DISCRETIONARY APPLICATION

For Public Display

Applicant:
P L A Designs

Location:
45 Jones Road, Miena

Proposal:
Dwelling & Outbuilding

DA Number:
DA 2022 / 00072

Date Advertised:
29 July 2022

Date Representation Period Closes:
12 August 2022

Responsible Officer:
Louisa Brown (Planning Officer)

Viewing Documents:
The relevant documents may be viewed at Council's website www.centralhighlands.tas.gov.au or at Council's Offices 19 Alexander Street, Bothwell & 6 Tarleton Street, Hamilton during normal office hours.

Representations to:

General Manager
19 Alexander Street
BOTHWELL TAS 7030

Email:
development@centralhighlands.tas.gov.au

central highlands COUNCIL

Development & Environmental Services
19 Alexander Street
BOTHWELL TAS 7030

Phone: (03) 6259 5503
Fax: (03) 6259 5722

www.centralhighlands.tas.gov.au

OFFICE USE ONLY

Application No.: _____

Property ID No.: _____

Date Received: _____

Application for Planning Approval
Use and Development

Use this form to apply for planning approval in accordance with section 57 and 58 of the *Land Use Planning and Approvals Act 1993*

Applicant / Owner Details:

Applicant Name	PLA Designs Pty Ltd		
Postal Address	PO Box 428	Phone No:	0407 532 435
	Somerset TAS 7322	Fax No:	
Email address	paul@pladesign.com.au		
Owner/s Name (if not Applicant)	Mark & Leanne Oates		
Postal Address	9 Maple Street	Phone No:	
	Latrobe TAS 7307	Fax No:	
Email address:			

Description of proposed use and/or development:

Address of new use and development:	45 Jones Road, Miena		
Certificate of Title No:	Volume No 22587	Lot No:	50
Description of proposed use or development:	Single Dwelling and Shed	ie: New Dwelling /Additions/ Demolition / /Shed / Farm Building / Carport / Swimming Pool or detail other etc.	
Current use of land and buildings:	Vacant lot	Eg. Are there any existing buildings on this title? If yes, what is the main building used as?	

Proposed Material	What are the proposed external wall colours	Woodland Grey	What is the proposed roof colour	Monument
	What is the proposed new floor area m^2.	286m2	What is the estimated value of all the new work proposed:	$ 350,000

Is proposed development to be staged:	*Yes* ☐	*No* ☑	Tick ✓
Is the proposed development located on land previously used as a tip site?	*Yes* ☐	*No* ☑	
Is the place on the Tasmanian Heritage Register?	*Yes* ☐	*No* ☑	
Have you sought advice from Heritage Tasmania?	*Yes* ☐	*No* ☑	
Has a Certificate of Exemption been sought for these works?	*Yes* ☐	*No* ☑	

Signed Declaration

I/we hereby apply for a planning approval to carry out the use or development described in this application and in the accompanying plans and documents, accordingly I declare that:

1. The information given is a true and accurate representation of the proposed development. I understand that the information and materials provided with this development application may be made available to the public. I understand that the Council may make such copies of the information and materials as, in its opinion, are necessary to facilitate a thorough consideration of the Development Application. I have obtained the relevant permission of the copyright owner for the communication and reproduction of the plans accompanying the development application, for the purposes of assessment of that application. I indemnify the Central Highlands Council for any claim or action taken against it in respect of breach of copyright in respect of any of the information or material provided.

2. In relation to this application, I/we agree to allow Council employees or consultants to enter the site in order to assess the application.

3. I am the applicant for the planning permit and I have notified the owner/s of the land in writing of the intention to make this application in accordance with Section 52(1) of the *Land Use Planning Approvals Act 1993* (or the land owner has signed this form in the box below in "Land Owner(s) signature);
Applies where the applicant is not the Owner and the land is not Crown land or owned by a council, and is not land administered by the Crown or a council.

Applicant Signature (if not the Owner)	Applicant Name (*Please print*)	Date
Paul Allen	Paul Allen	5 July 2022

Land Owner(s) Signature	Land Owners *Name (please print)*	Date

Land Owner(s) Signature	Land Owners *Name (please print)*	Date

Information & Checklist sheet

	✓
1. A completed Application for Planning Approval – Use and Development form. *Please ensure that the information provides an accurate description of the proposal, has the correct address and contact details and is signed and dated by the applicant.*	❑
2. A current copy of the Certificate of Title for all lots involved in the proposal. *The title details must include, where available, a copy of the search page, title plan, sealed plan or diagram and any schedule of easements (if any), or other restrictions, including covenants, Council notification or conditions of transfer.*	❑
3. Two (2) copies of the following information - a) An analysis of the site and surrounding area setting out accurate descriptions of the following - (i) topography and major site features including an indication of the type and extent of native vegetation present, natural drainage lines, water courses and wetlands, trees greater than 5 metres in height in areas of skyline or landscape importance and identification of any natural hazards including flood prone areas, high fire risk areas and land subject to instability; (ii) soil conditions (depth, description of type, land capability etc); (iii) the location and capacity of any existing services or easements on the site or connected to the site; (iv) existing pedestrian and vehicle access to the site; (v) any existing buildings on the site; (vi) adjoining properties and their uses; and (vii) soil and water management plans. b) A site plan for the proposed use or development drawn, unless otherwise approved, at a scale of not less than 1:200 or 1:1000 for sites in excess of 1 hectare, showing - (i) a north point; (ii) the boundaries and dimensions of the site; (iii) Australian Height Datum (AHD) levels; (iv) natural drainage lines, watercourses and wetlands; (v) soil depth and type; (vi) the location and capacity of any existing services or easements on the site or connected to the site; (vii) the location of any existing buildings on the site, indicating those to be retained or demolished, and their relationship to buildings on adjacent sites, streets and access ways; (viii) the use of adjoining properties; (ix) shadow diagrams of the proposed buildings where development has the potential to cause overshadowing; (x) the dimensions, layout and surfacing materials of all access roads, turning areas, parking areas and footpaths within and at the site entrance; (xi) any proposed private or public open space or communal space or facilities; (xii) proposed landscaping, indicating vegetation to be removed or retained and species and mature heights of plantings; and (xiii) methods of minimizing erosion and run-off during and after construction and preventing contamination of storm water discharged from the site. c) Plans and elevations of proposed and existing buildings, drawn at a scale of not less than 1:100, showing internal layout and materials to be used on external walls and roofs and the relationship of the elevations to natural ground level, including any proposed cut or fill.	❑ ❑ ❑
4. A written submission supporting the application that demonstrates compliance with the relevant parts of the Act, State Polices and the Central Highlands Interim Planning Scheme 2015, including for industrial and commercial uses, the hours of operation, number of employees, details of any point source discharges or emissions, traffic volumes generated by the use and a Traffic Impact Statement where the development is likely to create more than 100 vehicle movements per day.	❑
5. Prescribed fees payable to Council. An invoice for the fees payable will be issued once application has been received.	

Information If you provide an email address in this form then the Central Highlands Council ("the Council") will treat the provision of the email address as consent to the Council, pursuant to Section 6 of the Electronic Transactions Act 2000, to using that email address for the purposes of assessing the Application under the Land Use Planning and Approvals Act 1993 ("the Act"). If you provide an email address, the Council will not provide hard copy documentation unless specifically requested. It is your responsibility to provide the Council with the correct email address and to check your email for communications from the Council. If you do not wish for the Council to use your email address as the method of contact and for the giving of information, **please tick** ✓ the box	❑
Heritage Tasmania If the Property is listed on the Tasmanian Heritage Register then the Application will be referred to Heritage Tasmania unless an Exemption Certificate has been provided with this Application. (Phone 1300 850 332 or email enquires@heritage.tas.gov.au)	
TasWater Depending on the works proposed Council may be required to refer the Application to TasWater for assessment (Phone 136992)	

RESULT OF SEARCH

RECORDER OF TITLES

Issued Pursuant to the Land Titles Act 1980

Tasmanian Government

SEARCH OF TORRENS TITLE

VOLUME	FOLIO
22587	50
EDITION	DATE OF ISSUE
3	02-May-2022

SEARCH DATE : 05-Jul-2022
SEARCH TIME : 09.46 AM

DESCRIPTION OF LAND

Parish of FENWICK, Land District of CUMBERLAND
Lot 50 on Sealed Plan 22587
Derivation : Part of Lots 3374 and 3156 Gtd to F Synnot and another
Prior CT 4077/49

SCHEDULE 1

M954531 TRANSFER to MARK BARRY OATES and LEANNE MARGARET OATES Registered 02-May-2022 at noon

SCHEDULE 2

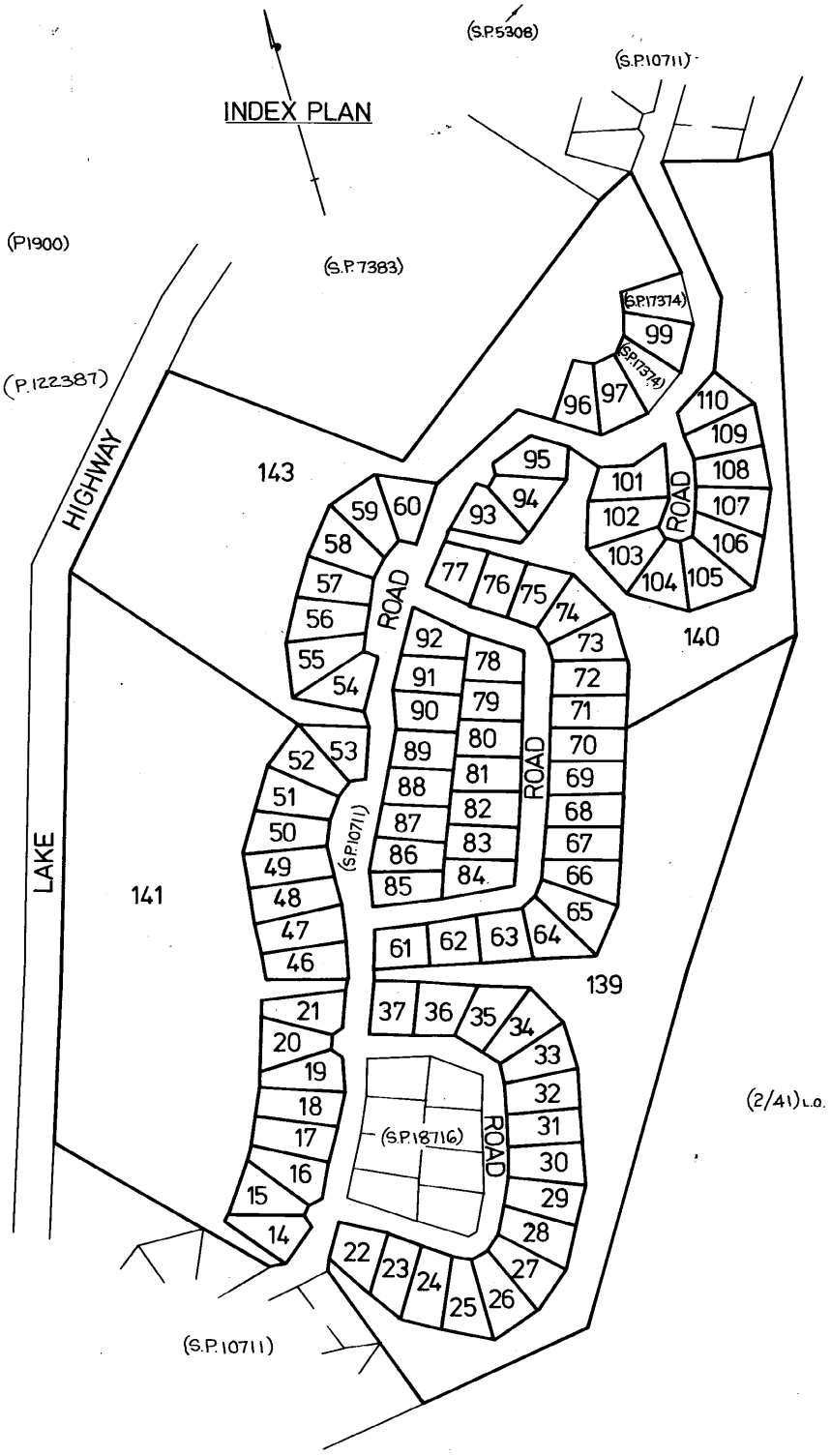
Reservations and conditions in the Crown Grant if any
SP 10711 & SP 22587 COUNCIL NOTIFICATION under Section 468(12) of the Local Government Act 1962
SP 22587 FENCING COVENANT in Schedule of Easements

UNREGISTERED DEALINGS AND NOTATIONS

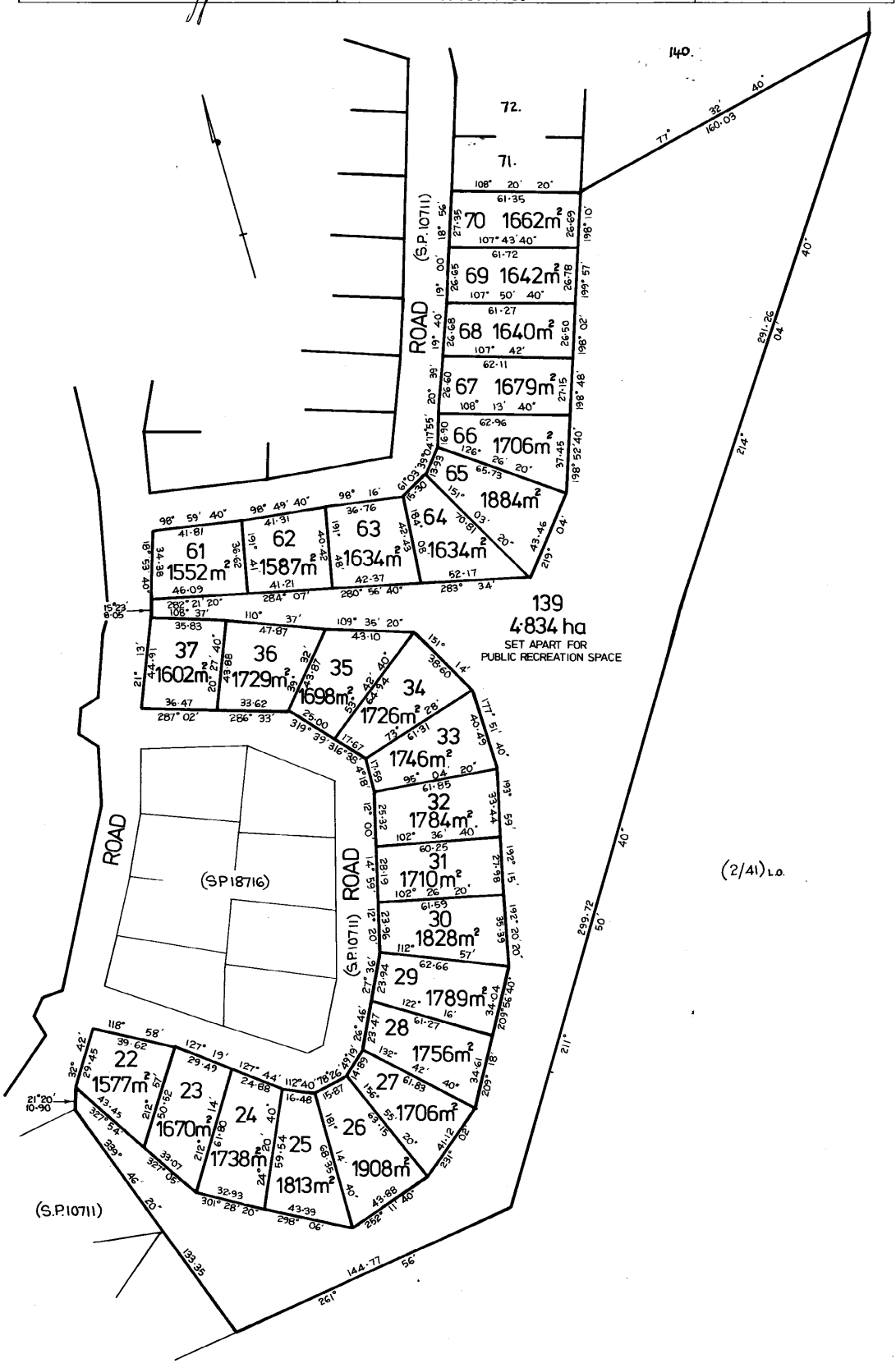
No unregistered dealings or other notations

SP 22587 4

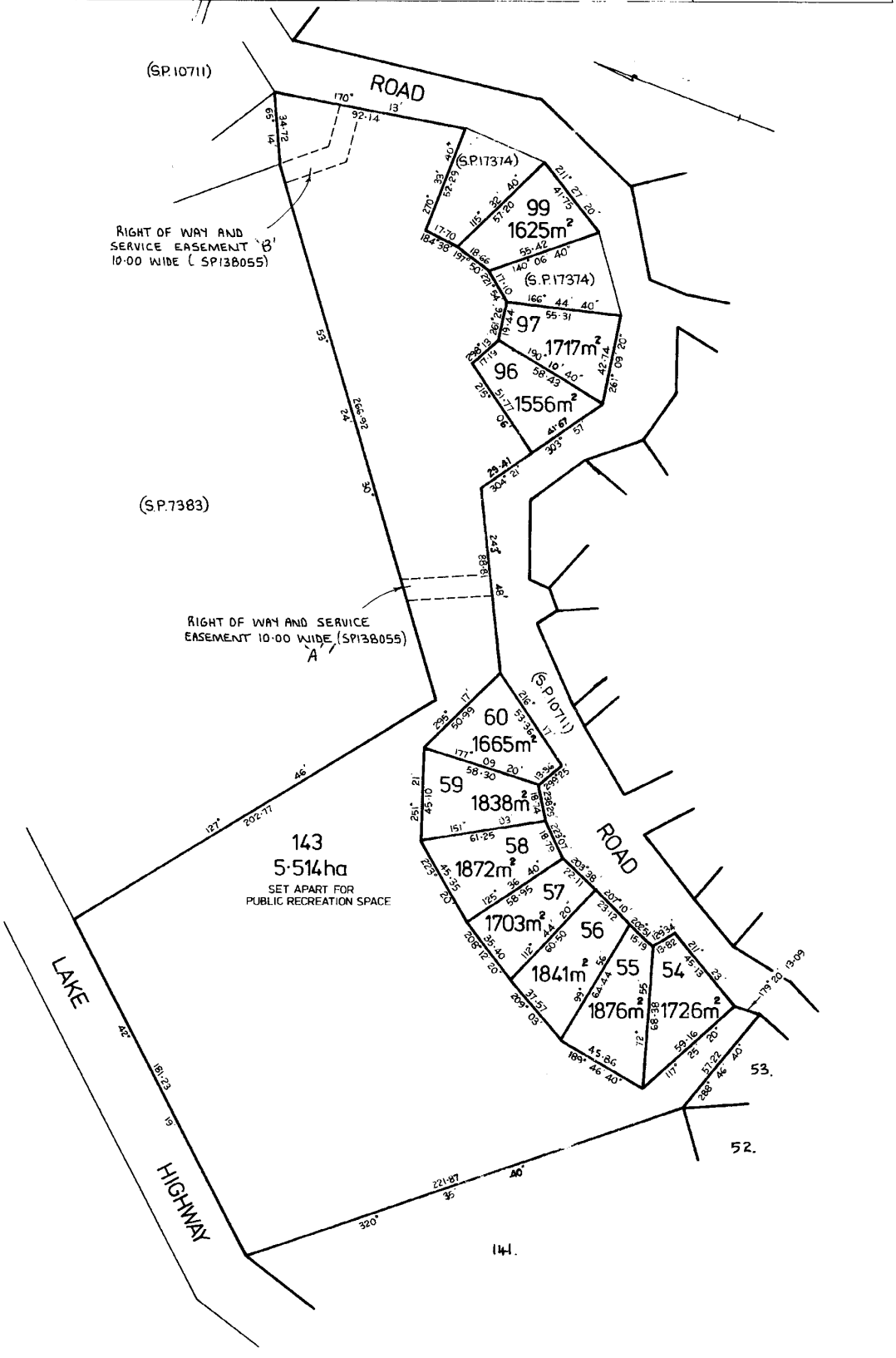
Owner: Ray Leslie Heffernan & Grechen Wivell.	PLAN OF SURVEY by Surveyor M.G.Darcey of land situated in the LAND DISTRICT OF CUMBERLAND PARISH OF FENWICK SCALE 1:3000 MEASUREMENTS IN METRES	Registered Number S. P22587 ~~Approved~~ Effective from: 28 MAR 1984 ACTING DEPUTY Recorder of Titles
Title Reference: C.T.3679-88, C.T.3679-89, C.T.3679-90, C.T.3679-92 & C.T.3964-73		
Grantee: Part of Lot 3374, 500Ac. & part of Lot 3156, 640Ac. Gtd. to Frederick & Walter Synnot.		



ANNEXURE SHEET No. 1 (of 5 annexures) to plan by Surveyor M.G. Darcey	This sheet contains detailed drawings of parcels shown on the index plan to which it is attached, which plan is verified by my certificate dated 31-1-1984 and that certificate extends to the detail shown on this sheet.	Registered Number: S. P22587
Signed for the purposes of identification	Surveyor M.G. Darcey	
Council Clerk	Owner: Ray Leslie Heffernan & Grechan Wivell	
	Title Reference: C.T. 3679-89	SCALE 1: 1500

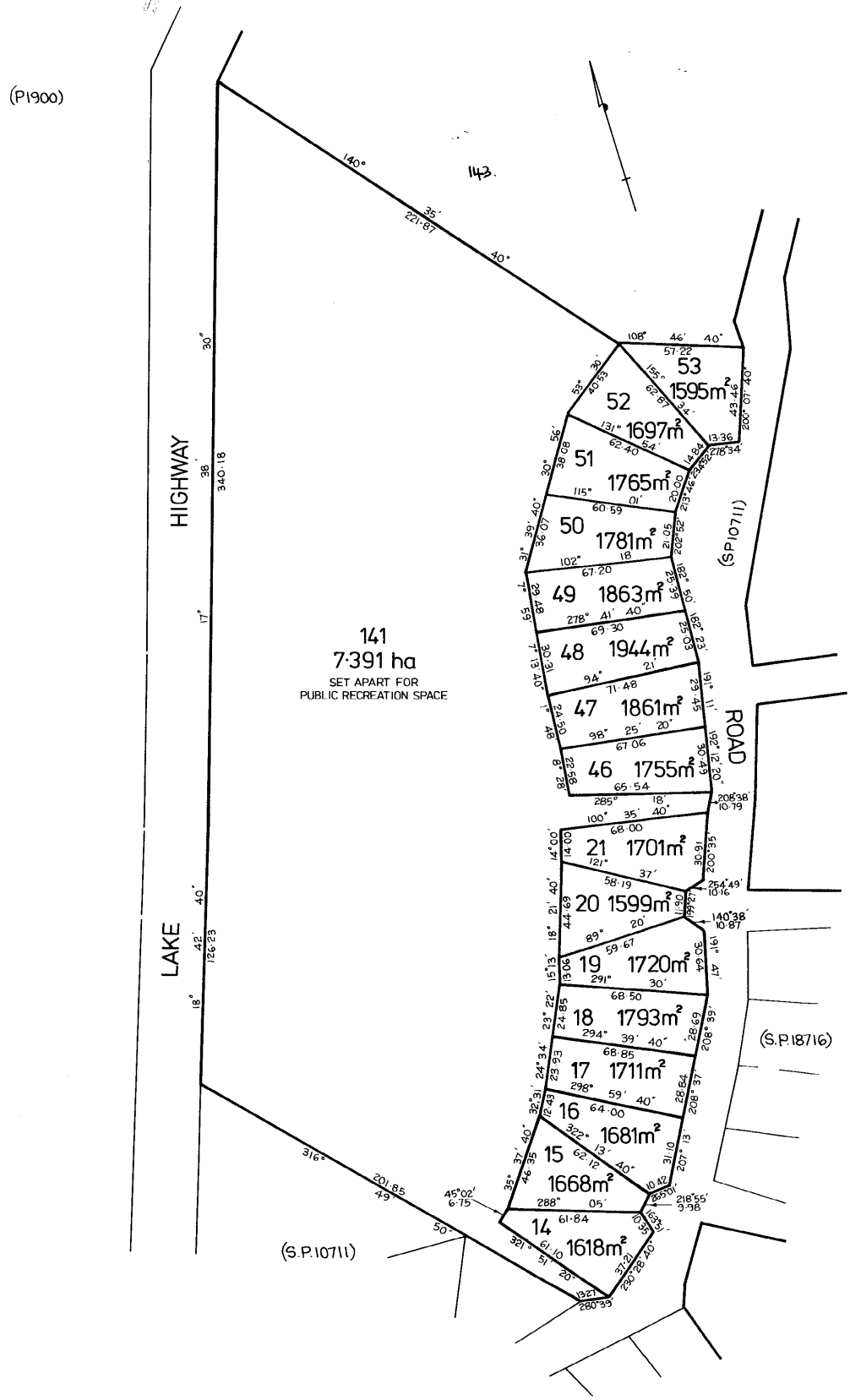


ANNEXURE SHEET No. 2 (of 5 annexures) to plan by Surveyor M.G. Darcey	This sheet contains detailed drawings of parcels shown on the index plan to which it is attached, which plan is verified by my certificate dated 31-7-1984 and that certificate extends to the detail shown on this sheet.	Registered Number: S. P22587
Signed for the purposes of identification	Surveyor	
Council Clerk	Owner: Ray Leslie Heffernan & Grechen Wivell. Title Reference: C.T. 3964-73	SCALE 1:1500

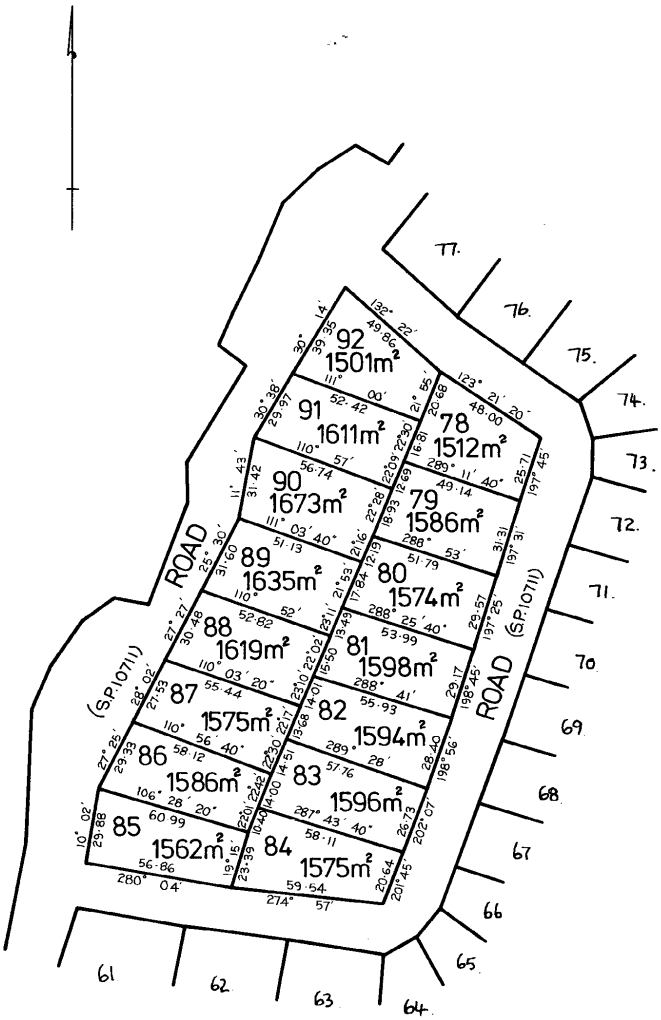


ANNEXURE SHEET No. 3 (of 5 annexures) to plan by Surveyor M.G. Darcey	This sheet contains detailed drawings of parcels shown on the index plan to which it is attached, which plan is verified by my certificate dated 21/1/1984 and that certificate extends to the detail shown on this sheet.	Registered Number: S.P.22587
Signed for the purposes of identification	Surveyor M.G. Darcey	
Council Clerk	Owner: Ray Leslie Heffernan & Grechen Wivell Title Reference: C.T.3679-90	SCALE 1: 1500

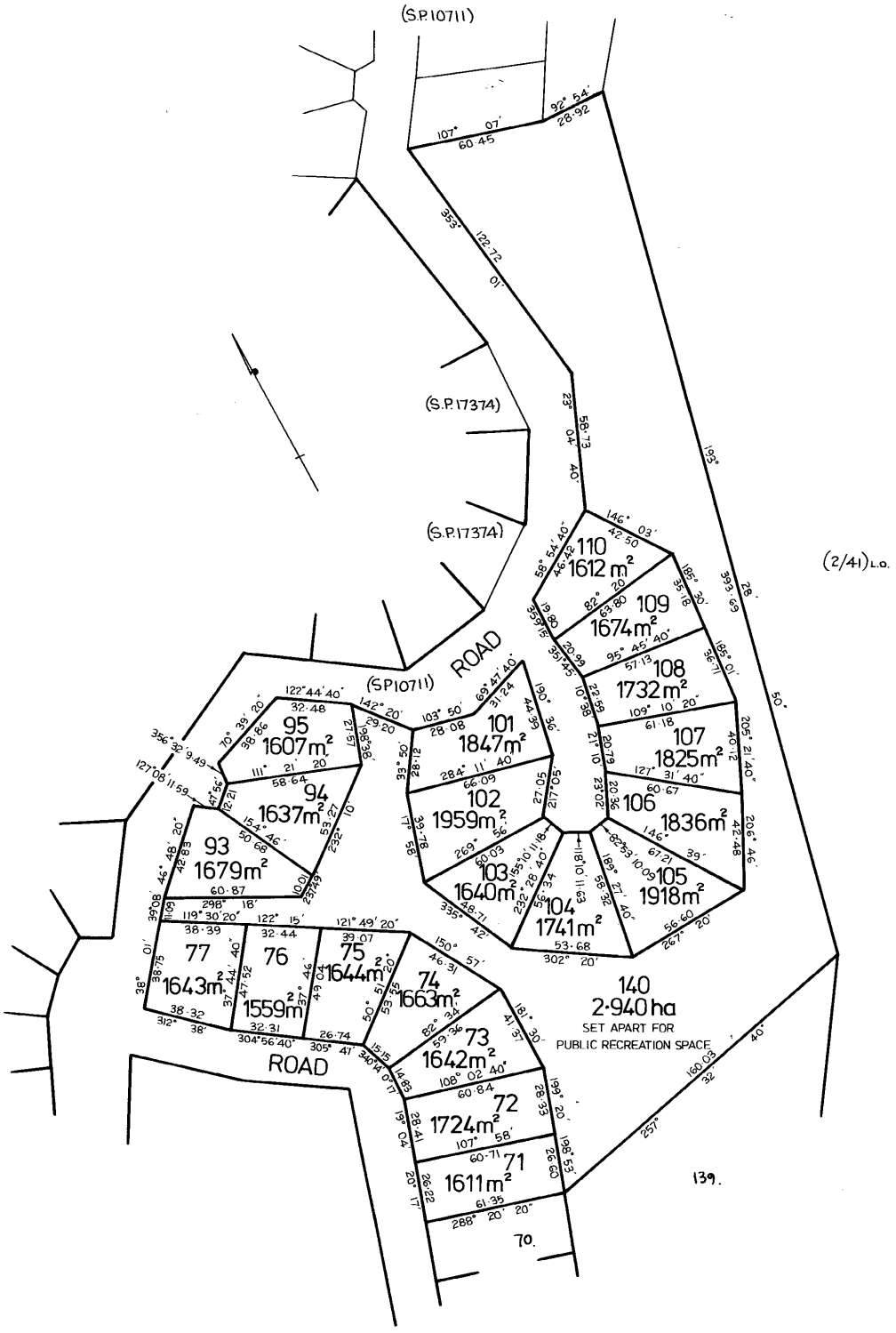
GSX 1109



ANNEXURE SHEET No. 4 (of 5 annexures) to plan by Surveyor M. G. Darcey	This sheet contains detailed drawings of parcels shown on the index plan to which it is attached, which plan is verified by my certificate dated 31-1-1984 and that certificate extends to the detail shown on this sheet.	Registered Number: SP22587
Signed for the purposes of identification	Surveyor M.G.Darcey	
Council Clerk	Owner: Ray Leslie Heffernan & Grechen Wivell. Title Reference: C.T. 3679-88	SCALE 1: 1500



ANNEXURE SHEET No. 5 (of 5 annexures) to plan by Surveyor M.G. Darcey	This sheet contains detailed drawings of parcels shown on the index plan to which it is attached, which plan is verified by my certificate dated 31-1-1984 and that certificate extends to the detail shown on this sheet.	Registered Number: S.P22587
Signed for the purposes of identification	Surveyor M.G. Darcey	
Council Clerk	Owner: Ray Leslie Heffernan & Grechen Wivell Title Reference: C.T. 3679-92	SCALE 1: 1500



SCHEDULE OF EASEMENTS **Plan No.** S.P22587

NOTE:—The Town Clerk or Council Clerk must sign the certificate on the back page for the purpose of identification.

The Schedule must be signed by the owners and mortgagees of the land affected. Signatures should be attested.

COVENANTS

The owner of each lot on the plan covenants with Ray Leslie Heffernan and Grechen Wivell (the Vendors) that the Vendors shall not be required to fence.

SIGNED by the said RAY LESLIE HEFFERNAN and GRECHEN WIVELL the registered proprietors of the lands contained in Certificate of Title Volume 3679 Folios 88-90 & 92 and Volume 3964 Folio 73 in the presence of:)

Grechen Wivell
Ray Heffernan

[signature]
[illegible] Hobart.

22587

Certified correct for the purposes of the Real Property Act 1862, as amended.

Wallace Wilkinson
Per: .....
~~Subdivider~~/Solicitor for the Subdivider

This is the schedule of easements attached to the plan of .....
(*Insert Subdivider's Full Name*)
RAY LESLIE HEFFERNAN and GRECHEN WIVELL ..... affecting land in
Certificate of Title Volume 3679 Folio 88-90 & 92 and Volume 3964 Folio 73
(*Insert Title Reference*)

Sealed by Municipality of Bothwell on 20/2/ 1984

.....
Council Clerk/Town Clerk

10364

Development Application

Use Class: **Residential**

Development: **Single Dwelling**

Location: **45 Jones Road, MIENA**

Project No: 21051-P

PLANNING 4 BUSHFIRE

AUTHOR DETAILS:

Reporting Planner:	Jayne Newman
Report Date:	5 June 2022

PROPERTY DETAILS:

Location:	45 Jones Court, Miena
Proposal:	Single Dwelling
Use Class:	Residential
Zoning:	Low Density Residential
Title Reference:	CT: 22587/50
PID:	7145886

Figure 1 – Source: Listmap

1. Executive Summary

This report together with the attached development plans and additional supporting reports have been prepared to provide demonstration against the relative clauses detailed within the Central Highlands Interim Planning Scheme 2015. The proposal is for a single dwelling and garages within the Low-Density residential zone. A residential use is a 'no permit required' use within the use table. The application invokes discretion relative to development standards within the zone, which have been addressed throughout this report.

2. Background

The proposal relates to a 1781m^2 vacant lot located at 45 Jones Court, Miena. The lot adjoins existing residential development to the north and south, Jones Court to the east and native bush to the west.

3. Proposal

Application is made for a single dwelling which comprises two bedrooms, open plan kitchen, dining and lounge room, bathroom, study, laundry and carport. The dwelling is proposed for location 4.43 metres from the northern (side) boundary and 4 metres from the southern (side) boundary. The dwelling has a total height of 4.15 metres and is compliant with a no permit required use but has been included in the application for surety that the shed is to be used for a residential use.

The proposed shed is 90m^2 in size made up from a dimension of 10m x 9m with a total height of 5.419 metres. The shed is sited on the northern boundary and less than the minimum acceptable solution from the frontage boundary, invoking discretion.

Development Standards

12.4.2 Setbacks and building envelope

To control the siting and scale of dwellings to:
(a) provide reasonably consistent separation between dwellings on adjacent sites and a dwelling and its frontage; and
(b) provide consistency in the apparent scale, bulk, massing and proportion of dwellings; and
(c) provide separation between dwellings on adjacent sites to provide reasonable opportunity for daylight and sunlight to enter habitable rooms and private open space.

A1	**P1**
Unless within a building area, a dwelling, excluding protrusions (such as eaves, steps, porches, and awnings) that extend not more than 0.6 m into the frontage setback, must have a setback from a frontage that is: (a) if the frontage is a primary frontage, at least 4.5 m, or, if the setback from the primary frontage is less than 4.5 m, not less than the setback, from the primary frontage, of any existing dwelling on the site; or (b) if the frontage is not a primary frontage, at least 3 m, or, if the setback from the frontage is less than 3 m, not less than the setback, from a frontage that is not a primary frontage, of any existing dwelling on the site; or (c) if for a vacant site with existing dwellings on adjoining sites on the same street, not more than the greater, or less than the lesser, setback for the equivalent frontage of the dwellings on the adjoining sites on the same street.	A dwelling must: (a) be compatible with the relationship of existing buildings to the road in terms of setback or in response to slope or other physical constraints of the site; and (b) have regard to streetscape qualities or assist the integration of new development into the streetscape.

COMMENT:
The proposal achieves consistency with the adjoining dwelling to the south, as shown within figure 1 on page 2, therefore achieving compliance with A1(c).

A2	**P2**
A garage or carport must have a setback from a frontage of at least: (a) 5.5 m, or alternatively 1m behind the façade of the dwelling; or (b) the same as the dwelling façade, if a portion of the dwelling gross floor area is located above the garage or carport; or (c) 1m, if the natural ground level slopes up or down at a gradient steeper than 1 in 5 for a distance of 10 m from the frontage.	The setback of a garage or carport from a frontage must: (a) provide separation from the frontage that complements or enhances the existing streetscape, taking into account the specific constraints and topography of the site; and (b) allow for passive surveillance between the dwelling and the street.

COMMENT:
The proposal provides consistency with development located on adjoining sites such as 41 and 43 Jones Road. Passive surveillance between dwellings and the street remains, with the 4-metre setback provided together with a clear area still available for surveillance from the proposed dwelling.
The application is considered to achieve compliance with the performance criteria and relative objective (a).

A3	P3
A dwelling, excluding outbuildings with a building height of not more than 2.4m and protrusions (such as eaves, steps, porches, and awnings) that extend not more than 0.6m horizontally beyond the building envelope, must: (a) be contained within a building envelope (refer to diagrams 12.4.2A, 12.4.2B, 12.4.2C and 12.4.2D) determined by: (i) a distance equal to the frontage setback or, for an internal lot, a distance of 4.5m from the rear boundary of a lot with an adjoining frontage; and (ii) projecting a line at an angle of 45 degrees from the horizontal at a height of 3m above natural ground level at the side boundaries and a distance of 4m from the rear boundary to a building height of not more than 8.5m above natural ground level; and (b) only have a setback within 1.5m of a side boundary if the dwelling: (i) does not extend beyond an existing building built on or within 0.2m of the boundary of the adjoining lot; or (ii) does not exceed a total length of 9m or one-third the length of the side boundary (whichever is the lesser).	The siting and scale of a dwelling must: (a) not cause unreasonable loss of amenity by: (i) reduction in sunlight to a habitable room (other than a bedroom) of a dwelling on an adjoining lot; or (ii) overshadowing the private open space of a dwelling on an adjoining lot; or (iii) overshadowing of an adjoining vacant lot; or (iv) visual impacts caused by the apparent scale, bulk or proportions of the dwelling when viewed from an adjoining lot; and (b) provide separation between dwellings on adjoining lots that is compatible with that prevailing in the surrounding area.
COMMENT: *The proposed shed is sited outside of the building envelopment, therefore invoking discretion. The proposal will have no impact on sunlight to adjoining dwellings or private open space as the shed is to be sited on the northern boundary. Both adjoining lots are developed with single dwellings, therefore over shadowing of a vacant lot is not a concern.* *Visual impact and separation between dwellings relative to the northern adjoining lot is also not considered a concern as the 3.6m wall located on the boundary for a length of 10 metres is sited more that 27 metres from the adjoining dwelling.* *The proposal is considered to comply with the performance criteria and objectives to this clause.*	

12.4.3 Site coverage and private open space

To provide:

(a) for outdoor recreation and the operational needs of the residents; and
(b) opportunities for the planting of gardens and landscaping; and
(c) private open space that is integrated with the living areas of the dwelling; and
(d) private open space that has access to sunlight; and
(e) for development that is compatible with the existing built and natural environment of the area.

A1	P1
Dwellings must have: (a) a site coverage of not more than 25% (excluding eaves up to 0.6m); and (b) a site area of which at least 25% of the site area is free from impervious surfaces;	Dwellings must have: (a) private open space that is of a size and dimensions that are appropriate for the size of the dwelling and is able to accommodate: (i) outdoor recreational space consistent with the projected requirements of the occupants; and (ii) operational needs, such as clothes drying and storage; and (b) have reasonable space for the planting of gardens and landscaping. (c) not be out of character with the pattern of development in the surrounding area; and (d) not result in an unreasonable loss of natural or landscape values.

COMMENT:
A total floor area of 277m^2 is proposed on the 1791m^2 lot, providing for a site coverage of 15.4%. This ensures more than 25% of the site remains free from impervious surfaces.

A2	P2
A dwelling must have an area of private open space that: (a) is in one location and is at least: (i) 24 m2; or (ii) 12 m2, if the dwelling has a finished floor level that is entirely more than 1.8 m above the finished ground level (excluding a garage, carport or entry foyer); and (b) has a minimum horizontal dimension of: (i) 4 m; or (ii) 2 m, if the dwelling has a finished floor level that is entirely more than 1.8 m above the finished ground level (excluding a garage, carport or entry foyer); and (c) is directly accessible from, and adjacent to, a habitable room (other than a bedroom); and (d) is not located to the south, south-east or south-west of the dwelling, unless the area receives at least 3 hours of sunlight to 50% of the area between 9.00am and 3.00pm on the 21st June; and (e) is located between the dwelling and the frontage only if the frontage is orientated between 30 degrees west of north and 30 degrees east of north, excluding any dwelling located behind another on the same site; and (f) has a gradient not steeper than 1 in 10; and (g) is not used for vehicle access or parking.	A dwelling must have private open space that: (a) includes an area that is capable of serving as an extension of the dwelling for outdoor relaxation, dining, entertaining and children's play and that is: (i) conveniently located in relation to a living area of the dwelling; and (ii) orientated to take advantage of sunlight.

COMMENT:
The dwelling has been designed to provide an area of private open space to the west which is directly accessible from the deck adjoining the living area, has a gradient of less than 1:10 and is not used for vehicle parking.

12.4.4 Sunlight and overshadowing

To provide:
(a) the opportunity for sunlight to enter habitable rooms (other than bedrooms) of dwellings;

A1	P1
A dwelling must have at least one habitable room (other than a bedroom) window that faces between 30 degrees west of north and 30 degrees east of north (see diagram 12.4.4A).	A dwelling must be sited and designed so as to allow sunlight to enter at least one habitable room (other than a bedroom).

COMMENT:
The proposal has habitable room windows which are sited 37^{o} west of north invoking discretion. It is however identified that due to the angle of the lot, the dwelling will be provided with sunlight into the open plan living areas from midday for the entire afternoon. Therefore, considered reasonable in providing opportunity for sunlight into habitable rooms, compliant with the performance criteria and objectives to this clause.

12.4.5 Width of openings for garages and carports

(a) To reduce the potential for garage or carport openings to dominate the primary frontage.

A1	P1
A garage or carport within 12 m of a primary frontage (whether the garage or carport is free-standing or part of the dwelling) must have a total width of openings facing the primary frontage not exceeding 6m or half the width of the frontage (whichever is the lesser).	A garage or carport must be designed to minimise the width of its openings that are visible from the street, so as to reduce the potential for the openings of a garage or carport to dominate the primary frontage.

COMMENT: *Not applicable.*
The openings within the proposed shed do not face the primary frontage.

12.4.6 Privacy

To provide reasonable opportunity for privacy for dwellings.

A1	P1
A balcony, deck, roof terrace, parking space, or carport (whether freestanding or part of the dwelling) that has a finished surface or floor level more than 1 m above natural ground level must have a permanently fixed screen to a height of at least 1.7 m above the finished surface or floor level, with a uniform transparency of no more than 25%, along the sides facing a: (a) side boundary, unless the balcony, deck, roof terrace, parking space, or carport has a setback of at least 3 m from the side boundary; (b) rear boundary, unless the balcony, deck, roof terrace, parking space or carport has a setback of at least 4m from the rear boundary;	A balcony, deck, roof terrace, parking space or carport (whether freestanding or part of the dwelling) that has a finished surface or floor level more than 1 m above natural ground level, must be screened, or otherwise designed, to minimise overlooking of: (a) a dwelling on an adjoining lot or its private open space; or (b) another dwelling on the same site or its private open space; or (c) an adjoining vacant residential lot.

COMMENT: *Not applicable.*
The proposal does not include any works with a floor level exceeding 1m above natural ground level.

A1	P1
A window or glazed door, to a habitable room, of a dwelling, that has a floor level more than 1 m above the natural ground level, must be in accordance with (a), unless it is in accordance with (b): (a) The window or glazed door: (i) is to have a setback of at least 3 m from a side boundary; (ii) is to have a setback of at least 4 m from a rear boundary; (b) The window or glazed door: (i) is to be offset, in the horizontal plane, at least 1.5 m from the edge of a window or glazed door, to a habitable room of another dwelling; or (ii) is to have a sill height of at least 1.7 m above the floor level or has fixed obscure glazing extending to a height of at least 1.7 m above the floor level; or (iii) is to have a permanently fixed external screen for the full length of the window or glazed door, to a height of at least 1.7 m above floor level, with a uniform transparency of not more than 25%.	A window or glazed door, to a habitable room of a dwelling, that has a floor level more than 1 m above the natural ground level, must be screened, or otherwise located or designed, to minimise direct views to: (a) a window or glazed door, to a habitable room of another dwelling; and (b) the private open space of another dwelling; and (c) an adjoining vacant residential lot.
COMMENT: *Not applicable.* *The proposal does not include any works with a floor level exceeding 1m above natural ground level.*	

CODES	
E1.0 – Bushfire-Prone Areas Code	**N/A**
The proposal is not for a vulnerable or hazardous use, nor is it for the subdivision of land.	
E2.0 – Potentially Contaminated Land Code	**N/A**
The proposal is not for a passive recreation or sport and recreation use or has the land been identified as contaminated.	
E3.0 – Landslide Code	**N/A**
The site does not contain land identified as a landslide risk.	
E5.0 – Road and Railway Asset Code	**N/A**
The site is zoned for residential use, with a single dwelling proposed. The application does not intensify the use of the site.	
E6.0 – Parking and Access Code	**Yes**
The proposal provides in excess of the minimum parking requirement within both the shed and carport, compliant with table E6.1.	

E7.0 – Stormwater Management Code	Yes
A1	**P1**
Stormwater from new impervious surfaces must be disposed of by gravity to public stormwater infrastructure.	Stormwater from new impervious surfaces must be managed by any of the following: (a) disposed of on-site with soakage devices having regard to the suitability of the site, the system design and water sensitive urban design principles (b) collected for re-use on the site; (c) disposed of to public stormwater infrastructure via a pump system which is designed, maintained and managed to minimise the risk of failure to the satisfaction of the Council.
COMMENT: As shown on the Plumbing Plan provided, stormwater will be directed into a stormwater tank with overflow directed away from septic tank to allow for soakage within the site to within the site.	

E8.0 – Electricity Transmission Infrastructure Protection Code	N/A
The site is not identified within the overlay map.	
E9.0 – Attenuation Code	**N/A**
The site is not identified within an area impacted by an attenuation distance.	
E11.0 – Waterway and Coastal Protection Code	**N/A**
The site is not identified within a coastal protection area, future refugia area or potable water supply area.	
E13.0 – Historic Heritage Code	**N/A**
The site is not located within a Heritage Place or Precinct.	
E15.0 – Inundation Prone Areas Code	**N/A**
The site is not located in an area impacted by inundation.	
E17.0 – Signs Code	**N/A**
No signs are included as part of this application.	
E18.0 – Wind and Solar Energy Code	**N/A**
No wind or solar energy devices are proposed.	
E19.0 – Telecommunications Code	**N/A**
No telecommunication tower is proposed as part of this application.	

PROPOSED RESIDENCE & SHED
45 JONES ROAD MIENA
MARK & LEANNE OATES

DRAWING INDEX

DRAWING No.	DESCRIPTION	REVISION
01	COVER SHEET	B
02	SITE PLAN	C
03	FLOOR PLAN	B
04	ELEVATIONS	B
05	PLUMBING PLAN	C

PROJECT DETAILS:

TITLE REFERENCE: 22587/50

AREAS:

SITE –	1781m²
EXISTING FLOOR –	0m²
PROPOSED FLOOR –	286m²
TOTAL FLOOR –	286m²

SITE CLASSIFICATION: P

WIND CLASSIFICATION: N3

CLIMATE ZONE: 7

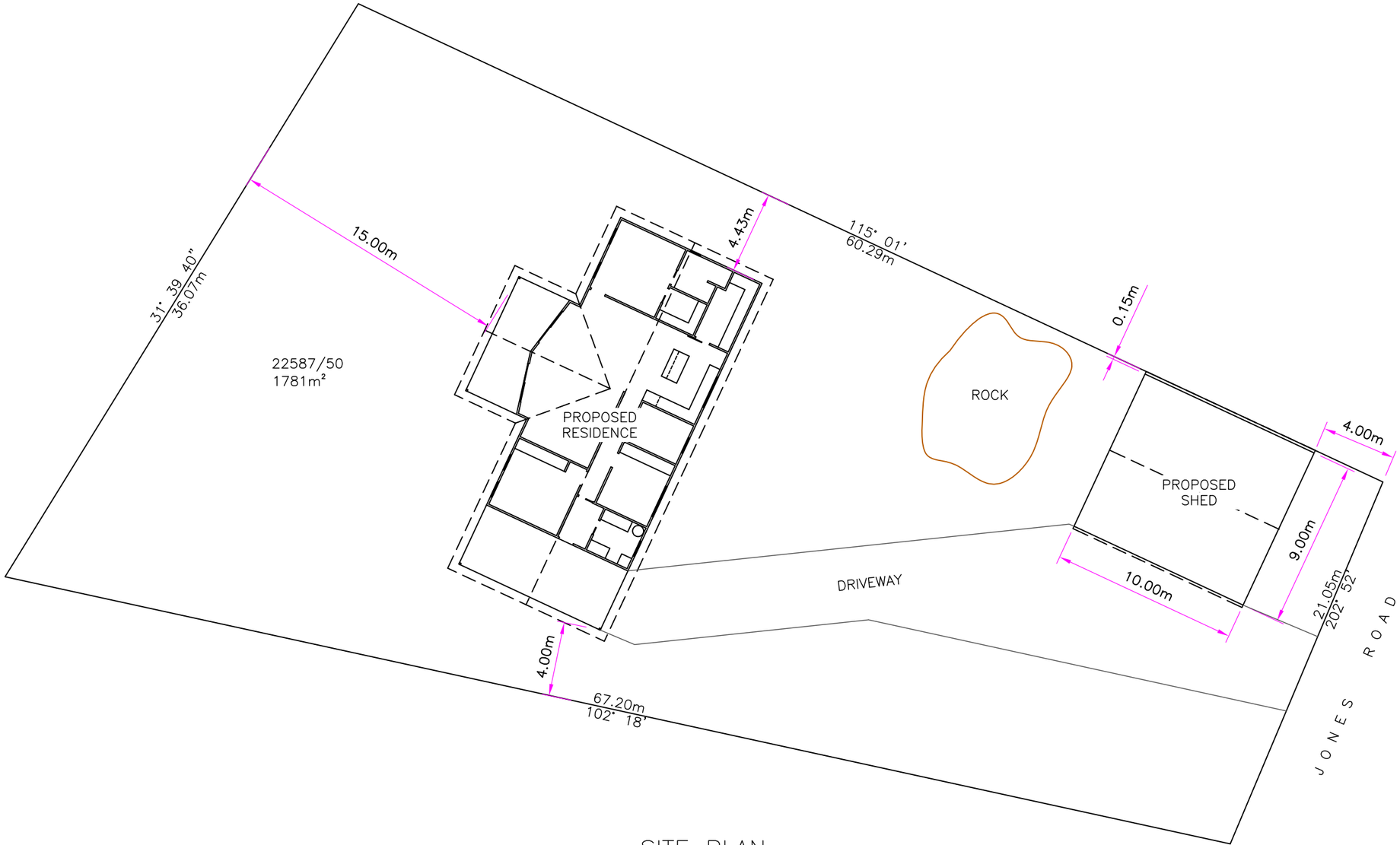
BUSHFIRE ATTACK LEVEL: TBC

Accreditation No. CC1779G
PLA DESIGNS
Ph: 0407 532 435
Email: paul@pladesign.com.au
ABN: 27 165 669 278

DATE: APR 2022
DRAWN: A.R.M.
CHECKED: P.L.A.
SHEET SIZE: A3
SCALE:

PROPOSED RESIDENCE & SHED
45 JONES ROAD MIENA
FOR
MARK & LEANNE OATES

DRAWING No. 21051–01 | REV. B | DATE 24.06.22



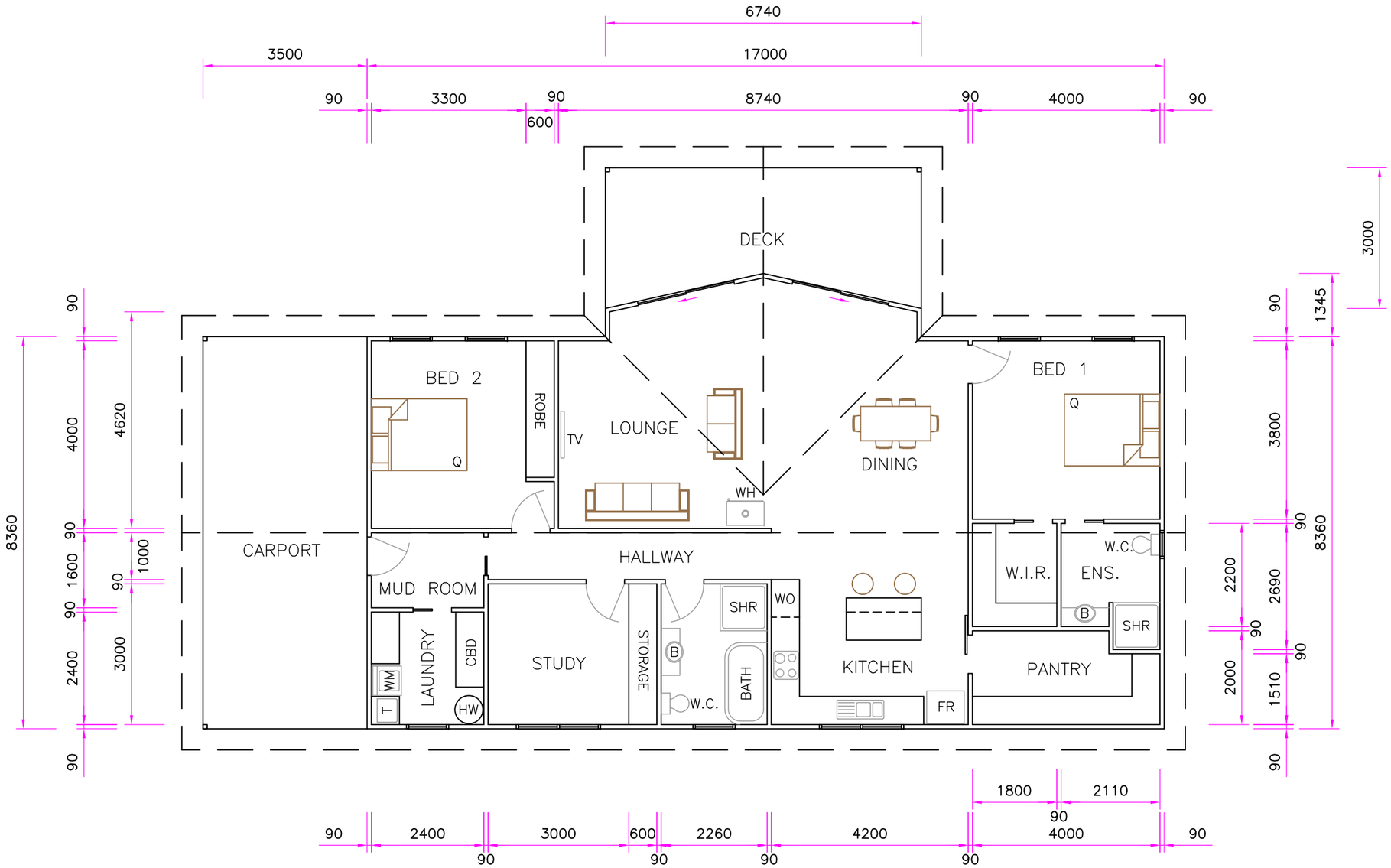
SITE PLAN

Accreditation No. CC1779G
PLA DESIGNS
Ph: 0407 532 435
Email: paul@pladesign.com.au
ABN: 27 165 669 278

DATE	APR 2022
DRAWN	A.R.M.
CHECKED	P.L.A.
SHEET SIZE	A3
SCALE	1 : 250

PROPOSED RESIDENCE & SHED
45 JONES ROAD MIENA
FOR
MARK & LEANNE OATES

DRAWING No.	REV.	DATE
21051–02	C	27.05.22



FLOOR PLAN

AREA

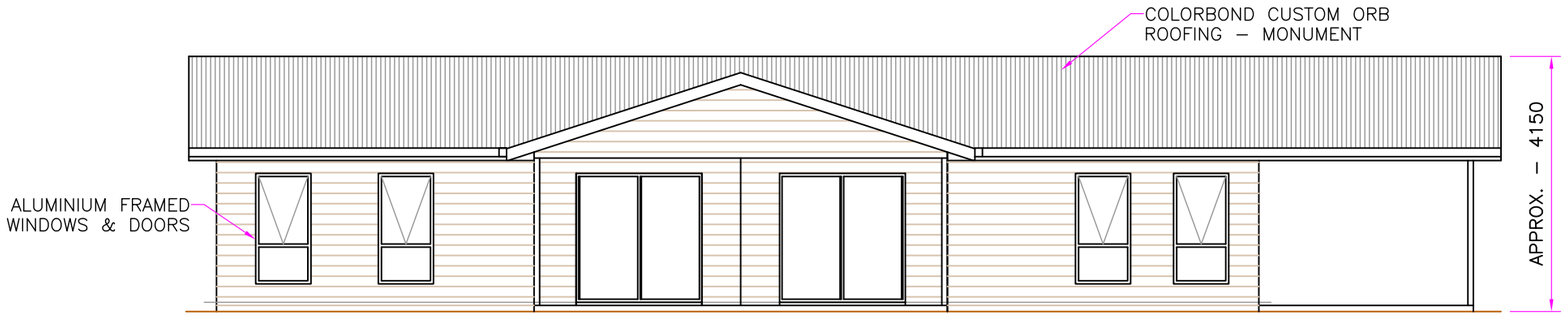
RESIDENCE = 148.7m² (16.00 SQ.)
CARPORT = 21.00m² (2.26 SQ.)
DECK = 29.26m² (3.15 SQ.)
TOTAL = 195.64m² (21.05 SQ.)

Accreditation No. CC1779G
PLA DESIGNS
Ph: 0407 532 435
Email: paul@pladesign.com.au
ABN: 27 165 669 278

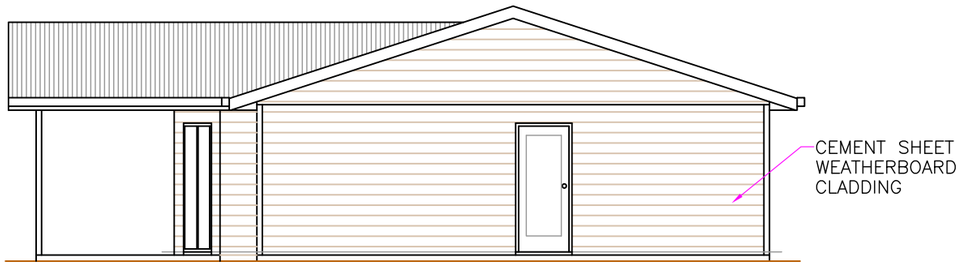
DATE	APR 2022
DRAWN	A.R.M.
CHECKED	P.L.A.
SHEET SIZE	A3
SCALE	1 : 100

PROPOSED RESIDENCE & SHED
45 JONES ROAD MIENA
FOR
MARK & LEANNE OATES

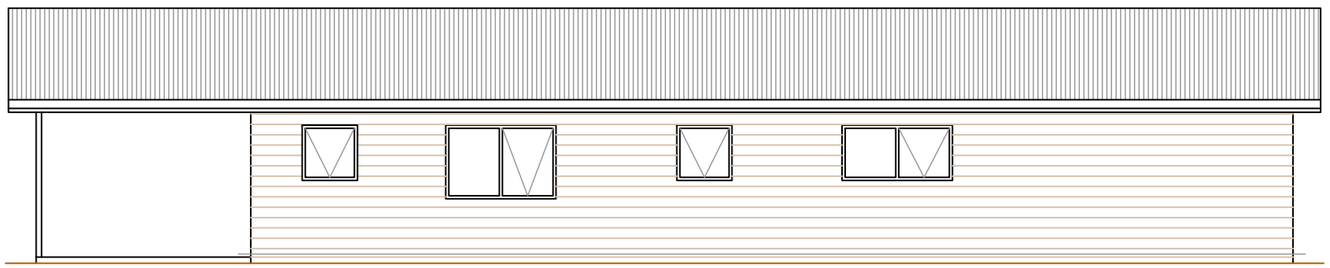
DRAWING No.	REV.	DATE
21051–03	B	23.05.22



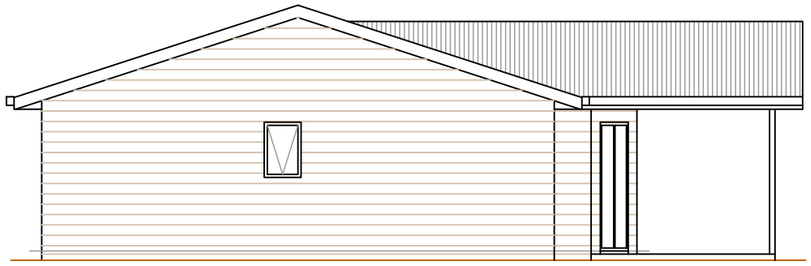
NORTH–WESTERN ELEVATION



SOUTH–WESTERN ELEVATION



SOUTH–EASTERN ELEVATION



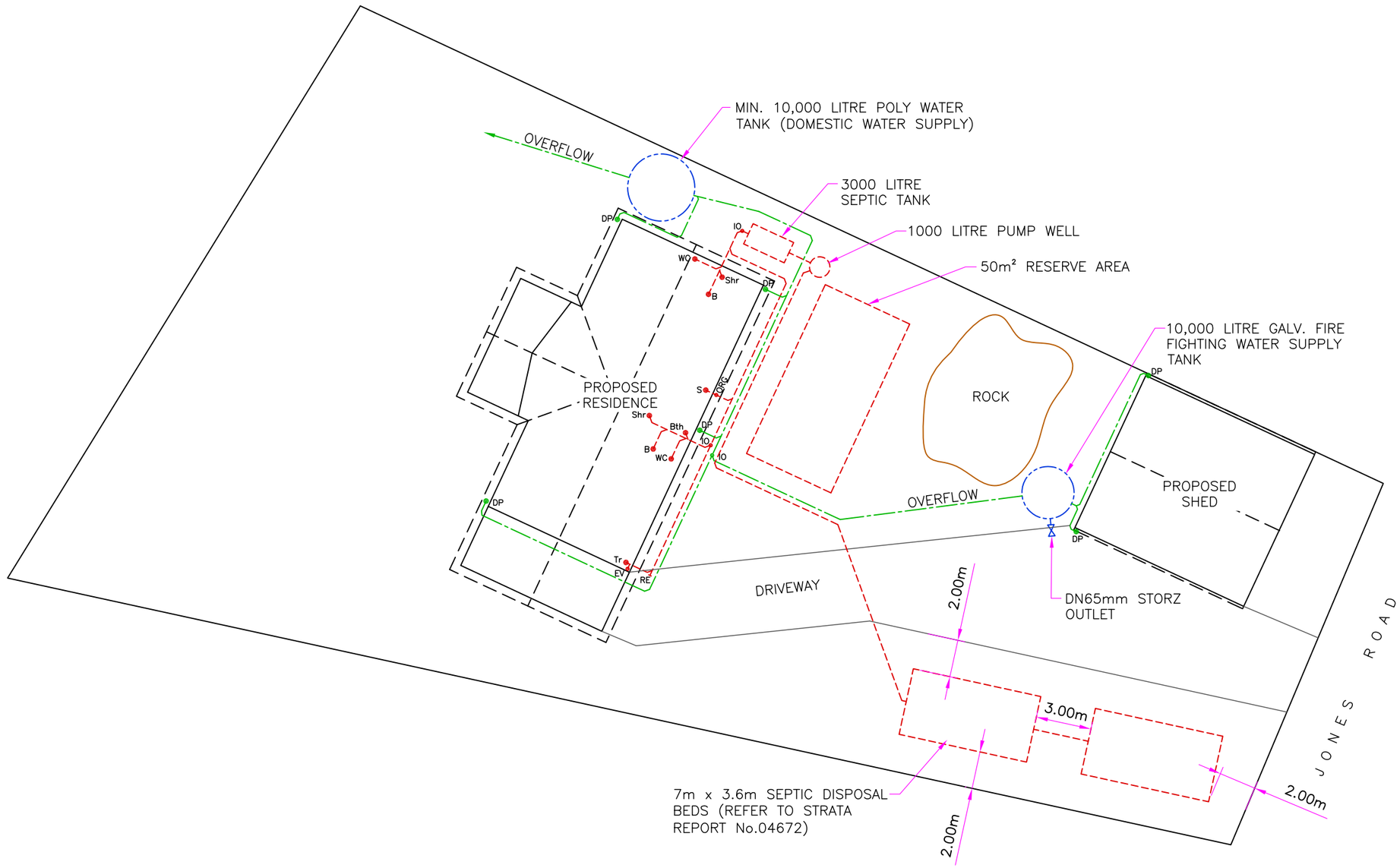
NORTH–EASTERN ELEVATION

Accreditation No. CC1779G
PLA DESIGNS
Ph: 0407 532 435
Email: paul@pladesign.com.au
ABN: 27 165 669 278

DATE	APR 2022
DRAWN	A.R.M.
CHECKED	P.L.A.
SHEET SIZE	A3
SCALE	1 : 100

PROPOSED RESIDENCE & SHED
45 JONES ROAD MIENA
FOR
MARK & LEANNE OATES

DRAWING No.	REV.	DATE
21051–04	B	23.05.22



PLUMBING PLAN

NOTES:

1. ALL DRAINAGE WORK TO BE CARRIED OUT TO THE DESIGN & APPROVAL OF THE LOCAL AUTHORITIES.
2. ALL DOWNPIPES ø90 MIN. U.N.O.
3. STORMWATER LINES TO BE ø90 PVC SEWER LINES TO BE ø100 PVC.
4. ORG TO BE PRIMEABLE BY FIXTURE OR TAP INSTALLATION OVER.
5. TOP OF ORG TO BE MIN. 150mm BELOW LOWEST FIXTURE OUTLET & MIN. 75mm ABOVE ADJACENT GROUND/SLAB LEVEL.
6. BATH WASTE TO BE CONNECTED VIA FLOOR WASTE IN ACCORDANCE WITH CLAUSE 13.9A&B OF AS 3500.2–2018

LEGEND:

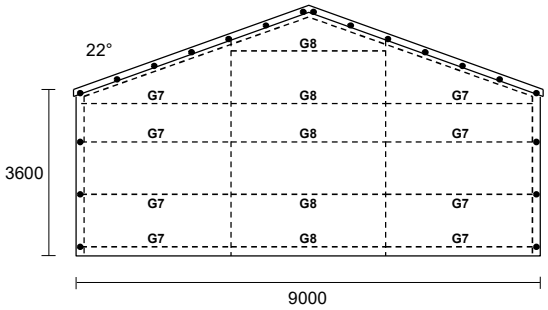
WC –	TOILET
S –	SINK
B –	BASIN
Bth –	BATH
Shr –	SHOWER
Tr –	TROUGH
RE –	ROD EYE
EV –	EDUCT VENT
IO –	INSPECTION OPENING
ORG –	OVERFLOW RELIEF GULLY
DP –	DOWNPIPE

Accreditation No. CC1779G
PLA DESIGNS
Ph: 0407 532 435
Email: paul@pladesign.com.au
ABN: 27 165 669 278

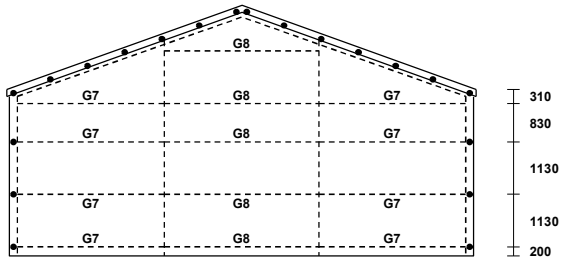
DATE	APR 2022
DRAWN	A.R.M.
CHECKED	P.L.A.
SHEET SIZE	A3
SCALE	1 : 250

PROPOSED RESIDENCE & SHED
45 JONES ROAD MIENA
FOR
MARK & LEANNE OATES

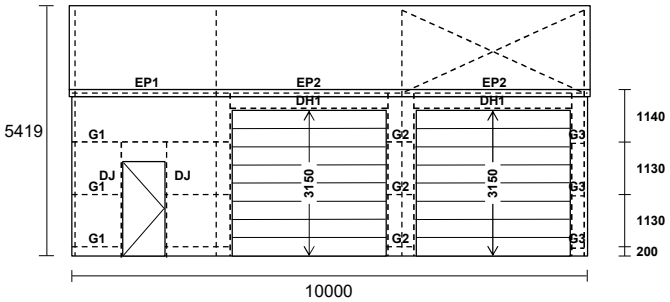
DRAWING No.	REV.	DATE
21051–05	C	24.06.22



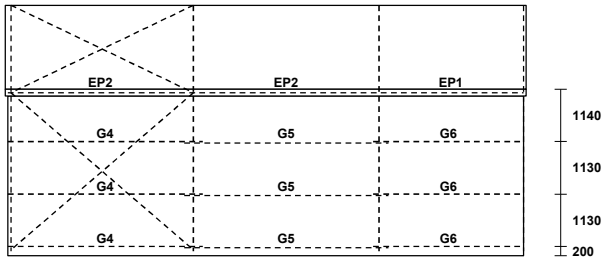
LEFT ELEVATION



RIGHT ELEVATION



FRONT ELEVATION



REAR ELEVATION

PROPERTY DETAILS: OWNER: MARK & LEANNE OATES - SITE ADDRESS: 45 JONES ROAD MIENA TAS 7030

MUNICIPAL DISTRICT: CENTRAL HIGHLANDS COUNCIL

GENERAL NOTES

ALL DIMENSIONS ARE IN MILLIMETRES UNO.

THIS BUILDING DESIGN IS SUITABLE FOR A DESIGN CLASS OF 10a. THIS BUILDING IS NOT DESIGNED FOR, AND CANNOT BE USED FOR, HUMAN HABITATION (CLASS 1).

THIS SITE SPECIFIC DETAIL REFERS TO THE STRUCTURAL SUITABILITY OF THE STRUCTURAL DESIGN ONLY. THE ENGINEER AND THE SUPPLIER TAKE NO RESPONSIBILITY FOR ANY COMPLIANCE WITH ANY LOCAL GOVERNMENT BY-LAWS, TOWN PLANNING REQUIREMENTS OR INDIVIDUAL SITE CIRCUMSTANCES THAT MAY EFFECT THE SUITABILITY OF THE INSTALLATION OF THE STRUCTURE AT THE ACTUAL SITE.

THESE DESIGNS WHEN CONSTRUCTED IN ACCORDANCE WITH THIS ENGINEERING COMPLIES WITH THE FOLLOWING STANDARDS AND REGULATIONS:-

AS1170.0 TO AS1170.4-2006, AS3600-2009,
AS4055-2011, AS4100-1998 & AS4600-2005
NCC 2018

THE FRAMING MEMBERS, ROOF PURLIN MEMBERS AND CLADDING WITHIN THESE DESIGNS ARE BASED ON THE SECTIONAL DESIGN PROPERTIES OF THE ROLLFORMED PRODUCTS MANUFACTURED BY LYSAGHT BUILDING PRODUCTS.

ALL SCREW FIX FASTENERS TO COMPLY WITH AS3566. ALL CONNECTION BOLTS TO COMPLY WITH AS1252 IN ACCORDANCE AS4100. ALL SCREW FASTENERS TO BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURERS INSTALLATION INSTRUCTIONS. FRAMING BOLTS TO BE TIGHTENED TO A SHANK TENSION OF 90kN.

REFER TO PAGE 2 FOR FLOOR PLAN & MEMBER TABLE & WALL CLADDING DETAILS, PAGE 3 FOR SLAB AND FOUNDATION DETAILS, PAGE 4 FOR ROOF PLAN AND ROOF CLADDING DETAILS AND PAGES 5&6 FOR FRAME AND MEMBER CONNECTION DETAILS.

THIS BUILDING IS TO BE CONSTRUCTED IN ACCORDANCE WITH GOOD PRACTICE. DURING CONSTRUCTION THE STRUCTURE MUST BE MAINTAINED IN A STABLE MANNER AND SUFFICIENTLY BRACED TO PREVENT OVERSTRESSING OF FRAME. THE ENGINEER AND THE SUPPLIER ACCEPT NO RESPONSIBILITY FOR ANY MISTAKES, FROM WHATEVER SOURCE, THROUGH PLEA OF IGNORANCE OF THE OWNER/BUILDER/ERECTOR.

INCLUSIONS

LARNEC 650 PERSONAL DOOR TO FRONT BAY 1

STANDARD STRAMIT 3150H 3000W DOOR TO FRONT BAY 2

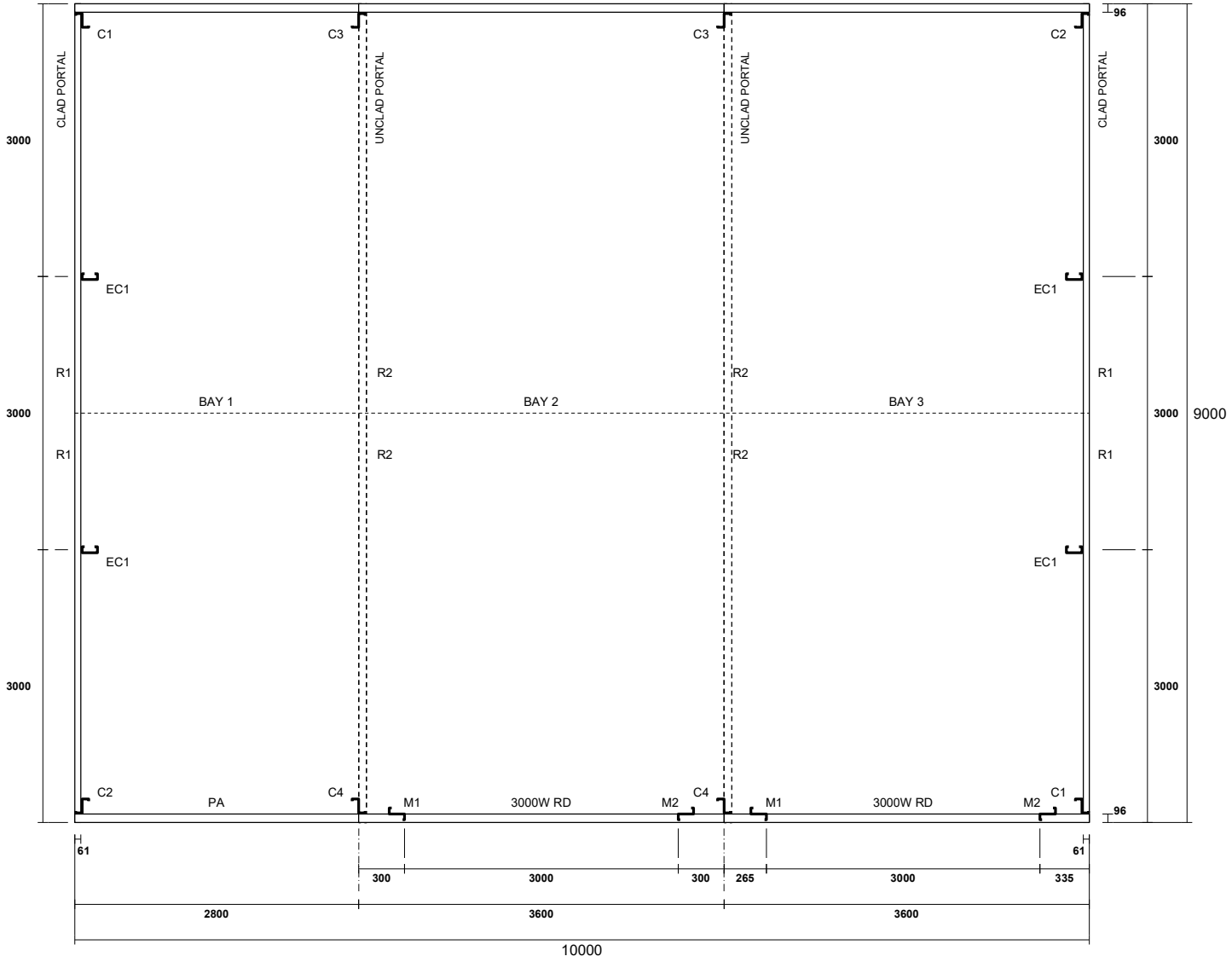
STANDARD STRAMIT 3150H 3000W DOOR TO FRONT BAY 3

CONSULTING ENGINEER

JP ENGINEERS AND ASSOCIATES PTY LTD
NER No.3339325
EC42637 (Vic)
CC7434 (TAS)

Furm
Garages & Sheds
23 DALMATIAN CRT LEGANA TAS 7277
PH / FAX 1800 790 569

STRUCTURAL DRAWING NO. LEG201022-4 - DATE 4/04/2022



FLOOR PLAN

(SCHEMATIC DRAWING - FRAME DETAILS NOT TO SCALE)

PROPERTY DETAILS: OWNER: MARK & LEANNE OATES - SITE ADDRESS: 45 JONES ROAD MIENA TAS 7030

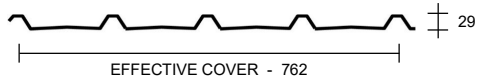
MUNICIPAL DISTRICT: CENTRAL HIGHLANDS COUNCIL

MEMBER TABLE

DESCRIPTION	MEMBER
CLAD COLUMNS (C1/C2)	Z15015
CLAD RAFTERS (R1)	C15015
UNCLAD COLUMNS (C3/C4)	Z25019
UNCLAD RAFTERS (R2)	C25019
KNEE BRACES (KB)	C15019
KB TO UNCLAD PORTALS	
END WALL COLUMNS (EC1)	C15015
ROLLER DOOR MULLIONS (M1/M2)	Z20015
ROLLER DOOR HEAD (DH1)	TOPSPAN 9695
PERSONAL DOOR JAMBS (DJ)	JAMB3 - U9610
EAVE PURLINS (EP1-EP2)	C15012
ROOF PURLINS (P1-P3)	TOPSPAN 9695
WALL GIRTS (G1-G6)	TOPSPAN 9695
END WALL GIRTS (G7-G8)	TOPSPAN 6110
STRAP BRACING	32 x 1.2
ROOF CLADDING	0.42 CUSTOM ORB
WALL CLADDING	0.42 TRIMDEK

WALL CLADDING AND FASTENING DETAILS

WALL CLADDING - 0.42 TRIMDEK



FASTEN TO EACH WALL GIRT/EAVE PURLIN WITH
1 OF 10/16x16 CL3 TEK IN PAN ADJACENT TO EACH EAVE

BRACING STRAP NOTE

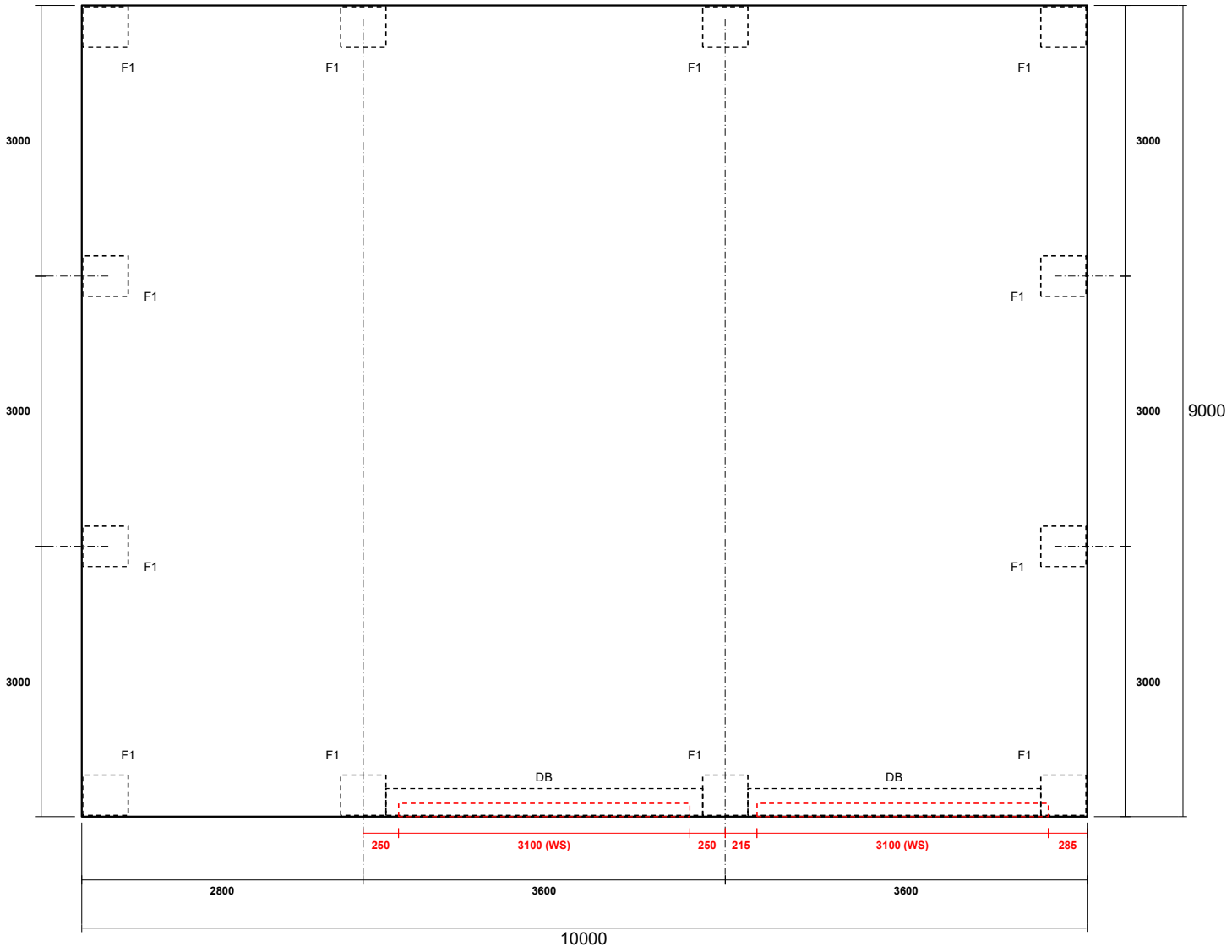
BRACING STRAP TO FRAME AS DETAILED. BRACING STRAP TO BE FIXED UNDER TENSION PRIOR TO CLADDING BUILDING TO PREVENT MOVEMENT OF FRAME. FIX TO FRAME WITH 2 OFF 14/10x20 CL3 TEKS TO EACH END

CONSULTING ENGINEER

JP ENGINEERS AND ASSOCIATES PTY LTD
NER No.3339325
EC42637 (Vic)
CC7434 (TAS)

Furm
Garages & Sheds
23 DALMATIAN CRT LEGANA TAS 7277
PH / FAX 1800 790 569

STRUCTURAL DRAWING NO. LEG201022-4 - DATE 4/04/2022



SLAB AND FOOTING LAYOUT

SLAB/FOOTING DIMENSIONS AND FOUNDATION NOTES

SLAB TO BE 100 DEEP WITH SL72 MESH - 30 COVER MINIMUM.

MAIN SLAB FOOTINGS (F1) TO BE 450 SQ x 450 DEEP.

SQUARE PIERS CAN BE ROUND PIERS OF SAME DIAMETER.

200 WIDE X 200 DEEP DOOR BEAM (DB) TO ROLLER DOOR LOCATIONS. BEAM TO GO FROM FOOTING TO FOOTING. TRENCH MESH NOT REQUIRED.

OPTIONAL WEATHER SLOPES (WS) TO ROLLER DOOR LOCATIONS. START SLOPE 150 BACK FROM EDGE OF SLAB AND FALL TO FRONT.

THIS SLAB HAS BEEN DESIGNED FOR A MAXIMUM LIVE LOAD OF 3kPa.

SLAB AND FOOTINGS SHALL HAVE A MINIMUM CONCRETE STRENGTH OF 25MPa.

SLAB AND FOOTINGS HAVE BEEN DESIGNED TO BEAR ON NATURAL GROUND OR CONTROLLED FILL WITH A MINIMUM BEARING CAPACITY OF 100kPa.

WHERE REQUIRED, CONTROLLED FILL TO BE NON-SAND GRAVEL COMPACTED IN LAYERS TO A MAXIMUM DEPTH OF 600. EACH LAYER NOT TO EXCEED 150 DEEP. ALL FOOTINGS TO EXTEND TO NATURAL FOUNDATION.

ALL FILL TO BE COMPACTED WITH MECHANICALLY VIBRATING ROLLER.

PLASTIC MEMBRANE TO UNDERSLAB. ALL JOINTS TO BE TAPED. REMOVE MEMBRANE FROM FOOTING LOCATIONS.

SLAB SHALL BE PROTECTED AGAINST EXCESSIVE MOISTURE LOSS AND ALLOWED TO CURE FOR A PERIOD OF NOT LESS THAN SEVEN DAYS AFTER POURING BEFORE STANDING OF STEELWORK.

CONSULTING ENGINEER

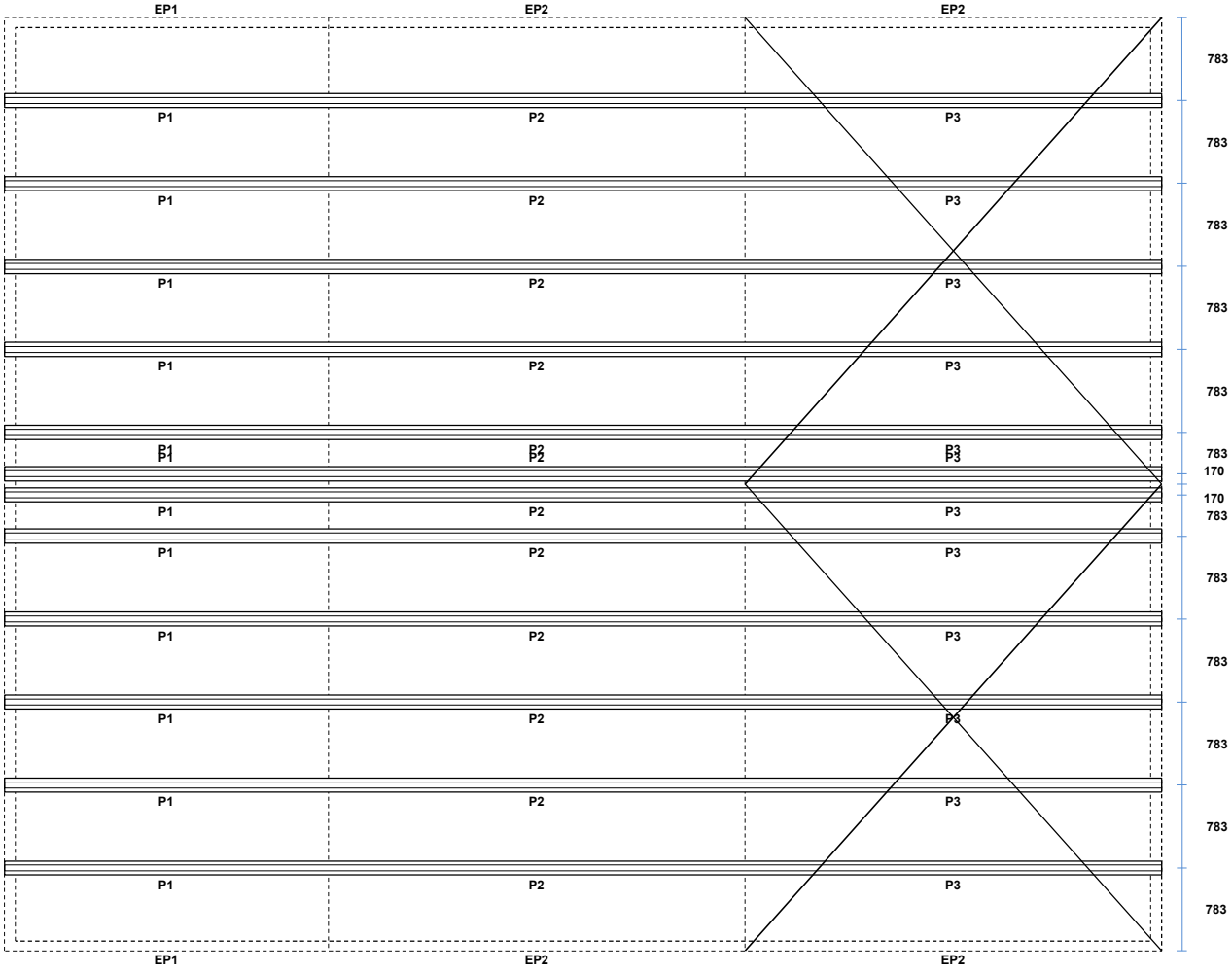
JP ENGINEERS AND ASSOCIATES PTY LTD
NER No.3339325
EC42637 (Vic)
CC7434 (TAS)

PROPERTY DETAILS: OWNER: MARK & LEANNE OATES - SITE ADDRESS: 45 JONES ROAD MIENA TAS 7030

MUNICIPAL DISTRICT: CENTRAL HIGHLANDS COUNCIL

Furm Garages & Sheds
23 DALMATIAN CRT LEGANA TAS 7277
PH / FAX 1800 790 569

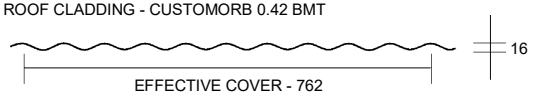
STRUCTURAL DRAWING NO. LEG201022-4 - DATE 4/04/2022



ROOF PURLIN LAYOUT

ROOF CLADDING AND FASTENING DETAILS

ROOF CLADDING - CUSTOMORB 0.42 BMT



END FIX

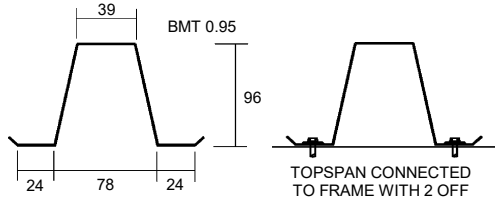
1 OFF 14/10x45 CL3 ZIPS TO EVERY SECOND CREST

INTERNAL PURLIN FIX

1 OFF 14/10x45 CL4 ZIPS TO THE 1ST, 5TH & 9TH CREST

ROOF PURLIN / WALL GIRT DETAIL

TOPSPAN 96



TOPSPAN CONNECTED TO FRAME WITH 2 OFF 14/10x20 CL4 TEKS PER INTERSECTION

ROOF BRACING NOTES

32 x 1.2 BRACING STRAP TO FRAME AS DETAILED. BRACING STRAP TO BE FIXED UNDER TENSION PRIOR TO CLADDING BUILDING TO PREVENT MOVEMENT. FIX TO FRAME WITH 2 OFF 14/10x20 CL4 TEKS TO EACH END.

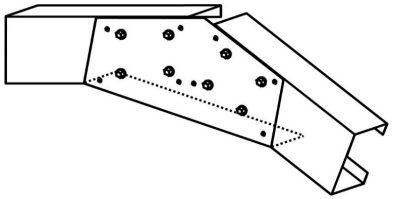
CONSULTING ENGINEER

JP ENGINEERS AND ASSOCIATES PTY LTD
NER No.3339325
EC42637 (Vic)
CC7434 (TAS)

Furm
Garages & Sheds
23 DALMATIAN CRT LEGANA TAS 7277
PH / FAX 1800 790 569

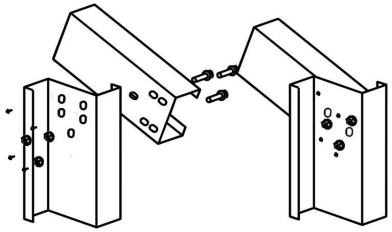
PROPERTY DETAILS: OWNER: MARK & LEANNE OATES - SITE ADDRESS: 45 JONES ROAD MIENA TAS 7030
MUNICIPAL DISTRICT: CENTRAL HIGHLANDS COUNCIL

STRUCTURAL DRAWING NO. LEG201022-4 - DATE 4/04/2022



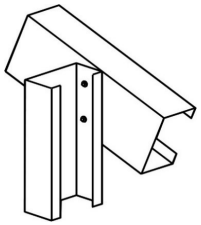
RAFTERS CONNECTED AT APEX WITH
FURM APEX CLEAT.
FASTEN WITH 8 OFF M16x30 8.8/s BOLT ASSY &
8 OFF 14/10x20 CL3 TEKS.

APEX CONNECTION



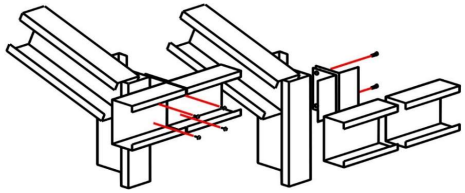
RAFTERS CONNECTED DIRECTLY TO
COLUMN AT KNEE WITH
3 OFF M16x30 8.8/s BOLT ASSY &
4 OFF 14/10x20 CL3 TEKS.

KNEE CONNECTION



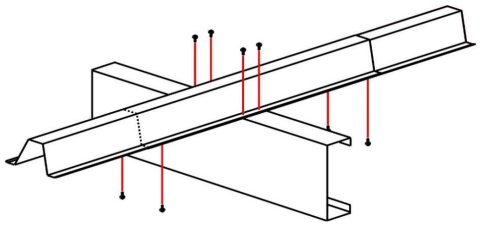
END COLUMNS CONNECTED DIRECTLY TO RAFTER.
FASTEN WITH 2 OFF M16x30 8.8/s BOLT ASSY.

CLAD WALL END COLUMN CONNECTION



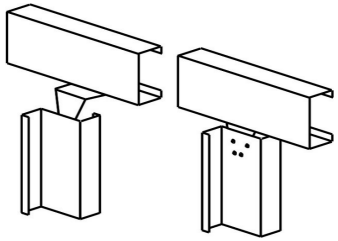
EAVE PURLIN TO BE C150 PURLIN. FASTEN WITH
FLANGES FACING OUTWARDS.
ATTACH WITH FURM EAVE CLEATS.
SINGLE CLEATS TO END PORTALS AND
TWO CLEAT BACK-TO-BACK TO INTERNAL PORTALS.
FASTEN WITH 2 OFF 14/10x20 CL3 TEKS TO EACH MEMBER.

EAVE PURLIN CONNECTION



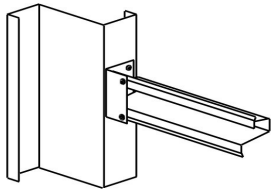
ROOF PURLINS FASTENED WITH
4 OFF 14/10x20 CL3 TEKS TO RAFTER.
FIX LAP ENDS WITH 4 OFF 14/10x20 CL3 TEKS.

ROOF PURLIN CONNECTION



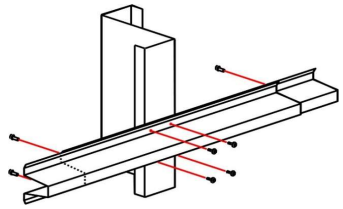
DOOR MULLIONS CONNECTED DIRECTLY TO
RAFTER WITH FURM MULLION CLEAT.
FASTEN WITH 8 OFF 14/10x20 TEKS.

SIDE ROLLER DOOR MULLION CONNECTION



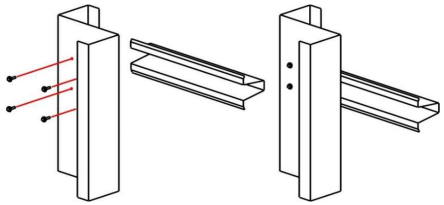
DOOR HEAD FIXED TO DOOR MULLION WITH
FURM TOPSPAN CLEAT.
FIX WITH 4 OFF 14/10x20 CL3 TEKS.

ROLLER DOOR HEAD CONNECTION



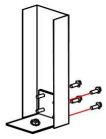
WALL GIRTS PURLINS FASTENED WITH 4 OFF 14/10x20
CL3 TEKS TO COLUMN/RAFTER.
FIX LAP ENDS WITH 4 OFF 14/10x20 CL3 TEKS.

WALL GIRT CONNECTION



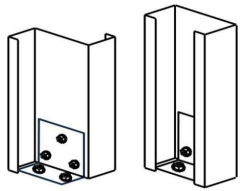
WALL GIRTS FIXED DIRECTLY TO CLAD COLUMN.
FIX WITH 4 OFF 14/10x20 CL3 TEKS.

CLAD PORTAL WALL GIRT CONNECTION



PA MULLION FIXED TO FOUNDATION WITH
FURM BASEPAD PA DOOR CLEAT.
FIX WITH 4 OFF 14/10x20 CL3 TEKS TO MULLION
AND 1 OFF M10x75 SCREWBOLTS TO FOUNDATION.

PERSONAL DOOR MULLION BASE CONNECTION



COLUMNS & MULLIONS FIXED TO FOUNDATION
WITH FURM BASE CLEATS.
FIX WITH 3 OFF M16x30 8.8/s BOLT ASSY TO COLUMNS
150 & 200 COLUMNS - 2 OFF M12x100 SCREWBOLTS
250 COLUMNS - 2 OFF M16x150 SCREWBOLTS

COLUMN BASE CONNECTION

PROPERTY DETAILS: OWNER: MARK & LEANNE OATES - SITE ADDRESS: 45 JONES ROAD MIENA TAS 7030

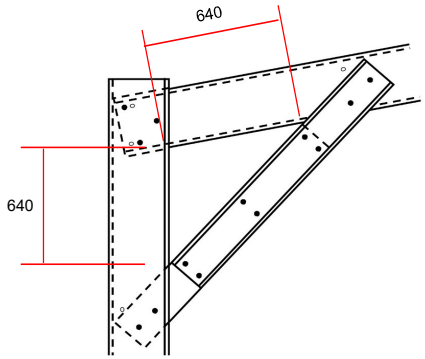
MUNICIPAL DISTRICT: CENTRAL HIGHLANDS COUNCIL

CONSULTING ENGINEER

JP ENGINEERS AND ASSOCIATES PTY LTD
NER No.3339325
EC42637 (Vic)
CC7434 (TAS)

Furm
Garages & Sheds
23 DALMATIAN CRT LEGANA TAS 7277
PH / FAX 1800 790 569

STRUCTURAL DRAWING NO. LEG201022-4 - DATE 4/04/2022



KNEE BRACE IS BACK-TO-BACK C PURLIN.
BRACE IS TO FIT DIRECTLY TO THE BACK FACE OF BOTH UNCLAD COLUMN AND RAFTER.
FIX WITH 6 OFF M16x30 8.8/s BOLT ASSY TO LAPS AND 2 OFF M16x30 8.8/s BOLT ASSY TO EACH END.

UNCLAD PORTAL KNEE BRACE DETAIL

CONSULTING ENGINEER

JP ENGINEERS AND ASSOCIATES PTY LTD
NER No.3339325
EC42637 (Vic)
CC7434 (TAS)

Furm
Garages & Sheds
23 DALMATIAN CRT LEGANA TAS 7277
PH / FAX 1800 790 569

PROPERTY DETAILS: OWNER: MARK & LEANNE OATES - SITE ADDRESS: 45 JONES ROAD MIENA TAS 7030
MUNICIPAL DISTRICT: CENTRAL HIGHLANDS COUNCIL

STRUCTURAL DRAWING NO. LEG201022-4 - DATE 4/04/2022

strata
geoscience and environmental

Onsite Wastewater System Design

45 Jones Road
Miena

May 2022

Important Notes:

The author, Strata Geoscience and Environmental, gives permission for this report to be copied and distributed to interested parties only if it is reproduced in colour and in full including all appendicies. No responsibility is taken for the contents and recommendations of this report if it is not reproduced as requested.

1. Introduction

Strata Geoscience and Environmental Pty Ltd was commissioned to conduct an onsite wastewater system design for:

	Client and Site Details
Client Name	Mark Oates
Site Address	45 Jones Road Miena
Proposed Development	New system for new dwelling

The investigation was conducted with reference to Australian Standards AS1547-2012 Onsite Domestic Wastewater Management and also follows the principles outlined in AS1726-1993 Geotechnical Site Investigations.

2. Summary of Site and Soil Evaluation and Design Outcomes

The investigation's key findings were:

	SSE and Design Outcomes
General Comments	Site suitable for disposal of primary treatment
Key Site and Soil Limitations to System Design	• Low hydraulic conductivity soils • Rocky profiles
Summary of Proposed System Specification	Primary Treatment: 3000L Dual Purpose septic tank Secondary Treatment: Mounded Bed Land Application: Mounded Bed

3. Investigation

Please refer to Appendix 4 for Site and Soil Evaluation results.

4. Interpretation

The site is situated on a slight slope underlain by clay soils Jurassic Dolerite.

With respect to the sustainability of long term disposal of wastewater within the site boundaries the following comments are made:

Soils – Natural soils will have a moderate to low permeability for the acceptance of wastewater flows and will show a high cation exchange complex for the absorption of nutrients from effluent. Soil are rocky and surface bedrock outcroppings MUST be avoided.

Environmental Sensitivities – The development area is gently sloping with nearest surface water body located approximately 100+ m downslope of the proposed residence. Groundwater was not intersected throughout geotechnical investigation however it may flow over clayey subsoils as a perched watertable throughout wet periods.

Climate - the nearest weather station with long term data is the Miena Dam Station with a mean annual rainfall of 838 mm (BOM 2022) and no evaporation data.

Title Searches – Searches of the Land Title did not show any easements or right of ways which would affect the positioning of the wastewater land application system.

Given the above, the general environmental and public health risk associated with the site is regarded as low provided adequate setback distances and other controls are adopted.

5. Onsite Wastewater System Design

5.1 Site and Soil Considerations

Results of the SSE (Appendix 4) found the following typical soil profile on site:

	Topsoils (A1-A3)	Subsoils (B1-B3)
Description	CLAYEY SILT (ML)	Clayey SILT (ML)/Silty CLAY(CL)
Soil Category (AS1547-2011)	3	4
Indicative Permeability (m/d)	1.5	0.5
Recommended DIR (mm/d)/DLR (L/D)	25	12
pH	6.9	6.5
EC	1.9	4.2
Emmerson Class	8	5

5.2 Risk Management of Site and Soil Constraints

Key site and soil constraints as well as their risk management:

Site/Soil Constraint	Risk Mitigation Measure
Rocky profiles	• Avoid bedrock outcroppings and test pit prior to construction

5.3 Proposed Wastewater System Concept Design

It is therefore recommended that the following system be adopted:

Treatment Train Component	Proposed Concept Design
Primary Treatment	• Septic Tank
Secondary Treatment	• Mounded Bed
LAA Design	• Mounded Bed

The development proposal is for the construction of a new wastewater system to service the existing 3 bedroom equivalent dwelling on tank water with standard water savings fixtures. Therefore under AS1547-2012 the calculated effluent flows and required disposal area is as follows:

Wastewater System Modelling	
Number of Proposed Bedrooms	3
Number of Equivalent Persons	5
Water Source (Tank/Mains)	Tank
Daily Loading (L/per person/D)	120
Total Daily Loading (L/D)	600
Adopted Soil Category (AS1547-2012)	4
Indicative Permeability (m/d)	0.75
Adopted DLR/DIR (mm/d OR L/m^2/d)	12
Required LAA (m^2)	50

The absorption area could be catered for by two 7m x 3.6m mounded bedsinstalled as shown on the site plan with adequate room for a 100% reserve if required (see Appendix 1). Refer to Appendix 2/3 for more detailed calculations as well as specific design and construction notes.

5.5 System Requirements

Nutrient, bacterial and viral reduction performance should be inline with the prescriptions of AS1546.3:2008 for primary treated effluent. It is noteworthy that the high CEC of the soils plus distances from ephemeral drainage lines will all serve to further reduce the risk of residual nutrients, bacterial or viruses entering any waterway.

The system has the following specifications:

- One 3000L Dual Purpose Septic tank with outlet filter
- One 1000L pump well (may be omitted in consultation with strata if adequate fall between septic outlet and bed inlets can be achieved)
- Two-way pressure dosed sequencing valve
- Two 7m x 3.6m Septic Beds with min 3.0m separation
- 100% Reserve

Given the rocky and variable nature of soils overlying the site, it is recommended that:

- Geotechnical test pitting is required prior to bed construction to confirm subsurface conditions in the indicated bed area. The indicated bed locations may need to be adjusted to avoid surface/near surface bedrock.
- An inspection of the prepared bed surface is made by the designer BEFORE installation of reticulation infrastructure.
- If the bed surface preparation and/or construction is not to the satisfaction of the designer then a raised bed design is to be adopted.
- The designer will supply this design for approval to the permit authority before installation which may cause some delay in its construction and increase in construction costs. All cost associated with this are to be borne by the client.

5.6 Management Requirements

It is imperative that regular servicing of the treatment unit compliant with the prescriptions of the manufacturer and Council permit occur.

To ensure that the treatment system functions adequately and provides effective treatment and disposal of effluent over its design life, asset owners have the following responsibilities:

- Suitably qualified maintenance contractors must be engaged to service the system, as required by Council under the approval to operate.
- Keep as much fat and oil out of the system as possible; and
- Conserve water.

To ensure that the land application area (LAA) functions adequately and provides effective treatment and disposal of effluent over its design life, asset owners have the following responsibilities:

- LAA should be checked regularly to ensure that effluent is draining freely, including flushing of lines and cleaning of inline filters.

- All vehicles, livestock and large trees should be excluded from around the irrigation area.
- Low sodium/phosphorous based detergents should be used to increase the service life of irrigation area.
- Regularly harvest (mow) vegetation within the LAA and remove this to maximise uptake of water and nutrients;
- Not to erect any structures over the LAA;
- Ensure that the LAA is kept level by filling any depressions with good quality topsoil (not clay).

Excessive surface dampness, smell or growth of vegetation around the LAA may indicate sub-optimal performance and professional advice should be sort.

5.7 Setback Requirements

The setbacks as indicated on the site plan conform with Acceptable Solutions or Performance Criteria for setback distance outlined in the Tasmanian Building Act 2016.

Acceptable Solutions	Performance Criteria	Compliance
A1 Horizontal separation distance from a building to a land application area must comply with one of the following: a. be no less than 6m: b. be no less than: (i) 2m from an upslope or level building. (ii) If primary treated effluent to be no less than 4m plus 1m for every degree of average gradient from a downslope building (iii) If secondary treatment and subsurface application, no less than 2m plus 0.25m for every degree of average gradient from a downslope building	P1 a. The land application area is located so that the risk of wastewater reducing the bearing capacity of the buildings foundations is acceptably low	Complies with A1 (a)
A2 Horizontal separation distance from downslope water to a land application area must comply with (a) or (b). a) be no less than 100m b) be no less than the following: i) If primary treated effluent to be no less than 15m plus 7m for every degree of average gradient from a downslope surface water, or; ii) if secondary treatment and subsurface application, no less than 15m plus 2 m for every degree of average gradient from a downslope surface water	P2 Horizontal separation distance from downslope water to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable	Complies with A2 (bi)
A3 Horizontal separation distance from a property boundary to a land application area must comply with either of the following: a) be no less than 40m from a property boundary b) be no less than (i) 1.5m from an upslope or level property boundary; and	P3 Horizontal separation distance from the boundary to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R, and	Complies with A3 (B) (I and II) b

(ii) if primary treated effluent 2m for every degree of average gradient from a downslope property boundary; or (iii) if secondary treated effluent and subsurface application, 1.5m plus 1m for every degree of average gradient from a downslope property boundary.	b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable	
A4 Horizontal separation distance from a downslope bore, well or similar water supply to a land application area must be no less than 50m and not be within the zone of influence of the bore whether up or down gradient	P4 Horizontal separation distance from a downslope bore to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R, and b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable	Complies with A4
A5 Vertical separation distance between groundwater and a land application area must be no less than1.5m	P5 Vertical separation distance between groundwater to a land application area must comply with all of the following: a) Setbacks must be consistent with AS/NZS 1547 Appendix R, and b) A risk assessment in accordance with Appendix A of AS/NZS 1547 has been completed that demonstrates that the risk is acceptable	Complies with A5
A6 Vertical separation distance between a limiting layer and a land application area must be no less than 1.5m	P6 Vertical setback must be consistent with AS/NZS 1547 Appendix R,	Complies with A6
A7	P7	Complis with A7(a/b)

The arrangement of a land application area must comply with both of the following: (a) not include areas beneath buildings, dRiversidersidersidersideways or other hard stand areas; (b) have a minimum horizontal dimension of 3m.	No performance criteria	

6. Conclusions and Further Recommendations

In conclusion, the following comments and recommendations are made:

- The maximum wastewater flow rate (MWWF) modelling conducted in this report shows that the generated flows are likely to be no more than 600 L/day.

- That such flows will require a land application area (LAA) comprising 50 m^2 Mounded Beds.

- It is likely that peak flows associated with the development should be within the buffering capacity of the system both in terms of the system sizing as well as for their acceptance into the disposal area.

- If the hydraulic capacity of soils underlying disposal areas is exceeded by effluent water flows, the disposal area has the capacity to be increased by up to 100%.

- **If the prescriptions of this report are followed the likely human and environmental health risks associated with effluent disposal onsite is rated as low.**

S Nielsen MEngSc CPSS
Director
Strata Geoscience and Environmental Pty Ltd
E:sven@strataconsulting.com.au

7. References

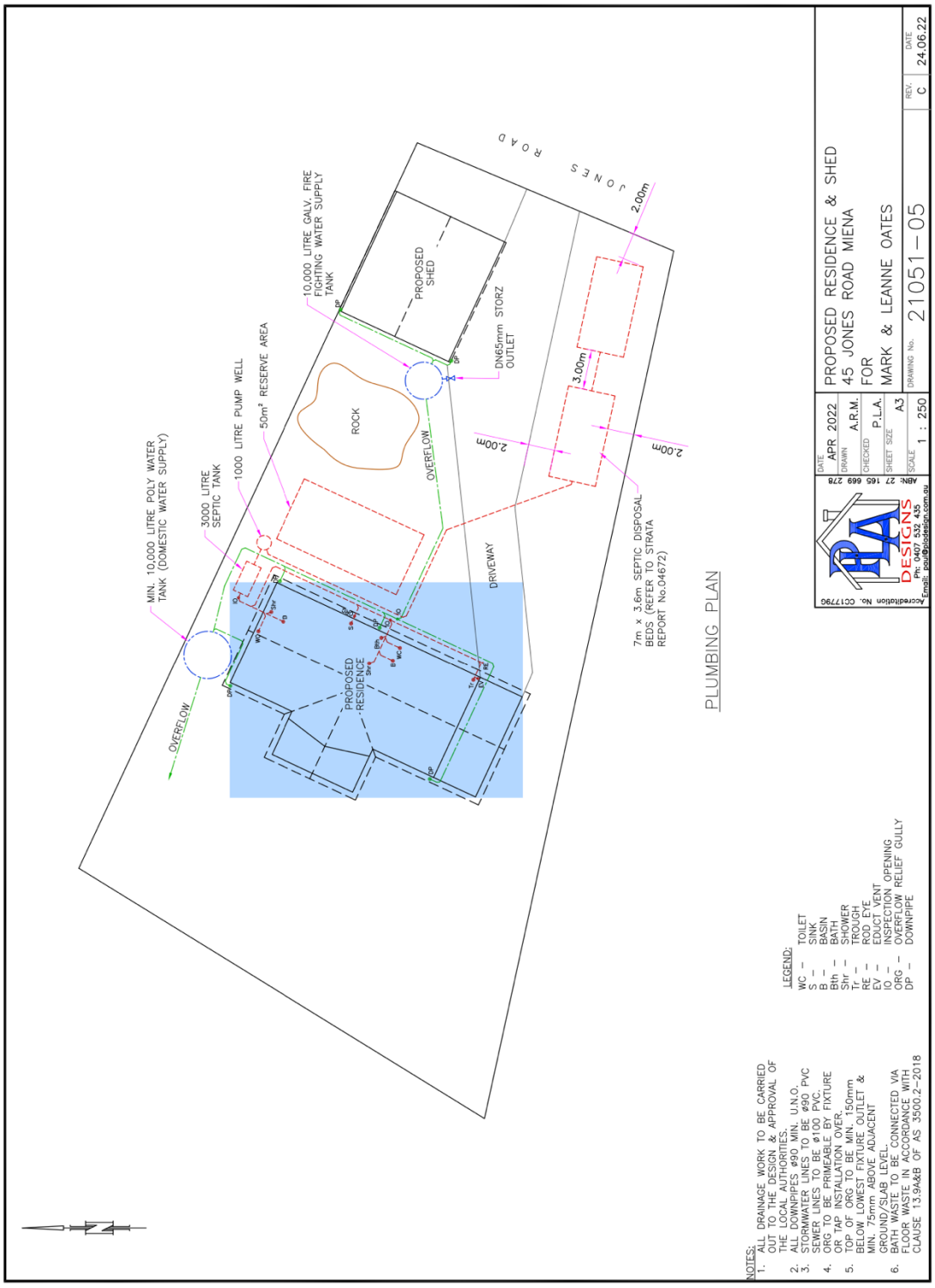
- AS1726-1993- Geotechnical Site Investigations
- AS1547-2012 Onsite Domestic Wastewater Management
- Bureau of Meteorology Website- Monthly Climate Statistics

Appendix 1 Detailed Design Calculations

Wastewater Loading Certificate*	
System Capacity	5EP at 120L/person/day = 600 L/D
Design Summary	
• Effluent Quality	Primary
• Adopted Soil category	4
• Amended Adopted Soil Category	Not amended
• Adopted DLR/DIR (mm/d OR L/m^2/d)	12
• LAA Design	Mounded Bed
• Primary LAA Requirement	50 m^2
• Reserve Area	Min 100% reserve LAA must be maintained in an undeveloped state near the primary system as identified on the site plan
Fixtures	Assumes std water saving fixtures inc 6/3L dual flush toilets, aerator forcets, Washing/dishwashing machines with min WELSS rating 4.5 star
Consequences of Variation in Effluent Flows	
• High Flows	The system should be capable of buffering against flows of up to 10% in a 24 hr period or 5% over a 7 day period. System not rated for spa installation.
• Low Flows	Should not affect system performance
Consequences of Variation in Effluent Quality	Residence to avoid the installation of sink disposal systems (eg “sinkerators”), or the addition of large amounts of household cleaning products or other solvents. These can overload system BOD or affect effluent treatment by system biota.
Consequences of Lack of Maintenance and Monitoring Attention	Owners should maintain the system in compliance with systems Home Owners Manual and council permit. All livestock, vehicles and persons to be excluded from the LAA. Failure to ensure the above may lead to infection of waterways, bores or the spread of disease, as well as production of foul odours, attraction of pests and excessive weed growth.

* In accordance with Clause 7.4.2(d) of AS/NZS 1547.2012.

Appendix 2 Land Application Design and Construction Notes



Septic System Design and Construction Notes

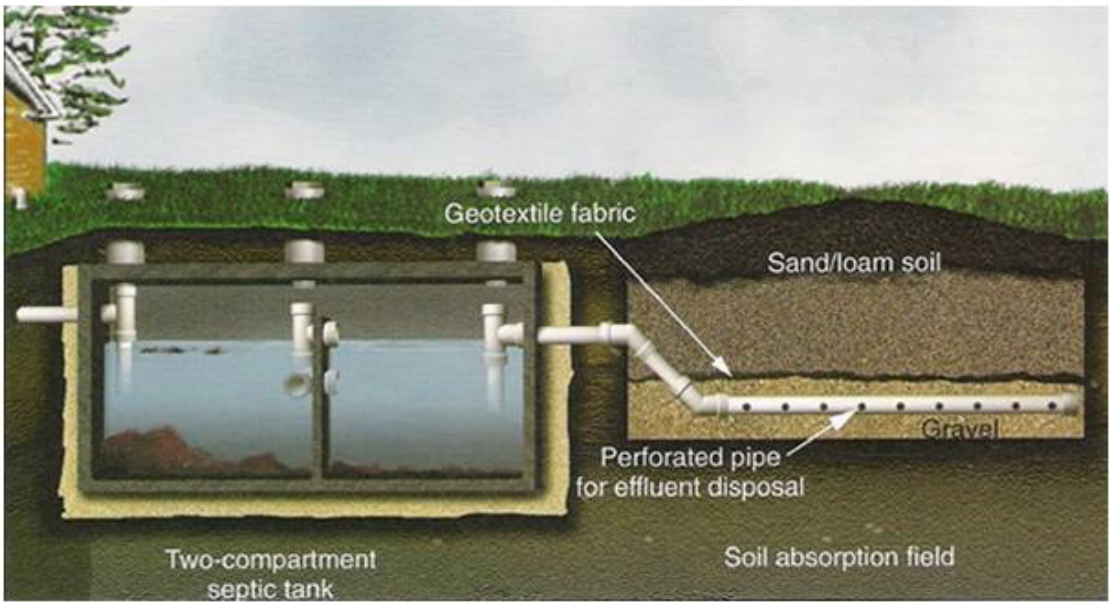


Figure 1 Septic Tank and Trench cross section

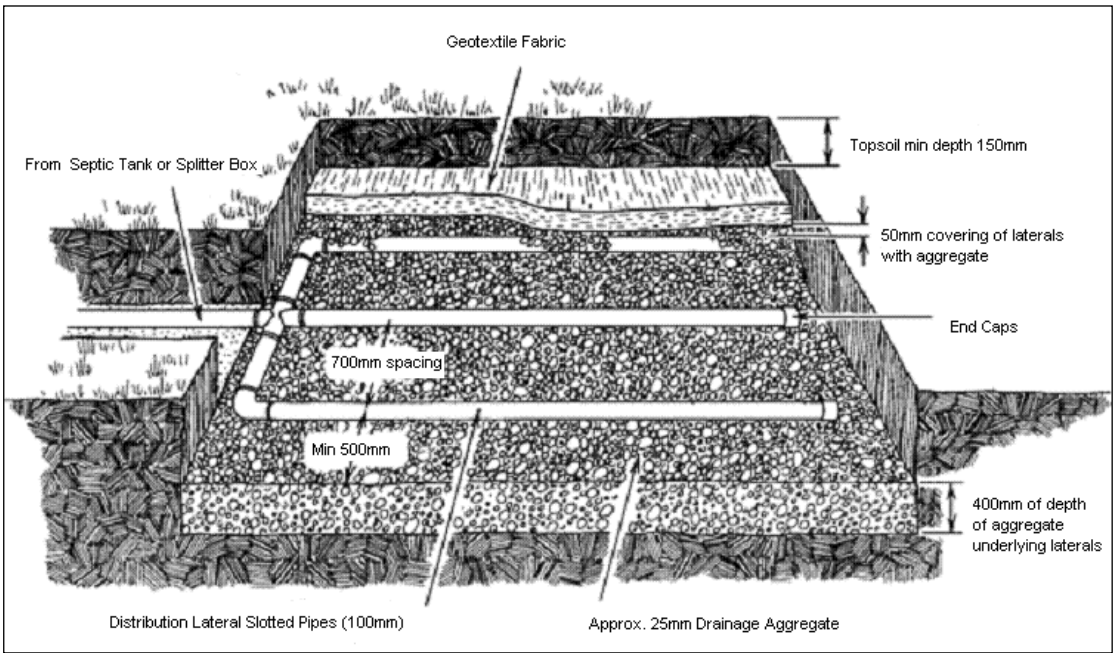


Figure 2 Septic bed cross section showing key dimensions

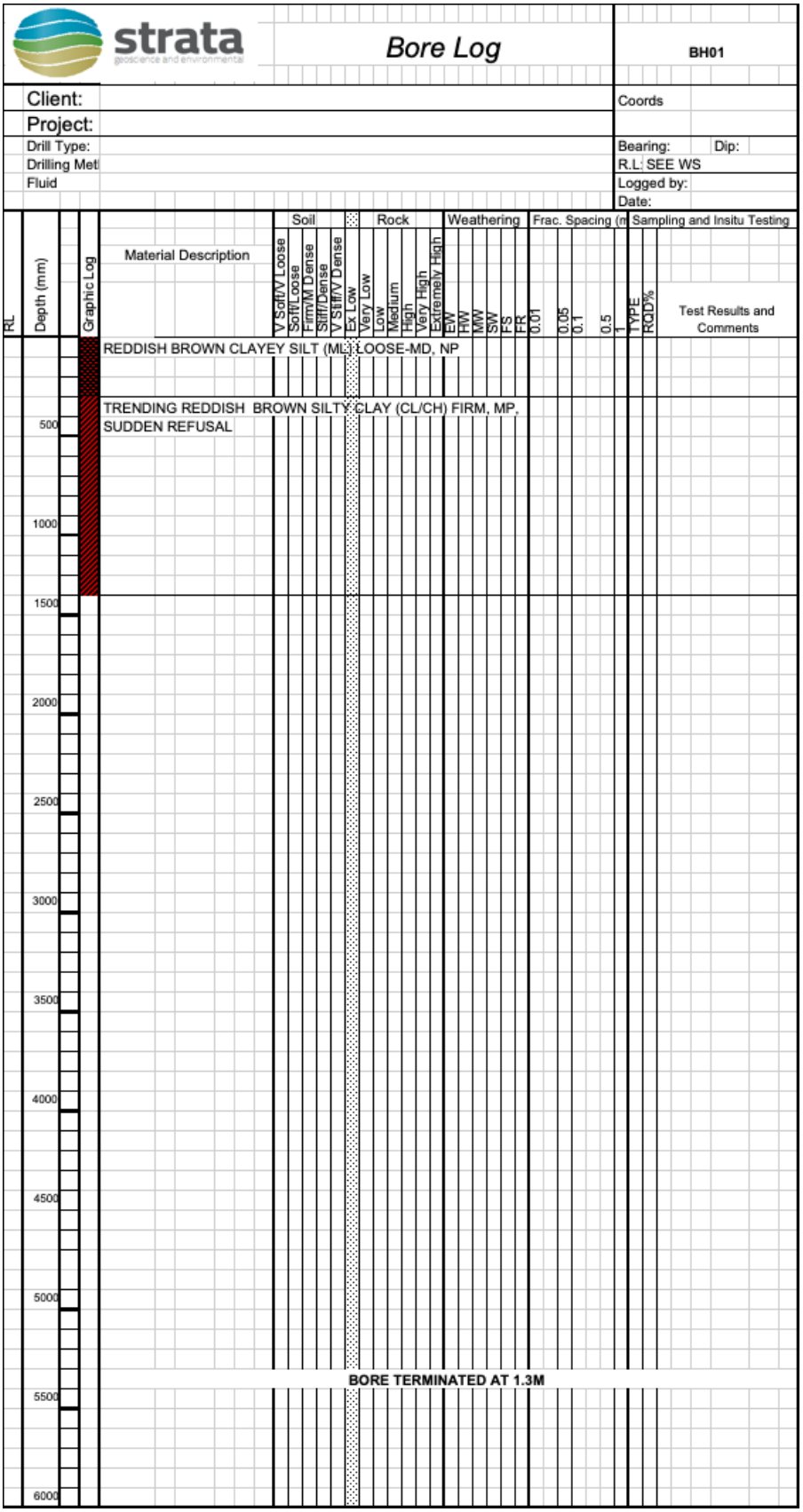
Septic Tank Installation

1. Septic Tanks should be installed in firm ground and/or on a uniform layer of sand of minimum thickness 100mm.
2. Septic Tanks should be surrounded by sand or compacted soil by watering and tamping to the firmness of the surrounding soil.
3. The influent pipe should be installed with a minimum grade of 1.65% or 1 in 60.
4. It is recommended that septic tanks are installed a mimimum of 3 meters from foundations and for systems utilising a pump well, away from bedrooms.
5. Fiberglass or plastic tanks set in urban or Aboriginal Housing in Remote Area Communities shall be fitted with concrete lids or collars.
6. All vehicles and livestock should be excluded from septic tank areas.
7. The Septic Tank **MUST** be a dual purpose design with a minimum capacity compliant with the stipulations of AS1547-2000 Appendix 4.3 A

Septic Bed Design and Construction Notes

1. Each bed has the dimensions of 7m X 3.6m X 0.6 m.
2. There are two beds in total as located on site plan giving a total bed area of 50m^2
3. The base of the bed **MUST** be excavated evenly and level. In clay soils smearing of walls and floors of bed **MUST** be avoided.
4. The lower 400mm is to be filled with 20-25mm aggregate.
5. 100mm PVC pipes slotted in the 8'o'clock and 4'o'clock positions to be placed on top of aggregate as shown. The distribution grid **MUST** be level to ensure flow of effluent to all areas of the bed. Failure to ensure this may cause preferential overloading of the bed and the potential for bed overflow.
6. A further 50mm of aggregate can be added around/over the grid before overlaying with geo-textile to prevent soil from clogging gravels/lateral slots. For sandy soils the sides of the bed should also be lined.
7. Backfilling of the bed to 50mm above original ground surface level with endemic topsoil (if a sand/loam) or imported loam should proceed. Do not mechanically compact this layer.
8. An inspection outlet **MUST** be placed on each lateral.
9. Slight adjustments to the location of Septic Tank/Flow Diverter/Trenches are permitted to achieve correct fall to levelled trench bases

Appendix 3 Site and Soil Evaluation



strata
geoscience and environmental

Bore Log

BH01

Client:
Project:
Drill Type:
Drilling Meth
Fluid

Coords
Bearing: Dip:
R.L. SEE WS
Logged by:
Date:

RL	Depth (mm)	Graphic Log	Material Description	Soil: V Soft/V Loose	Soft/Loose	Firm/M Dense	Stiff/Dense	V Stiff/V Dense	Rock: Ex Low	Very Low	Low	Medium	High	Very High	Extremely High	Weathering: EW	HW	MW	SW	FS	FR	Frac. Spacing (m): 0.01	0.05	0.1	0.5	1	Sampling and Insitu Testing: TYPE	RQD%	Test Results and Comments
			REDDISH BROWN CLAYEY SILT (ML) LOOSE-MD, NP																										
	500		TRENDING REDDISH BROWN SILTY CLAY (CL/CH) FIRM, MP, SUDDEN REFUSAL																										
	1000																												
	1500																												
	2000																												
	2500																												
	3000																												
	3500																												
	4000																												
	4500																												
	5000																												
	5500		BORE TERMINATED AT 1.3M																										
	6000																												

Appendix 4 Terms and Conditions

Scope of Work
These Terms and Conditions apply to any services provided to you ("the Client") by Strata Geoscience and Environmental Pty Ltd ("Strata"). By continuing to instruct Strata to act after receiving the Terms and Conditions or by using this report and its findings for design and/or permit application processes and not objecting to any of the Terms and Conditions the Client agrees to be bound by these Terms and Conditions, and any other terms and conditions supplied by Strata from time to time at Strata's sole and absolute discretion. The scope of the services provided to the Client by Strata is limited to the services and specified purpose agreed between Strata and the Client and set out in the correspondence to which this document is enclosed or annexed ("the Services"). Strata does not purport to advise beyond the Services.

Third Parties
The Services are supplied to the Client for the sole benefit of the Client and must not be relied upon by any person or entity other than the Client. Strata is not responsible or liable to any third party. All parties other than the Client are advised to seek their own advice before proceeding with any course of action.

Provision of Information
The Client is responsible for the provision of all legal, survey and other particulars concerning the site on which Strata is providing the Services, including particulars of existing structures and services and features for the site and for adjoining sites and structures. The Client is also responsible for the provision of specialised services not provided by Strata. If Strata obtains these particulars or specialised services on the instruction of the Client, Strata does so as agent of the Client and at the Client's expense. Strata is not obliged to confirm the accuracy and completeness of information supplied by the Client or any third party service provider. The Client is responsible for the accuracy and completeness of all particulars or services provided by the Client or obtained on the Client's behalf. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever suffered by the Client or any other person or entity resulting from the failure of the Client or third party to provide accurate and complete information. In the event additional information becomes available to the Client, the Client must inform Strata in writing of that information as soon as possible. Further advice will be provided at the Client's cost. Any report is prepared on the assumption that the instructions and information supplied to Strata has been provided in good faith and is all of the information relevant to the provision of the Services by Strata. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever if Strata has been supplied with insufficient, incorrect, incomplete, false or misleading information.

Integrity
Any report provided by Strata presents the findings of the site assessment. While all reasonable care is taken when conducting site investigations and reporting to the Client, Strata does not warrant that the information contained in any report is free from errors or omissions. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from errors in a report. Any report should be read in its entirety, inclusive of any summary and annexures. Strata does not accept any responsibility where part of any report is relied upon without reference to the full report.

Project Specific Criteria
Any report provided by Strata will be prepared on the basis of unique project development plans which apply only to the site that is being investigated. Reports provided by Strata do not apply to any project other than that originally specified by the Client to Strata. The Report must not be used or relied upon if any changes to the project are made. The Client should engage Strata to further advise on the effect of any change to the project. Further advice will be provided at the Client's cost. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever where any change to the project is made without obtaining a further written report from Strata. Changes to the project may include, but are not limited to, changes to the investigated site or neighbouring sites, for instance, variation of the location of proposed building envelopes/footprints, changes to building design which may impact upon building settlement or slope stability, or changes to earthworks, including removal (site cutting) or deposition of sediments or rock from the site.

Classification to AS2870-2011
It must be emphasised that the site classification to AS2870-2011 and recommendations referred to in this report are based solely on the observed soil profile at the time of the investigation for this report and account has been taken of Clause 2.1.1 of AS2870 - 2011. Other abnormal moisture conditions as defined in AS2870 – 2011 Clause 1.3.3 (a) (b) (c) and (d) may need to be considered in the design of the structure. Without designing for the possibility of all abnormal moisture conditions as defined in Clause 1.3.3, distresses will occur and may result in non "acceptable probabilities of serviceability and safety of the building during its design life", as defined in AS2870 - 2011, Clause 1.3.1. Furthermore the classification is preliminary in nature and needs verification at the founding surface inspection phase . The classification may be changed at this time based upon the nature of the founding surface over the entire footprint of the project area. Any costs associated with a change in the site classification are to be incurred by the client. Furthermore any costs associated with delayed works associated with a founding surface inspection or a change in classification are to be borne by the client. Where founding surface inspections are not commissioned the classifications contained within this report are void.

Subsurface Variations with Time
Any report provided by Strata is based upon subsurface conditions encountered at the time of the investigation. Conditions can and do change significantly and unexpectedly over a short period of time. For example groundwater levels may fluctuate over time, affecting latent soil bearing capacity and ex-situ/insitu fill sediments may be placed/removed from the site. Changes to the subsurface conditions that were encountered at the time of the investigation void all recommendations made by Strata in any report. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from any change to the subsurface conditions that were encountered at the time of the investigation. In the event of a delay in the commencement of a project or if additional information becomes available to the Client about a change in conditions becomes available to the Client, the Client should engage Strata to make a further investigation to ensure that the conditions initially encountered still exist. Further advice will be provided at the Client's cost. Without limiting the generality of the above statement, Strata does not accept liability where any report is relied upon after three months from the date of the report, (unless otherwise provided in the report or required by the Australian Standard

which the report purports to comply with), or the date when the Client becomes aware of any change in condition. Any report should be reviewed regularly to ensure that it continues to be accurate and further advice requested from Strata where applicable.

Interpretation
Site investigation identifies subsurface conditions only at the discrete points of geotechnical drilling, and at the time of drilling. All data received from the geotechnical drilling is interpreted to report to the Client about overall site conditions as well as their anticipated impact upon the specific project. Actual site conditions may vary from those inferred to exist as it is virtually impossible to provide a definitive subsurface profile which accounts for all the possible variability inherent in earth materials. This is particularly pertinent to some weathered sedimentary geologies or colluvial/alluvial clast deposits which may show significant variability in depth to refusal over a development area. Rock incongruities such as joints, dips or faults may also result in subsurface variability. Soil depths and composition can vary due to natural and anthopogenic processes. Variability may lead to differences between the design depth of bored/dRiversidersidersidersiden piers compared with the actual depth of individual piers constructed onsite. It may also affect the founding depth of conventional strip, pier and beam or slab footings, which may result in increased costs associated with excavation (particularly of rock) or materials costs of foundations. Founding surface inspections should be commissioned by the Client prior to foundation construction to verify the results of initial site characterisation and failure to insure this will void the classifications and recommendations contained within this report. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from any variation from the site conditions inferred to exist.

Strata is not responsible for the interpretation of site data or report findings by other parties, including parties involved in the design and construction process. The Client must seek advice from Strata about the interpretation of the site data or report.

Report Recommendations
Any report recommendations provided by Strata are only preliminary. A report is based upon the assumption that the site conditions as revealed through selective point sampling are indicative of actual conditions throughout an area. This assumption cannot be substantiated until earthworks and/or foundation construction is almost complete. Where variations in conditions are encountered, Strata should be engaged to provide further advice. Further advice will be provided at the Client's cost. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever if the results of selective point sampling are not indicative of actual conditions throughout an area or if the Client becomes aware of variations in conditions and does not engage Strata for further advice.

Geo-environmental Considerations
Where onsite wastewater site investigation and land application system designs are provided by Strata, reasonable effort will be made to minimise environmental and public health risks associated with the disposal of effluent within site boundaries with respect to relevant Australian guidelines and industry best practise at the time of investigation. Strata is not liable, and accepts no responsibility, for any claim, demand, charge, loss, damage, injury or expense whatsoever resulting from:

(i) changes to either the project or site conditions that affect the onsite wastewater land application system's ability to safely dispose of modelled wastewater flows; or
(ii) seepage, pollution or contamination or the cost of removing, nullifying or clearing up seepage, polluting or contaminating substances; or
(iii) poor system performance where septic tanks have not been de-sludged at maximum intervals of 3 years or AWTS systems have not been serviced in compliance with the manufacturers recommendations; or
(iv) failure of the client to commission both interim and final inspections by the designer throughout the system construction; or
(v) the selection of inappropriate plants for irrigation areas; or
(vi) damage to any infrastructure including but not limited to foundations, walls, dRiversidersidersidersideways and pavements; or
(vii) land instability, soil erosion or dispersion; or
(viii) design changes requested by the Permit Authority.

Furthermore Strata does not guarantee septic trench and bed design life beyond 2 years from installation, given the influence various household chemicals have on soil structural decline and premature trench failure in some soil types

Strata does not consider site contamination, unless the Client specifically instructs Strata to consider the site contamination in writing. If a request is made by the Client to consider site contamination, Strata will provide additional terms and conditions that will apply to the engagement.

Copyright and Use of Documents
Copyright in all drawings, reports, specifications, calculations and other documents provided by Strata or its employees in connection with the Services remain vested in Strata. The Client has a licence to use the documents for the purpose of completing the project. However, the Client must not otherwise use the documents, make copies of the documents or amend the documents unless express approval in writing is given in advance by Strata. The Client must not publish or allow to be published, in whole or in part, any document provided by Strata or the name or professional affiliations of Strata, without first obtaining the written consent of Strata as to the form and context in which it is to appear.

If, during the course of providing the Services, Strata develops, discovers or first reduces to practice a concept, product or process which is capable of being patented then such concept, product or process is and remains the property of Strata and:

(i) the Client must not use, infringe or otherwise appropriate the same other than for the purpose of the project without first obtaining the written consent of Strata; and

(ii) the Client is entitled to a royalty free licence to use the same during the life of the works comprising the project.

Digital Copies of Report
If any report is provided to the Client in an electronic copy except directly from Strata, the Client should verify the report contents with Strata to ensure they have not been altered or varied from the report provided by Strata.

CERTIFICATE OF THE RESPONSIBLE DESIGNER

Section 94
Section 106
Section 129
Section 155

Form **35**

To: MARK OATES *Owner name*

Address

Suburb/postcode

Designer details:

Name: S NIELSEN

Category: HYDRAULIC SERVICES

Business name: STRATA GEOSCIENCE AND ENVIRONMNETAL P/L

Phone No: 0413545358

Business address: 72-74 LAMBECK DRIVE

TULLAMARINE 3043

Fax No:

Licence No: CC6113K

Email address: sven@strataconsulting.com.au

Details of the proposed work:

Owner/Applicant AS ABOVE

Designer's project reference No. SR04672

Address: 45 JONES ROAD

Lot No:

MIENA

Type of work: Building work ☐ Plumbing work ☒ *(X all applicable)*

Description of work:

WASTEWATER SYSTEM SPECIFICATION

(new building / alteration / addition / repair / removal / re-erection water / sewerage / stormwater / on-site wastewater management system / backflow prevention / other)

Description of the Design Work (Scope, limitations or exclusions): *(X all applicable certificates)*

Certificate Type:	Certificate	Responsible Practitioner
	☐ Building design	Architect or Building Designer
	☐ Structural design	Engineer or Civil Designer
	☐ Fire Safety design	Fire Engineer
	☐ Civil design	Civil Engineer or Civil Designer
	☒ Hydraulic design	Building Services Designer
	☐ Fire service design	Building Services Designer
	☐ Electrical design	Building Services Designer
	☐ Mechanical design	Building Service Designer
	☐ Plumbing design	Plumber-Certifier; Architect, Building Designer or Engineer
	☐ Other (specify)	

Deemed-to-Satisfy: ☒ Performance Solution: ☐ *(X the appropriate box)*

Other details:

Design documents provided:

The following documents are provided with this Certificate –

Document description:

Drawing numbers:	Prepared by: SN	Date: 10/5/22
Schedules:	Prepared by: SN	Date 10/5/22
Specifications:	Prepared by: SN	Date 10/5/22
Computations	Prepared by: SN	Date 10/5/22
Performance solution proposals:	Prepared by: SN	Date:10/5/22
Test reports:	Prepared by: NA	Date 10/5/22

Standards, codes or guidelines relied on in design process:

Any other relevant documentation:

STRATA REPORT SR04672

Attribution as designer:

I SVEN NIESLEN..... am responsible for the design of that part of the work as described in this certificate;

The documentation relating to the design includes sufficient information for the assessment of the work in accordance with the *Building Act 2016* and sufficient detail for the builder or plumber to carry out the work i accordance with the documents and the Act;

This certificate confirms compliance and is evidence of suitability of this design with the requirements of the National Construction Code.

	Name: (print)		
	SVEN NIELSEN	*SN*	
Designer:	SVEN NIELSEN		10/5/22
Licence No:	CC6113K		

Assessment of Certifiable Works: (TasWater)

Note: single residential dwellings and outbuildings on a lot with an existing sewer connection are not considered to increase demand and are not certifiable.

If you cannot check ALL of these boxes, LEAVE THIS SECTION BLANK.

TasWater must then be contacted to determine if the proposed works are Certifiable Works.

I confirm that the proposed works are not Certifiable Works, in accordance with the Guidelines for TasWater CCW Assessments, by virtue that all of the following are satisfied:

- [X] The works will not increase the demand for water supplied by TasWater
- [X] The works will not increase or decrease the amount of sewage or toxins that is to be removed by, or discharged into, TasWater's sewerage infrastructure
- [X] The works will not require a new connection, or a modification to an existing connection, to be made to TasWater's infrastructure
- [X] The works will not damage or interfere with TasWater's works
- [X] The works will not adversely affect TasWater's operations
- [X] The work are not within 2m of TasWater's infrastructure and are outside any TasWater easement
- [X] I have checked the LISTMap to confirm the location of TasWater infrastructure
- [X] If the property is connected to TasWater's water system, a water meter is in place, or has been applied for to TasWater.

Certification:

I .....SVEN NIELSEN..... being responsible for the proposed work, am satisfied that the works described above are not Certifiable Works, as defined within the *Water and Sewerage Industry Act 2008,* that I have answered the above questions with all due diligence and have read and understood the Guidelines for TasWater CCW Assessments.

Note: the Guidelines for TasWater Certification of Certifiable Works Assessments are available at: www.taswater.com.au

	Name: (print)	*Signed*	*Date*
Designer:	SVEN NIELSEN		Date: 10/5/22