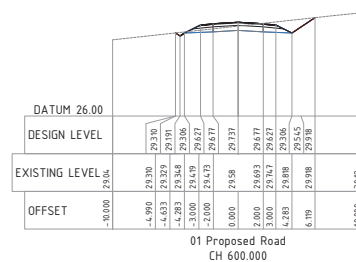
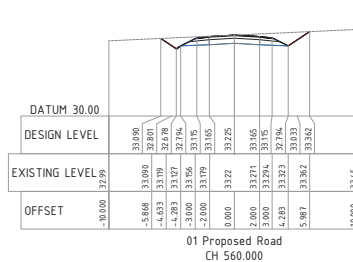
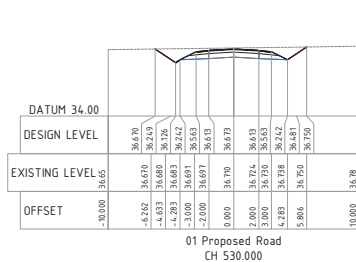
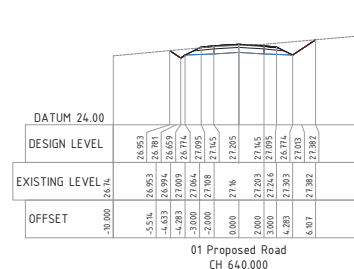
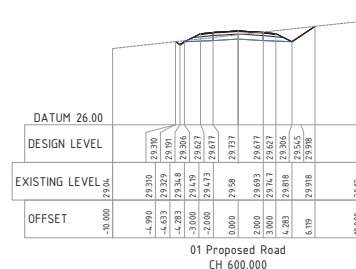
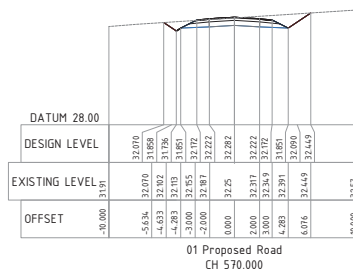
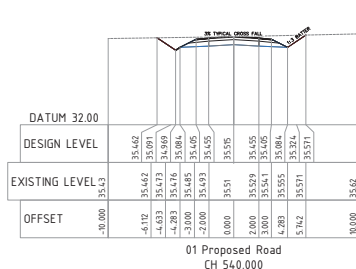
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Civil & Structural - Project Management

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8 Day Creek & Environmental, C/Pyg

Unit 10, 11 Victoria St, Sorell, TAS 7243

APPROVED: [Signature]

Stephen Cole, Principal Engineer

8 Day Creek & Environmental, C/Pyg

WSP Accredited Engineer (Lic 003889 T)

No.	AMENDMENT DESCRIPTION	DATE
A	FOR PLANNING APPLICATION	01/02/2024
B	CHANGES TO ADDRESS PLANNING BR	08/04/2024

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
ROAD CROSS SECTIONS CH510-640

SCALE 1:100
DRAWN E LEGG
DATE FEB 2024

DRAWING No. 23201-C13

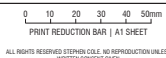
REVISION (B)

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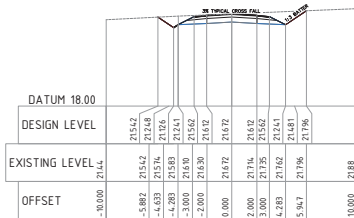
Integral Consulting Engineers
Civil • Structural • Project Management

TEL 0417 850 474
E: team@integralengineers.com.au
W: www.integralengineers.com.au
A: Unit 5/1, 55 Macquarie St, Sydney NSW 2000

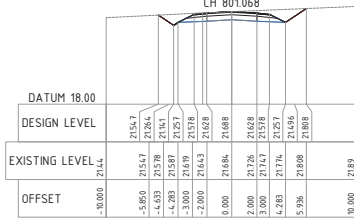
APPROVED

Stephen Cole, Principal Engineer
B Eng (Civil & Environmental), CPEng
10012, Ayr, Scotland, UK. E-mail: s.j.cole@bt.com

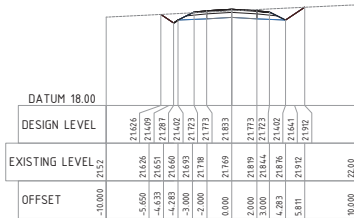
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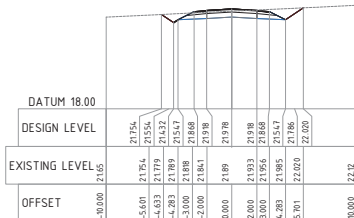
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CH 801.068



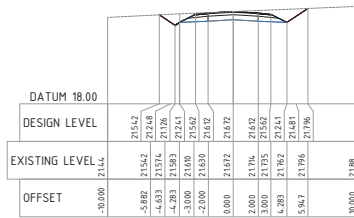
01 Proposed Road
CH 800.000



01 Proposed Road
CH 790.000



01 Proposed Road
CH 780.000



01 Proposed Road
CH 801.068

**Sorell Council**

Development Application: Response to Request
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APPROVED:



Stephen Cole, Principal Engineer

0617 680 424

www.integralconsulting.com.au

8 Day Civil & Environmental, CP Eng

NSW Registration: Engineer (Civil) 013380 T

No.	AMENDMENT DESCRIPTION	DATE
A	FOR PLANNING APPLICATION	01/02/2024
B	CHANGES TO ADDRESS PLANNING RR	09/04/2024

15 LOT SUBDIVISION

9 VALLEYFIELD RD, SORELL

ROAD CROSS SECTIONS CH780-801

SCALE 1:100

DRAWN E LEFG

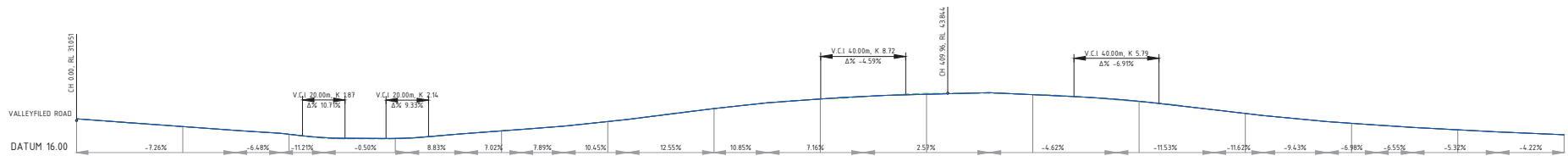
DATE FEB 2024

DRAWING No.

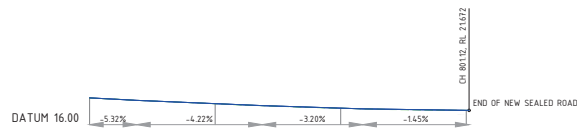
23201-C15

REVISION

B



LONGSECTION - Proposed Road
SCALES: HORIZONTAL 1:1000 VERTICAL 1:1000



LONGSECTION - Proposed Road
SCALES: HORIZONTAL 1:1000 VERTICAL 1:1000

 **Sorell Council**

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Valleyfield Road, Sorell.pdf
Plans Reference: P7
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	<div><div><div>01020304050mm</div><div>PRINT REDUCTION BAR A1 SHEET</div></div><div>ALL RIGHTS RESERVED STEVEN COLE. NO REPRODUCTION UNLESS WRITTEN CONSENT GIVEN.</div></div>	<div>Integral Consulting Engineers</div> <div>Civil & Structural = Project Management</div> <div>0417 682 424</div> <div>www.integralconsulting.com.au</div> <div>www.integralgroup.com.au</div> <div>9 Day Grid & 4 Hour (max) shift, 07:00-17:00</div> <div>NSW Accreditation: Engineer Class CC2000 T1</div>	<div>APPROVED:</div> <div><div><div></div></div><div>Stephen Cole, Principal Engineer</div></div>	<div>SCALE</div> <div>1:1000</div> <div>DRAWN</div> <div>ELEGG</div> <div>DATE</div> <div>FEB 2024</div>	<div>DRAWING No.</div> <div>23201-C16</div> <div>REVISION</div> <div>A</div>	



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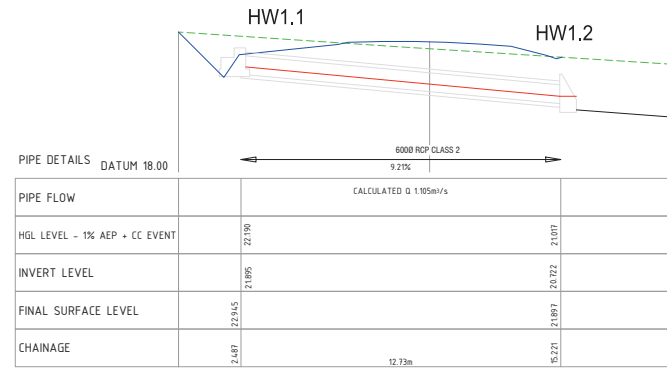
Dial - Structural & Project Management
0417 601 414
www.integralconsulting.com.au
100 Kew Road, Kew, VIC 3102

APPROVED:

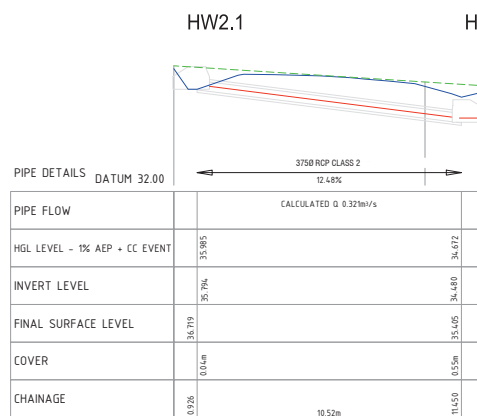
Stephen Cole, Principal Engineer
B Eng Civil & Environmental, CPEng
NSF Accreditation Engineer (NSF 000001)

No.	AMENDMENT DESCRIPTION	DATE	15 LOT SUBDIVISION
A	CHANGES TO ADDRESS PLANNING RFI	09/04/2024	9 VALLEYFIELD RD, SORELL
			STORMWATER RUNOFF ASSESSMENT FOR THE EXISTING SITE CONDITIONS
			SCALE SCALE
			DRAWN E.L.EGG
			DATE FEB 2024
			DRAWING No. 23201-H01
			REVISION A

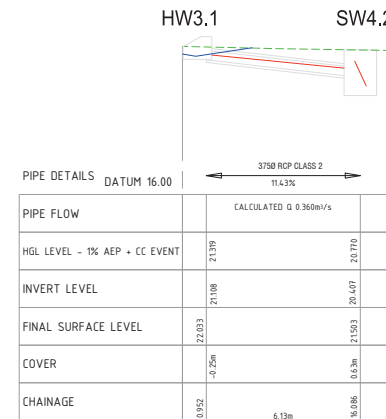
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STORMWATER PIPE 1 LONGSECTION



STORMWATER PIPE 2 LONGSECTION



STORMWATER PIPE 3 LONGSECTION



Sorell Council

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Dial - Structural & Project Management

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1800 000 000
Unit 1/11 Monmouth St, Hobart, TAS 7000

APPROVED:

Stephen Cole, Principal Engineer
8 Day Civil & Environmental, CPEng
NSW Accredited Engineer Civil 0230801

No.

AMENDMENT DESCRIPTION

DATE

A CHANGES TO ADDRESS PLANNING RFI

09/04/2024

15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL

STORMWATER PIPES 1, 2 & 3 HGL LONGSECTION

SCALE 1:200

DRAWN E.LFGG

DATE FEB 2024

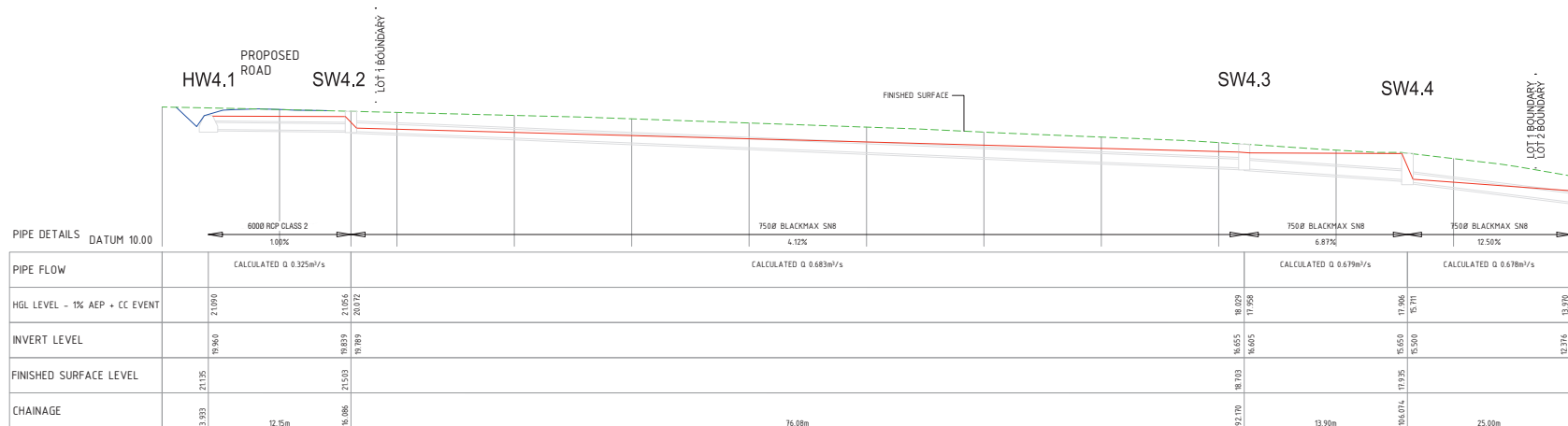
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23201- H03

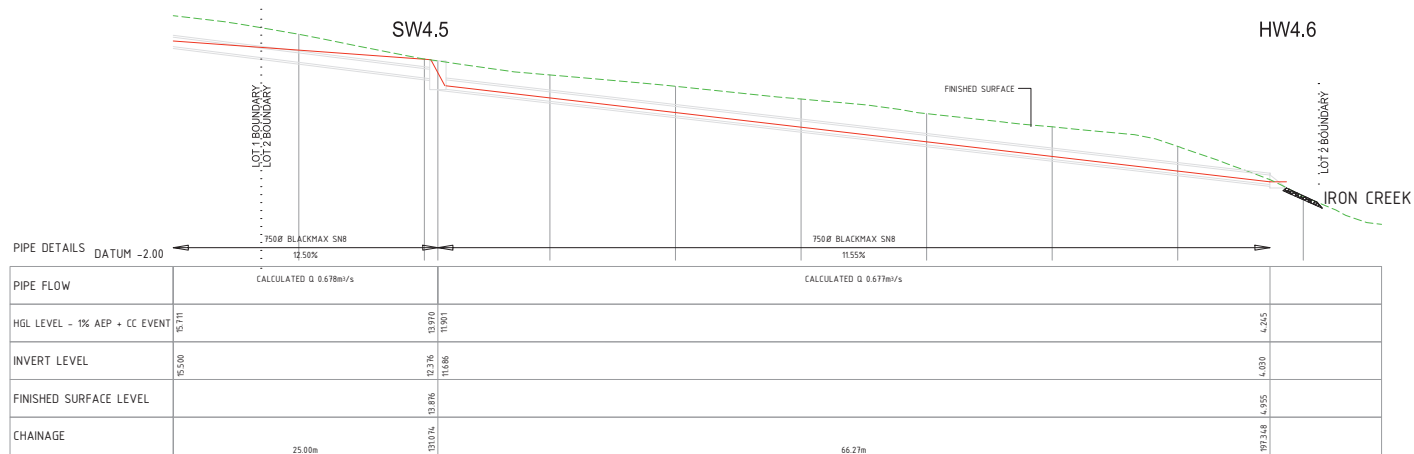
REVISION

A

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STORMWATER PIPE 2 LONGSECTION



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8 Day Creek & Fairweather Rd, Offing
9031 Koroitukia, Victoria 3443 03000 1

APPROVED:

Stephen Cole, Principal Engineer
8 Day Creek & Fairweather Rd, Offing
9031 Koroitukia, Victoria 3443 03000 1

No.	AMENDMENT DESCRIPTION	DATE
A	CHANGES TO ADDRESS PLANNING RFI	09/04/2024

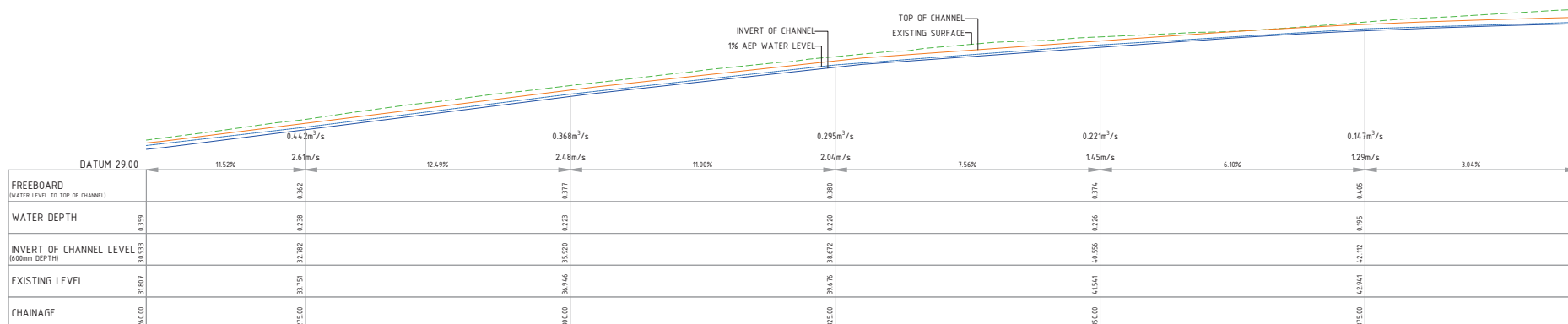
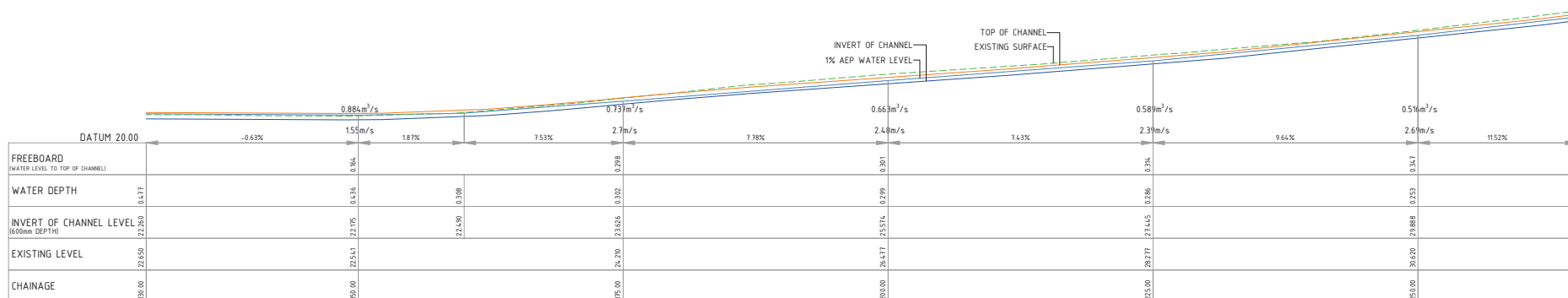
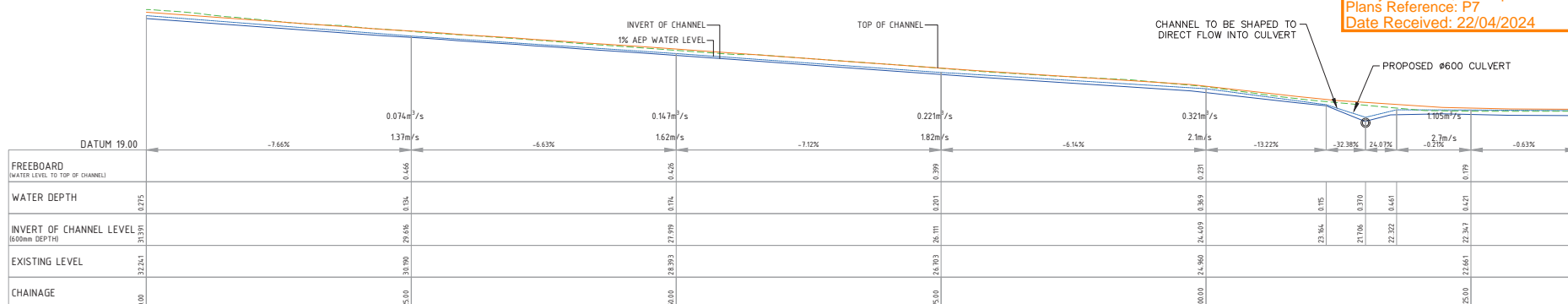
15 LOT SUBDIVISION
9 VALLEYFIELD RD, SORELL
STORMWATER PIPE 4 HGL LONGSECTION
SCALE: 1:200
DRAWN: E.LEGG
DATE: FEB 2024

DRAWING No. 23201-H04
REVISION (A)




Sorell Council

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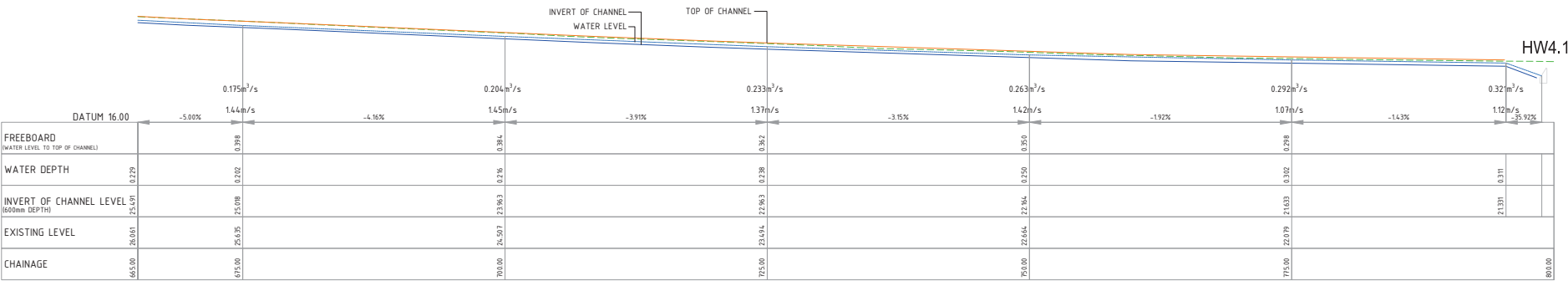
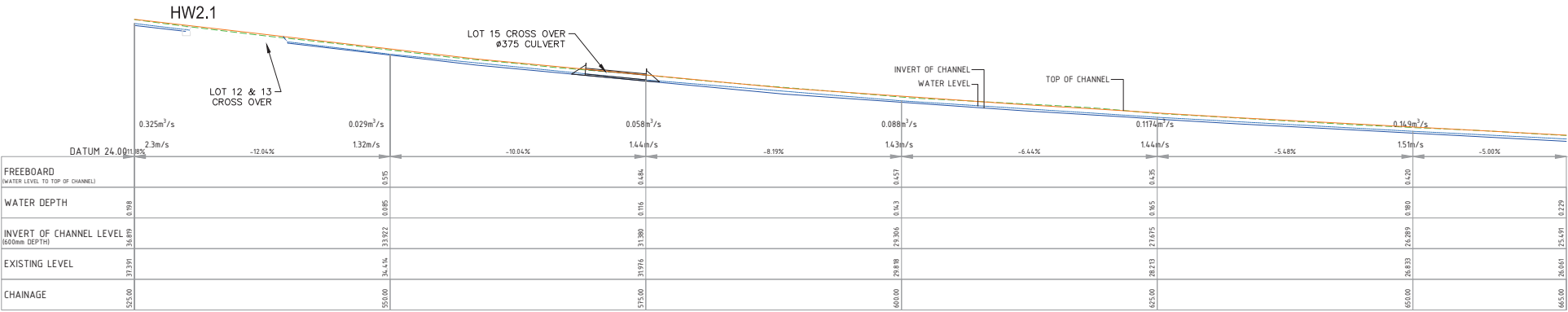
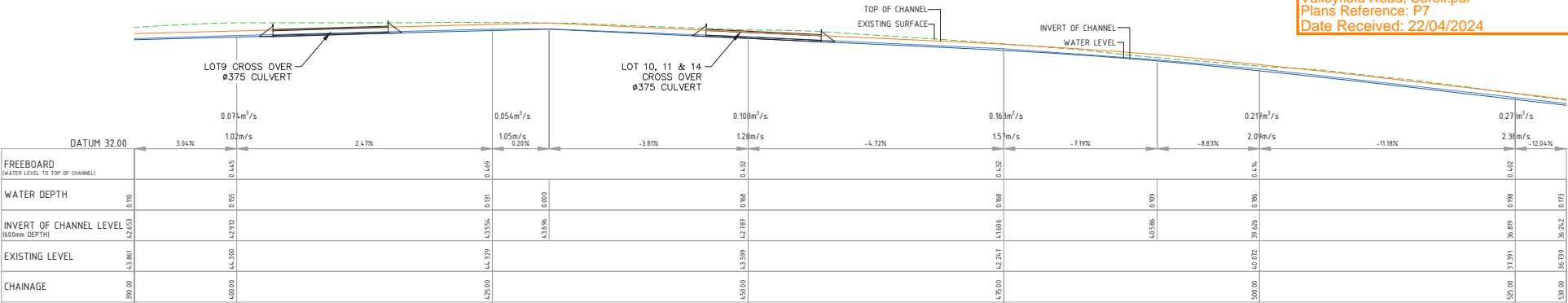
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	0 10 20 30 40 50mm PRINT REDUCTION BAR A1 SHEET	Integral Consulting Engineers Chris - Structural - Project Management Tel: 081 424 474 Email: info@integralconsulting.com.au www.integralconsulting.com.au Unit 15, 11 Monmouth St, Hobart, TAS 7000	APPROVED:  Stephen Cole, Principal Engineer R Eng Civil & Environmental, CP Eng NSW Accreditation Engineer Code 02308017			
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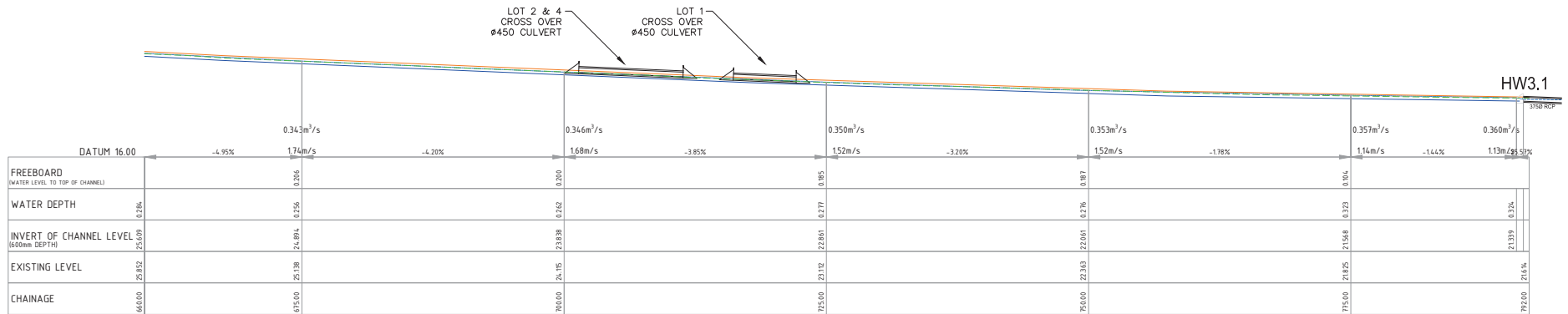
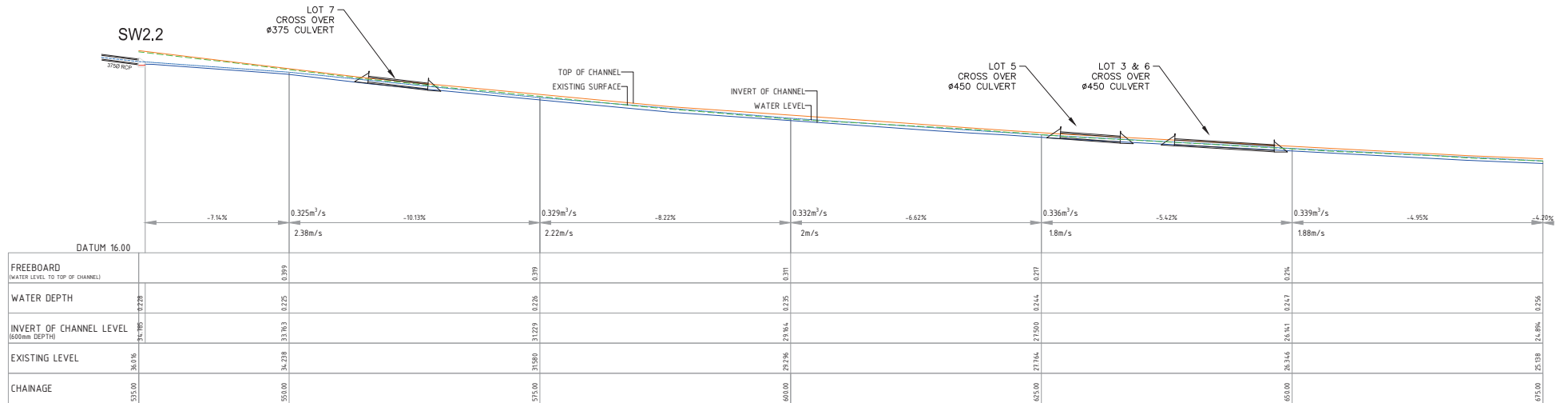
Development Application: Response to Request
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Valleyfield Road, Sorell.pdf
Plans Reference: P7
Date Received: 22/04/2024



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	Integral Consulting Engineers Civil & Structural - Project Management 14/11/2024 www.integralconsulting.com.au 104 10, 11 Warriner St, Hobart, TAS 7000		APPROVED:  Stephen Cole, Principal Engineer B Eng Civil & Environmental, CEng WSP Accredited Engineer Civil 220886 T						
	PRINT REDUCTION BAR AT SHEET 0 10 20 30 40 50mm								
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Plans Reference: P7
Date Received: 22/04/2024

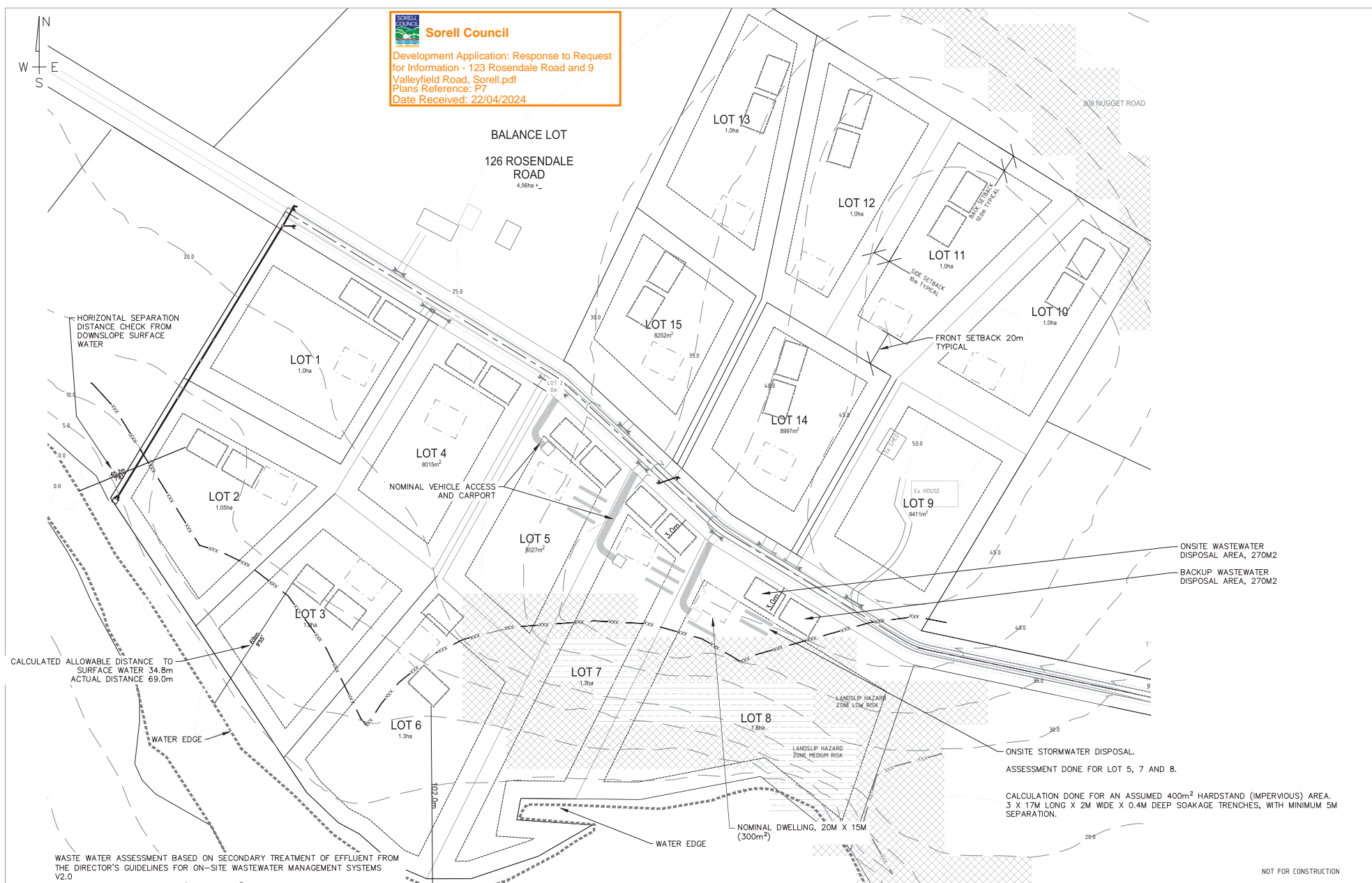
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	0 10 20 30 40 50mm PRINT REDUCTION BAR AT SHEET	Integral Consulting Engineers Civil & Structural - Project Management www.integralconsulting.com.au 08 8410 1000 100 Stirling Street, Perth, 6000	APPROVED: [Signature] Stephen Cole, Principal Engineer B Eng (Civil & Environmental), CEng WEF Accreditation Engineer (Civil 220888)	SCALE 1:200 DRAWN ELEGG DATE FEB 2024
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Plans Reference: P7
Date Received: 22/04/2024



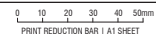
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Civil ∞ Structural ∞ Project Management
 Tel: 0417 850 434
 E: team@integralengineers.com.au
 W: www.integralengineers.com.au
 A: Unit 10, 11 Morrison St, Hobart, 7000

APPROVED



Stephen Cole, Principal Engineer
B Eng (Civil & Environmental), CPEng
WSE Accreditation: Engineer Civil CE000017

No.	AMENDMENT DESCRIPTION	DATE	15 LOT SUBDIVISION 9 VALLEYFIELD RD, SORELL		
A	FOR PLANNING APPLICATION	01/02/2024	ONSITE WASTEWATER & STORMWATER DISPOSAL PLAN		
B	CHANGES TO ADDRESS PLANNING RH	09/06/2024			
C	UPDATED BUILDING ENVELOPS	18/04/2024			
			SCALE 1:1000	DRAWING No.	REVISION
			DRAWN E.LEGG	23201- H08	(C)
			DATE FEB 2024		



Attachment to item number 5.2 -

Exhibition documents & draft amendment

5.2

PLANNING SCHEME AMENDMENT AM-SOR-5.2024.1.1

Applicant:	Sorell Council
Proposal:	Planning Scheme Amendment - Waterway and Coastal Protection Area Overlay
Site Address:	Whole of municipal area
Planning Scheme:	<i>Tasmanian Planning Scheme Sorell (TPS-S)</i>
Relevant Legislation:	Part 3B of the <i>Land Use Planning and Approvals Act 1993 (LUPAA)</i>
Reason for SPA meeting:	No delegated authority for a planning scheme amendment

RECOMMENDATION

- a. That pursuant to Section 40D(a) of the *Land Use Planning and Approvals Act 1993*, the Planning Authority prepare Amendment AM-SOR—5/2024.1 to the Sorell Local Provisions Schedule to update the waterway and coastal protection area as shown in Attachment 1.
- b. That pursuant to Section 40 of the *Land Use Planning and Approvals Act 1993*, AM-SOR-5-2024.1.1 is certified as meeting the LPS criteria.
- c. That in accordance with Section 40G of the *Land Use Planning and Approvals Act 1993*, the Planning Authority places the amendment on public exhibition for a period of 28 days.

Executive Summary

The waterway and coastal protection area is triggered based on a table in the planning scheme that specifies buffer distances to various types of waterways. A mapped overlay is also used to visually assist. More specifically, the table overrides the map in instances of inconsistencies. The purpose of the amendment is to provide the best visual representation of where the waterway and coastal protection area (WCPA) applies. The amendment does so by applying the best available data and removing some existing anomalies.

The purpose of the report is to consider whether to prepare and certify the amendment. In considering the request and certification, a range of matters must be considered including the Schedule 1 objectives of the *Land Use Planning and Approvals Act 1993* (LUPPA). The Schedule 1 objectives require community consultation and yet, strangely, the certification must occur prior to any public consultation.

The draft amendment appears capable of being in accordance with the requirements of LUPAA and it is recommended that it be prepared and certified in order to allow a full assessment based on community consultation.

The social, economic and environmental benefits of the proposal are:

- Increased certainty for the community and applicants regarding where the overlay applies;
- Improved efficiencies and effectiveness in the planning processes;
- Reduced risks of errors or omissions in the planning process; and
- Improved protection of the environmental values of waterways by mapping the current alignment of waterways, wetlands and high water mark.

Like other spatial information used in planning scheme overlays, the proposed WCPA is a point in time approximation of conditions on ground and is limited by the available data.

The report provides details of the amendment and outlines the strategic outcomes sought, having regard to matters of local, regional and then State importance. The report ends with a discussion of the degree of compliance with legislative requirements.

If prepared and certified, the following two outcomes must occur:

- The amendment is exhibited for 28 days, and
- The Tasmanian Planning Commission (the Commission) will decide whether to approve the amendment, approve the amendment with modifications or reject the amendment.

Any representations to the exhibited amendment will be considered at a future Planning Authority meeting, where modifications can be recommended in response to the representations and for the consideration of the Commission.

The Commission will assess and decide on the amendment, based on the issues raised in the representations and the outcomes of any hearings it may hold.

PROPOSED PLANNING SCHEME AMENDMENT

The amendment seeks to update the Waterway and Coastal Protection Area (WCPA) overlay under C7.0 Natural Assets Code.

The current WCPA is based on a guidance map provided by the State Planning Office (SPO) (formally the Planning Policy Unit) originally prepared for the interim planning schemes. Since the guidance map was prepared, the alignment of high water mark, watercourses and wetlands in numerous areas of the LGA have been revised. It is understood that the SPO has no intent to update the various state-wide guidance maps used.

Most mapped overlays are the 'trigger' for the relevant planning scheme rules. However, the Natural Assets Code includes an overriding clause whereby, in the event of an inconsistency between a mapped watercourse and the actual position on ground, the actual position on ground overrides and triggers the relevant planning scheme rules with Table C7.3 specifying the spatial extent of the WCPA. Table C7.3 is complex and in reality all parties in the planning process are dependent on the mapped overlay.

The proposed WCPA is based on:

1. A new coastline (high water mark) data set
2. General revisions to the alignment of waterways
3. Updated wetland data
4. Extending the coastal protection area to a 40m distance to *both* sides of mean high water rather than to the shore side only to enable consideration of works in the tidal zone and to manage changes in mean high water mark over time.

Issues with the existing waterway and coastal protection area overlay

Misalignment with the coastline

Figures 1 and 2 show instances where the current WCPA does not align with the coastline. This is likely due to errors in the original guidance mapping that were not identified and rectified during the preparation of the interim or current planning scheme.



Figure 1. Extract of existing WCPA at Midway Point



Figure 2. Extract of existing WCPA at Penna

Misalignment with waterways

Figure 3 shows an instance where the mapped WCPA (shown in green) has an alignment that is not consistent with the hydrographic line (blue) data on LISTmap.



Figure 3. Existing WCPA (hatched) versus LISTmap hydrographic lines data

Non-compliance with the class 4 watercourses classification in prescribed zones

Table C7.3 lists four different types of watercourses; class 1, 2, 3 and 4. Class 1 is the major watercourse and is defined as being a named creek or river. Class 4 is the minor classification. Class 2 and 3 are intermediate and are defined by the size of the catchment. The width of the WCPA to both sides of a watercourse is 40m for class 1, 30m for class 2, 20m for class 3 and 10m for class 4. The classification of watercourses was taken from the forest practices systems.

Table C7.3 specifies that within 13 different zones, such as the General Residential Zone or Low Density Residential Zone, all watercourses are classified as class 4 and have a 10m wide WCPA. This classification is irrespective of whether the watercourse is a larger class 1, 2 or 3 stream. The current WCPA does not show the restriction to a class 4 stream in these specified zones. Figure 4 shows one such instances for Sorell Rivulet in which the WCPA is mapped as a class 2 watercourse (60m width in total) whereas Table C7.3 defines the watercourse as a class 4.



Figure 4. A class 4 watercourse (due to being within the General Residential Zone and Low Density Residential Zone) is mapped as a larger class 2 watercourse.

Mapped wetlands that do not exist



Figure 5. Current WCPA showing a wetland.



Figure 6. Existing conditions as at November 2023 showing recent forestry clearing and no signs of a wetland.

Updated coastline

The WCPA applies from the mean high water mark. This is a moving feature and often updated.



Figure 7. Latest coastline data (blue) versus current WCPA (green)

General presentation issues

Figure 8 is one example, of many, of gaps in the current WCPA that are artefacts of the Geographic Information System processing.



Figure 8. Gap in the current WCPA.

Class 1 (named watercourses) mapped as lower class streams

Table C7.3 requires all named watercourses on the 1:100,000 topographic map sheets produced by the Tasmanian Government to be mapped as class 1 watercourses. There are various instances where named watercourses are mapped as lower class.



Figure 9. Little Boomer Creek not mapped as a class 1 watercourse.

Data and Method in the proposed WCPA

Inputs

- *LISTmap Hydline Layer*
- *LISTmap Hydarea*
- *LISTmap CFEV river section catchments*
- *LISTmap CFEV Saltmarsh*
- *LISTmap CFEV Wetlands*
- *LISTmap Coastline (MHW)*

Processing of mean high water mark

- Remove islands, tidal, inland features
- Apply 40m buffer in 10 segments in QGIS

Processing of wetland

- Select wetlands and flats from Hydrographic area layer in LISTmap
- Apply 40m buffer in 10 segments in QGIS

Processing of streams

- Select named features, combine segments, code Class 1 and buffer 40m in 10 *segments* in QGIS. Verify named segments match 1:100,000 topo sheet (scanned map in LISTmap)
- Code remaining Class 4
- Classify class 2 and 3 based on catchment size using CFEV river segments for catchment size (join attributes by location (one to

many, intersect, overlap, contain, within, touches) to catchment size)

- Verify by comparison to existing waterway overlay

Application of class 4 streams due to zoning

- Split layer by relevant zones and reclassify.
- Streams: Change all within Table C7.3 (b) zones to class 4
- Tidal – Cut at the zone boundary

Final revisions

- Remove artificial watercourses
- Apply symmetrical difference and manually review
- Remove small gaps and other processing artifacts
- Manually add Marchweil Marsh and wetlands at Carlton and Primrose Sands from old WCPA as features not otherwise mapped

Draft Amendment

The draft amendment documents are included in **Attachment 1** – Amendment Documents.

An explanatory document which provides some more background information about the amendment, the current policy position and outlines the controls and why they have been included is in **Attachment 2** – Explanatory Document. This document provides a more ‘accessible’ overview of the PAC SAP beyond the statutory requirements that must be met under LUPAA.

The Natural Assets Code

The Natural Assets Code addresses native vegetation, coastal refugia and waterway and coastal protection.

The provisions related to a WCPA address impacts both in stream and to the adjacent land such as siltation, native vegetation and instream habitat. The Code includes a definition of waterway values being “the values of watercourses and wetlands derived from their aquatic habitat and riparian vegetation, physical elements, landscape function, recreational function and economic function.” The term waterway values is not otherwise used in the Code but does summarise the scope.

ASSESSMENT AND STRATEGIC OUTCOMES

Legislation

To be approved, a draft amendment must comply with the LPS criteria that are set out in LUPAA as follows:

(2) The LPS criteria to be met by a relevant planning instrument are that the instrument –

- (a) contains all the provisions that the SPPs specify must be contained in an LPS; and*
- (b) is in accordance with section 32 ; and*
- (c) furthers the objectives set out in Schedule 1 ; and*
- (d) is consistent with each State policy; and*
- (da) satisfies the relevant criteria in relation to the TPPs; and*
- (e) as far as practicable, is consistent with the regional land use strategy, if any, for the regional area in which is situated the land to which the relevant planning instrument relates; and*
- (f) has regard to the strategic plan, prepared under section 66 of the Local Government Act 1993 , that applies in relation to the land to which the relevant planning instrument relates; and*
- (g) as far as practicable, is consistent with and co-ordinated with any LPSs that apply to municipal areas that are adjacent to the municipal area to which the relevant planning instrument relates; and*
- (h) has regard to the safety requirements set out in the standards prescribed under the Gas Safety Act 2019 .*

Attachment 2 provides a detailed assessment against each relevant criteria.

LUPAA provides a two-step process for planning scheme amendments. The first step under section 40D outlines how and when a planning authority is to prepare a draft amendment. Section 40F is step 2 and provides that once a planning authority has determined to prepare a draft amendment it must either certify that as meeting the LPS criteria or modify the draft amendment until it meets the LPA criteria and then certify.

Regional Strategy and Policy

For the amendment to be approved, compliance with the *Southern Tasmania Regional Land Use Strategy 2010-2035* (STRLUS) must be demonstrated. **Appendix 1** provides a detailed assessment of the amendment against the relevant STRLUS policies.

State Strategy and Policy

Appendix 1 provides a detailed assessment of the amendment against the relevant State policies.

CONCLUSIONS ON THE AMENDMENT

For the above reasons, the amendment is consistent with the objectives and other requirements of the *Land Use Planning and Approvals Act 1993*.

Attachments:

Attachment 1- Draft Amendment

Attachment 2 – Detailed LPS Criteria Assessment

TASMANIAN PLANNING SCHEME - SORELL

PLANNING SCHEME AMENDMENT – SORELL LOCAL PROVISIONS SCHEDULE

AM-SOR-5-2024.1.1

Pursuant to the Land Use Planning and Approvals Act 1993

Location

Whole of Local Government Area

Description

Replace with waterway and coastal protection area as shown on overlay maps WCPA 11k (pages 1 to 16) and WCPA 55k (pages 1 to 6)

Attachment 2 Statutory

Assessment – Response to criteria requirements for Local Provisions Schedule under LUPAA

Section 34(2) of LUPAA requires a relevant planning instrument to meet all of the following criteria.

(a) contains all the provisions that the SPPs specify must be contained in an LPS

The proposal complies with the SPP requirements for an LPS as set out in clause LP1.0 and Appendix A of the SPPs.

(b) is in accordance with section 32

This section identifies the technical aspects of a LPS such as inclusion of zone maps and overlays, and what additional local provisions can be included if permitted to do so under the SPPs, to add to, modify or override the SPPs. This amendment is consistent with this section.

(c) furthers the objectives set out in Schedule 1 of LUPAA

Assessment of the amendment against the Schedule 1 objectives is provided in the following table.

Part 1 Objectives	Comment
<i>(a)</i> <i>to promote the sustainable development of natural and physical resources and the maintenance of ecological processes and genetic diversity</i>	The amendment furthers this objective through an updated overlay that best reflects the spatial extent of the waterway and coastal protection area.
<i>(b)</i> <i>to provide for the fair, orderly and sustainable use and development of air, land and water</i>	The updated overlay will assist in achieving fair, orderly and sustainable use through assisting in when and how the associated code is applied to individual applications.
<i>(c)</i> <i>to encourage public involvement in resource management and planning</i>	If certified, the draft amendment will be subject to public exhibition.

<i>(d) to facilitate economic development in accordance with the objectives set out in paragraphs (a), (b) and (c)</i>	The updated overlay will assist in achieving fair, orderly and sustainable use through assisting in when and how the associated code is applied to individual applications.
<i>(e) to promote the sharing of responsibility for resource management and planning between the different spheres of Government, the community and industry in the State</i>	This procedural objective has no bearing on the matter at hand.
Part 2 Objectives	
<i>(a) to require sound strategic planning and co-ordinated action by State and local government</i>	This procedural objective has no bearing on the matter at hand.
<i>(b) to establish a system of planning instruments to be the principal way of setting objectives, policies and controls for the use, development and protection of land</i>	This procedural objective has no bearing on the matter at hand.
<i>(c) to ensure that the effects on the environment are considered and provide for explicit consideration of social and economic effects when decisions are made about the use and development of land</i>	The updated overlay will assist in when and how the associated code is applied to individual applications.
<i>(d) to require land use and development planning and policy to be easily integrated with environmental, social, economic, conservation and resource management policies at State, regional and municipal levels</i>	This procedural objective has no bearing on the matter at hand.

<p><i>(e) to provide for the consolidation of approvals for land use or development and related matters, and to co- ordinate planning approvals with related approvals</i></p>	<p>This procedural objective has no bearing on the matter at hand.</p>
<p><i>(f) to promote the health and wellbeing of all Tasmanians and visitors to Tasmania by ensuring a pleasant, efficient and safe environment for working, living and recreation</i></p>	<p>Waterways are important to public health and wellbeing and, as such, the planning system recognizes waterways and seeks to regulate use and development. The updated overlay will assist in when and how the associated code is applied to individual applications.</p>
<p><i>(g) to conserve those buildings, areas or other places which are of scientific, aesthetic, architectural or historical interest, or otherwise of special cultural value</i></p>	<p>Waterways have scientific and aesthetic values that are reflected in the updated overlay.</p>
<p><i>(h) to protect public infrastructure and other assets and enable the orderly provision and co-ordination of public utilities and other facilities for the benefit of the community</i></p>	<p>The amendment will have no adverse impact on public infrastructure.</p>
<p><i>(i) to provide a planning framework which fully considers land capability.</i></p>	<p>This procedural objective has no bearing on the matter at hand.</p>

(d) *is consistent with each State policy;*

Assessment of the amendment against the current State policies is provided in the following table.

State Policy	Comment
<i>State Policy on the Protection of Agricultural Land 2000 (PAL)</i>	The waterway and coastal protection area applies to the Agriculture Zone. There are no exemptions for agriculture use or development within the WCPA. Therefore, clearing of vegetation for pasture or crops or construction of a building for an agriculture use would be subject to the code.
<i>State Policy on Water Quality Management 1997 (SPWQM)</i>	The associated Natural Values Code does consider point source discharge to waterways and in doing so supports application of this policy.
<i>State Coastal Policy 1996 (SCP).</i>	The WCPA applies to the coastal zone and supports application of this policy.

National Environmental Protection Measures

National Environment Protection Measures (NEPM) are automatically adopted as State Policies under section 12A of the *State Policies and Projects Act 1993* and are administered by the Environment Protection Authority.

The NEPMs relate to:

- ambient air quality
- ambient marine, estuarine and fresh water quality
- the protection of amenity in relation to noise (but only if differences in markets for goods and services)
- general guidelines for the assessment of site contamination
- environmental impacts associated with hazardous wastes
- the re-use and recycling of used materials.

Principle 5 of the NEPMs states that planning authorities *'that consent to developments, or changes in land use, should ensure a site that is being considered for development or a change in land use, and that the authorities ought reasonably know if it has a history of use that is indicative of potential contamination, is suitable for its intended use.*

The WCPA and Natural Values Code support water quality.

(da) satisfies the relevant criteria in relation to the TPPs;

The Tasmanian Planning Policies have not been implemented.

(a) as far as practicable, is consistent with the regional land use strategy, if any, for the regional area in which is situated the land to which the relevant planning instrument relates;

The following considers the key elements of the Southern Tasmanian Regional Land Use Strategy 2010-2035 (STRLUS).

Relevant STRLUS strategies	Comment
Water Resources WR 1.3: Include setback requirements in planning schemes to protect riparian areas relevant to their classification under the Forest Practices System.	As noted earlier, the WCPA applies the Forest Practices System of watercourse classification. The amendment therefore directly supports this regional policy.
The Coast C 1.1 Ensure use and development avoids clearance of coastal native vegetation.	Consistent with the Natural Assets Code, the updated overlay applies to 40m of the mean high water mark and 100m of the Orielton – Pittwater Lagoon RAMSAR site. Removal of native vegetation within this area is regulated by the Natural Assets Code.

(e) has regard to the strategic plan, prepared under section 66 of the Local Government Act 1993, that applies in relation to the land to which the relevant planning instrument relates

The current municipal strategic plan is the *Strategic Plan 2019-2029 (March 2023 update)*. The amendment is consistent with the following objectives:

The Strategic Plan has four key objectives with success measures and delivery actions. Those relevant to the proposal are as follows:

- Objective 1: To Facilitate Regional Growth
 - Support the revision of the Southern Tasmania Regional Land Use Strategy.
- Objective 2: Responsible Stewardship and a Sustainable Organization
 - Give consideration to the potential impacts of growth and developments.
 - Support sustainable environmental performance through responsible corporate behaviour, appropriate and achievable climate change mitigation and adaptation practices and continuing to meet our statutory obligations.
- Objective 3: To Ensure a Liveable and Inclusive Community
 - Support the development of appropriate public access to coastal assets and the natural environment
- Objective 4: Increased Community Confidence in Council
 - Ensure decision making is consistent and based on relevant and complete information, and is in the best interest of sustainability and whole of community interest.
 - Engage effectively with the community and other stakeholders, ensuring communication is timely, involving and consistent.

The updated WCPA is broadly consistent with Council's Strategic Plan in supporting decision-making around natural values.

(f) as far as practicable, is consistent with and co-ordinated with any LPSs that apply to municipal areas that are adjacent to the municipal area to which the relevant planning instrument relates;

There are some inconsistencies in the WCPA at the boundary with Glamorgan Spring Bay associated with named watercourses that have not been classified as class 1 streams. It is not considered appropriate to match neighbouring planning schemes where the neighbouring planning scheme is not fully correct.

(g) has regard to the safety requirements set out in the standards prescribed under the.

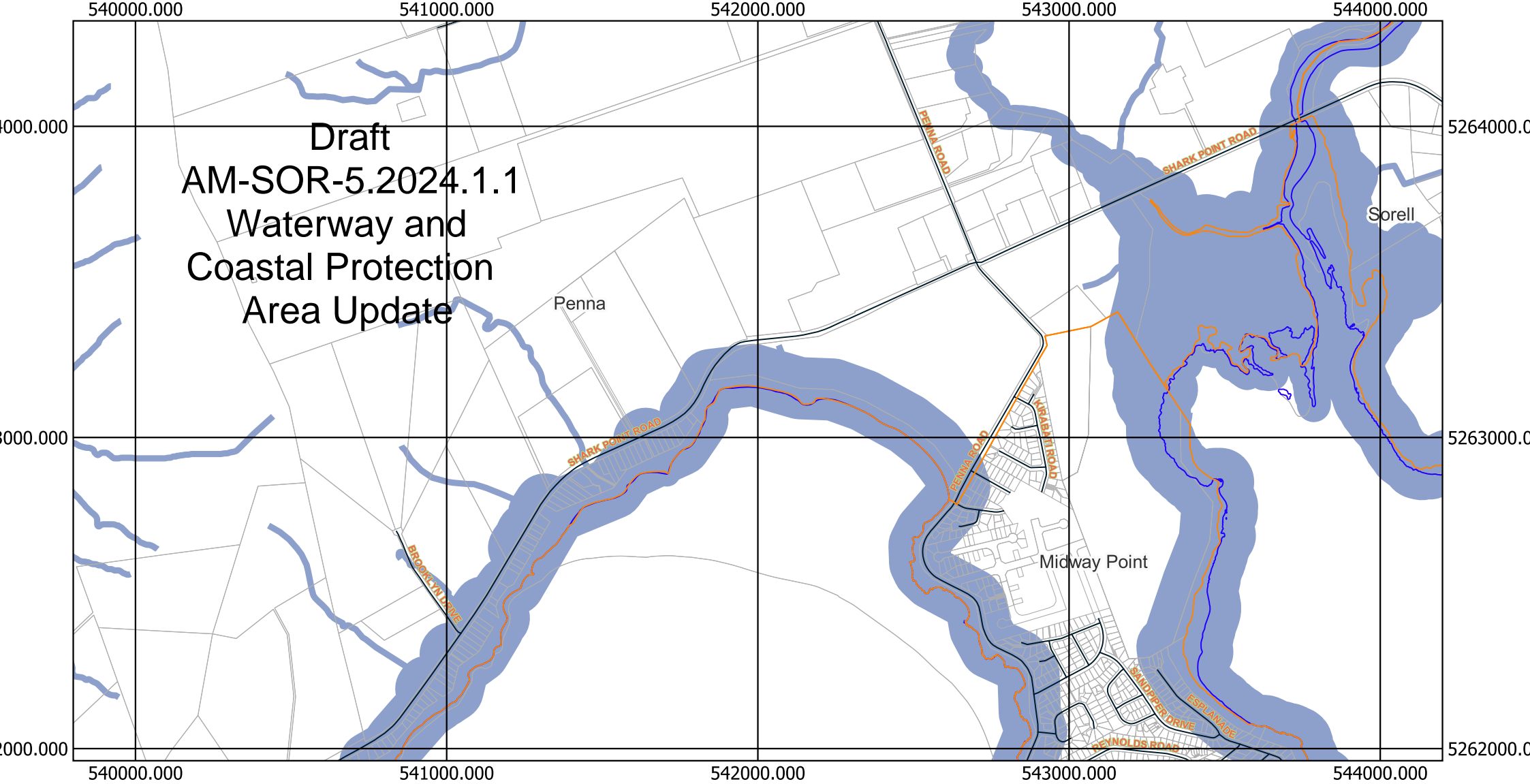
Not applicable.









Attachment to item number 5.2 -

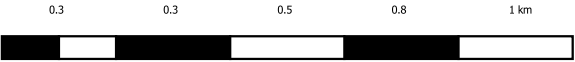
*WCPA 11k; and
WCPA 55k*

Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Legend

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 Locality	 Property Boundaries
 Roads	 Draft Waterway and Coastal Protection Area

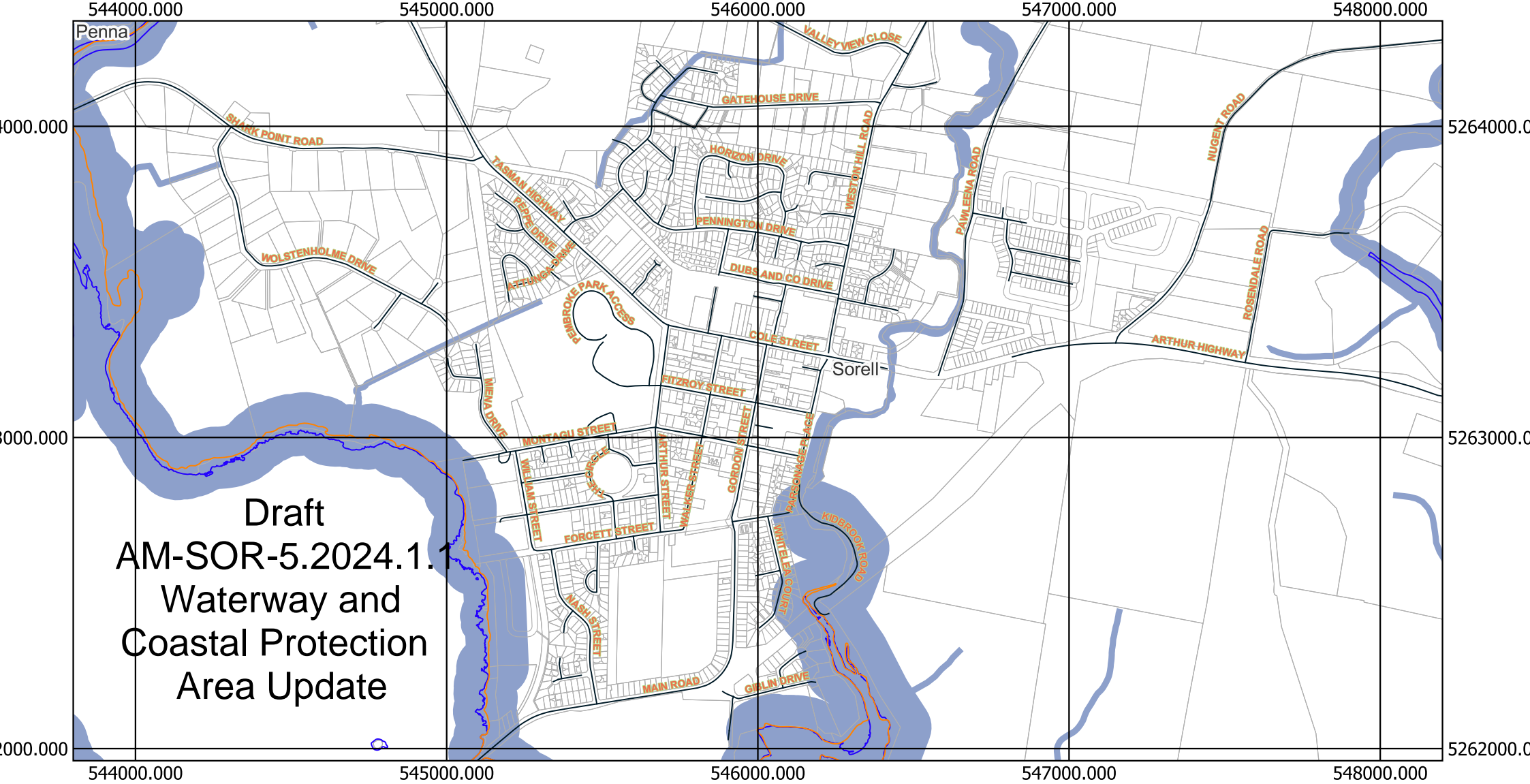


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Base topographic data from the LIST (c) State of Tasmania

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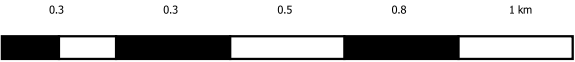


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



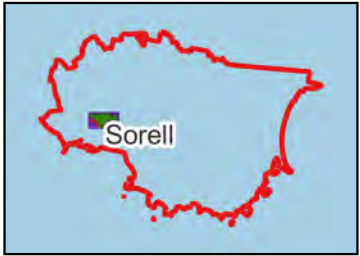
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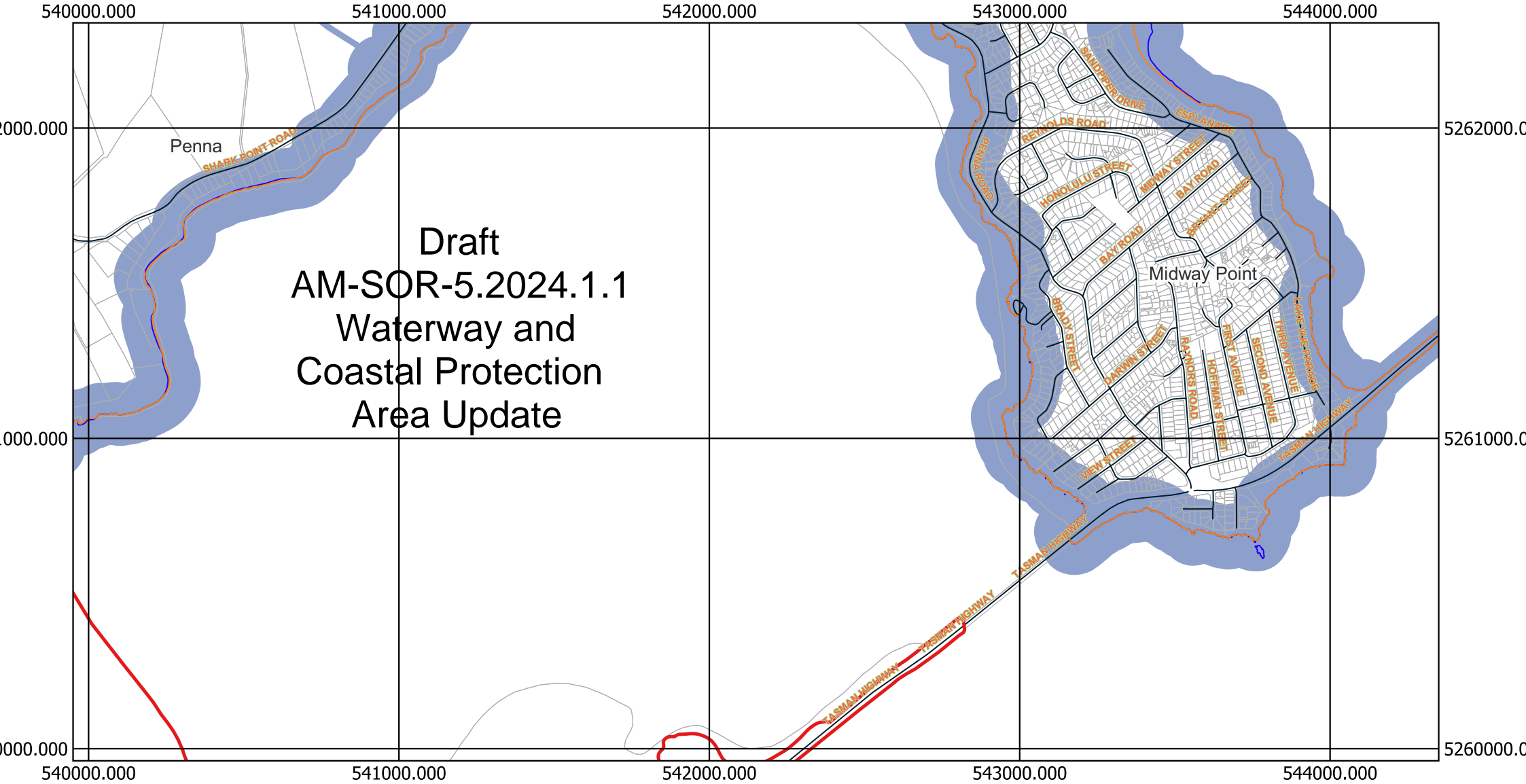


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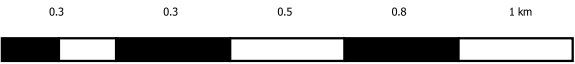


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



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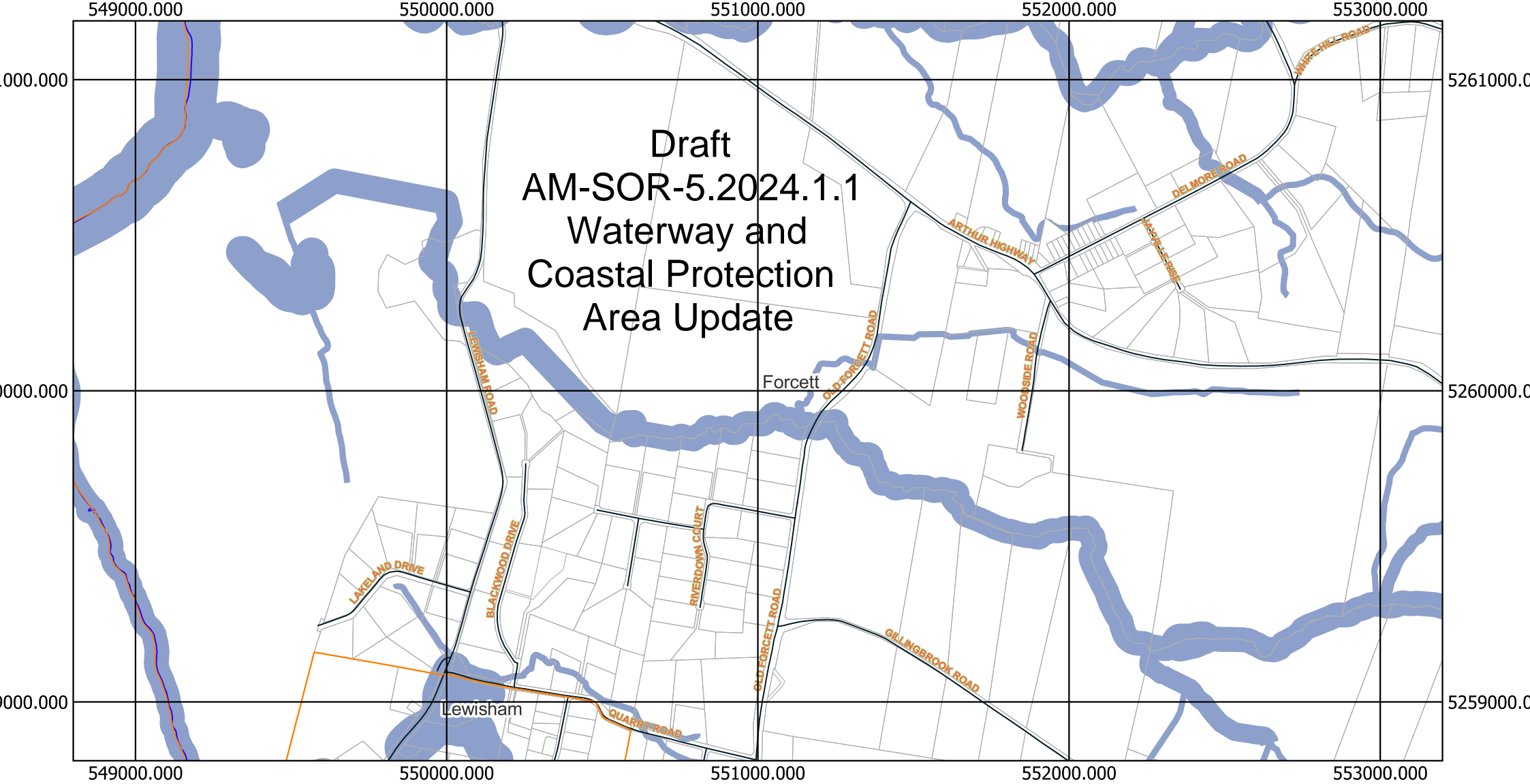
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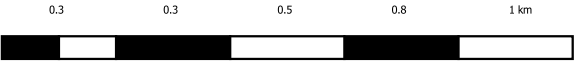


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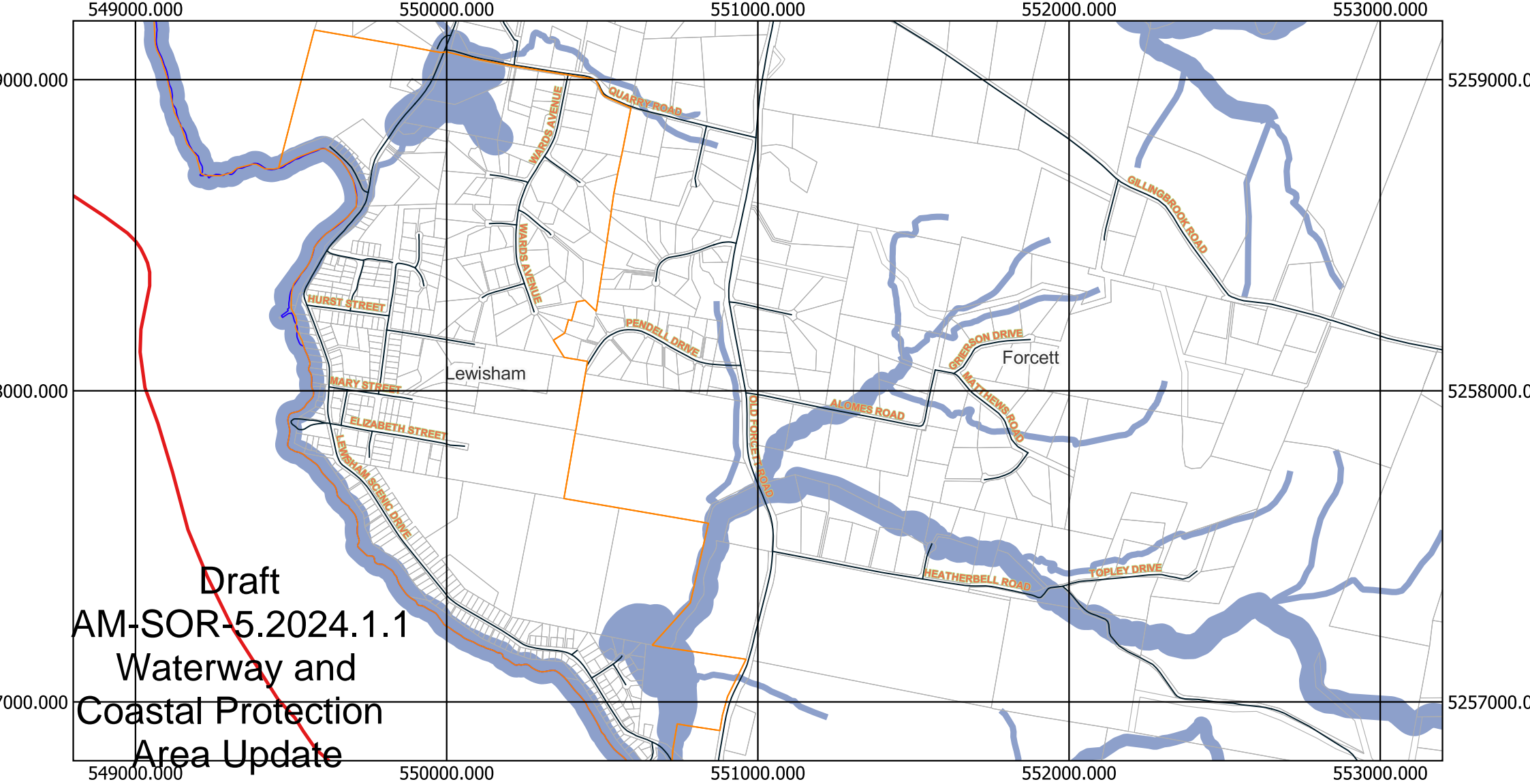
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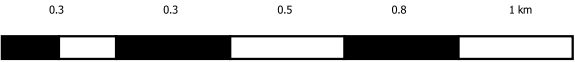
Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



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Area Update

Legend

- LGA Boundary
- Locality
- Roads
- Coastline
- Property Boundaries
- Draft Waterway and Coastal Protection Area



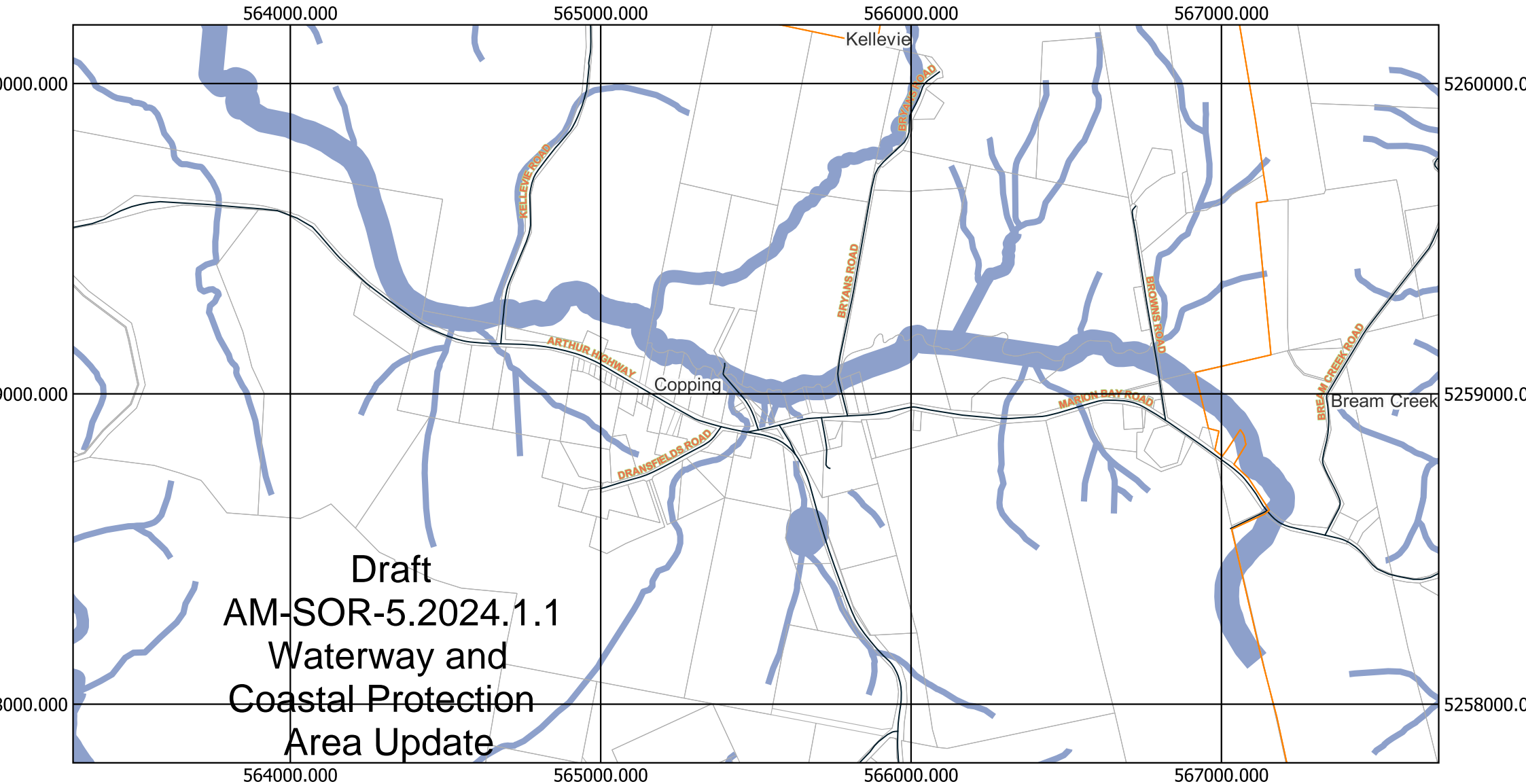
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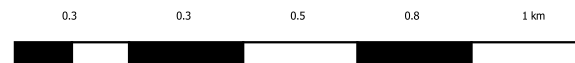


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Legend

-  LGA Boundary
-  Property Boundaries
-  Locality
-  Draft Waterway and Coastal Protection Area
-  Roads



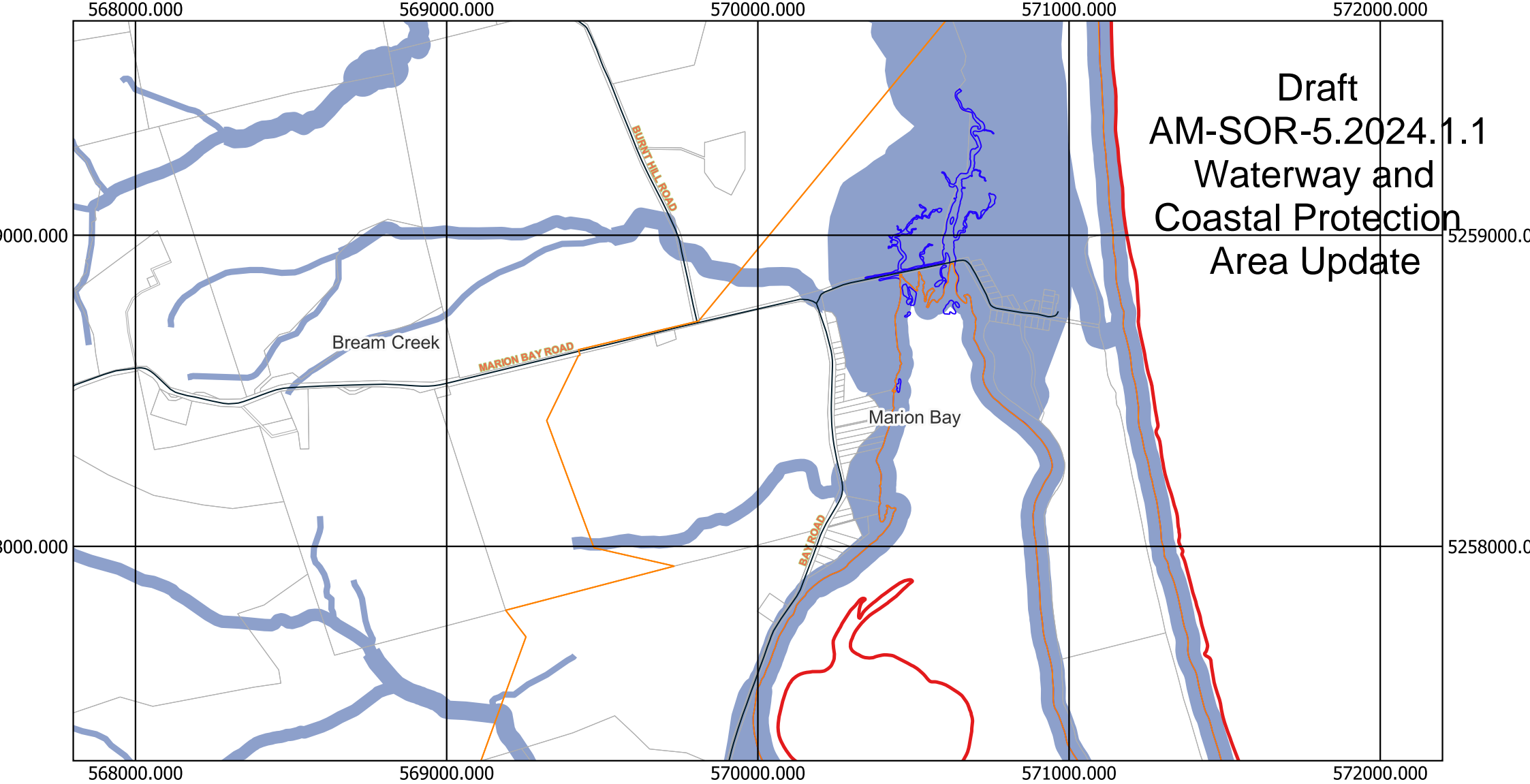
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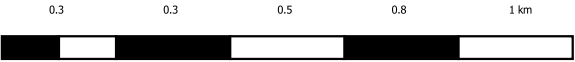
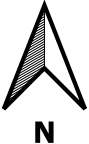


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



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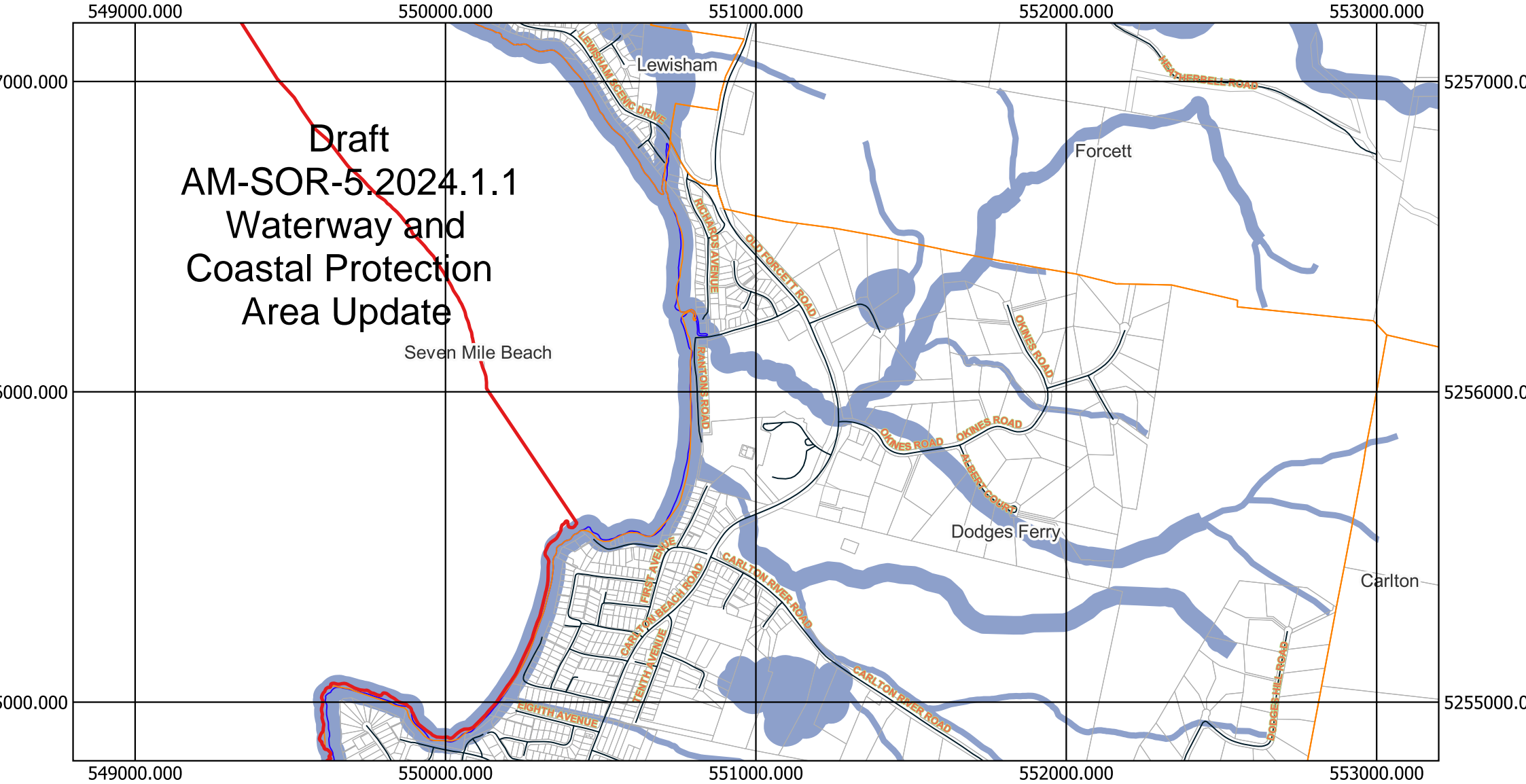


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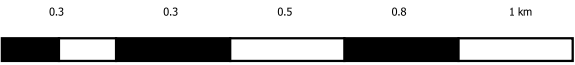


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



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Waterway and
Coastal Protection
Area Update

Seven Mile Beach



Coordinate System: GDA 94 MGA Zone 55

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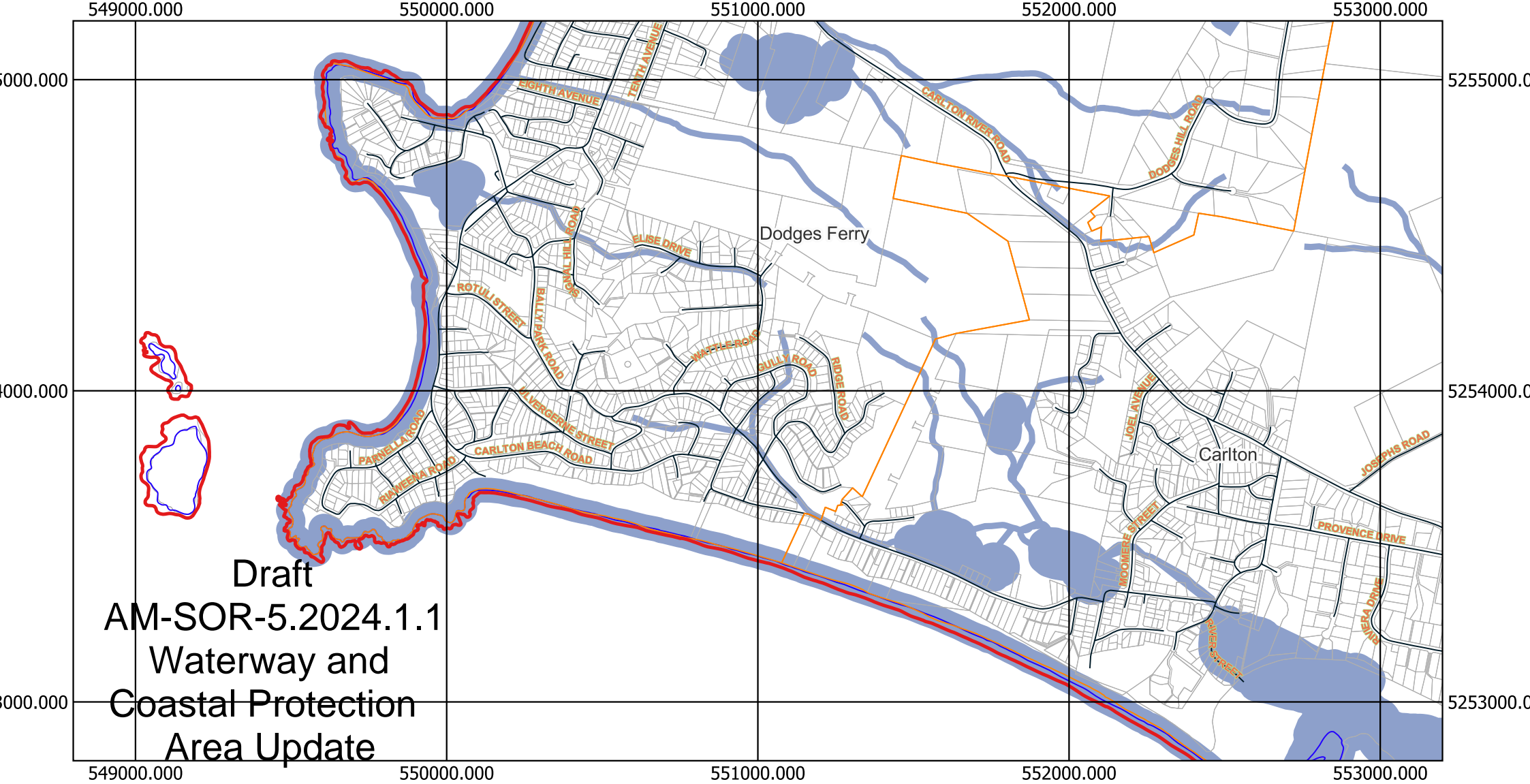
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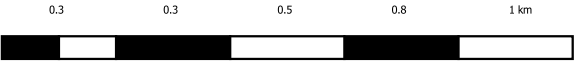


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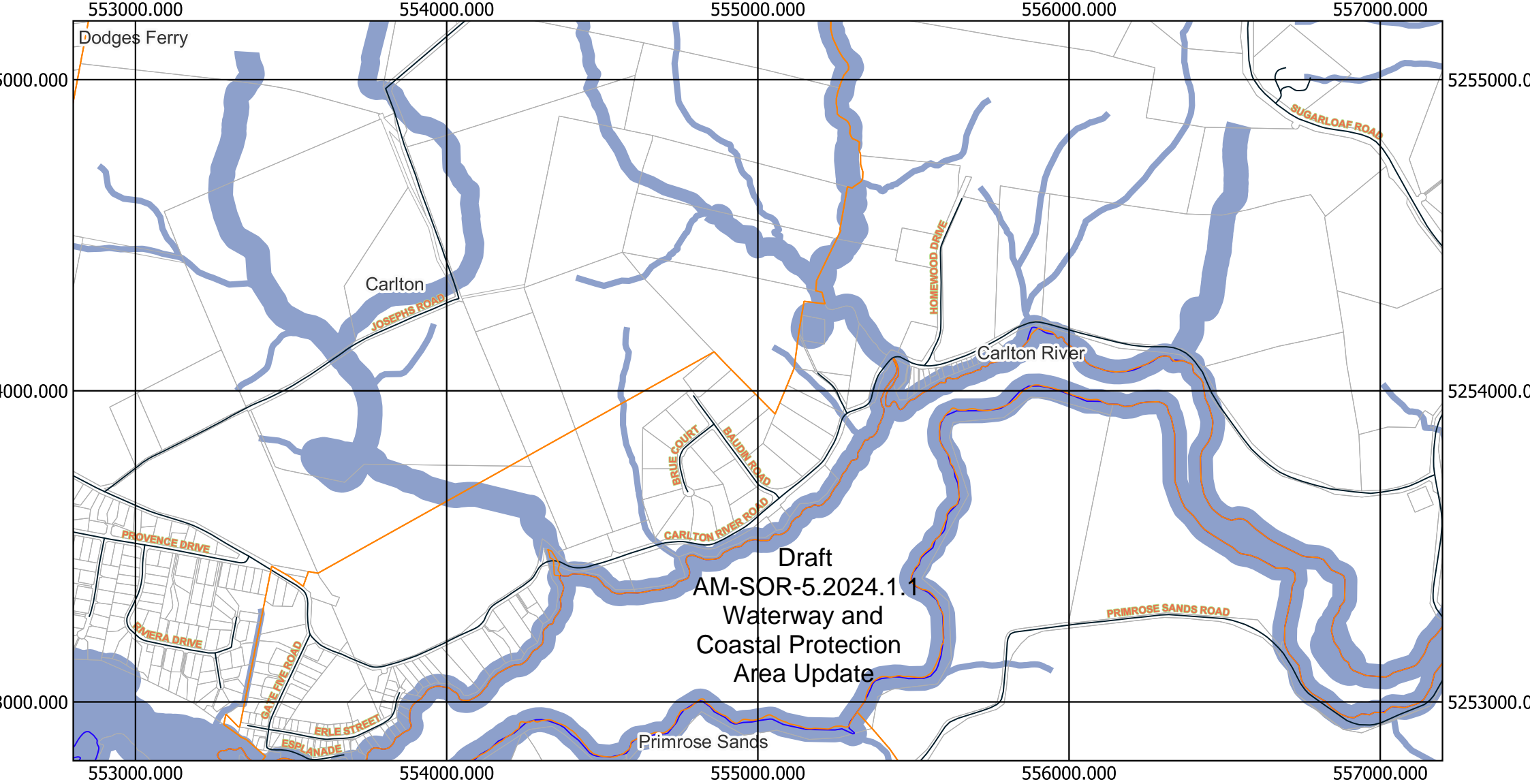
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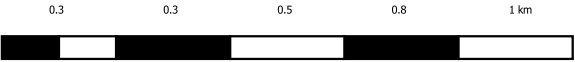


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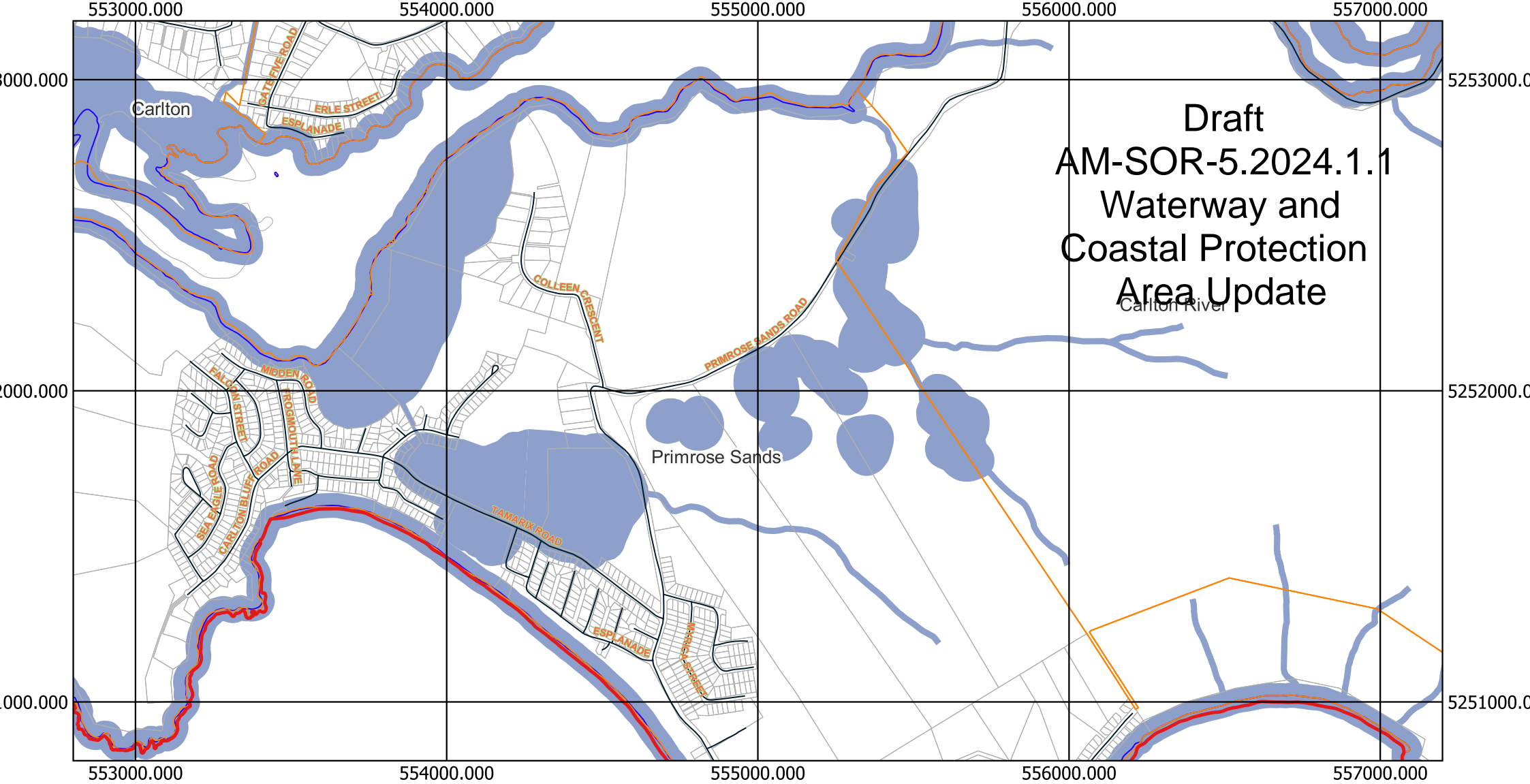


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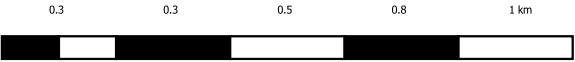
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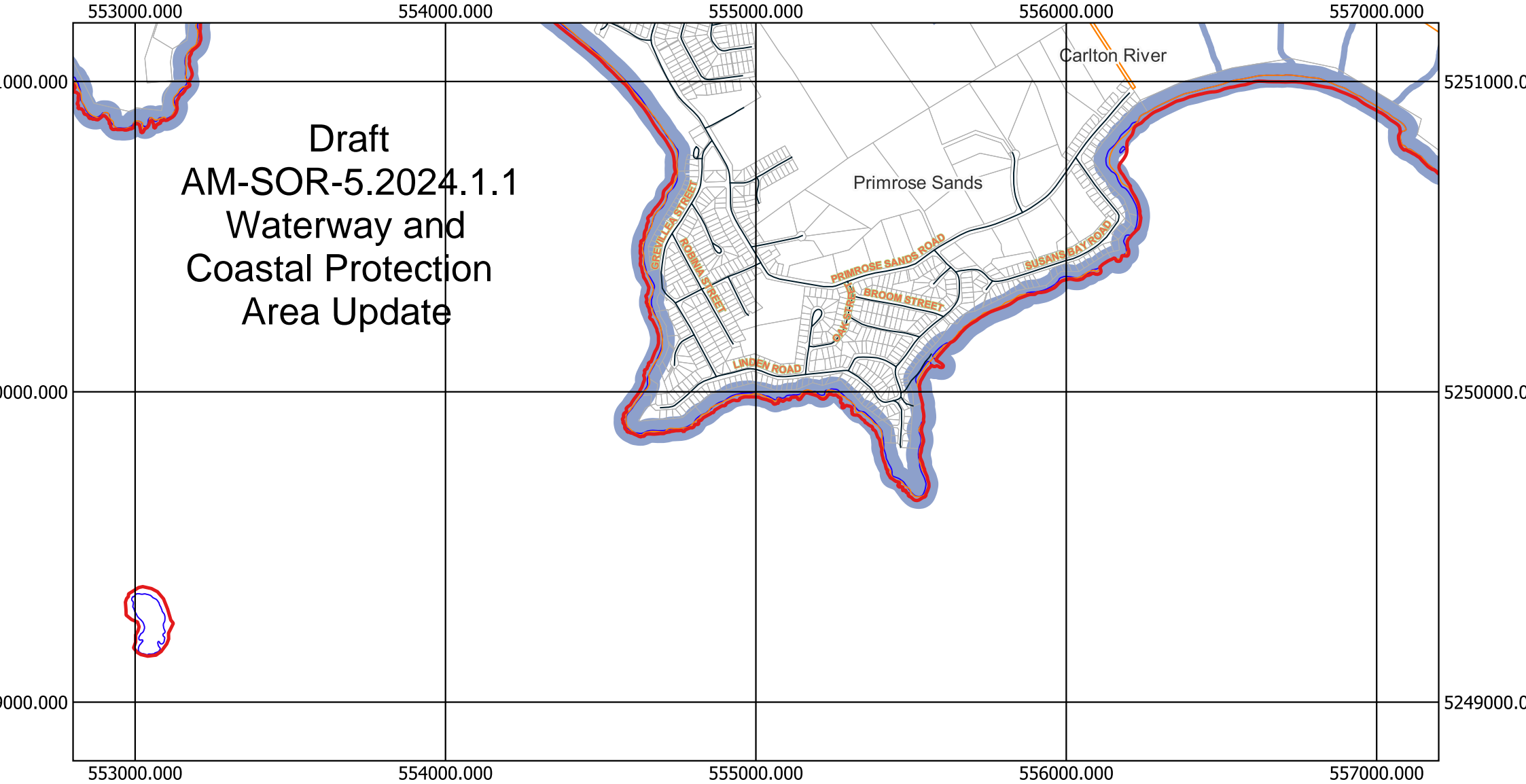


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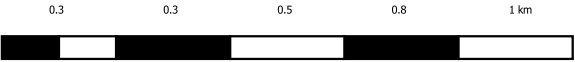


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



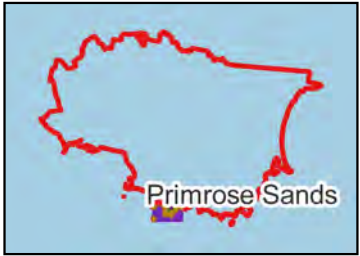
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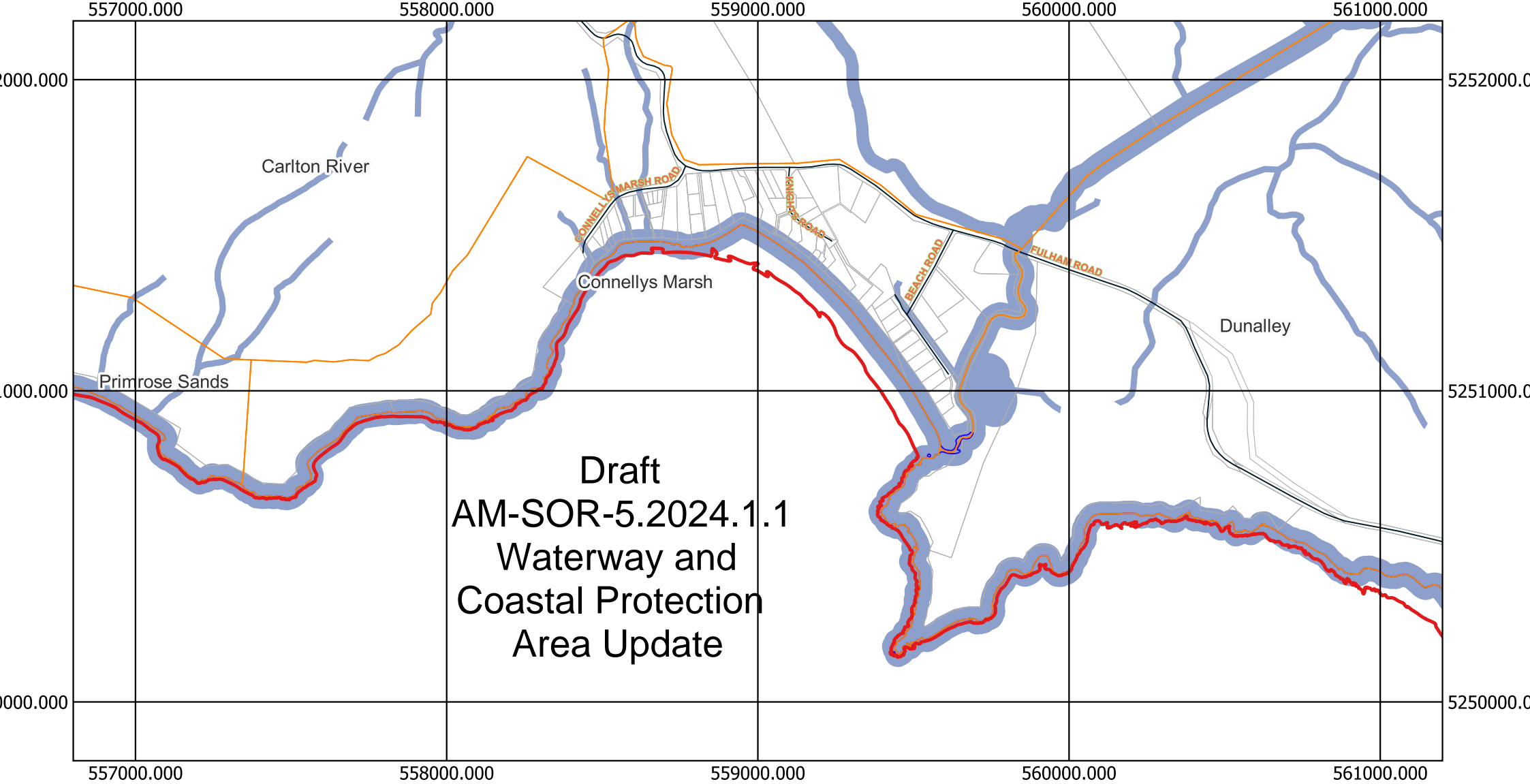


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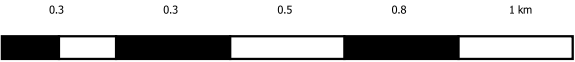


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Legend

LGA Boundary	Coastline
Locality	Property Boundaries
Roads	Draft Waterway and Coastal Protection Area



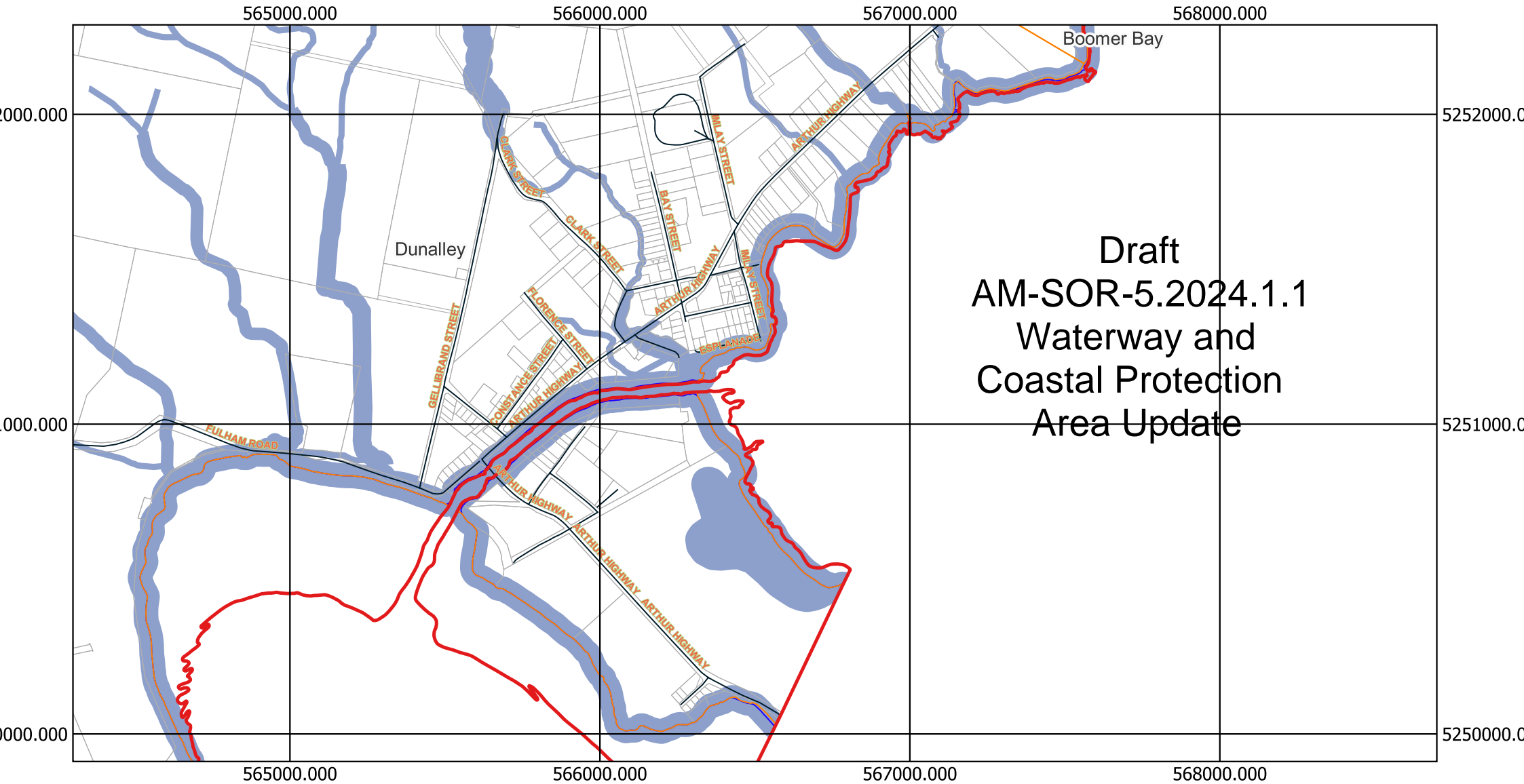
Coordinate System: GDA 94 MGA Zone 55

Base topographic data from the LIST (c) State of Tasmania

Date: 29/02/2024

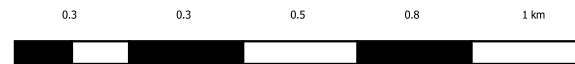


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Legend

- LGA Boundary
- Locality
- Roads
- Coastline
- Property Boundaries
- Draft Waterway and Coastal Protection Area



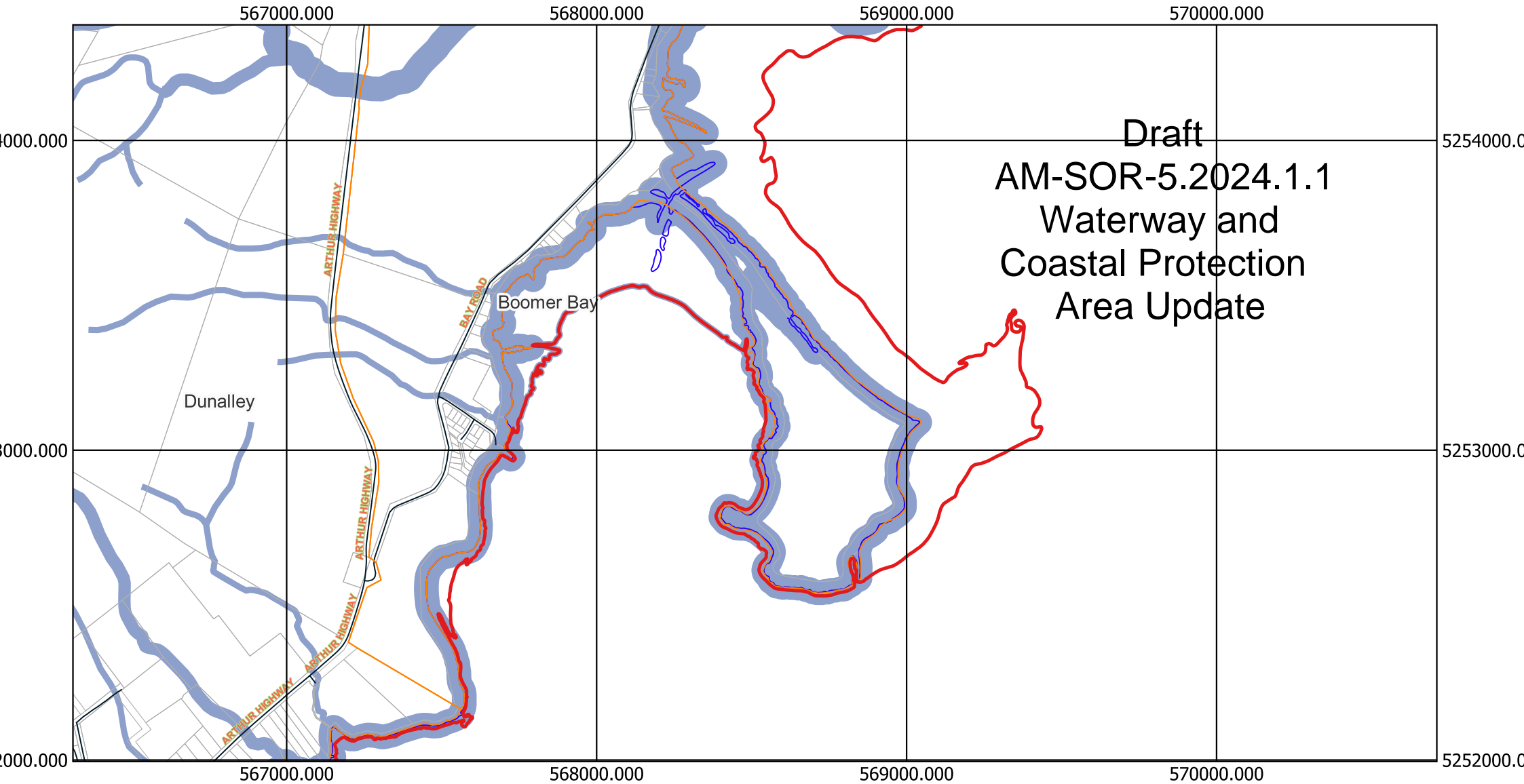
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Base topographic data from the LIST (c) State of Tasmania

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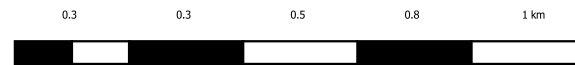


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Legend

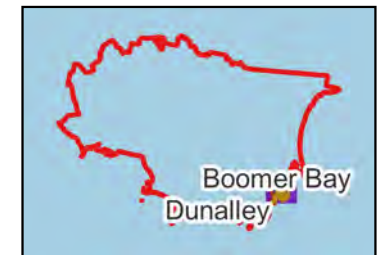
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|--------------|--|
| LGA Boundary | Coastline |
| Locality | Property Boundaries |
| Roads | Draft Waterway and Coastal Protection Area |



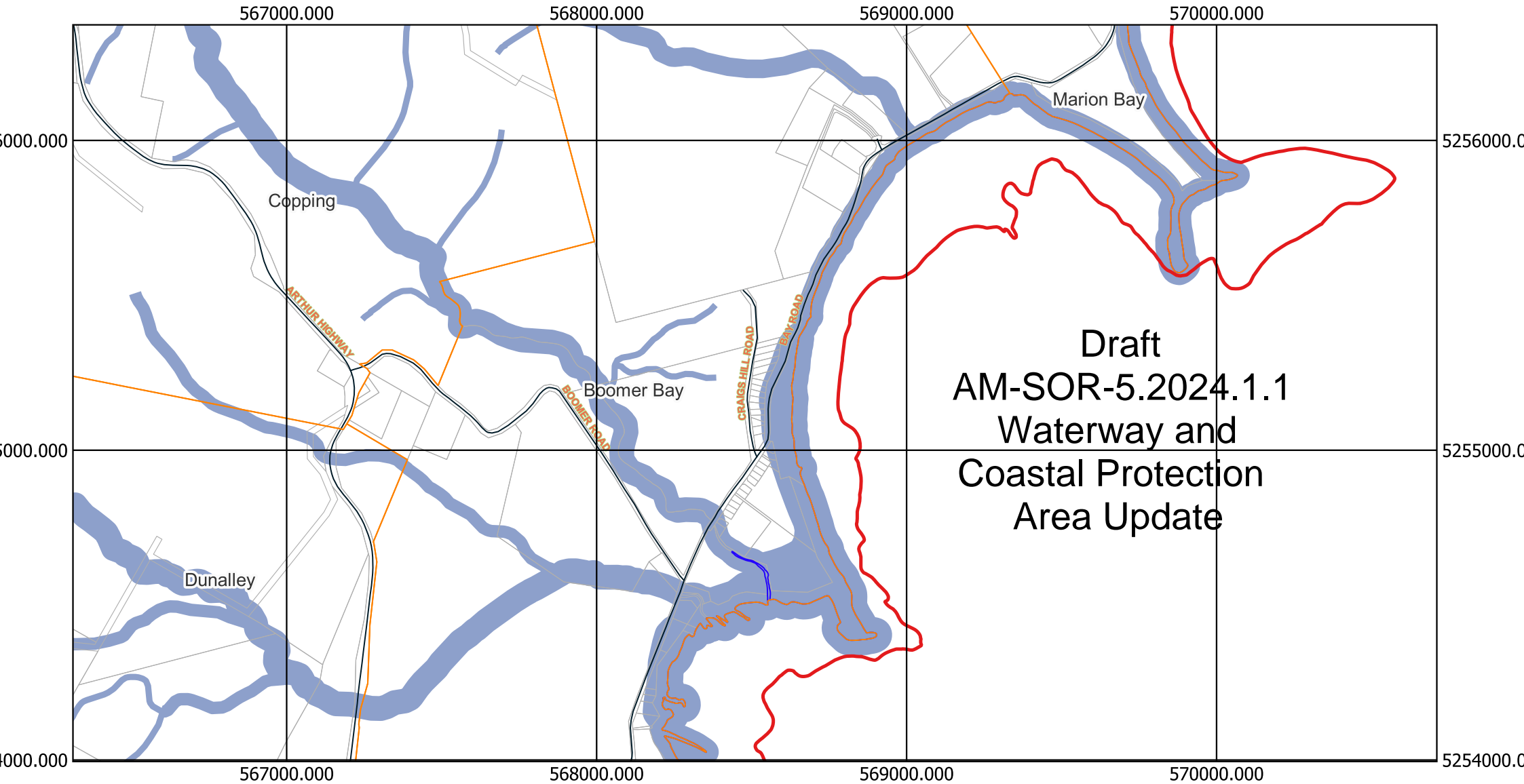
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Base topographic data from the LIST (c) State of Tasmania

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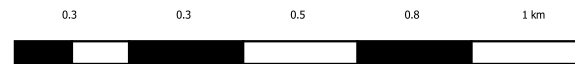


Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Legend

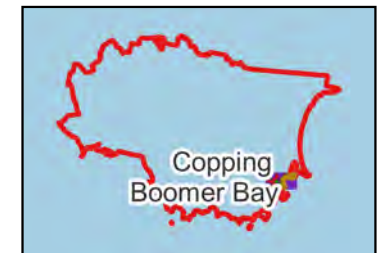
- LGA Boundary
- Locality
- Roads
- Coastline
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Coordinate System: GDA 94 MGA Zone 55

Base topographic data from the LIST (c) State of Tasmania

Date: 29/02/2024





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Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule

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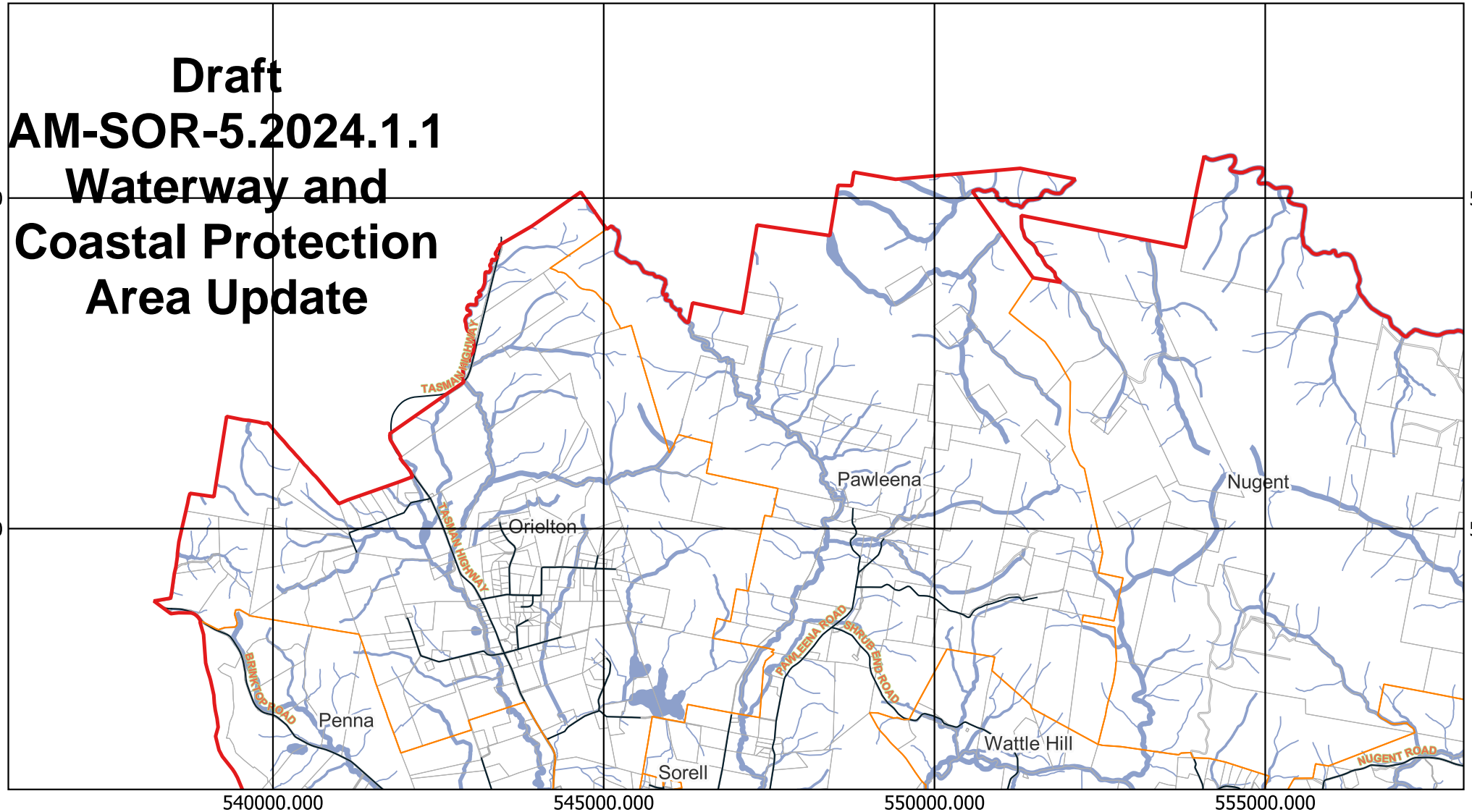
Draft AM-SOR-5.2024.1.1 Waterway and Coastal Protection Area Update

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Legend

- ▬ LGA Boundary
- ▬ Property Boundaries
- ▬ Locality
- ▬ Draft Waterway and Coastal Protection Area
- ▬ Roads



Coordinate System: GDA 94 MGA Zone 55

Base topographic data from the LIST (c) State of Tasmania

Date: 29/02/2024



Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule

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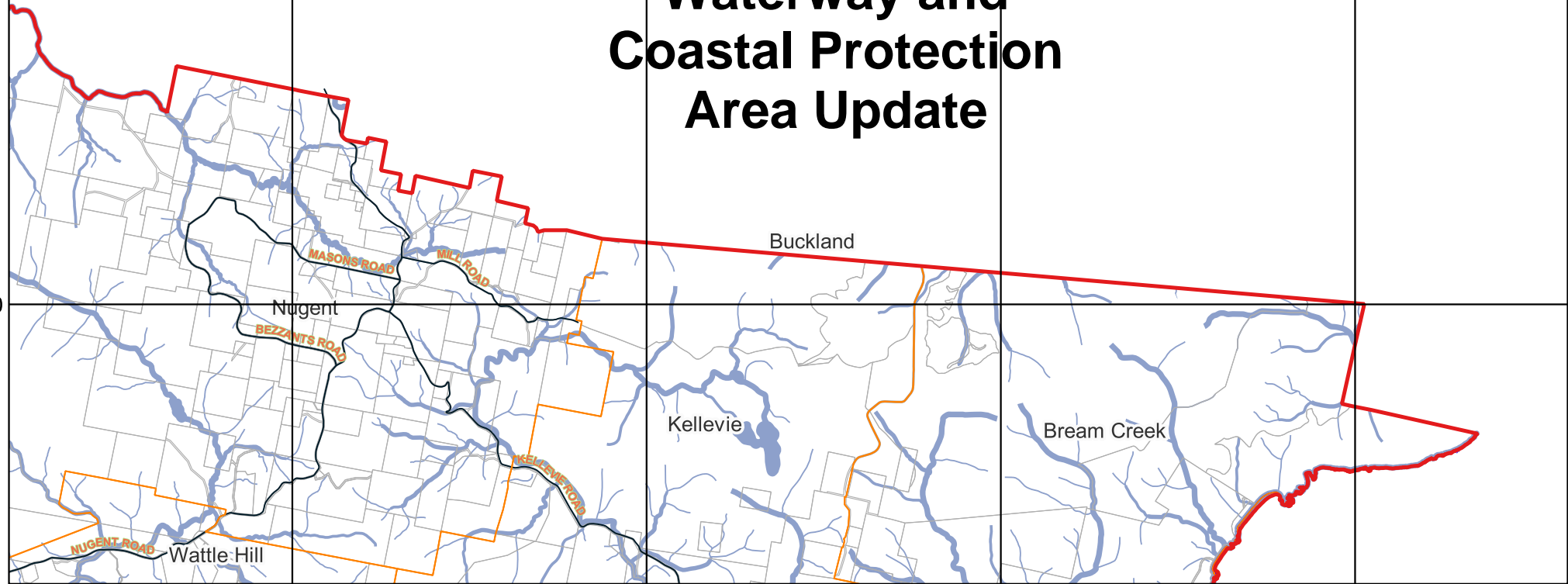
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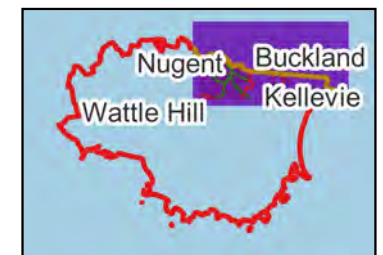
- ▬ LGA Boundary
- ▬ Coastline
- ▬ Locality
- ▬ Property Boundaries
- ▬ Roads
- Draft Waterway and Coastal Protection Area



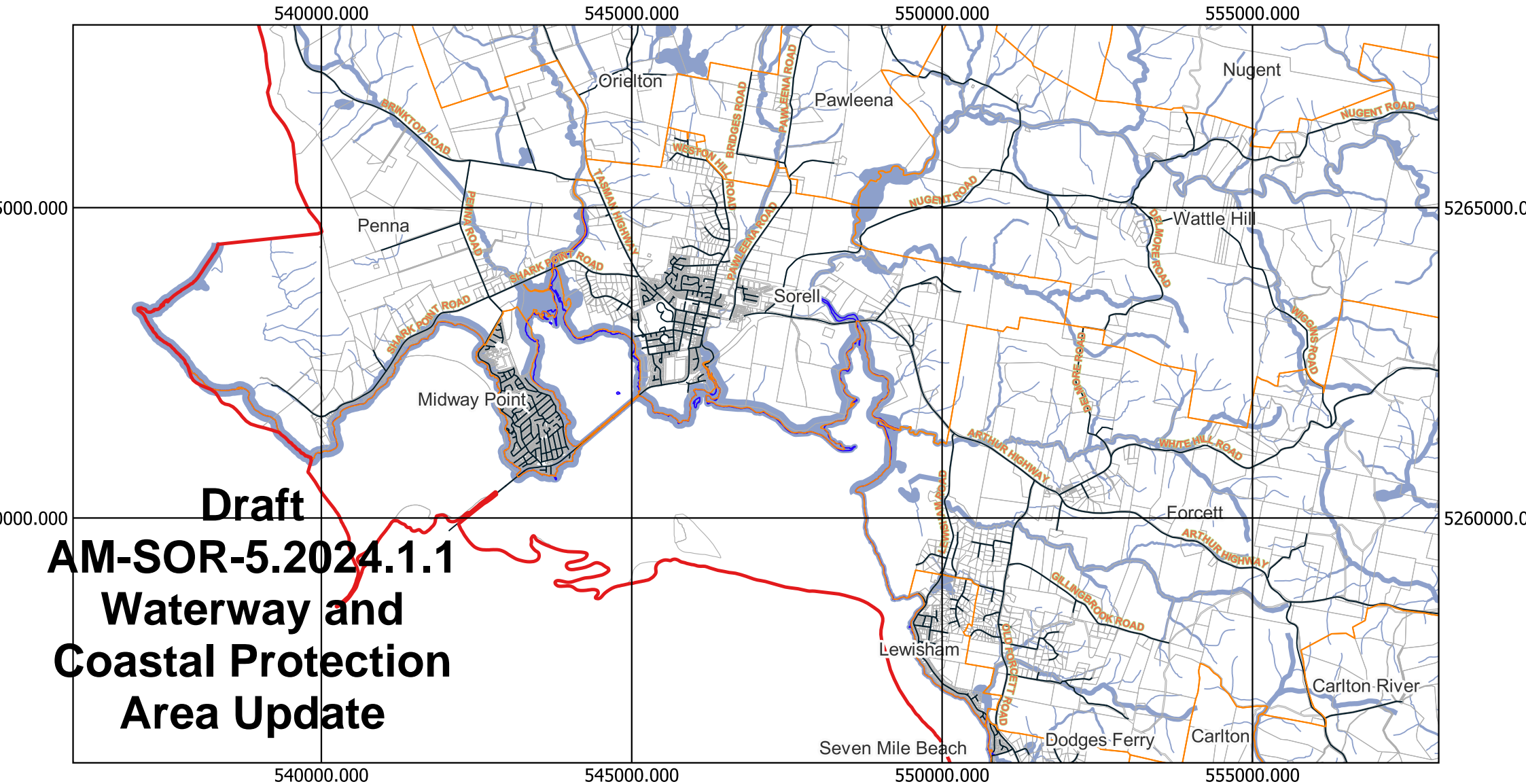
Coordinate System: GDA 94 MGA Zone 55

Base topographic data from the LIST (c) State of Tasmania

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Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Draft
AM-SOR-5.2024.1.1
Waterway and
Coastal Protection
Area Update

Legend

- ▬ LGA Boundary
- ▬ Coastline
- ▬ Locality
- ▬ Property Boundaries
- ▬ Roads
- ▬ Draft Waterway and Coastal Protection Area



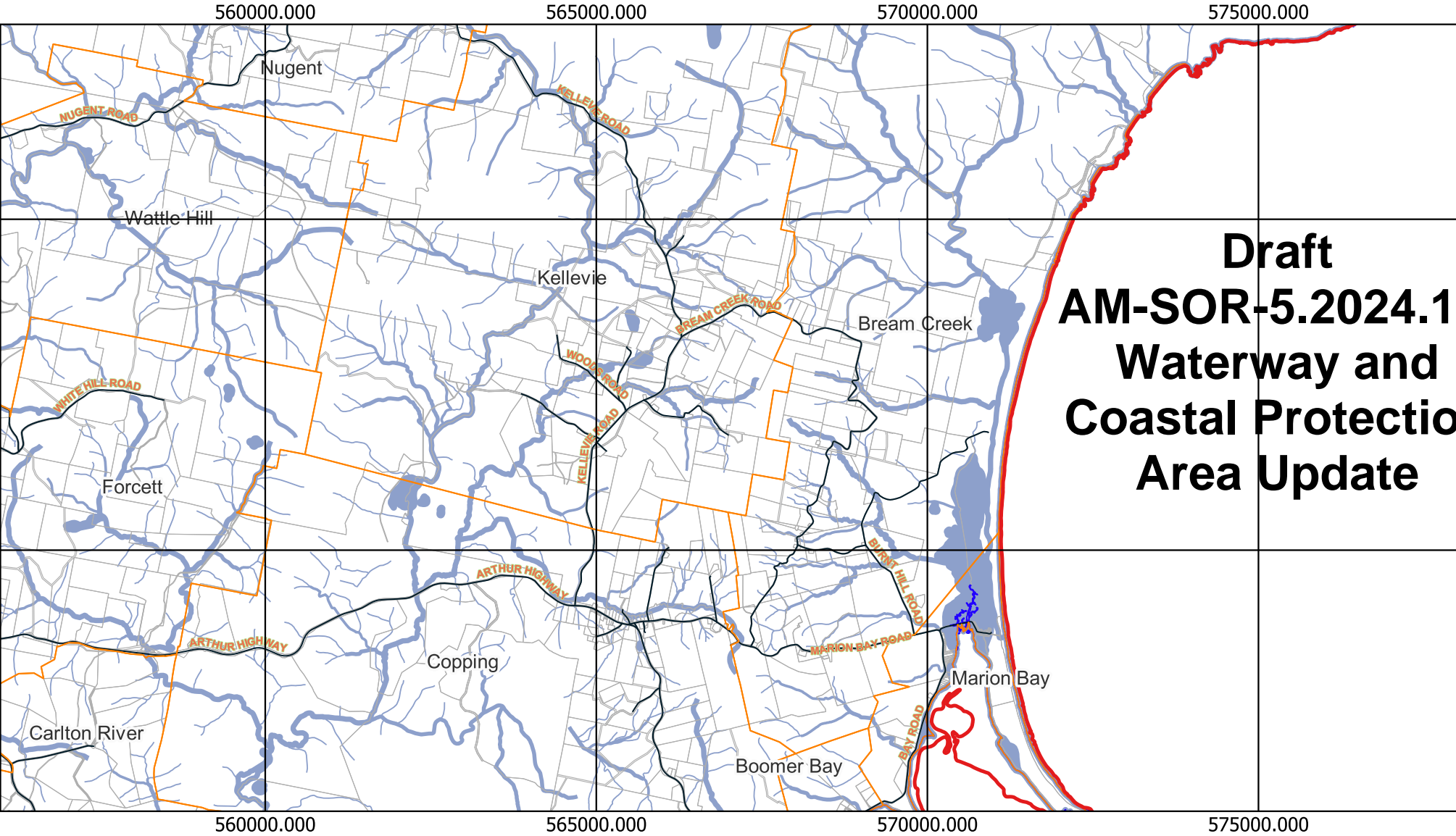
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Base topographic data from the LIST (c) State of Tasmania

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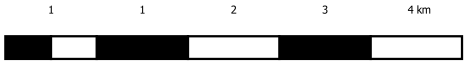
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**Draft
AM-SOR-5.2024.1.1
Waterway and
Coastal Protection
Area Update**

Legend

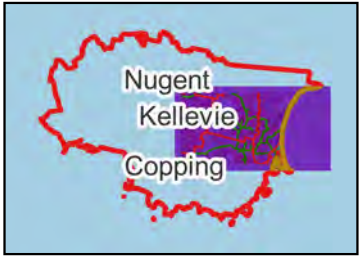
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Coordinate System: GDA 94 MGA Zone 55

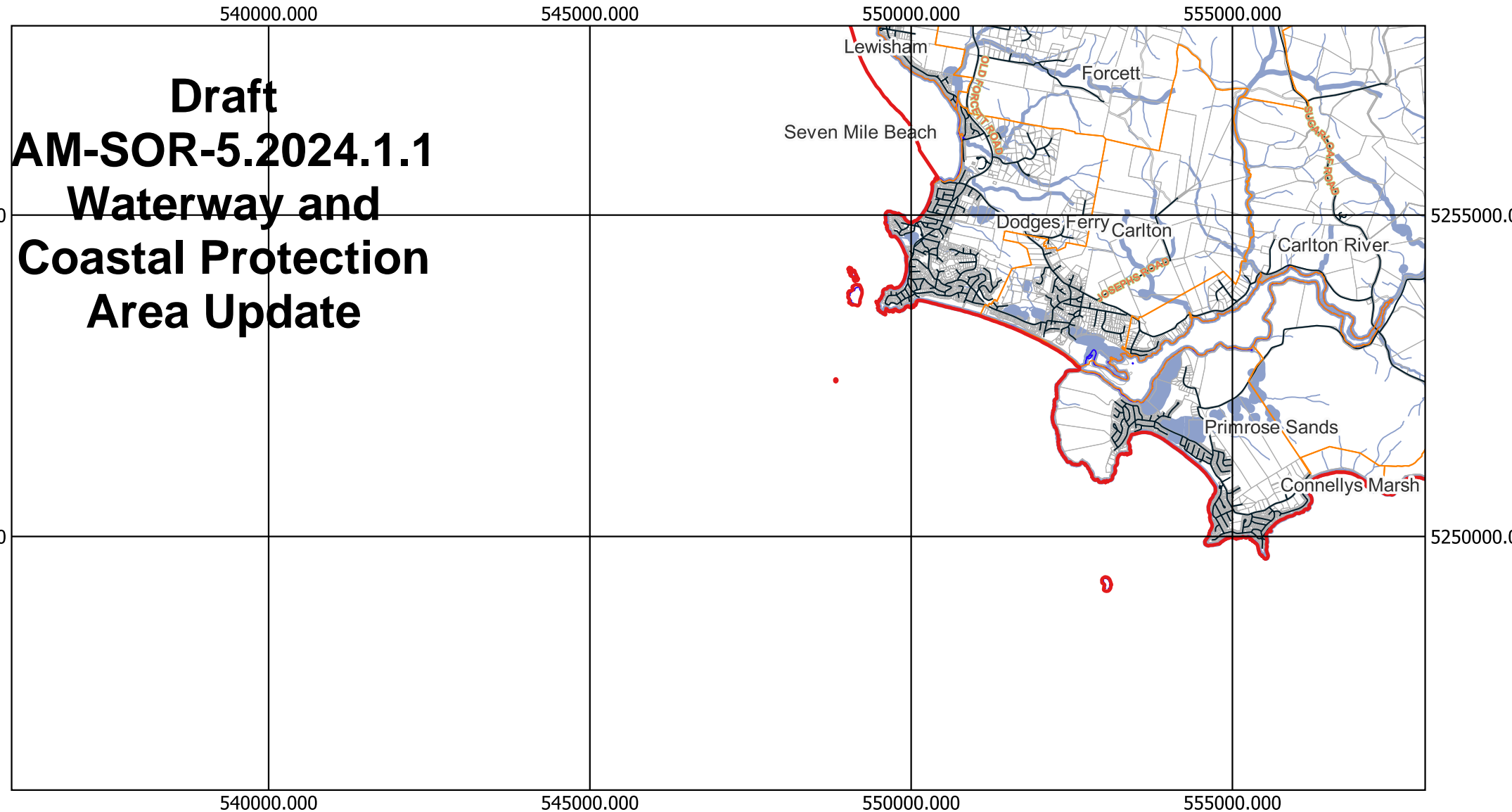
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Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule

Draft AM-SOR-5.2024.1.1 Waterway and Coastal Protection Area Update



Legend

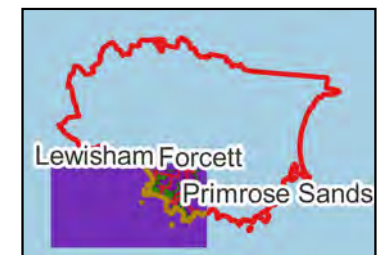
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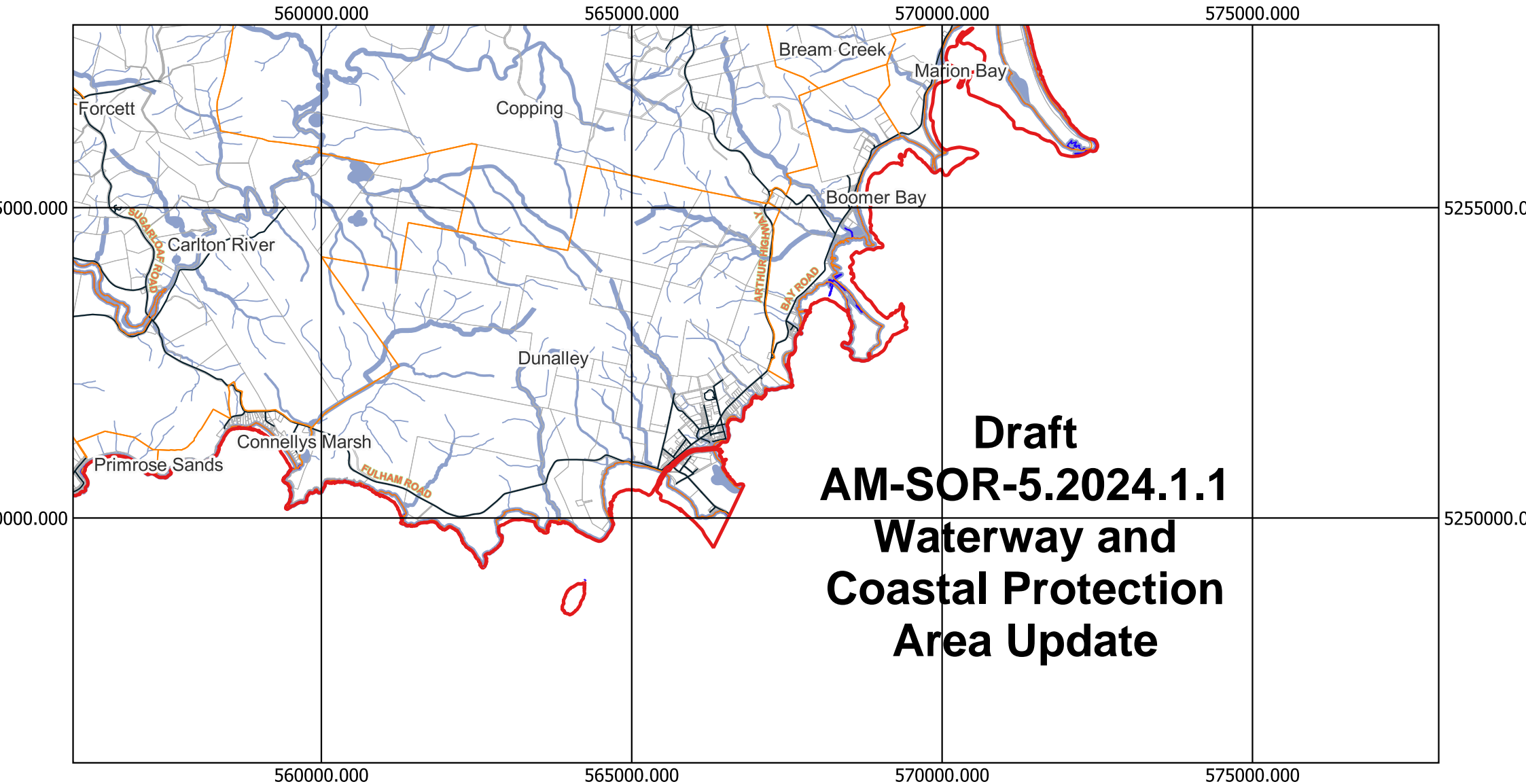
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Tasmanian Planning Scheme - Codes: Sorell Local Provisions Schedule



Draft AM-SOR-5.2024.1.1 Waterway and Coastal Protection Area Update

Legend

- | | |
|---|--|
|  LGA Boundary |  Coastline |
|  Locality |  Property Boundaries |
|  Roads |  Draft Waterway and Coastal Protection Area |



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