
From: Ashley Brook <abrook@6ty.com.au>
Sent: Wednesday, 1 March 2023 9:58 AM
To: TPC Enquiry
Subject: RE: George Town Draft LPS - TPC Letter to Representors Notifying of Hearing Dates and Providing Directions Schedule
Attachments: Notice of decision - DA 2021-24 (6ty Pty Ltd).pdf; Bushfire Assessment - Part Lot 1 Bellbuoy Beach Road - Proposed Subdivision.pdf; Traffic Impact Assessment - Part Lot 1 Bellbuoy Beach Road - Proposed Subdivision.pdf
Categories: Tami

Dear Sir/Madam,

Further to the Commission's direction in relation to Representation 33, please find attached a copy of the planning permit and endorsed documents.

Regards,
Ashley



Ashley Brook
Planning Consultant
0400 945 776

**Measured form and
function**

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From: TPC Enquiry <tpc@planning.tas.gov.au>
Sent: Friday, February 3, 2023 9:53 AM
Subject: George Town Draft LPS - TPC Letter to Representors Notifying of Hearing Dates and Providing Directions Schedule

Good Morning

Please find documents attached in relation to George Town draft LPS hearings.

Kind regards

TASMANIAN PLANNING COMMISSION

Level 3 144 Macquarie Street Hobart TAS 7000
GPO Box 1691 Hobart TAS 7001

03 6165 6828

www.planning.tas.gov.au

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RC:TB
DA 2021/24; 9026133



ABN 68 300 116 092

26th May 2021

6ty Pty Ltd
PO Box 63
RIVERSIDE TAS 7250

abrook@6ty.com.au

Notice and Permit

PLANNING PERMIT NO: DA 2021/24
NOTICE AND PERMIT FOR PLANNING APPROVAL
SECTION 57 LAND USE PLANNING AND APPROVALS ACT 1993

Applicant:	6ty Pty Ltd
Premises for which permit shall issue:	Bellbuoy Beach Road LOW HEAD
Purpose for which permit shall issue:	22 Lots, infrastructure lots and balance

In accordance with Section 57(7) of the *Land Use Planning and Approvals Act 1993*, you are advised that Council has agreed to approve the proposal and to issue a planning permit subject to the conditions contained in "Appendix A" attached.

Further in accordance with Section 61(4) of the *Land Use Planning and Approvals Act 1993*, you may appeal to the Resource Management and Planning Appeal Tribunal against the decision of Council.

Such appeal must be lodged with the Tribunal within 14 days after the date of the posting of this notice. A copy of the Notice of Appeal is attached for your information. Please note that there were four (4) representations to the Development Application.

Yours faithfully

A handwritten signature in blue ink, appearing to be 'Rex Cassidy'.

Rex Cassidy
MANAGER DEVELOPMENT & ENVIRONMENT

APPENDIX A

DA Number:	2021/24
Applicant:	6ty Pty Ltd
Address of Development:	Bellbuoy Beach Road LOW HEAD

1. ENDORSED PLANS

The use and/or development must be carried in general accordance with the endorsed documents specified below:

- a) 6TY, Project No. 20.225, Sheet P01, Revision F (except where required otherwise by a specific condition of this permit);
- b) Livingston Natural Resource Services, Bushfire Hazard management Report, dated 10/02/2021;
- c) Traffic and Civil Services, Traffic Impact Assessment, dated December 2020.

This approval allows for minor variations to the endorsed plans so as to comply with the specific works approval of the detailed infrastructure design by Council or a service authority. Any other proposed development and/or use will require a separate application to and assessment by the Council.

2. LOT 101

Lot 101 is to be extended to the east, such that the turning head is fully contained within the public road reserve.

3. HOURS OF CONSTRUCTION

Construction works must only be carried out between the hours of 7am to 6pm Monday to Friday and 8am to 5pm Saturday and no works on Sunday or Public Holidays.

4. SOIL AND WATER MANAGEMENT CONTROL PLAN

Prior to the commencement of the works, a site management plan must be submitted detailing how soil and water is to be managed on the site during the construction process to prevent the escape of soil and sediments beyond site boundaries. The management plan is to include the following:

- a) Allotment boundaries, contours, approximate grades of slope and directions of fall.
- b) Location of adjoining roads, impervious surfaces, underground services and existing drainage.
- c) Location and types of all existing natural vegetation, the proposed location of topsoil stockpiles and the limit of clearing, grading and filling.
- d) Critical natural areas such as drainage lines, cliffs, wetlands and unstable ground erosion or siltation prevention;
- e) The estimated dates for the start and finish of the works.
- f) The erosion control practices to be used on the site such as cut off drains, fenced areas to be undisturbed, revegetation program etc.
- g) The sediment control practices to be used on site such as silt fencing, stabilised site access, filter screens for inlets to the drainage system, sediment traps etc.
- h) Timing of the site rehabilitation or landscaping program.
- i) Outline of the maintenance program for the erosion and sediment controls.

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Applicant:	6ty Pty Ltd
Address of Development:	Bellbuoy Beach Road LOW HEAD

Works must not commence prior to the approval of the Soil and Water Management Plan by Council's Manager, Works & Infrastructure. The Plan must be implemented and maintained during construction to ensure that soil erosion is appropriately managed.

5. VEGETATION REMOVAL

Prior to the submission of detailed engineering plans, vegetation within the road reserve is to be removed in accordance with the endorsed Traffic Impact Assessment. Any requirement for further alteration to achieve safe sight distances are to be incorporated in the detailed engineering design drawings.

6. SUBMISSION AND APPROVAL OF PLANS

Prior to the commencement of development (with the exception of vegetation removal required in accordance with the endorsed traffic impact assessment), detailed plans and specifications must be submitted to the Manager, Works & Infrastructure for approval.

Such plans and specifications must show:

- a) Stormwater
 - i) Onsite collection and disposal of stormwater may be delegated to lot owners except for lots 1,2,3 & 12, where connection to a stormwater main is required, with appropriate easements where required.
 - ii) Provision of an integrated stormwater drainage system made up of mains, pits, swale drains and absorption trenches shall be provided to carry stormwater flows from a 10% AEP storm event (including underground water flows intercepted) arising from the development area and any catchments subtended by it.
 - iii) Provision of an overland flow path for flows up to a 1% AEP storm event on public land (or where unavoidable, with an appropriate easement).
 - iv) Provision of a suitable outfall, either into the existing system or an on- site stormwater disposal area.
- b) Roads
 - i) Provision of a fully constructed road for the full length of all the property frontages to current TSD/LGAT design standards or as otherwise specified as follows:
 - 5.5m wide double coat seal
 - 1.0m gravel shoulder
 - Appropriate table/verge drain
 - 30mm Type Asphaltic Concrete wearing course for cul-de-sac turning heads
 - ii) Provision of a 1.5m wide sealed footpath located on the road outside lots 1,2 & 3 as per Council requirements
 - iii) Provision of a single vehicular crossings for each lot within the subdivision,

APPENDIX A

DA Number:	2021/24
Applicant:	6ty Pty Ltd
Address of Development:	Bellbuoy Beach Road LOW HEAD

- iv) Provision of a suitable sized turning head (compliant with the endorsed Bushfire Hazard Management Plan in the case of a cul-de-sac,
 - v) all necessary line marking and signage
- c) Electricity, Communications & Other Utilities
- i) An underground reticulated electricity system and public street lighting scheme to service all lots and installed to the approval of the Responsible Authority. Intersection lighting is to be in accordance with the endorsed Traffic Impact Assessment and cul-de-sac lighting is to be low level and baffled. Lighting is to be limited to intersections and cul- de-sac heads.
 - ii) An underground telecommunications system to service all lots and installed to the approval of the Responsible Authority,

Detailed design drawings are to be prepared by a suitably qualified and experienced engineer or Engineering Consultancy and to the satisfaction of the Road Authority.

7. VEHICULAR CROSSOVERS

All lots are to be provided with a sealed driveway crossover in accordance with Tasmanian Standard Drawing TSD-R03-v1 and TSD-R04-v1 and to the satisfaction of Council. Minimum pipe size for vehicle crossings comprising culverts is to be 300mm diameter (and no less diameter than upstream pipes unless approved by council) with inverts installed to match table drain invert levels.

8. PART 5

Prior to the Sealing of the Final Plan, a Section 71 agreement must be executed, that provides the following:

The balance land is to be maintained by the owner at all times in accordance with the endorsed Bushfire Hazard Management Plan, prepared by Livingston Natural Resource Services, dated 10th February 2021 (attached).

Once executed, the agreement must be lodged and registered in accordance with Section 78 of the *Land Use Planning and Approvals Act 1993*.

All costs associated with preparing and registering the Agreement must be borne by the applicant.

9. EASEMENTS

Easements are required over all Council and third party services located in private property. The minimum width of any easement must be 3 metres for Council (public) mains. A greater or lesser width may be approved/required in appropriate circumstances.

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Applicant:	6ty Pty Ltd
Address of Development:	Bellbuoy Beach Road LOW HEAD

10. COMPLETION OF WORKS

All works must be carried out to Council standards and to the satisfaction of the Council's Manager, Works & Infrastructure and under the direct supervision of a civil engineer. Certification that all works have been carried out in accordance with the approved engineering design plans and to Council standards will be required prior to issue of the Certificate of Practical Completion.

11. CONSTRUCTION OF WORKS

Prior to the sealing of the Final Plan, all private and public infrastructure works must be constructed in accordance with the engineering design drawings approved by the Council's Manager, Works & Infrastructure in accordance with Condition 7.

The required infrastructure works must be as shown in the application documents and endorsed plans or as modified by the approval of the detailed engineering drawings and specifications.

12. CONSTRUCTION DOCUMENTATION

At the time of practical completion of the infrastructure, Council must be provided with construction documentation sufficient to show that the works are completed in accordance with Council standards and are locatable for maintenance or connection purposes. The construction documentation is to consist of:

- a) An "as constructed" plan in accordance with Council's standard requirements for as constructed drawings.
- b) A Closed Circuit Television inspection report for all stormwater mains constructed or incorporated in the works.
- c) Compaction and soil test results for all earthworks or pavement works.
- d) An engineer's certificate that each component of the works comply with the approved engineering plans and Council standards.

13. WORKS REQUIRED FOR EACH LOT IN A STAGE

Prior to the sealing of the Final Plan each lot in a stage must be provided with the following infrastructure and/or services:

- a) Fully constructed public road along all frontages, including the secondary frontage where a corner lot,
- b) A sealed vehicular crossing and driveway from the public road to the property boundary,
- c) The provisions of a constructed temporary turning head at any road stub providing access to more than a single lot,
- d) A stormwater connection to the public drainage system where required
- e) Access to underground electricity and communications infrastructure.

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Applicant: 6ty Pty Ltd
Address of Development: Bellbuoy Beach Road
LOW HEAD

14. DEFECT LIABILITY PERIOD

Prior to the sealing of the Plan of Survey, the person responsible must lodge with Council a bond and bank guarantee/cash deposit for the duration of the Defect Liability Period for the amount of 5% of the construction value of the public works.

15. CONVEYANCE OF ROADS

All roads in the Subdivision must be conveyed to the Council upon the issue by the Council's Manager, Works & Infrastructure, of the Certificate under Section 10 (7) of the *Local Government (Highways) Act 1982*. All costs involved in this procedure must be met by the developer.

16. RETICULATED SERVICES

- a) Underground power mains, street lighting and electrical services must be provided to each lot in accordance with a design approved by Aurora Energy. A copy of the approved design must be submitted to Council upon approval by Aurora Energy.
- b) An underground telecommunications distribution system including a connection to each lot must be provided in accordance with a design approved by Telstra or other approved supplier. A copy of the approved design must be submitted to Council upon approval by the telecommunications supplier.

17. PAYMENT IN LIEU OF PUBLIC OPEN SPACE

Prior to the sealing of the Final Plan, (or sealing of any individual stage), the developer must pay to the Council a sum equivalent to 5% of the unimproved value of the approved lots as determined by a registered land valuer procured at the subdivider's expense.

18. COVENANTS ON SUBDIVISIONS

Covenants or similar restrictive controls must not be included on or otherwise imposed on the titles to the lots created by the subdivision permitted by this permit unless:

- a) Such covenants or controls are expressly authorised by the terms of this permit; or
- b) Such covenants or similar controls are expressly authorised by the consent in writing of the Council.

19. TASWATER

The development must be in accordance with the Submission to Planning Authority Notice issued by TasWater (TWDA 2021/00348 - GTC attached).

APPENDIX A

DA Number:	2021/24
Applicant:	6ty Pty Ltd
Address of Development:	Bellbuoy Beach Road LOW HEAD

Permit Notes

1. This permit was issued based on the proposal documents submitted for DA 2021/24. Any other proposed development and/or use, including amendments to this proposal, may require a separate planning application and assessment against the Planning Scheme by Council. All enquiries can be directed to Council on 6382 8800 or via email: planning@georgetown.tas.gov.au
2. Separate consent is required by the Road Authority prior to any works being undertaken in the Council Road Reserve, including vegetation removal and stormwater infrastructure works.
3. Any other proposed development and/or use, including amendments to this proposal, may require a separate planning application and assessment against the Planning Scheme by Council. All enquiries can be directed to Council's Development Services on (03) 6382 8800 or via email: council@georgetown.tas.gov.au
4. This permit does not imply that any other approval required under any other by-law or legislation has been granted. Additional approvals from relevant agencies may be required before construction can commence.
5. This permit takes effect after:
 - a) The 14 day appeal period expires; or
 - b) Any appeal to the Resource Management and Planning Appeal Tribunal is abandoned or determined; or.
 - c) Any other required approvals under this or any other Act are granted.
6. A planning appeal may be instituted by lodging a notice of appeal with the Registrar of the Resource Management and Planning Appeal Tribunal. A planning appeal may be instituted within 14 days of the date the corporation serves notice of the decision on the applicant. For more information see the Resource Management and Planning Appeal Tribunal website www.rmpat.tas.gov.au
7. This permit is valid for two (2) years only from the date of approval and will thereafter lapse if the development is not substantially commenced. An extension may be granted if a request is received within 6 months of the expiration.
8. In accordance with the legislation, all permits issued by the permit authority are public documents. Members of the public will be able to view this permit (which includes the endorsed documents) on request, at the Council Office.

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Applicant: 6ty Pty Ltd
Address of Development: Bellbuoy Beach Road
LOW HEAD

9. If any Aboriginal relics are uncovered during works:
- a) All works are to cease within a delineated area sufficient to protect the unearthed and other possible relics from destruction,
 - b) The presence of a relic is to be reported to Aboriginal Heritage Tasmania Phone: (03) 6233 6613 or 1300 135 513 (ask for Aboriginal Heritage Tasmania)
Fax: (03) 6233 5555 Email: aboriginal@heritage.tas.gov.au; and
 - c) The relevant approval processes will apply with state and federal government agencies.



Rex Cassidy
MANAGER DEVELOPMENT & ENVIRONMENT

Submission to Planning Authority Notice

Council Planning Permit No.	DA 2021/24	Council notice date	4/03/2021
TasWater details			
TasWater Reference No.	TWDA 2021/00348-GTC	Date of response	23/03/2021
TasWater Contact	David Boyle	Phone No.	0436 629 652
Response issued to			
Council name	GEORGE TOWN COUNCIL		
Contact details	planning@georgetown.tas.gov.au		
Development details			
Address	BELLBOUY BEACH RD, LOW HEAD	Property ID (PID)	9026133
Description of development	Subdivision - 22 Lot		
Schedule of drawings/documents			
Prepared by	Drawing/document No.	Revision No.	Date of Issue
6ty°	20.225 Dwg P01	E	4/02/2021
Conditions			
<p>Pursuant to the <i>Water and Sewerage Industry Act 2008 (TAS)</i> Section 56P(1) TasWater imposes the following conditions on the permit for this application:</p> <p>CONNECTIONS, METERING & BACKFLOW</p> <ol style="list-style-type: none"> A suitably sized low pressure sewerage system and connections to each lot of the development must be designed and constructed to TasWater’s satisfaction and be in accordance with any other conditions in this permit. Note: Recycled water is not to be designed for this subdivision. Any removal/supply and installation of water meters and/or the removal of redundant and/or installation of new and modified property service connections must be carried out by TasWater at the developer’s cost. Prior to commencing construction of the subdivision, any water connection utilised for construction/the development must have a backflow prevention device and water meter installed, to the satisfaction of TasWater. <p>ASSET CREATION & INFRASTRUCTURE WORKS</p> <ol style="list-style-type: none"> Plans submitted with the application for Engineering Design Approval must, to the satisfaction of TasWater show, all existing, redundant and/or proposed property services and mains. Prior to applying for a Permit to Construct, to construct new infrastructure the developer must obtain from TasWater Engineering Design Approval for new TasWater infrastructure. The application for Engineering Design Approval must include engineering design plans prepared by a suitably qualified person showing the hydraulic servicing requirements for sewerage to TasWater’s satisfaction. Prior to works commencing, a Permit to Construct must be applied for and issued by TasWater. All infrastructure works must be inspected by TasWater and be to TasWater’s satisfaction. In addition to any other conditions in this permit, all works must be constructed under the supervision of a suitably qualified person in accordance with TasWater’s requirements. 			

8. Prior to the issue of a Consent to Register a Legal Document all additions, extensions, alterations or upgrades to TasWater's water and sewerage infrastructure required to service the development, generally as shown on the concept servicing plan "6ty° 20.225 Dwg P01 Rev E.", are to be constructed at the expense of the developer to the satisfaction of TasWater, with live connections performed by TasWater.
9. After testing, to TasWater's requirements, of newly created works, the developer must apply to TasWater for connection of these works to existing TasWater infrastructure, at the developer's cost.
10. At practical completion of the water and sewerage works and prior to TasWater issuing a Consent to a Register Legal Document, the developer must obtain a Certificate of Practical Completion from TasWater for the works that will be transferred to TasWater. To obtain a Certificate of Practical Completion:
 - a. Written confirmation from the supervising suitably qualified person certifying that the works have been constructed in accordance with the TasWater approved plans and specifications and that the appropriate level of workmanship has been achieved;
 - b. A request for a joint on-site inspection with TasWater's authorised representative must be made;
 - c. Security for the twelve (12) month defects liability period to the value of 10% of the works must be lodged with TasWater. This security must be in the form of a bank guarantee;
 - d. Work As Constructed drawings and documentation must be prepared by a suitably qualified person to TasWater's satisfaction and forwarded to TasWater.
11. After the Certificate of Practical Completion has been issued, a 12 month defects liability period applies to this infrastructure. During this period all defects must be rectified at the developer's cost and to the satisfaction of TasWater. A further 12 month defects liability period may be applied to defects after rectification. TasWater may, at its discretion, undertake rectification of any defects at the developer's cost. Upon completion, of the defects liability period the developer must request TasWater to issue a "Certificate of Final Acceptance". The newly constructed infrastructure will be transferred to TasWater upon issue of this certificate and TasWater will release any security held for the defects liability period.
12. The developer must take all precautions to protect existing TasWater infrastructure. Any damage caused to existing TasWater infrastructure during the construction period must be promptly reported to TasWater and repaired by TasWater at the developer's cost.
13. Ground levels over the TasWater assets and/or easements must not be altered without the written approval of TasWater.

FINAL PLANS, EASEMENTS & ENDORSEMENTS

14. Prior to the Sealing of the Final Plan of Survey, a Consent to Register a Legal Document must be obtained from TasWater as evidence of compliance with these conditions when application for sealing is made.
Advice: Council will refer the Final Plan of Survey to TasWater requesting Consent to Register a Legal Document be issued directly to them on behalf of the applicant.

DEVELOPMENT ASSESSMENT FEES

15. The applicant or landowner as the case may be, must pay a development assessment fee of \$675.71 and a Consent to Register a Legal Document fee of \$149.20 to TasWater, as approved by the Economic Regulator and the fees will be indexed, until the date paid to TasWater.
The payment is required within 30 days of the issue of an invoice by TasWater.
16. In the event Council approves a staging plan, a Consent to Register a Legal Document fee for each

stage, must be paid commensurate with the number of Equivalent Tenements in each stage, as approved by Council.

Advice

General
 For information on TasWater development standards, please visit <http://www.taswater.com.au/Development/Development-Standards>
 For application forms please visit <http://www.taswater.com.au/Development/Forms>
Advice to Planning Authority (Council) and developer on fire coverage
 TasWater cannot provide a supply of water for the purposes of firefighting to the lots on the plan.

Declaration

The drawings/documents and conditions stated above constitute TasWater’s Submission to Planning Authority Notice.

Authorised by

Jason Taylor
 Development Assessment Manager

TasWater Contact Details

Phone	13 6992	Email	development@taswater.com.au
Mail	GPO Box 1393 Hobart TAS 7001	Web	www.taswater.com.au

Bushfire Hazard Management Report: Subdivision

Report for: Dennis Lawrence

Property Location: Palawa Road, Bellbouy Beach

Prepared by: Scott Livingston

Livingston Natural Resource Services
299 Relbia Road
Relbia, 7258

Date: 10th February 2021



Client: Dennis Lawrence
temporary
Palawa Road, Bellbouy Beach, CT 180385/1, PID 970470

Property identification: Current zoning: Village, Georgetown Interim Planning Scheme 2013.

Proposal: 22 Lot + balance subdivision from 1 existing title.

Assessment A field inspection of the site was conducted to determine the Bushfire Risk and Bushfire Attack Level.

Assessment by: Scott Livingston

Master Environmental Management, Natural Resource Management Consultant.

Accredited Person under part 4A of the Fire Service Act 1979: Accreditation # BFP-105.

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LIMITATIONS

This report only deals with potential bushfire risk and does not consider any other potential statutory or planning requirements. This report classifies type of vegetation at time of inspection and cannot be relied upon for future development or changes in vegetation of assessed area.

DESCRIPTION

A 22 Lot + Utility lot roads and balance subdivision is proposed from existing title CT 180385/1, Palawa Road, Bellbouy Beach. The property is zoned Village, *Georgetown Planning Scheme, 2013*. The balance lot is around 528 ha and no development within that area is proposed, for the purposes of this assessment the balance lot is considered exempt for subdivision purposes and any future development will be assessed as required at the time of development.

The proposed subdivision has frontage to Palawa Road, the balance lot also has frontage to Bellbouy Beach Road. The area is not serviced by a reticulated water supply. A 90,000L static supply is located in the TasWater Treatment Plant to service the Bellbouy Beach development. Surrounding land is grassland, scrub and forest, with low threat vegetation around dwellings to the north and north east.

See Appendix 1 for maps and site plan, Appendix 2 for photos.

BAL AND RISK ASSESSMENT

The land is mapped as Bushfire Prone Area in planning scheme overlays.

VEGETATION

Lot		North	East	South	West
1	Vegetation, within 100m of lot boundary	0-50m grassland, 50-100m low threat	0-72m grassland, 72-100m scrub	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5	BAL 12.5
2	Vegetation, within 100m of lot boundary	0-72m grassland, 72-100m low threat	0-72m grassland, 72-100m scrub	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5	BAL 12.5

3	Vegetation, within 100m of lot boundary	0-90m grassland, 90-100m low threat	0-72m grassland, 72-100m scrub	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5	BAL 12.5
4	Vegetation, within 100m of lot boundary	0-100m grassland	0-72m grassland, 72-100m scrub	0-100m grassland	0-80m grassland, 80-100m scrub
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5	BAL 12.5
5	Vegetation, within 100m of lot boundary	0-100m grassland	0-72m grassland, 72-100m scrub	0-35m grassland, 35-100m scrub	0-80m grassland, 80-100m scrub
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5
6	Vegetation, within 100m of lot boundary	0-50m grassland, 50-100m low threat	0-72m grassland, 72-100m scrub	0-35m grassland, 35-100m scrub	0-80m grassland, 80-100m scrub
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5
7	Vegetation, within 100m of lot boundary	0-100m grassland	0-72m grassland, 72-100m scrub	0-35m grassland, 35-100m scrub	0-22m grassland, 22-100m scrub
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ

	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5
8	Vegetation, within 100m of lot boundary	0-100m grassland	0-100m grassland	0-20m grassland, 35-100m scrub	0-22m grassland, 22-100m scrub
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5
9	Vegetation, within 100m of lot boundary	0-30m grassland, 30 - 100 low threat	0-100m grassland	0-20m grassland, 35-100m scrub	0-20m grassland, 35-100m scrub
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5 / 19
10	Vegetation, within 100m of lot boundary	0-100 low threat	0-100m grassland	0-60m grassland, 06-100m scrub	0-20m low threat, 20-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL 12.5
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5 / 19
11	Vegetation, within 100m of lot boundary	0-100 low threat	0-100m grassland	0-80m grassland, 80-100m scrub	0-25 grassland. 25-100m low threat
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL Low*	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5 / 19
12	Vegetation, within 100m of lot boundary	0-100 low threat	0-100m grassland	0-100m grassland	0-65m grassland, 65-100m low threat
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°

	BAL Rating existing vegetation	BAL Low*	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5 / 19
13	Vegetation, within 100m of lot boundary	0-38m grassland, 38-100m low threat.	0-100m grassland	0-100m grassland	0-65m grassland, 65-100m low threat
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5	BAL 12.5 / 19	BAL 12.5 / 19
14	Vegetation, within 100m of lot boundary	0-100m grassland-eastern portion, 0-100m low threat western portion	0-50m grassland, 50-100m scrub	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL 12.5 / 19	BAL 12.5 / 19	BAL 12.5	BAL 12.5
15~17	Vegetation, within 100m of lot boundary	0-100m grassland	0-50m grassland, 50-100m scrub	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL 12.5	BAL 12.5 / 19	BAL 12.5	BAL 12.5
18	Vegetation, within 100m of lot boundary	0-100m grassland	0-50m grassland, 50-100m scrub	0-80m grassland, 80-100m scrub	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5 / 19	BAL 12.5	BAL 12.5
19	Vegetation, within 100m of lot boundary	0-100m grassland	0-50m grassland, 50-100m scrub	0-60m grassland, 60-100m scrub	0-100m grassland

	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5 / 19	BAL 12.5	BAL 12.5
20	Vegetation, within 100m of lot boundary	0-100m grassland	0-50m grassland, 50-100m scrub	0-40m grassland, 40-100m scrub	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL Low*	BAL 12.5 / 19	BAL 12.5 / 19	BAL 12.5
21	Vegetation, within 100m of lot boundary	0-65m grassland, 65-100m low threat	0-80m grassland, 80-100m scrub	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL FZ	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL 12.5	BAL 12.5 / 19	BAL 12.5 / 19	BAL 12.5
22	Vegetation, within 100m of lot boundary	0-80m low threat, 80-100m forest	0-50m grassland, 50-100m scrub	0-100m grassland	0-100m grassland
	Slope (degrees, over 100m)	Downslope 0-5°	Upslope/flat	Upslope/flat	Downslope 0-5°
	BAL Rating existing vegetation	BAL 12.5	BAL FZ	BAL FZ	BAL FZ
	BAL Rating – with HMA	BAL 12.5	BAL 12.5 / 19	BAL 12.5 / 19	BAL 12.5
Balance	no development planned, to be assessed at future development proposal. Surrounding land with the exception of previous subdivision lots is a mosaic of grass land, scrub and forest.				

BUILDING AREA BAL RATING

Setback distances for BAL Ratings have been calculated based on the vegetation that will exist after development and have also considered slope gradients. During development it is assumed adjacent lots may be managed as up to forest fuel loads.

Where no setback is required for fire protection other Planning Scheme setbacks may need to be applied, other constraints to building such as topography have not been considered.

The BAL ratings applied are in accordance with the Australian Standard AS3959-2009, *Construction of Buildings in Bushfire Prone Areas*, and it is a requirement that any habitable building, or building within 6m of a habitable building be constructed to the BAL ratings specified in this document as a minimum.

Bushfire Attack Level (BAL)	Predicted Bushfire Attack & Exposure Level
BAL-Low	Insufficient risk to warrant specific construction requirements
BAL-12.5	Ember attack, radiant heat below 12.5kW/m ²
BAL-19	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 12.5-19kW/m ²
BAL-29	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 19-29kW/m ²
BAL-40	Increasing ember attack and burning debris ignited by windborne embers together with increasing heat flux between 29-40kW/m ²
BAL-FZ	Direct exposure to flames radiant heat and embers from the fire front

Setbacks

	Grassland	Scrub	Forest
BAL 12.5			
Upslope and flat	14m	27m	32m
Downslope 0- 5°	16m	31m	38m
BAL 19			
Upslope and flat	10m	19m	23m
Downslope 0- 5°	11m	22m	27m

PROPOSED LOT BAL RATING

lot	BAL Rating	BAL Building Area with HMA
1 ~ 4	BAL 12.5	no setback requirement
5 ~ 7	BAL 12.5	14m from southern boundary
	BAL 19	10m from southern boundary
8	BAL 12.5	no setback requirement
9	BAL 12.5	14m from southwestern boundary
	BAL 19	10m from southwestern boundary
10 ~ 13	BAL 12.5	no setback requirement
14	BAL 12.5	14m from eastern boundary and eastern (18m) section of northern boundary
	BAL 19	10m from eastern boundary and eastern (18m) section of northern boundary
15 ~ 19	BAL 12.5	14m from eastern boundary

	BAL 19	10m from eastern boundary
20	BAL 12.5	14m from eastern and southern boundary
	BAL 19	10m from eastern and southern boundary
21	BAL 12.5	14m from eastern and southern boundary
	BAL 19	10m from eastern and southern boundary
22	BAL 12.5	4m from eastern boundary (HMA on balance lot)
	BAL 19	none required (HMA on balance lot)
Balance A & B	BAL 19	variable: future development to be assessed at time of approvals

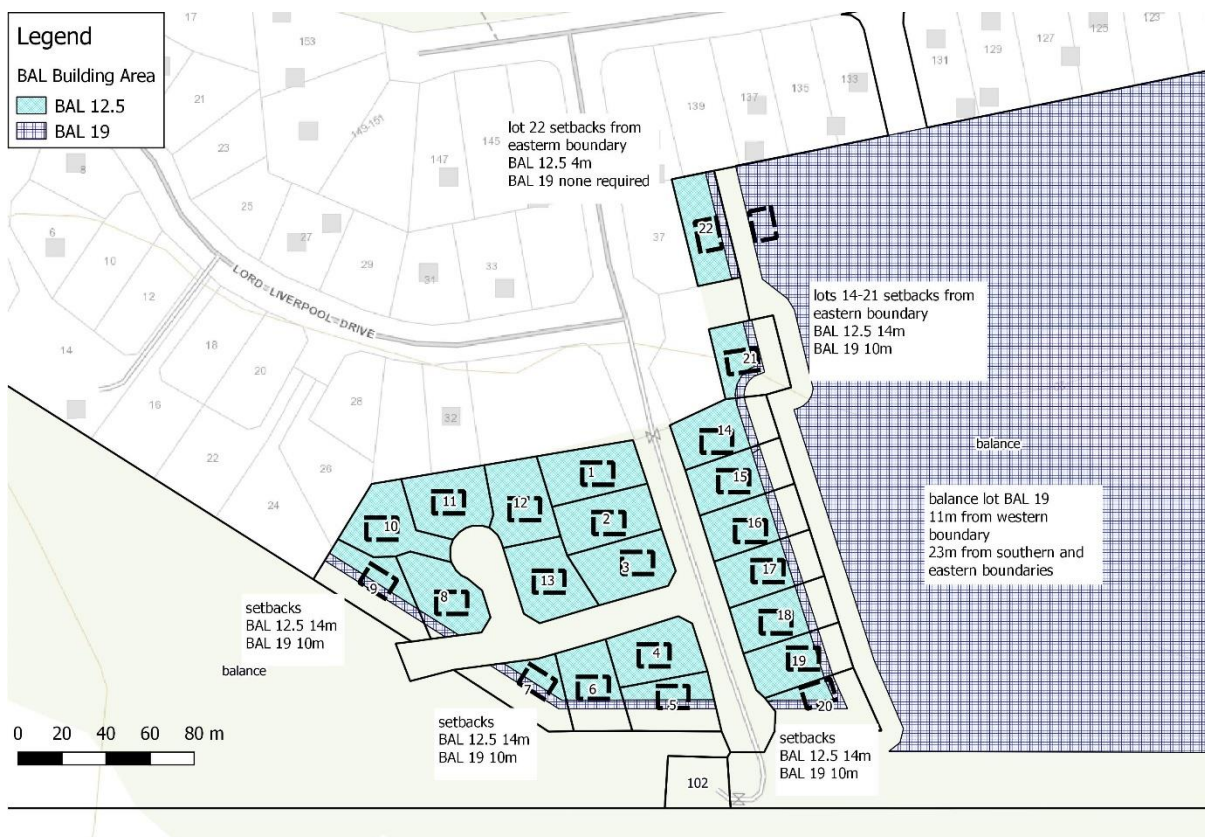


Figure 1: Building Area BAL19/ BAL 12.5

HAZARD MANAGEMENT AREAS

All areas of a subdivision lots and roads, excluding the balance lot managed as low threat vegetation from sealing of titles for that lot.

The balance lot must be managed as grassland within 19m of a developed lot. If staged development or issue of titles occurs all land within the balance lot that is part of the subdivision lots must be managed as low threat vegetation within 14m of any developed lot and no higher than grassland for the area within 19m of a developed

lot from sealing of titles for any lot and maintained in perpetuity. Land within 10m of Lot 22 on the balance lot must be managed as low threat vegetation from sealing of titles for that lot and maintained in perpetuity, the owner of lot 22 is responsible for maintenance on the balance lot. Roads and verges within the subdivision must be maintained as low threat vegetation within 14m of any developed lot from sealing of titles for that lot.

- Low threat vegetation includes maintained lawns (mown to < 100mm), gardens and orchards.
- “Grassland” may be unmown grasses, and ground cover species with less than 5% cover of trees or shrubs, tree canopies must be separated by at least 5m from other trees within the grassland, trees should be pruned to remove branches to at least 2m above the ground. Shrubs should not be retained under tree canopy.

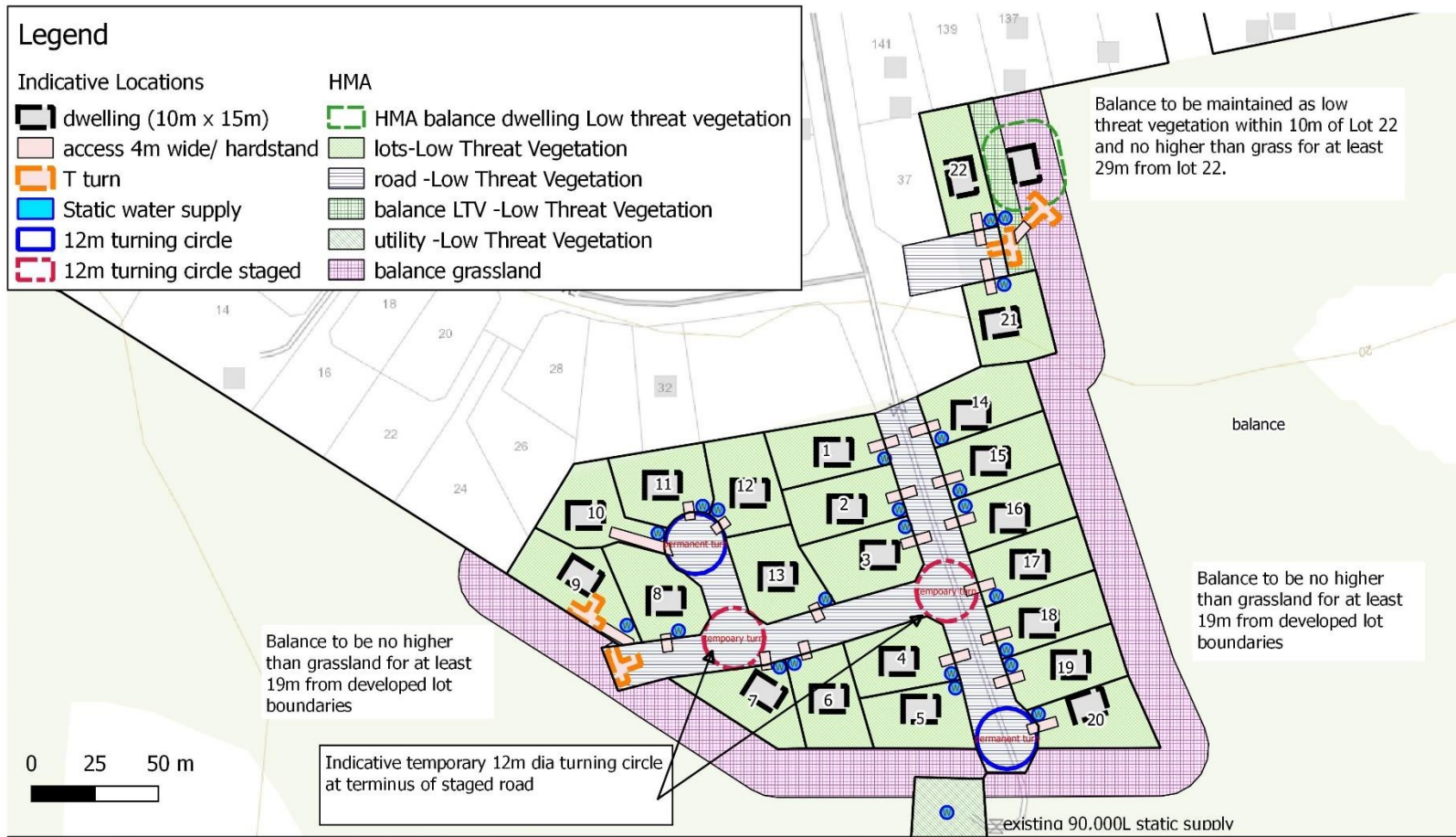


Figure 2: Hazard Management Areas

Staging

If staging occurs interim hazard management areas must be in place prior to sealing of titles. See Roads for temporary turning provision for staged roads.



Figure 4: Staging example

ROADS

Subdivision roads must comply with the relevant elements of Table E1 Roads from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code* with the exception of dead ends adjacent to Lots 7 & 9, 21 & 22.

The terminus of any dead-end road except the dead ends adjacent to Lots 7 & 9, 21 & 22, must meet turning circle provisions including a 12m outer radius, including temporary turning provision if road construction is staged, this may be gravelled and temporary until further stages are added. T turn on short dead ends adjacent to Lots 7 & 9, 21 & 22 provide adequate turn facility for fire appliances (Tom O'Connor - TFS, email 21/1/2021).

Cul de sac heads and dead-end T turns must have no parking signs. Where the carriageway of a turning circle is less than 12m outer radius, mountable kerbs and footpaths must be installed to provide compliant trafficable surface.

Table E1: Standards for roads

Element	Requirement
---------	-------------

A.	Roads	<p>Unless the development standards in the zone require a higher standard, the following apply:</p> <ul style="list-style-type: none"> (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 <i>Australian Standard AS1743-2001 Road signs-Specifications</i>.
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PROPERTY ACCESS

Access to lots must comply with the relevant elements of Table E2 Access from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code*. Access to all lots / water supply points is likely to be less than 30m. If access is greater than 30m it must meet Element B

Table E2: Standards for Property Access

Column 1	Column 2
Element	Requirement

A.	Property access length is less than 30 metres; or access is not required for a fire appliance to access a water	There are no specified design and construction requirements.
B.	Property access length is 30 metres or greater; or access for a fire appliance to a water connection point.	<p>The following design and construction requirements apply to property access:</p> <ol style="list-style-type: none"> (1) All-weather construction; (2) Load capacity of at least 20 tonnes, including for bridges and culverts; (3) Minimum carriageway width of 4 metres; (4) Minimum vertical clearance of 4 metres; (5) Minimum horizontal clearance of 0.5 metres from the edge of the carriageway; (6) Cross falls of less than 3 degrees (1:20 or 5%); (7) Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle; (8) Curves with a minimum inner radius of 10 metres; (9) 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 (10) Terminate with a turning area for fire appliances provided by one of the following: <ol style="list-style-type: none"> (a) A turning circle with a minimum inner radius of 10 metres; or (b) A property access encircling the building; or (c) A hammerhead “T” or “Y” turning head 4 metres wide and 8 metres long.
C.	Property access length is 200 metres or greater.	<p>The following design and construction requirements apply to property access:</p> <ol style="list-style-type: none"> (1) The Requirements for B above; and (2) Passing bays of 2 metres additional carriageway width and 20 metres length provided every 200 metres.
D.	Property access length is greater than 30 metres, and access is provided to 3 or	<p>The following design and construction requirements apply to property access:</p> <ol style="list-style-type: none"> (1) Complies with Requirements for B above; and (2) Passing bays of 2 metres additional carriageway width and 20 metres length must be provided every 100 metres.

FIRE FIGHTING WATER SUPPLY

The subdivision is not serviced by a reticulated supply. A 90,000 L static supply is located within the TasWater Sewerage Treatment plant (Lot 102) as a fire fighting supply for the Bellbouy Beach developments. This supply is within 90m hose of the furthest extent of dwellings on Lots 5 & 20, however to ensure full coverage of potential building areas, these lots should also have independent static supplies. New habitable buildings on any lot must have a static water supply installed to the standards listed in Table E5 prior to commencement of construction.

Table E5

Column 1 Element		Column 2 Requirement
A.	Distance between building area to be protected and water supply	<p>The following requirements apply:</p> <ul style="list-style-type: none"> a) The building area to be protected must be located within 90 metres of the water connection point of a static water supply; and b) The distance must be measured as a hose lay, between the water point and the furthest part of the building area.
B.	Static Water Supplies	<p>A static water supply:</p> <ul style="list-style-type: none"> 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: <ul style="list-style-type: none"> (i) metal; (ii) non-combustible material; or (iii) fibre-cement a minimum of 6 mm thickness.

Column		Column 2
Element		Requirement
C.	Fittings, pipework and accessories (including stands and tank supports)	<p>Fittings and pipework associated with a water connection point for a static water supply must:</p> <ul style="list-style-type: none"> (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 (compliant with <i>AS/NZS 3500.1-2003 Clause 5.23</i>); (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: <ul style="list-style-type: none"> (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	<p>The water connection 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</p> <ul style="list-style-type: none"> (a) comply with: Water tank signage requirements within <i>AS 2304-2011 Water storage tanks for fire protection systems</i>; or (b) comply with water tank signage requirements within <i>Australian Standard AS 2304-2011 Water storage tanks for fire protection systems</i>; or (c) comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service.

Column Element		Column 2 Requirement
E.	Hardstand	<p>A hardstand area for fire appliances must be provided:</p> <ul style="list-style-type: none"> (a) No more than three metres from the water connection 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.

CONCLUSIONS

A 22 Lot + Utility lot, roads and balance lot subdivision is proposed from existing title CT 180385/1 at Palawa Road, Bellbouy Beach. The area is mapped as bushfire prone in planning scheme overlays. The balance lot is around 53ha and no development within that area is proposed, for the purposes of this assessment a BAL 19 building area is shown for only part of the balance lot, additional building areas would be available on other portions of the balance lot subject to further assessment.

There is sufficient area on proposed lots to provide for BAL 19 habitable dwellings and will require a hazard management area – low threat vegetation on land adjacent to habitable buildings. The majority of lots have building areas for BAL 12.5 construction, some require increased setbacks from boundaries and hazard management areas. The potential building areas on Lots 5-9 and 14-21 could be increased if an appropriate agreement was in place for management of fuels on the balance lot as low threat vegetation. Lot 22 requires hazard management on the balance lot, which must be maintained as low threat vegetation and must be in place prior to sealing of titles for Lot 22 and maintained in perpetuity. The owner of Lot 22 is responsible for fuel management of this area.

Areas of the balance lot shown as hazard management areas must be maintained as no higher fuel load than grassland to protect proposed lots, if staging occurs interim hazard management on future lots within 14m of a developed lot (low threat vegetation) and balance lot (grassland) within 19m of a developed lot will be required prior to sealing of titles and maintained in perpetuity.

Static Water Supplies must be installed and meet the requirements of Table E 5 of *Planning Directive No. 5.1 Bushfire-Prone Areas Code* prior to commencement of construction of a habitable building.

Subdivision roads must comply with the relevant elements of Table E1 Roads from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code*. The proposed subdivision roads are dead end and longer than 200m except the road to Lots 21 & 22. Cul de sac heads must meet turning requirements, including the terminus of any staged road with the exception of the terminus adjacent to Lot 7 & 9 and 21 & 22, which may have T Turn facilities that meet the requirements of Table E2 Access from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code*.

Access to lots and water supply must comply with the relevant elements of Table E2 Access from the *Planning Directive No. 5.1 Bushfire-Prone Areas Code* prior to commencement of construction.

Habitable buildings must have a static water supply installed to the standards listed in Table 5 of the *Planning Directive No. 5.1 Bushfire-Prone Areas*. Water supply for new habitable buildings must be installed prior to commencement of construction.

REFERENCES

Georgetown (2013) *Georgetown Interim Planning Scheme*.

Standards Australia. (2009). *AS 3959-2009 Construction of Buildings in Bushfire Prone Areas*.

Planning Commission (2017), *Planning Directive No. 5.1 Bushfire-Prone Areas Code*

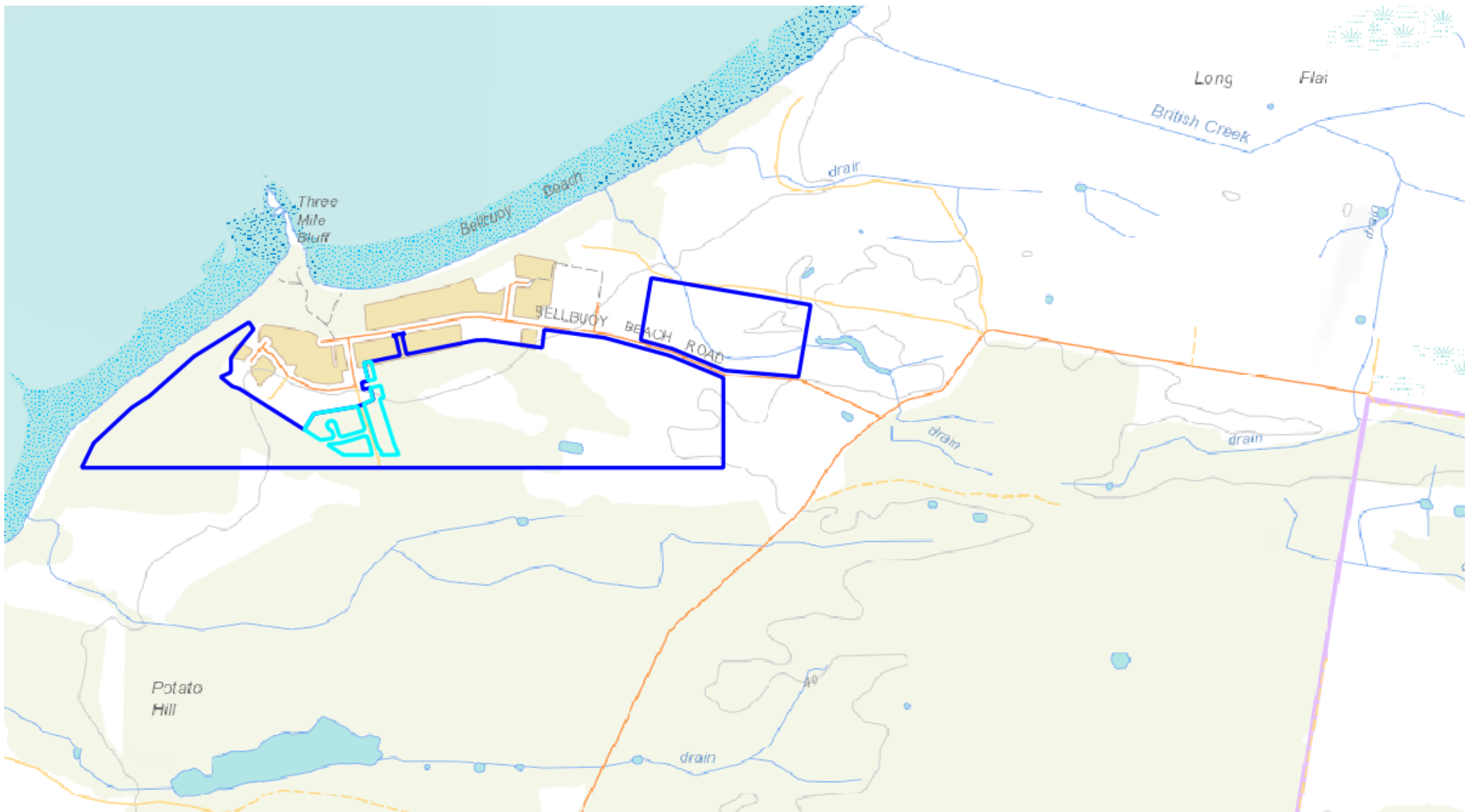


Figure 5: Location, property in blue, subdivision area light blue



Figure 6: Aerial Image: title



Figure 7: Aerial Image: subdivision area



Figure 8: Proposed Subdivision Plan



Figure 9: south across subdivision area



Figure 10: west across subdivision area

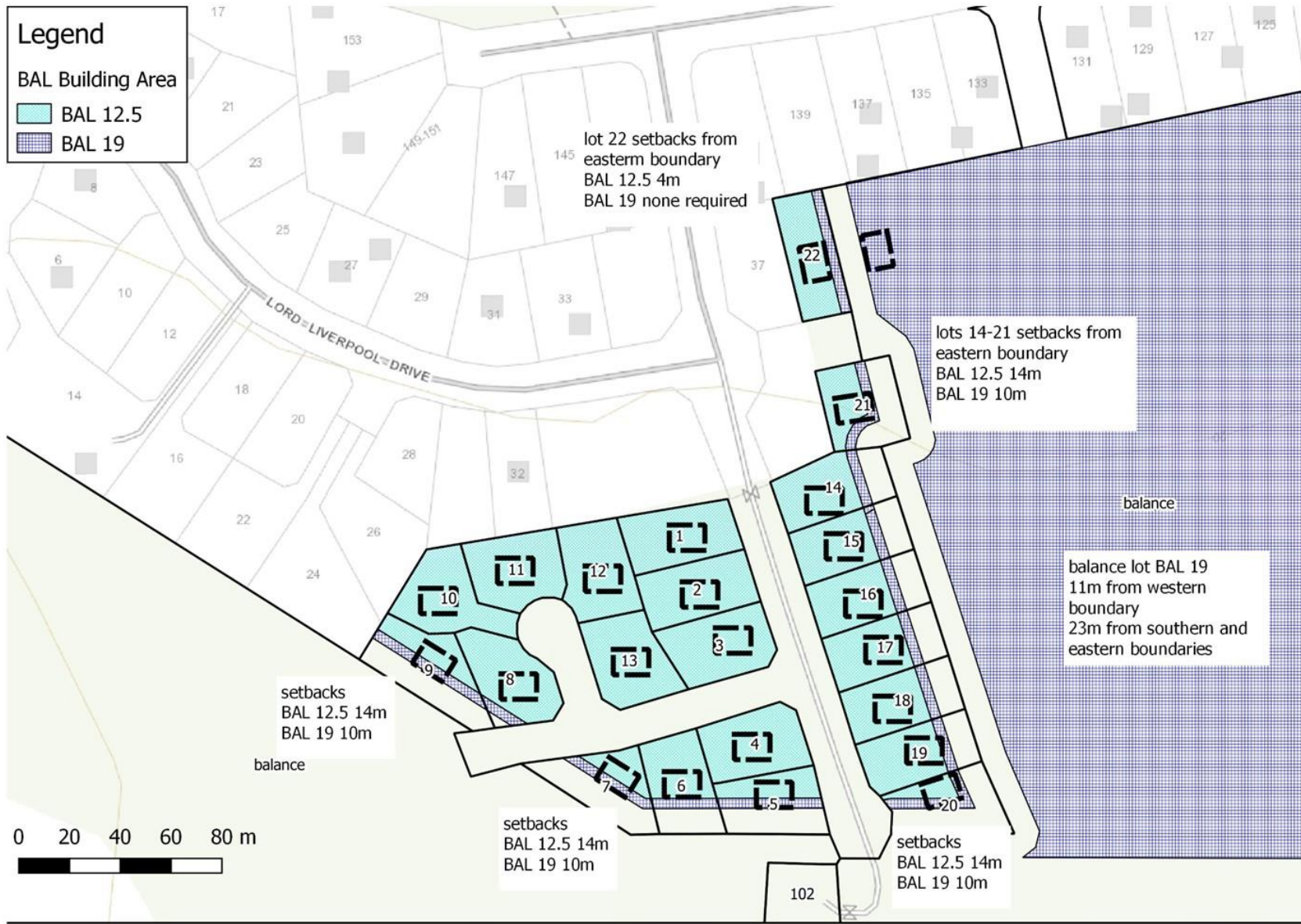


Figure 11: north from existing access to treatment plant

Bushfire Hazard Management Plan:

Construction: BAL 12.5 / 19 as shown

Buildings in Bushfire Prone Area to be built in accordance with the Building Code of Australia and Australian Standard AS3959.
 Building setbacks / BAL ratings apply to habitable buildings (Class 1, 2 3, 8 or 9) and class 10a buildings within 6m of a habitable building.



Proposed Development	Subdivision, 22lots + balance from 1 lot
Plan of Subdivision	6TY Plan of Subdivision PO1 , 4/2/2021
Property Owner	Dennis Lawrence
Address	Lot 1 Bellbouy Beach, Low Head
CT	180385/1
PID	9700470

for the balance lot and roads at any stage following must be in place and compliant prior to sealing of titles and be maintained in perpetuity:

- Hazard Management Areas ,Roads

for future habitable buildings the following must be installed/ compliant prior to commencement of construction and be maintained in perpetuity:

- Hazard Management Areas, Access , Water supply

The owner of a lot is responsible for management of vegetation and maintenance of infrastructure within a lot , the owner of Lot 22 is responsible for maintenance of hazard management area within 10m of Lot 22 on the balance lot.

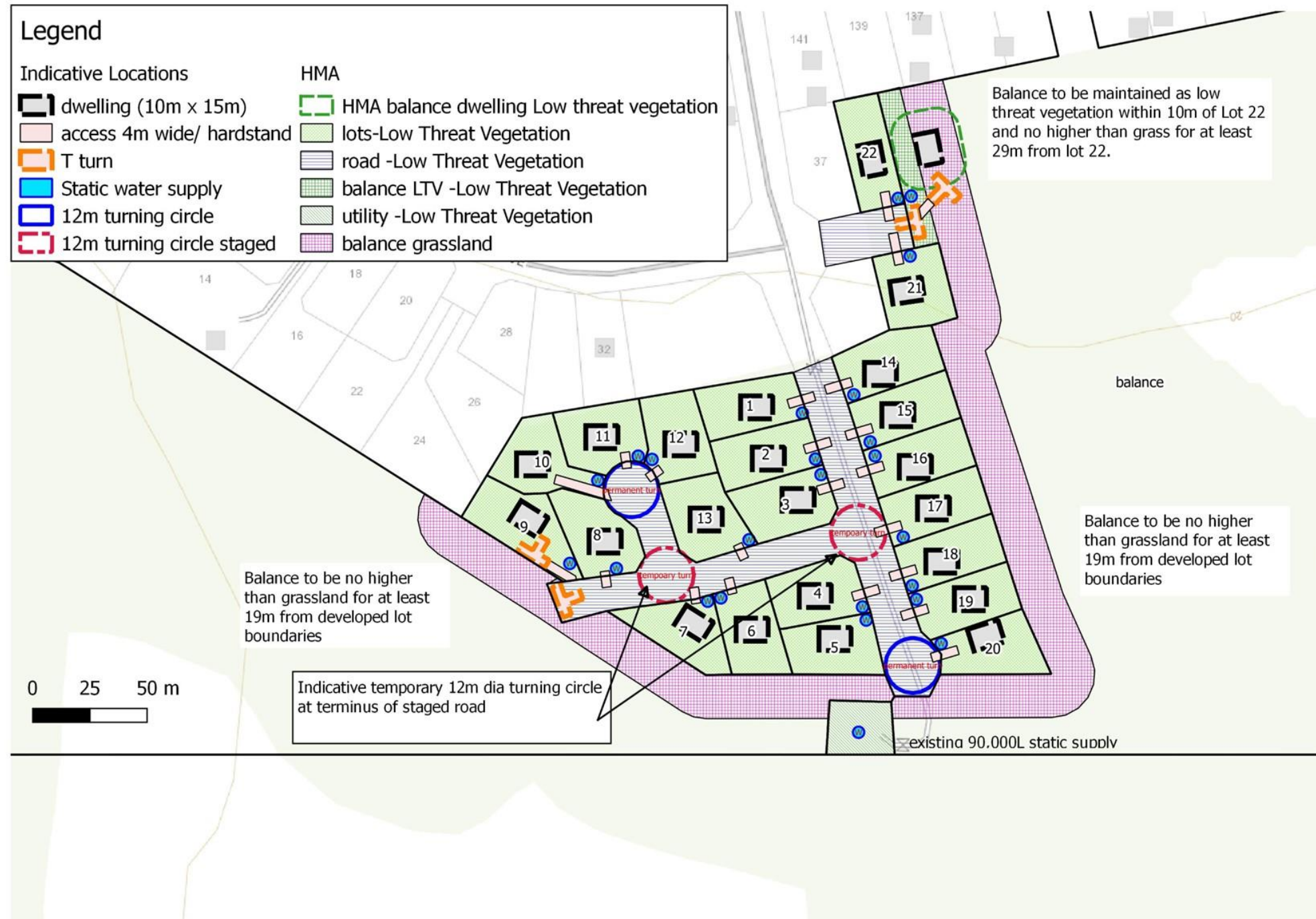
lot	BAL Rating	BAL Building Area with HMA
1~ 4	BAL 12.5	no setback requirement
5~ 7	BAL 12.5	14m from southern boundary
	BAL 19	10m from southern boundary
8	BAL 12.5	no setback requirement
9	BAL 12.5	14m from southwestern boundary
	BAL 19	10m from southwestern boundary
10~ 13	BAL 12.5	no setback requirement
14	BAL 12.5	14m from eastern boundary and eastern (18m) section of northern boundary
	BAL 19	10m from eastern boundary and eastern (18m) section of northern boundary
15~ 19	BAL 12.5	14m from eastern boundary
	BAL 19	10m from eastern boundary
20	BAL 12.5	14m from eastern and southern boundary
	BAL 19	10m from eastern and southern boundary
21	BAL 12.5	14m from eastern and southern boundary
	BAL 19	10m from eastern and southern boundary
22	BAL 12.5	4m from eastern boundary (HMA on balance lot)
	BAL 19	none required (HMA on balance lot)
Balance A & B	BAL 19	variable: future development to be assessed at time of approvals

This BHMP has been prepared to satisfy the requirements of the *Georgetown Planning Scheme, 2013* and *Planning Directive No. 5.1 Bushfire-Prone Areas Code..*

This plan should be read in conjunction with the report titled: Bushfire Hazard Management Report ct 180385-1 Bellbouy Beach, Livingston Natural Resource Services

Scott Livingston
 Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
 Date 10/2/2021
 SRL21/02S





Hazard Management Areas

All areas of a subdivision lots and roads, excluding the balance lot managed as low threat vegetation from sealing of titles for that lot.

The balance lot must be managed as grassland within 19m of a developed lot. If staged development or issue of titles occurs all land within the balance lot that is part of the subdivision lots must be managed as low threat vegetation within 14m of any developed lot and no higher than grassland for the area within 19m of a developed lot from sealing of titles for any lot and maintained in perpetuity. Land within 10m of Lot 22 on the balance lot must be managed as low threat vegetation from sealing of titles for that lot and maintained in perpetuity, the owner of lot 22 is responsible for maintenance on the balance lot. Roads and verges within the subdivision must be maintained as low threat vegetation within 14m of any developed lot from sealing of titles for that lot Low Threat/ Managed Land: managed gardens orchards or lawns maintained to < 100mm in height.

Maintenance Schedule:

- Cut lawns to less than 100mm and maintained
- Remove pine bark and other flammable garden mulch
- Prune larger trees to establish and maintain horizontal and vertical canopy separation
- Minimise storage of petroleum fuels
- Maintain road access to the dwelling and water connection point.
- Remove fallen limbs, leaf & bark from roofs, gutters and around buildings.

Scott Livingston
 Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
 Date 10/2/2021

SRL21/02S

ROADS

All roads within the subdivision must comply with the following:

- 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;
- i. terminus must have 'No Parking' zone indicated by a road sign that complies with *Australian Standard AS1743-2001 Road signs-Specifications*.
- K. dead-end or cul-de-sac roads have a turning circle with a minimum 12m outer radius; except except the dead ends adjacent to Lots 7 & 9, 21 & 22 which may have a hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.

The terminus of any staged road must comply with requirements I & j

Access

Access to a to a habitable building or water supply point it must be constructed to the following standards if greater than 30m in length.

The following design and construction requirements apply to property access:

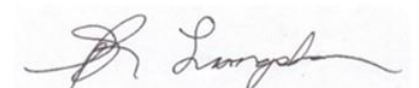
- a. All-weather construction;
- b. Load capacity of at least 20 tonnes, including for bridges and culverts;
- c. Minimum carriageway width of 4 metres;
- d. Minimum vertical clearance of 4 metres;
- e. Minimum horizontal clearance of 0.5 metres from the edge of the carriageway;
- f. Cross falls of less than 3 degrees (1:20 or 5%);
- g. Dips less than 7 degrees (1:8 or 12.5%) entry and exit angle;
- h. Curves with a minimum inner radius of 10 metres;
- i. 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
- 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; or
 - ii) A property access encircling the building; or a hammerhead "T" or "Y" turning head 4 metres wide and 8 metres long.

Water Supply

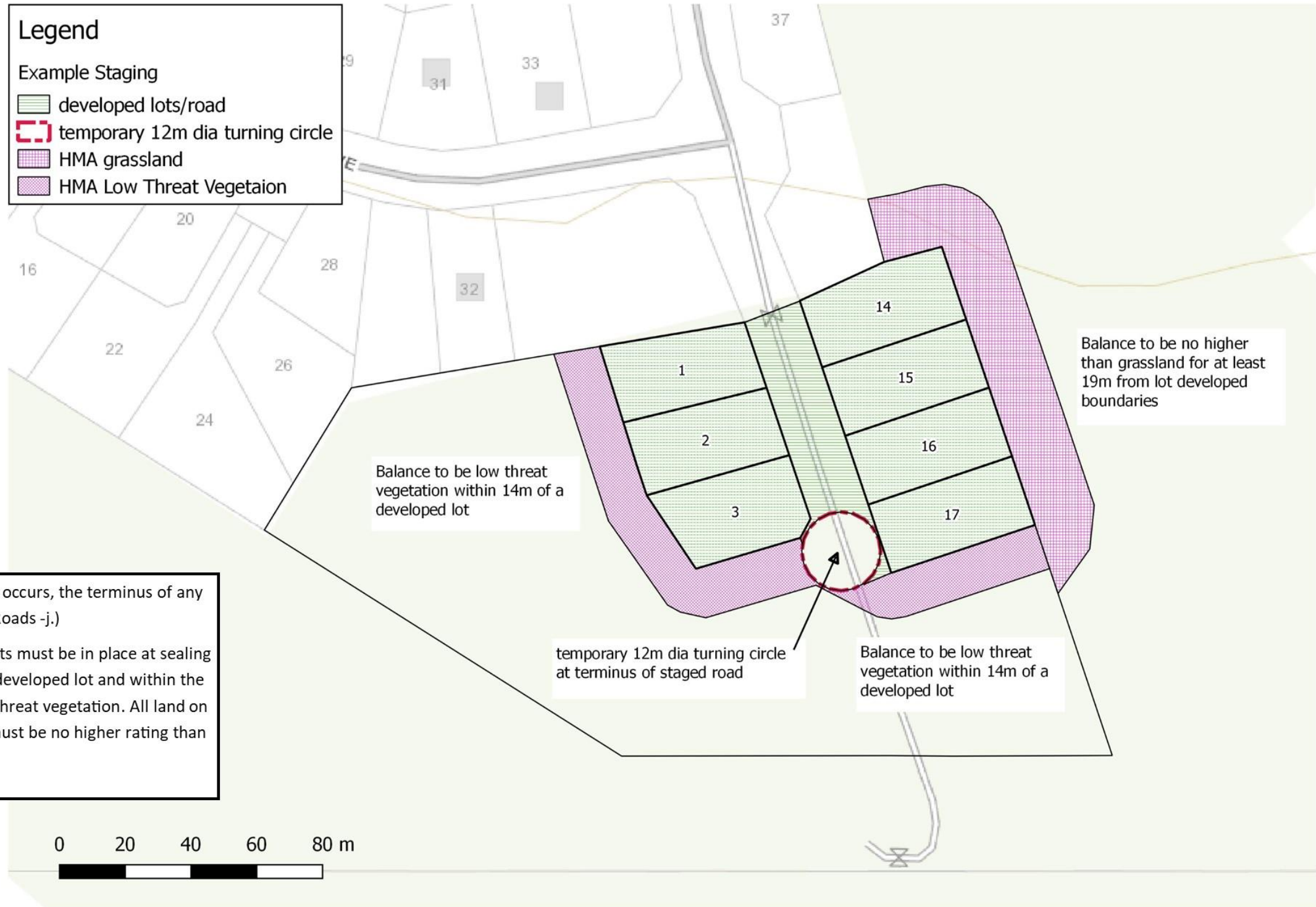
- A.. Static water supply must have minimum of 10,000l dedicated as a firefighting water supply for each building area
- b. Be located more than 6m but less than 90m from the furthest extent of the dwelling.
- c. Must be within 3m of accessible hard standing connected to the property access
- d. Must be metal, concrete or lagged by non-combustible materials,
- e. accessible and available for connection at all times;
- f. 6ank fittings must be compliant with the following
 - g. a minimum nominal internal diameter of 50mm;
 - h. fitted with a valve with a minimum nominal internal diameter of 50mm;
 - i. Be metal or lagged by non-combustible materials if above ground;
 - j. Have a DIN or NEN standard forged Storz 65 mm coupling fitted with a suction washer for connection to fire fighting equipment;
 - k. is fitted with a blank cap and securing chain (minimum 220 mm length);
- l. 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 water tank signage requirements within *Australian Standard AS 2304-2011 Water storage tanks for fire protection systems*; or
 - comply with the Tasmania Fire Service Water Supply Signage Guideline published by the Tasmania Fire Service

Scott Livingston
Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
Date 10/2/2021

SRL21/02S



Staged Development



If staged development of infrastructure and lots occurs, the terminus of any staged road must meet turning requirements. (Roads -j.)

Interim hazard management areas for staged lots must be in place at sealing of titles for those lots. All land within 14m of a developed lot and within the subdivision boundary must be managed as low threat vegetation. All land on the balance lot within 19m of a developed lot must be no higher rating than grassland.

Scott Livingston
 Accreditation: BFP – 105: 1, 2, 3A, 3B, 3C
 Date 10/2/2021
 SRL21/02S

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:

Palawa Road, Bellbouy Beach

Certificate of Title / PID:

CT 180385/1, PID 970470

2. Proposed Use or Development

Description of proposed Use and Development:

22 lot + balance subdivision from 1 existing title

Applicable Planning Scheme:

Georgetown Interim Planning Scheme 2013

3. Documents relied upon

This certificate relates to the following documents:

Title	Author	Date	Version
Bushfire Hazard Management Report, CT 180385-1 Palawa Road Bellbouy Beach	Scott Livingston	10/2/2021	1
Bushfire Hazard Management Plan, CT 180385-1 Palawa Road Bellbouy Beach	Scott Livingston	10/2/2021	1
Subdivision Plan	6ty	4/2/2021	P01E

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: balance lot only

<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 checked="" 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> T turn on short dead ends, approved by TFS (Tom O'Connor, email 21/1/2021)
<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: **Phone No:**

Postal Address: **Email Address:**

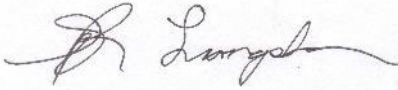
Accreditation No: **Scope:**

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:

Date:

Certificate Number:

(for Practitioner Use only)

**CERTIFICATE OF QUALIFIED PERSON – ASSESSABLE
ITEM**

Section 321

Form **55**

To: *Owner /Agent*

Address

Suburb/postcode

Qualified person details:

Qualified person:

Address:

Phone No:

Fax No:

Licence No:

Email address:

Qualifications and Insurance details:

(description from Column 3 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Speciality area of expertise:

(description from Column 4 of the Director's Determination - Certificates by Qualified Persons for Assessable Items)

Details of work:

Address: Palawa Road

Lot No: 1-22

Bellbouv Beach

7253

Certificate of title No: 180385/1

The assessable item related to this certificate:

Bushfire Attack Level (BAL)

(description of the assessable item being certified)

Assessable item includes –

- a material;
- a design
- a form of construction
- a document
- testing of a component, building system or plumbing system
- an inspection, or assessment, performed

Certificate details:

Certificate type:

Bushfire Hazard

(description from Column 1 of Schedule 1 of the Director's Determination - Certificates by Qualified Persons for Assessable Items n)

This certificate is in relation to the above assessable item, at any stage, as part of - (tick one)

building work, plumbing work or plumbing installation or demolition work:

or

a building, temporary structure or plumbing installation:

In issuing this certificate the following matters are relevant –

Documents: Bushfire Attack Level Assessment Report and Bushfire Hazard Management Plan

Relevant calculations: NA

Australian Standard 3959

- Planning Directive No.5.1
- Building Amendment Regulations 2016
- Director of Building Control, Determination
 - Application of Requirements for Building in Bushfire Prone Areas. (Aug 2017)
- Guidelines for development in bushfire prone areas of Tasmania

Substance of Certificate: (what it is that is being certified)

1. Assessment of the site Bushfire Attack Level (BAL) to Australian Standards 3959

Assessed as -BAL 19 / BAL 12.5

2. Bushfire Hazard Management Plan

Proposal is compliant with DTS requirements, clauses 4.1, 4.2, 4.3 & 4.4 Directors Determination Requirements for Building in Bushfire Prone Areas (v2.1)

Scope and/or Limitations

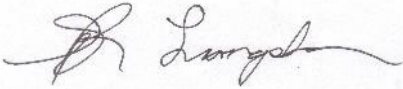
I certify the matters described in this certificate.

Signed:

Certificate No:

Date:

Qualified person:



SRL21/02S

10/2/021



PALAWA ROAD, BELLBUOY BEACH

22 LOT SUBDIVISION

TRAFFIC IMPACT ASSESSMENT

DECEMBER 2020





Palawa Road, Bellbuoy Beach 22 Lot Subdivision

TRAFFIC IMPACT ASSESSMENT

- Final
- December 2020

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Document history and status

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2	22 nd Dec 2020	R Burk	R Burk	22 nd Dec 2020	Final

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Author:	Richard Burk
Project manager:	Richard Burk
Name of organisation:	6ty
Name of project:	Bellbuoy TIA
Name of document:	Bellbuoy TIA
Document version:	Final
Project number:	



1. Introduction

1.1 Background

A 22-lot subdivision of CT Vol. 179646 Fol. 1 is proposed off Palawa Road, Bellbuoy Beach. A Traffic Impact Assessment (TIA) has been undertaken in support of the proposal that considers the existing roads and traffic affected, current and future traffic generation due to the proposal and the impact this will have on Palawa Road, Lord Liverpool Drive and Bellbuoy Beach Road.

This Traffic Impact Assessment (TIA) should be submitted with the development application for the proposal and has been prepared based on Department of State Growth guidelines and provide details as follows:

- Anticipated additional traffic and pedestrian movements
- The significance of the impact of these movements on the existing road network
- Any changes required to accommodate the additional traffic

1.2 Objectives

A Traffic Impact Assessment is a means for assisting in the planning and design of sustainable development proposals that consider:

- Safety and capacity
- Equity and social justice
- Economic efficiency and the environment and
- future development with traffic projections for 10 years

1.3 Scope of Traffic Impact Assessment (TIA)

This TIA considers in detail the impact of the proposal on Palawa Road, Lord Liverpool Drive and Bellbuoy Beach Road.

1.4 References

- AS 1742.1 – 2014 – General introduction and index of signs
- AS /NZS 2890.1- 2004 – Off-street car parking
- AS /NZS 2890.6 - 2004 – Off-street car parking for people with disabilities
- RTA Guide to Traffic Generating Developments – 2002
- George Town Interim Planning Scheme 2013
- Austroads Guide to Road Design Part 4A Unsignalised and Signalised Inter. 2017
- Austroads Guide to Traffic Man. Part 6: Inter., Interchanges & Crossings 2019.



1.5 Glossary of Terms

AADT	Annual Average Daily Traffic - The total number of vehicles travelling in both directions passing a point in a year divided by the number of days in a year.
Acceleration Lane	An auxiliary lane used to allow vehicles to increase speed without interfering with the main traffic stream. It is often used on the departure side of intersections.
Access	The driveway by which vehicles and/or pedestrians enter and/or leave the property adjacent to a road.
ADT	Average Daily Traffic – The average 24-hour volume being the total number of vehicles travelling in both directions passing a point in a stated period divided by the stated number of days in that period.
Austrroads	The Association of Australian and New Zealand road transport and traffic authorities and includes the Australian Local Government Association.
Delay	The additional travel time experienced by a vehicle or pedestrian with reference to a base travel time (e.g. the free flow travel time).
DSG	Department of State Growth – The Tasmanian Government Department which manages the State Road Network.
GFA	Gross Floor Area
Intersection Kerb	The place at which two or more roads meet or cross. A raised border of rigid material formed at the edge of a carriageway, pavement or bridge.
km/h	Kilometres per hour
Level of Service	An index of the operational performance of traffic on a given traffic lane, carriageway or road when accommodating various traffic volumes under different combinations of operating conditions. It is usually defined in terms of the convenience of travel and safety performance.
m	Metres
Median	A strip of road, not normally intended for use by traffic, which separates carriageways for traffic in opposite directions. Usually formed by painted lines, kerbed and paved areas grassed areas, etc.
Movement	A stream of vehicles that enters from the same approach and departs from the same exit (i.e. with the same origin and destination).
Phase	The part of a signal cycle during which one or more movements receive right-of-way subject to resolution of any vehicle or pedestrian conflicts by priority rules. A phase is identified by at least one movement gaining right-of-way at the start of it and at least one movement losing right-of-way at the end of it.



Sight Distance	The distance, measured along the road over which visibility occurs between a driver and an object or between two drivers at specific heights above the carriageway in their lane of travel.
Signal Phasing	Sequential arrangement of separately controlled groups of vehicle and pedestrian movements within a signal cycle to allow all vehicle and pedestrian movements to proceed.
SISD	Safe Intersection Sight Distance – The sight distance provides sufficient distance for a driver of a vehicle on the major road to observe a vehicle on a minor road approach moving into a collision situation and to decelerate to a stop before reaching the collision point.
Speed	Distance travelled per unit time.
85th Percentile	The speed at which 85% of car drivers will travel slower and 15% will travel faster. A control method that allows a variable sequence and variable duration of signal displays depending on vehicle and pedestrian traffic demands.
Traffic-actuated Control	A control method that allows a variable sequence and variable duration of signal displays depending on vehicle and pedestrian traffic demands.
Traffic Growth Factor	A factor used to estimate the percentage annual increase in traffic volume.
Trip	A one-way vehicular movement from one point to another excluding the return journey. Therefore, a vehicle entering and leaving a land use is counted as two trips. (RTA Guide to Traffic generating Developments).
Turning Movement	The number of vehicles observed to make a particular turning movement (left or right turn, or through movement) at an intersection over a specified period.
Turning Movement Count	A traffic count at an intersection during which all turning movements are recorded.
Vehicle Actuated Traffic Signals	Traffic signals in which the phasing varies in accordance with the detected presence of vehicles on the signal approaches.
vpd	vehicles per day – The number of vehicles travelling in both directions passing a point during a day from midnight to midnight.
vph	vehicles per hour – The number of vehicles travelling in both directions passing a point during an hour.



1.6 Statement of Qualifications and Experience

This TIA has been prepared by Richard Burk, an experienced and qualified traffic engineer in accordance with the requirements of the Department of State Growth's guidelines and Council's requirements. Richard's experience and qualifications include:

- 33 years professional experience in road and traffic engineering industry
 - Director Traffic and Civil Services Pty Ltd since May 2017
 - Manager Traffic Engineering, Department of State Growth until May 2017.
 - Previous National committee memberships of Austroads Traffic Management and State Road Authorities Pavement Marking Working Groups
- Master of Traffic, Monash University, 2004
- Post Graduate Diploma in Management, Deakin University, 1995
- Bachelor of Civil Engineering, University of Tasmania, 1987
-

A handwritten signature in blue ink, appearing to read 'Richard Burk', is positioned above the printed name.

Richard Burk

BE (Civil) M Traffic Dip Man. MIE Aust CPEng
Director Traffic and Civil Services Pty Ltd

2. Site Description

The proposed subdivision development is situated at the western end of Bellbuoy Beach and southern end of Palawa Road as shown in figure 1. The proposal extends south of Palawa Road and Lord Liverpool Drive as shown in figure 2 and 3. The land is yet to be fully cleared and gentle undulating Palawa Road and Lord Liverpool Drive are rural residential in nature and standard with minimal supporting infrastructure.

Bellbuoy Beach Road connects Bellbuoy Beach to Old Aerodrome Road and George Town.

Figure 1 -Development site



Source: LISTmap, DPIPWE



Figure 2 – Road network adjacent to the development site



Source: LISTmap, DPIPWE

Figure 3 – Aerial view of road network adjacent to the development site

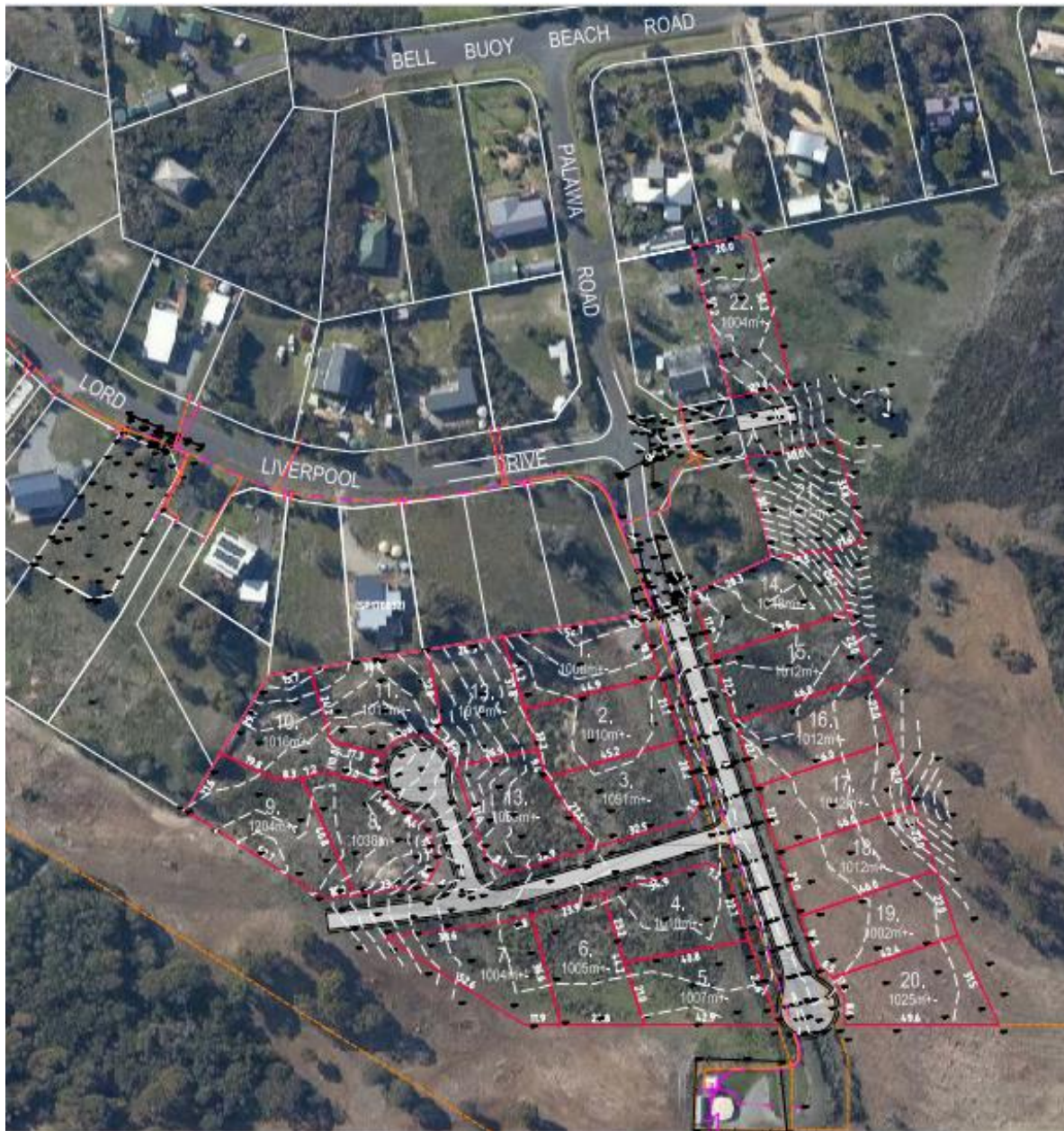


3. Proposed Development

3.1 Description of Proposed Development

The proposal is to subdivide CT Vol. 179646 Fol. 1 into 22 lots. The proposed subdivision accesses are via Palawa Road and Lord Liverpool Drive, see figure 4. The Plan of Subdivision is attached in Appendix A

Figure 4 – Proposed development layout

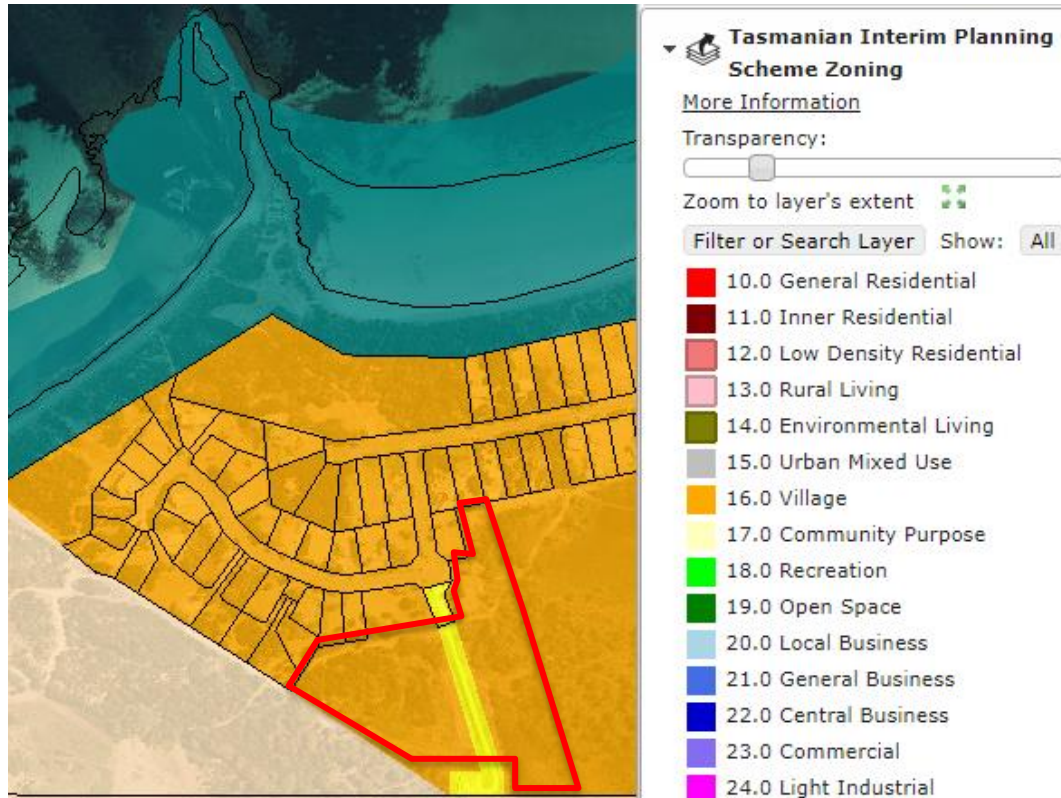




3.2 Council Planning Scheme

The proposed development involves land currently zoned Village in accordance with the George Town Interim Planning Scheme 2013, see Figure 5.

Figure 5 – Development site is within Village zoning.



Source: LISTmap, DPIPWE

3.3 Local Road Network Objectives

The George Town Council (GTC) objective is to maintain traffic safety and transport efficiency of the Council road network.



4. Existing Conditions

4.1 Transport Network

Old Aerodrome Road connects Bellbuoy Beach to George Town . The local transport network consists of Bellbuoy Beach Road, Palawa Road and Lord Liverpool Drive that are all Council roads and various speed limits apply.

4.1.1 Bellbuoy Beach Road

Bellbuoy Beach Road has a local access and minor collector road function with a posted speed limit of 60km/h. It has a trafficable width of 6m with a 5.5m seal in good condition and no line marking, or footpaths. Delineation is provided by guideposts. There is a signed car park/bus stop at the western end. Figures 6 -10 show the nature of the road.

The density of roadside development is low. Some pedestrian and cyclist activity is anticipated especially during holidays and weekends in the warmer months due to the nearby beach access. Bellbuoy Beach Road is on a school bus route.

It is understood GTC is considering lowering the speed management limit at Bellbuoy Beach by introduction of a 50 km/h Area speed limit on the approach to the populated area.

Figure 6 – Bellbuoy Beach Road Eastern approach to Bellbuoy Beach



60 Km/h posted speed limit approaching Bellbuoy Beach

Figure 7 – Looking west along Bellbuoy Beach Road from Palawa Road junction



Streetlighting at the Bellbuoy Beach Rd / Palawa Rd junction.



Figure 8 – Seal condition at Bellbuoy Beach Rd / Palawa Rd junction



Figure 9 – Looking west towards the end of Bellbuoy Beach Rd



**Carpark & Bus Zone
along the beach side of
the road**

Figure 10 – Looking east along Bellbuoy Beach Rd from Palawa Rd



**Note children/bus sign
along the beach side of
the road**



4.1.2 Bellbuoy Beach Rd / Palawa Rd junction

Figure 11 shows the Bellbuoy Beach Road / Palawa Road junction layout and figures 12-16 show available sight lines.

Figure 11 – Aerial view of Bellbuoy Beach Rd / Palawa Rd junction



Source: LISTmap, DPIPW

Figure 12 – Looking right from Palawa Rd along Bellbuoy Beach Rd



Sight distance right is 120m but sensitive to bush. See also Figure 13.

Figure 13 – Looking right from Palawa Rd along Bellbuoy Beach Rd



Pruning of bush is recommended to keep sight line clear.



Figure 14 – Looking left from Palawa Rd along Bellbuoy Beach Rd



Sight distance
left is 80m.

Figure 15 – Bellbuoy Beach Rd western approach to Palawa Rd



Figure 16 – Palawa Rd approach to Bellbuoy Beach Rd





4.1.3 Palawa Road

Palawa Road has a local access function and due to the density of roadside development and streetlight is considered developed and operating under the General Urban default speed limit of 50km/hr. It has a trafficable width of 6m with no line marking or footpaths. Guideposts provide delineation.

4.1.4 Palawa Rd / Lord Liverpool Dr junction

Figure 17 shows the Palawa Road / Lord Liverpool Drive junction layout and figures 18-22 show available sight lines.

Figure 17 – Aerial view of Palawa Rd / Lord Liverpool Dr junction



Source: LISTmap, DPIPWE

Figure 18 – Looking right along Palawa Rd from Lord Liverpool Dr



Sight distance right is 57m,
130m is possible with pruning
of bush to clear the sight line.

Figure 19 – Looking left along Palawa Rd from Lord Liverpool Dr



Sight distance left is 45m,
120m is possible with pruning
of bush to clear the sight line.



Figure 20 – Palawa Rd southern approach to Lord Liverpool Dr



Figure 21 – Lord Liverpool Dr Eastern approach to Palawa Rd



Figure 22 – Lord Liverpool Dr western approach to Palawa Rd





4.1.5 Lord Liverpool Dr

Lord Liverpool Drive has a local access function and due to the density of roadside development and streetlight is considered developed and operating under the General Urban default speed limit of 50km/hr. It has a trafficable width of 6m with no line marking or footpaths. Guideposts provide delineation.

4.1.6 Palawa Rd / Proposed Road A junction

Figures 23 & 24 shows the Palawa Road /Proposed Road A junction site and figures 25-27 show available sight lines.

Figure 23 – Aerial view of Palawa Rd / proposed Road A junction



Figure 24 – Proposed subdivision layout





Figure 25 – Looking right along Palawa Rd from proposed Road A



**Sight distance
right is 94m.**

Figure 26 – Looking left along Palawa Rd from proposed Road A



**Sight distance left is 62m
and will be improved to
80m at least when Palawa
Road is sealed.**

Figure 27 – Palawa Rd northern approach to proposed Road A





4.1.7 Proposed Road A, Road B and Road A / Road B junction

Proposed Road A and B would have a local access function due to the density of roadside development and assumed streetlighting, would be considered developed and operating under the General Urban default speed limit of 50km/hr. Figure 28 shows the proposal.

Figure 28 – Proposed subdivision layout



4.1.8 Proposed Palawa Road Cul De Sac

The proposed Cul De Sac is shown in Figure 29.

Figure 29 – Looking south along Palawa Rd at proposed Cul De Sac



4.2 Traffic Activity

From GTC traffic survey data Bellbuoy Beach Road data is available. Lord Liverpool Drive and Palawa Road traffic data is from TCS observations. Traffic activity estimates:

- Bellbuoy Beach Road – 180vpd AADT (GTC Sept 2020)
- Lord Liverpool Drive - 50 vpd AADT (TCS Dec 2020)
- Palawa Road - 70 vpd AADT (TCS Dec 2020)



4.3 Sight Distance

Sight distance requirements and availability are summarised in figure 30. Proposed Road A ends 50m west of proposed Road B so sight distance right from Road B is technically non-compliant but acceptable in terms of traffic safety as adequate sight distance is available for the speed environment .

Figure 30 – Sight distance summary

Junction Major Rd - Minor Rd	Speed		Road frontage sight distance		
	Limit	Environment	Table E4.7.4	Available	
	(km/h)	(km/h)	SISD (m)	Left(m)	Right(m)
Bellbuoy Beach - Palawa	60	50	80	80	120
Palawa - Lord Liverpool	50	40	80	45 to 120	57 to 130
Palawa - Road A	50	40	80	62 to 80+	94
Road A - Road B	50	40	80	90	50

Compliant

Compliant with mitigation

Non compliant

Mitigation involves tree and shrub removal / pruning and vertical alignment improvements along Palawa Road south of the Lord Liverpool Drive intersection, see Appendix C.

4.4 Crash History

The Department of State Growth is supplied with reported crashes by Tasmania Police. The Department maintains a crash database from the crash reports which is used to monitor road safety, identify problem areas and develop improvement schemes.

DSG advise that as of December 2020 there have been no reported crashes over the last five years on Lord Liverpool Drive, Palwa Road or Bellbuoy Beach Road.

4.5 Road Safety Review

From road safety review vulnerable road user safety is the main traffic safety issue with Bellbuoy Beach Road, Lord Liverpool Drive and Palawa Road area as no infrastructure is provided for pedestrians and cyclists.

Bellbuoy Beach Rd currently has a speed limit of 60km/h and a seal width of 5.5m with level grassed verges. It is understood GTC intends to introduce an Area 50km/h speed limit for Bell Buoy Beach which would mitigate vulnerable road user concerns with Bellbuoy Beach Rd.

Estimated speed environment for Lord Liverpool Drive and Palawa Road is 40km/h as both roads are short. The low-speed environment mitigates the situation for vulnerable road users.



4.6 Safe System Assessment

Bellbuoy Beach Road, Palawa Road and Lord Liverpool Drive have been assessed with the Austroads Safe System assessment framework. This framework involves consideration of exposure, likelihood and severity to yield a risk framework score. High risk crash types and vulnerable road user crash types are assessed for each site and aggregated to provide an overall crash risk. Crash risk is considered in terms of three components:

- Exposure (is low where low numbers of through and turning traffic) i.e. 1 out of 4
- Likelihood (is low where the infrastructure standard is high) i.e. 1 out of 4
- Severity (is low where the speed environment is low) i.e. 1 out of 4

The Austroads Safe System Assessment process enables the relative crash risk of an intersection or road link to be assessed. Road users are considered along with the most common crash types. The crash risk score is an indication of how well the infrastructure being assessed satisfies the *safe system objective which is for a forgiving road system where crashes do not result in death or serious injury.*

From safe system assessment the following scores were determined:

- Bellbuoy Beach Road 20 / 448
- Palawa Road 24 / 448
- Lord Liverpool Drive 24 / 448

These scores all indicate a very low crash risk and good alignment with the Safe System Objective, see figure 31. The SSAs are detailed in Appendix B.

Figure 31 – Austroads Safe System Assessment alignment between crash score and risk



4.7 Services

No traffic safety concerns were detected with above or below ground services.



5. Traffic Generation and Assignment

This section of the report describes how traffic generated by the proposal is distributed within the adjacent road network now and in ten years (2030).

5.1 Traffic Growth

The background growth on Lord Liverpool Drive and Palwa Road is assumed to be 0%.

5.2 Trip Generation

The applied traffic generation rate for the proposal, which is for rural residential dwelling houses is 6 vehicle trips / day – 0.6 vehicle trips / hour.

This is consistent with Traffic Generation Rates for Key Land Uses sourced from the RTA Guide to Traffic Generating Developments under section 1.4 References.

For the proposed 22 lot subdivision this equates to an estimated 132 vpd and 13 vph at peak times directed to the Palawa Road / Lord Liverpool Drive intersection.

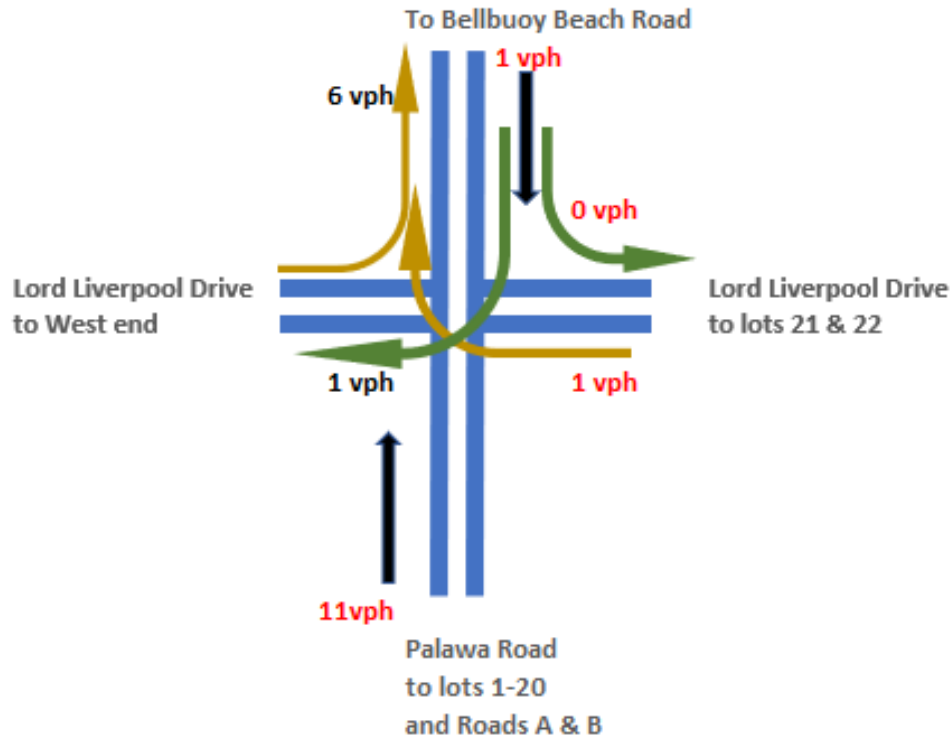
5.3 Trip Assignment

Figure 32 show the traffic assignment and projections for the Palawa Road / Lord Liverpool Drive intersection in 2030.

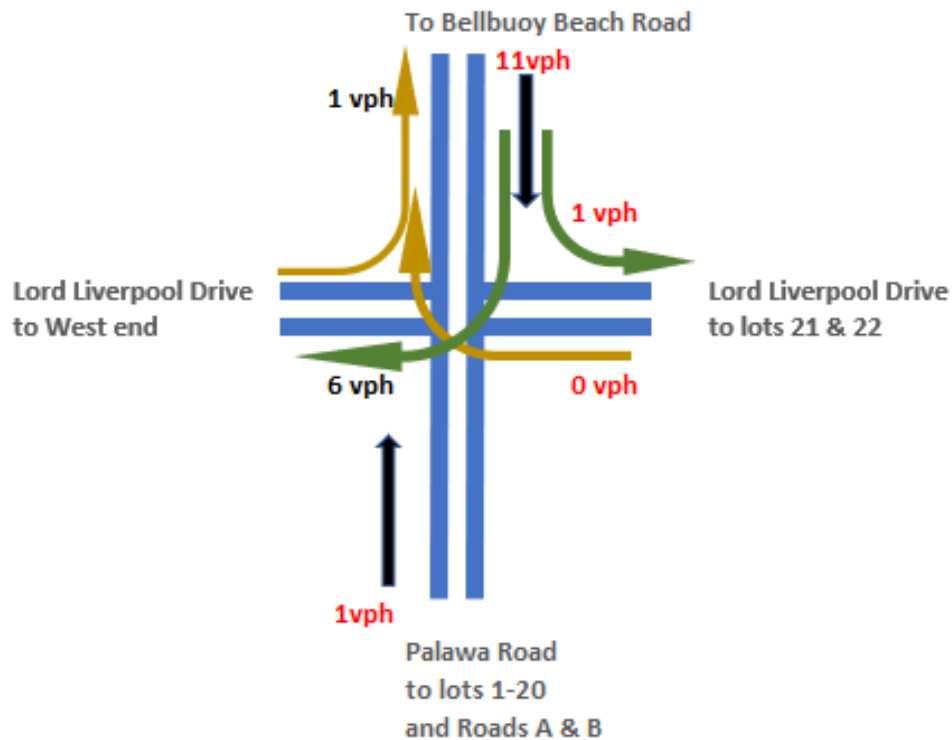


Figure 32 – Projected peak movements at the Palawa Road / Lord Liverpool Drive intersection by 2030

AM Peak - 2030



PM Peak - 2030





6. Impact on Road Network

6.1 Palwa Road / Lord Liverpool Drive junction

The extension of Lord Liverpool Drive to the east effectively changes the Palwa Road / Lord Liverpool Drive junction into a cross intersection situation.

Normally cross intersection layouts are avoided as they maximise vehicle conflict potential and increase crash rates.

In this case the eastern Lord Liverpool Drive leg will only serve new lots 21 and 22 and the level of traffic activity at the intersection is very low so the proposed layout is considered acceptable.

Existing traffic activity at the Palawa Road / Lord Liverpool Drive junction is estimated at some 7 vph at peak times. The proposal is estimated to add 13 vph at peak times.

There are no traffic capacity issues with this intersection.

6.2 Palawa Road / Bellbuoy Beach Road junction

Existing traffic activity at the Palawa Road / Bellbuoy Beach Road junction is estimated at some 7 vph at peak times. The proposal is estimated to add 13 vph at peak times.

There are no traffic capacity issues with this intersection.

6.3 Palawa Road / Proposed Road A junction

The proposed junction is estimated to generate 7vph. There are no traffic capacity issues with this intersection.

6.4 Proposed Road A / Road B junction

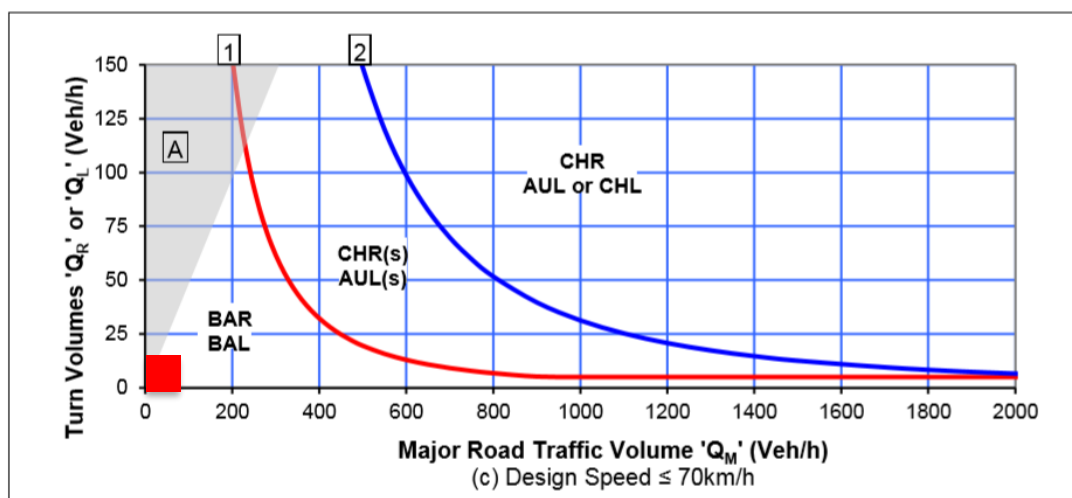
The proposed junction is estimated to generate 3vph. There are no traffic capacity issues with this intersection.

6.5 Junction warrants

Junction layouts are based on Austroads Guidelines which take into account the standard of the road, speed limit and through & side road traffic i.e. Austroads Guide to Traffic Management Part 6: Intersections, Interchanges and Crossings – 2019.

The applicable Austroads junction warrant is shown in Figure 33. The existing and proposed junctions will all operate with traffic activity less than 20vph by 2030. At these levels of traffic activity the existing and proposed simple junction layouts are adequate.

Figure 33 – Austroads Junction Warrants



6.6 Impacts on road users

6.6.1 Public Transport

The proposal does not impact on public transport provisions.

6.6.2 Delivery Vehicles

The proposal caters for light commercial vehicle access.

6.6.3 Pedestrians and Cyclists

Currently there are no pedestrian or cycling facilities provided on Palawa Road or Lord Liverpool Drive. It is assumed the same standards will apply for the proposed development.



6.7 Other impacts

6.7.1 Environmental

No applicable environmental impacts were identified in relation to:

- Noise, Vibration and Visual Impact
- Community Severance and Pedestrian Amenity
- Hazardous Loads
- Air Pollution, Dust and Dirt and Ecological Impacts
- Heritage and Conservation values

6.7.2 Street Lighting and Furniture

Bellbuoy Beach Road / Palawa Road and Palawa Road / Lord Liverpool Drive junctions have street lighting, see Figures 7, 21 and 22. Accordingly, streetlighting may be required by GTC as follows:

- Palawa Road / Road A junction
- Road A / Road B junction
- Palawa Road Cul De Sac and
- Road B Cul De Sac

The proposal does not justify further roadside furniture such as bus shelters, seats, direction signs, cycle racks and landscaping including trees and fencing.



6.8 George Town Council Standards

George Town Council standards for road infrastructure are accessible at:

https://www.lgat.tas.gov.au/_data/assets/pdf_file/0021/321348/LGAT-Standard-Drawings-Release-Version-Dec-2013.pdf

6.8.1 Roads and lot layout

The lot layout suits the contours of the site and allows for circulation of vehicular traffic.

Road standards should be consistent with LGAT Standard Drawing TSD-R02-v1 Rural Roads Sealed which specifies road infrastructure requirements by road function.

6.8.2 Council urban access requirements

Accesses should comply with LGAT Standard Drawings:

- TSD-R03-v1 Rural Roads Typical Property Access and
- TSD- R04 -v1 Rural Roads Typical Driveway Profile.

Each lot should be provided with a minimum 3.6m sealed driveway.

Where there are stormwater surface drains driveway culverts should be provided with standard headwalls.



7. George Town Interim Planning Scheme 2013

7.1 Road & Railway Assets Code E4

7.1.1 Use and road or rail infrastructure – E4.6.1

Acceptable solution A2: For road with a speed limit of 60 km/h or less, the use must not generate more than a total of 40 vehicle entry and exit movements per day.

The proposal is within a 50km/h zone and will generate an estimated 132 vehicle entry and exit movements per day at the Bellbuoy Beach Rd / Palawa Rd junction. **A2 is not satisfied.**

Performance Criteria P2: For roads with a speed limit of 60km/h or less, the level of use, number, location, layout, and design of accesses and junctions must maintain an acceptable level of safety for all road users, including pedestrians and cyclists.+

This TIA demonstrates that for the level of use and the speed environment:

- Simple junction layouts are adequate for the existing and proposed junctions.
- Austroads Safe System Assessment of Bellbuoy Beach Rd, Palawa Rd and Lord Liverpool Dr demonstrate very low crash risks satisfying the Safe Systems objective.

P2 is satisfied.

7.1.2 Management of Road Accesses and Junctions – E4.7.2

Acceptable solution A1: For roads with a speed limit of 60km/hr or less the development must include only one access providing both entry and exit, or two accesses providing separate entry and exit.

The proposal involves Cul De Sacs and two-way accesses, **A1 is satisfied.**

7.1.3 Sight Distance at Accesses, Junctions and Level Crossings – E4.7.4

Acceptable solution A1: An access or junction must comply with the Safe Intersection Sight Distance(SISD) shown in Table E4.7.4 of the George Town Interim Planning Scheme.

See section 4.3 of this report and Figure 30. **A1 is satisfied.**



8. Recommendations and Conclusions

This traffic impact assessment has been prepared to assess the proposed 22-lot subdivision development at CT Vol. 179646 Fol. 1, Bellbuoy Beach.

The proposal is within a 50km/h speed environment and will potentially generate 132 vehicle entry and exit movements per day.

Palawa Road would increase in AADT from 70 vpd to 202 vpd at the Bellbuoy Beach Road junction.

Traffic activity in the 1,500 – 2,000 vpd range is considered normal and acceptable for a road with a local access and collector function such as Bellbuoy Beach Road.

Review of Austroads junction warrants demonstrates that simple junction layouts are adequate for the existing and proposed junctions.

Subject to results of clearing sight lines of vegetation the vertical alignment of Palawa Road may possibly require minor improvement to minimise crests and dips and ensure SISD of at least 80m is available for existing and proposed side roads. Appendix C shows features of the Palawa Road vertical alignment. Once sight lines are cleared of vegetation the extent of road alignment improvements can be clarified.

This assessment has reviewed the existing road conditions, crash history, road safety and transport system. There are no traffic capacity or traffic safety issues and the five -year reported crash history no recorded crashes. From Austroads Safe System Assessment of Bellbuoy Beach Road, Lord Liverpool Drive and Palawa Road these roads have a very low crash risk in keeping with the Safe Systems objective.

Evidence is provided that demonstrates the proposal satisfies Road and Railway Assets Code E4 of the George Town Interim Planning Scheme 2013.

Recommendations:

- ***Provide simple junction layouts for proposed junctions***
- ***Trim / remove trees and shrubs to clear sight lines, see section 4.3 and Figure 30***
- ***If clearing of vegetation does not yield SISD of 80m, some minor vertical alignment improvement of Palawa Road may be required to establish SISD for:***
 - ***Lord Liverpool Drive approaches***
 - ***Proposed Road A approaches***



- ***Provide proposed Roads A and B consistent with GTC standards, see section 6.8.1***
- ***Seal proposed Roads A and B and Palawa Road.***
- ***Provide access to lots consistent with GTC standards, see section 6.8.2***
- ***Provide street lighting in accordance with GTC requirements, see section 6.7.2***

Overall, it has been concluded that the proposed development can be managed to avoid creation of any traffic issues and traffic will continue to operate safely and efficiently along Lord Liverpool Drive, Palwa Road and Bellbuoy Beach Road. Based on the finding of this report and subject to the recommendations above, the proposed development is supported on traffic grounds.



Appendices



Appendix A – Plan of Subdivision



Appendix B – Safe System Assessments

Existing Palawa Road and Lord Liverpool Drive

Safe System Assessment

Exposure	Run-off-road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclist	
AADT 70vpd	Low traffic volume, no crashes	Low traffic volume, no crashes	Palawa Road intersection, low traffic volume, no crashes	Low traffic volume, no crashes, potential school bus route	Low pedestrian activity	Low cyclist activity	Low motorcyclist activity	
Score / 4	1	1	1	1	1	1	1	
Likelihood	Straight street with forgiving roadsides and adequate sight distance							Sealed and gravel sections with loose surface
Justification	Narrow road with 5.5m seal, forgiving roadsides and adequate sight distance							No specific cyclist facilities.
Score / 4	1	2	4	1	3	2	3	
Severity	Estimated 40km/h speed environment for vehicles	Estimated 40km/h speed environment for vehicles	Estimated 40km/h speed environment for vehicles	Estimated 40km/h speed environment for vehicles	Medium speed environment for vulnerable road users	Medium speed environment for vulnerable road users	Medium speed environment for vulnerable road users	
Score / 4	1	1	1	1	2	2	2	
Total Score / 64	1	2	4	1	6	4	6	
Product							Total / 448	24

Existing Bellbuoy Beach Road

Safe System Assessment

Exposure	Run-off-road	Head-on	Intersection	Other	Pedestrian	Cyclist	Motorcyclist	
AADT 180vpd	Low traffic volume, no crashes	Low traffic volume, no crashes	Palawa Road junction, low traffic volume, no crashes	Low traffic volume, no crashes, school bus route	Low pedestrian activity	Low cyclist activity	Low motorcyclist activity	
Score / 4	1	1	1	1	1	1	1	
Likelihood	Straight street with forgiving roadsides and adequate sight distance							Consistent and good seal condition
Justification	Narrow road with 5.5m seal, forgiving roadsides and adequate sight distance							No specific cyclist facilities.
Score / 4	1	2	1	1	2	2	1	
Severity	Low speed environment for vehicles	Low speed environment for vehicles	Low speed environment for vehicles	Low speed environment for vehicles	High speed environment for vulnerable road users	High speed environment for vulnerable road users	High speed environment for vulnerable road users	
Score / 4	1	1	1	1	3	3	3	
Total Score / 64	1	2	1	1	6	6	3	
Product							Total / 448	20

Appendix C – Palawa Road Vertical Alignment

Palawa Road Looking South towards Lord Liverpool Drive Intersection



Lord Liverpool Drive intersection.

Trim tree and shrubs to clear sight lines.

Palawa Road Looking South at Lord Liverpool Drive Intersection



Trim tree and shrubs to clear sight line.

Crest and gate at end of Palawa Road

Palawa Road Looking South from Lord Liverpool Drive Intersection





Palawa Road Looking South, South of Lord Liverpool Drive Intersection



Trim tree and shrubs to clear sight line.
Dip in Palawa Road.

Palawa Road Looking North through proposed Road A junction



Proposed Road A junction.

Palawa Road Looking North towards Lord Liverpool Drive Intersection



View from crest and gate at southern end of Palawa Road.