Application for Planning Permit and Certification

Supplied by

Submitted Date 02/02/2024

Application Details

Application Type Planning Permit and Certification under the Subdivision Act

Version 1

Applicant Reference Number 232375

Application name or Estate name

Responsible Authority Name Baw Baw Shire Council

Responsible Authority Reference Number(s) (Not Supplied)

SPEAR Reference Number S224602E

The Land

Primary Parcel 119 BURKE STREET, WARRAGUL VIC 3820
Lot 15/Plan LP21283
SPI 15\LP21283
CPN 4420

Zone:	32.08 General Residential
Overlay:	45.06 Development Plan Contributions

The Proposal

Subdivision Act (1988) Dealing Type Section 22 (Subdivision)

Plan Number PS921931P

Number of lots 2

Proposal Description 2 Lot Subdivision

Estimated cost of the development for which a permit is required $ 0

Existing Conditions

Existing Conditions Description Existing Dwelling. See attached Site Context Plan

Title Information - Does the proposal breach an encumbrance on Title? The proposal does not breach an encumbrance on title, such as a restrictive covenant, section 173 agreement or other obligation such as an easement or building envelope.

Applicant Contact

Applicant Contact OnePlan Land Development Group

Applicant

Applicant (Applicant details as per Applicant Contact)

Owner

Owner 1

Owner 2

Declaration

I, , declare that the owner (if not myself) has been notified about this application.

I, declare that all the information supplied is true.

I, , have certified that steps have been taken to bring this land under the Transfer of Land Act 1958.

I, apply to have the attached plan of subdivision / consolidation certified under the Subdivision Act 1988 and to have advice of street numbers allocated.

Authorised by

Organisation OnePlan Land Development Group

The Victorian Government acknowledges the Traditional Owners of Victoria and pays respects to their ongoing connection to their Country, History and Culture. The Victorian Government extends this respect to their Elders, past, present and emerging.

REGISTER SEARCH STATEMENT (Title Search) Transfer of Land Act 1958

VOLUME 08098 FOLIO 545 Security no : 124112002086F
Produced 19/01/2024 02:54 PM

LAND DESCRIPTION

Lot 15 on Plan of Subdivision 021283.
PARENT TITLE Volume 07146 Folio 049
Created by instrument 2480907 31/03/1952

REGISTERED PROPRIETOR

Estate Fee Simple

ENCUMBRANCES, CAVEATS AND NOTICES

DIAGRAM LOCATION

SEE LP021283 FOR FURTHER DETAILS AND BOUNDARIES

ACTIVITY IN THE LAST 125 DAYS

NIL

----------END OF REGISTER SEARCH STATEMENT----------

Additional information: (not part of the Register Search Statement)

Street Address: 119 BURKE STREET WARRAGUL VIC 3820

ADMINISTRATIVE NOTICES

NIL

eCT Control 18478R FIRST LEGAL
Effective from 08/10/2021

DOCUMENT END

Delivered from the LANDATA System by Dye & Durham Terrain Pty Ltd

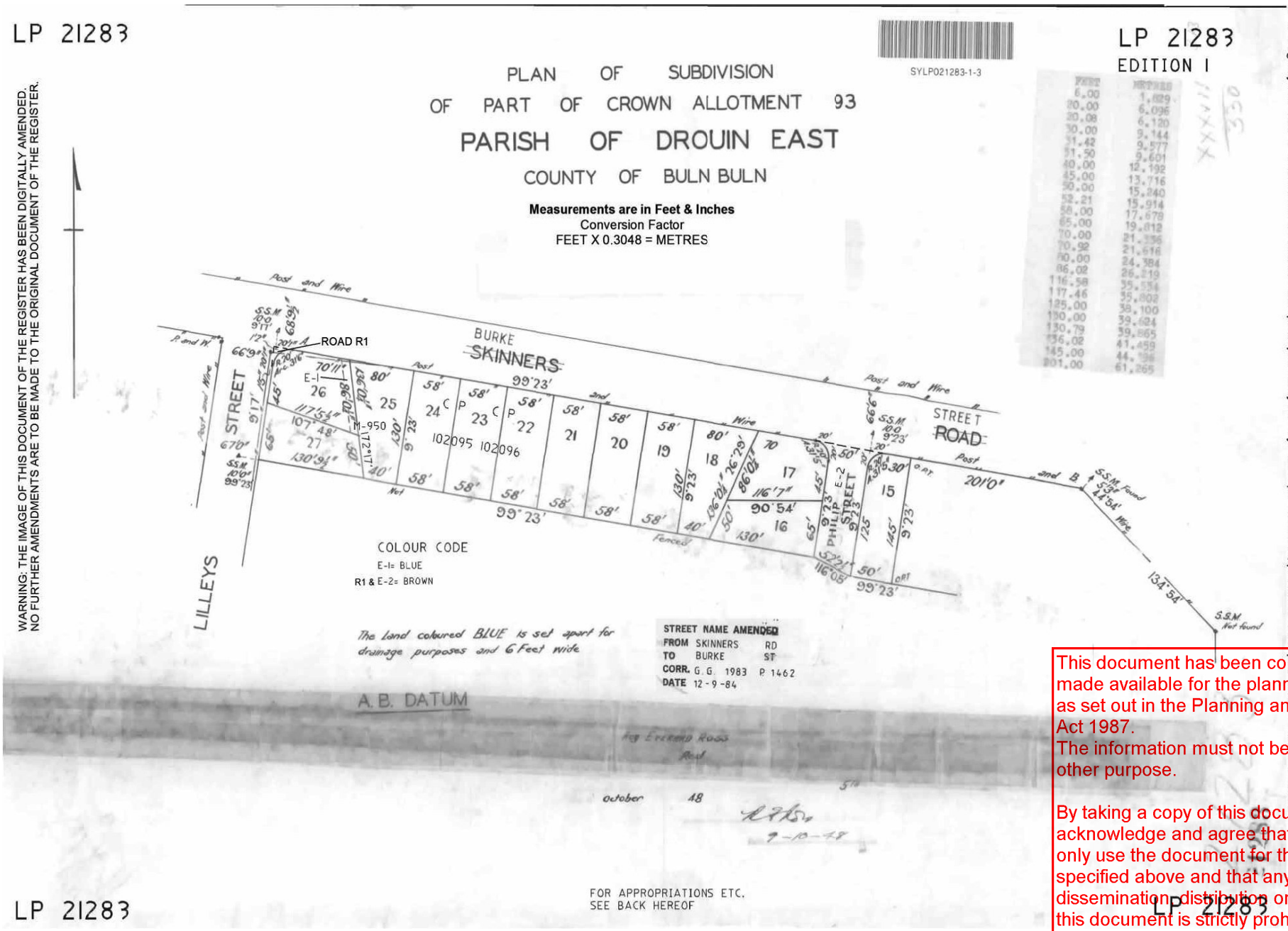
LP 21283

LP 21283
EDITION 1

SYLP021283-1-3

PLAN OF SUBDIVISION
OF PART OF CROWN ALLOTMENT 93
PARISH OF DROUIN EAST
COUNTY OF BULN BULN

Measurements are in Feet & Inches
Conversion Factor
FEET X 0.3048 = METRES



LP 21283

LP 21283

21283

CERTIFICATE OF TITLE V 7146 F 049
V F
V F
LODGED BY GRAY F. & M DATE 25-5-51
DEALING No 5062238 DATE
DECLARED BY R.E. ROSS ON 5-10-'50
COUNCIL SHIRE OF WARRAGUL
DATE OF CONSENT VIDE ED's REPORT
PLAN MAY BE LODGED 30-4-'51
PLAN APPROVED DATE
FOR TITLE REFERENCES SEE PARCELS INDEX

THE LAND COLOURED BROWN IS
APPROPRIATED OR SET APART
FOR EASEMENTS OF WAY & DRAINAGE

LAND HEREON IS SUBJECT
TO A PLANNING SCHEME
SEE MISC. PLAN No. 576

THE LAND COLOURED BLUE
APPROPRIATED OR SET APART
FOR EASEMENTS OF DRAINAGE

THIS IS THE BACK OF LP 21283

21283

Coloured: HB Checked.
Pasted: HB.

Our Ref: **232375**
Date: **30 November 2023**

Baw Baw Shire Council
P.O. Box 304
WARRAGUL, VIC, 3820

Dear Planning,

Re: Planning Application
2 Lot Residential Subdivision
119 Burke Street, Warragul, 3820

OnePlan Land Development Group act for Mr. Brock Wolkow, owner of the above mentioned property and on his behalf we are applying for a Planning Permit for a two lot subdivision of the subject property.

Subject Land

Land Description	Lot 15 on LP21283
Volume / Folio	08098 / 545
Total Site Area	666m^2
Frontage	Burke Road, 15.24 metres Phillip Street, 44.20 metres
Servicing	Electricity, water, sewerage, gas and telephone are adequately provided.
Access	Concrete crossover via Phillip Street. Phillip Street is of bitumen construction with kerb and channel.
Shape	Slopes gently upward from Burke Road.

A single storey weatherboard & iron dwelling resides on the property covering the most northern half of the property. An iron shed is currently positioned in the south east corner of the property.

Scott C. Kimm
L.S., B.App. Sc. (Land Info), MIS (AUST)
Manager & Licensed Land Surveyor

sks@oneplangroup.com.au www.oneplangroup.com.au
Ph: 1300 853 157 Fax: 03 5456 5985 Mob: 0400 543 157
Postal address; PO Box 1347, Bairnsdale, 3875
1 Oakes Grange, Lucknow, 3875 & 145 Brisbane Street Berwick, 3806

Neighbourhood & Surrounding Land

The subject site is located within an established residential area with land surrounding the subject site in Burke Street and Phillip Street.

Nearby residential properties have lots ranging in area from approximately 300m^2 - 4000m^2 .

All adjoining lots contain dwellings.

Subdivision is common in the neighbourhood.

The surrounding land has a gentle slope.

The site is within close proximity to facilities, services and amenities with the Warragul Township less than 1 kilometres away. There are also a number of local parks, reserves and schools within proximity to the site.

Planning Scheme

Planning Zone	General Residential 1 (GRZ1)
Planning Overlays	Development Contributions Plan Overlay (DCPO) Development Contributions Plan Overlay - Schedule 1 (DCPO1)

Pursuant to Clause 32.01-2 a permit is required for subdivision of land in the General Residential Zone 1 and must meet the requirements of Clause 56.

A Site Contect & Neighbourhood Description Plan (232375SC-1) & Proposed Subdivision Plan (232375SCPR-1) are attached in support of this application to demonstrate that the proposal is consistent with the relevant Planning Scheme and Policy Statements.

STRATEGIC PLANNING POLICY ASSESSMENT

State Policy Framework

Clause 11 – Settlement

11.02-1 Urban Growth

The state policy seeks as part of its two part objective to achieve the following: *"to facilitate the orderly development of urban areas"* and *"to ensure a sufficient supply of land is available for residential, commercial, industrial, recreational, institutional and other public uses".*

The proposal is identified as infill development on a lot with potential for further subdivision and development, located within an existing and established residential area. The development aims to integrate into the established urban area and utilises the existing infrastructure provision on a site suited to residential development. The proposal is in accordance with this clause.

Clause 16 – Housing

The Housing State Planning Policy applies to the land and seeks: "*To encourage:*

- ✓ *Subdivisions in locations with access to physical and community infrastructure providing a range of lot sizes, a convenient and safe road network, appropriate pedestrian and cycle paths, useable public open space and low vulnerability to fire.*
- ✓ *Residential development that is cost-effective in infrastructure provision and use, energy efficient, incorporates water-sensitive design principles and encourages public transport use.*
- ✓ *Opportunities for increased residential densities to help consolidate urban areas."*

The proposed subdivision plan complies with the objectives of this policy in the following ways:

- ✓ The subdivision is the development of land zoned General Residential Zone 1 and it is the strategic objectives that determined the Zone;
- ✓ The subdivision layout allows another choice in density for the area whilst still being of a shape and orientation that facilitates future development to be designed to maximise solar aspects to achieve the required Energy rating for the dwelling. Topography of the vacant lot enables future dwelling construction in an efficient and cost effective manner;
- ✓ The site is serviced by a network of footpaths and walking paths. Public transport (a bus system) is available to access the amenities of the community whilst connecting with the V-Line service to access other areas of the shire and state;
- ✓ The site is in close proximity to the town's amenities including supermarkets, café's, restaurants, primary & secondary schools, kindergarten, nursing homes & retirement facilities, sporting clubs;
- ✓ The site is within an established residential neighbourhood and as such is considered infill development that equates to consolidation of urban areas.

General Residential Zone – Schedule 1

The purpose of the General Residential Zone is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To encourage development that respects the neighbourhood character of the area.
- To encourage a diversity of housing types and housing growth particularly in locations offering good access to services and transport.
- To allow educational, recreational, religious, community and a limited range of other non-residential uses to serve local community needs in appropriate locations.

Clause 32.08-3 of the General Residential Zone provides a permit is required to subdivide.

An application to subdivide land, other than an application to subdivide land into lots each containing an existing dwelling or car parking space, must meet the requirements of Clause 56. The relevant standards of Clause 56 are addressed in the attach Clause 56 Assessment

General Residential Zone 1

The General Residential Zone seeks to: *"To provide a diversity of housing types and moderate housing growth in locations offering good access to services and transport"* and *"to encourage residential development that respects the neighbourhood character".*

The proposed subdivision layout provides for two lots of regular size and shape, Lot 1 measuring 347 square metres and Lot 2 being 319 square metres. This subdivision provides an opportunity to offer a further range and choice of land and development opportunities on a high density allotment. The proposed subdivision design enables future development resulting in a dwelling that is capable of achieving sufficient street setback, car parking and secluded open space thus meeting the requirements of a standard 2 / 3 bedroom home with low maintenance requirements being more suitable for the elderly or smaller family - refer to included Clause 56 for more detail.

Given all aspects, the proposal accords with and respects the neighbourhood character in terms of size, shape and orientation. It also fulfills objectives relating to infill development of existing neighbourhoods and infrastructure.

The Proposal

The application is for the subdivision of two lots from one existing title of 666m^2.

The lot configuration enables the development of one development on Lot 2.

Proposed lot 1 will be 347m^2 and retain existing dwelling.

Proposed lot 2 will be 319m^2 and will be vacant.
The location of the proposed new boundary is positioned 3m off the existing dwelling to accommodate for future off street carparking.

The proposed new lots are consistent with the existing neighbourhood character in terms of their size, shape and orientation.

Both lots will be accessed from one existing and one proposed concrete driveways.

There will be no detrimental impact in terms of the streetscape, pedestrian or vehicle safety.

The proposal will increase housing diversity and choice in close proximity to a wide range of local commercial and community facilities and in an area of high demand.

Overlay Provisions

The Development Contributions Plan Overlay (DCPO) applies.

The future construction of a dwelling on the proposed lot will be required to pay all Development Contributions.

Application

In support of the application we enclose the following;

1 Completed Planning Application Form
2 Planning Application Fee
3 Recent Copy of Title
4 Proposed Plan of Subdivision (232375PS-1)
4 Site Context Plan (232375SC-1)
5 Site Context & Proposed Subdivision Plan (232375SCPR-1)
6 Clause 56 Response

I respectfully request that Council consider this application and come to a decision to issue a Planning permit for the proposed subdivision. Please do not hesitate to contact myself should you have any further queries.

Yours faithfully,

TITLE RE-ESTABLISHMENT NOTATIONS

See Certificate of Title for complete easement details.

This survey re-establishes certificate of title dimensions. It does not attempt to determine possessory rights which may apply to the land. Possessory rights apply to land occupied in excess of 15 years. If excess land is occupied amendments of title under section 99/60 TLA can be considered.

Where fences encroach into the title dimensions the design and sitting of the proposed works should be adjusted or cut back to take possessory rights of the adjoining properties into account.

Where fences encroach onto the adjoining property design and siting of the proposed works should remain relative to the cerificate of title boundaries but can be moved over if and once an amendment of title is registered at Land Registry.

MGA94 ZONE 55

N

Burke Road

Phillip Street

#23-29
Colman Street
Lot 2
TP903423

#119
L.U.S.
Lot 15
LP21283

Lot 2
Garden Area 212m
Lot Area 347m
Garden Area % 61%

#119
L.U.S.
Lot 15
LP21283

Lot 2
Garden Area 115m
Lot Area 319m
Garden Area % 36%

Encroachment area (shown hatched) 4.00m
TPZ area 55.42m

Encroachment 7.22%

- Date of Survey: 26/09/2023
- See Certificate of Title for Easement details.
- Only significant trees are shown on this plan.
- Whilst every effort has been made to locate all feature details within the surveyed area SK Spatial will not be held responsible for features hidden, obscured or under construction at the time of survey.
- No underground features have been located unless specifically shown.
- All data shown on this plan is an accurate representation of the subject site at the time of survey.
- Data on this plan may only be manipulated with permission from SK Spatial Pty Ltd.

1 0 1 2 3 4
Lengths are in metres

Notations
Levels are to the Australian Height Datum (AHD) vide DROUIN EAST PM 136 - RL 128.370m
Re-establishment datum vide PS621660S

Contour interval: 0.1m

Total site area: 666m²

OnePlan
LAND DEVELOPMENT GROUP
LICENSED LAND SURVEYORS
P:1300 853 157
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GIPPSLAND - MELBOURNE

Mr.
119 Burke Street, Warragul, 3820

Baw Baw Shire Council

Plan No.	Scale	Drawn
232375 SCPR-3a	1:100 - A1 1:200 - A3	22/7/2024

Subdivision Concept Plan

Parish of Drouin East

Crown Allotment 93 (Part)

Lot 15 on LP21283

Paracentroid (MGA2020) : E 405 300, N 5775 960

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Burke Road

Phillip Street

#23-29
Colman Street
Lot 2
TP903423

#119
L.U.S.
Lot 15
LP21283

Lot 1
347m²

Lot 2
319m²

single storey weatherboard & iron dwelling

indicative building envelope

iron shed

proposed carpark

proposed carport

concrete crossover

concrete path

concrete kerb

linemarking

grass

concrete

gate

fence

palings HT1.65m

palings HT1.60m

palings HT2.0m

overhead powerline

overhead telecom

elec. pole

telecom pit

water meter

gas meter

stay

a/c

balcony

stairs

ridge

top of gutter

top retaining wall

garden

TBM rivet
△134.03

T1
T2
SRZ
TPZ

98°03'40" 9.14
R6.10
A9.58
C8.62
53°03'40"
98°03'40" 15.24
278°03'40" 15.24
188°03'40" 44.20
8°03'40" 38.10

17.19
23.29
20.91
10.24
18.91
1m

28m centreline Burke St

proposed crossover

win H136.89 S135.18

Encroachment area (shown hatched) 4.00m
TPZ area 55.42m

Encroachment 7.22%

Legend

.85.30g	top of gutter		gate
.85.30r	ridge		fence
.85.30p	parapet		u/ground pipe
PC	property connection		open drain
TP	telecom pit		toe of bank
HWS	hot water service		top of bank
FH	fire hydrant		concrete kerb
SV	stop valve		vegetation dripline
JP	junction pit		overhead telecom
GP	grated pit		overhead powerline

- Date of Survey: 26/04/2023
- See Certificate of Title for Easement details.
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Mr.
119 Burke Street, Warragul, 3820

Baw Baw Shire Council

Plan No.	Scale	Drawn
232375 SCPR-3	1:100 - A1 1:200 - A3	22/7/2024

Parish of Drouin East
Crown Allotment 93 (Part)
Lot 15 on LP21283
Paracentroid (MGA2020) : E 405 300, N 5775 960

OnePlan
LAND DEVELOPMENT GROUP
SURVEYING CONSULTANTS
P:1300 853 157
M:0400 543 157
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GIPPSLAND - MELBOURNE

Site Context & Proposed Plan

PLAN OF SUBDIVISION

EDITION 1

PS 921931P

LOCATION OF LAND

PARISH:	DROUIN WEST
TOWNSHIP:	-
SECTION:	-
CROWN ALLOTMENT:	93 (PART)
CROWN PORTION:	-
TITLE REFERENCE:	Vol 08098 Fol 545
LAST PLAN REFERENCE:	Lot 15 on LP21283
POSTAL ADDRESS: (at time of subdivision)	119 BURKE STREET WARRAGUL, 3820

MGA2020 Co-ordinates (of approx. centre of land in plan) E 405 305 N 5775 960 ZONE 55

Council Name: Baw Baw Shire Council

SPEAR Reference Number: S224602E

VESTING OF ROADS AND/OR RESERVES

IDENTIFIER	COUNCIL/BODY/PERSON
Nil.	Nil.

NOTATIONS

DEPTH LIMITATION: Nil.

SURVEY:
This plan is/~~is not~~ based on survey.

STAGING:
This ~~is~~/is not a staged subdivision.
Planning Permit No.

This survey has been connected to permanent marks No(s). /-

In Proclaimed Survey Area No. /-

NOTATIONS

WARNING

1. THIS IS A PHOTOCOPY OF AN UNREGISTERED PLAN. AS ALTERATIONS BEYOND THE CONTROL OF THE SURVEYOR MAY BE REQUIRED BY OTHERS PRIOR TO CERTIFICATION & REGISTRATION, ONEPLAN LAND DEVELOPMENT GROUP CAN ACCEPT NO LIABILITY FOR ANY LOSS OR DAMAGE HOWSOEVER ARISING TO ANY PERSON OR CORPORATION WHO MAY RELYON THIS PLAN FOR ANY PURPOSE.

2. THE DIMENSIONS SHOWN HEREON ARE SUBJECT TO FINAL SURVEY.

EASEMENT INFORMATION

LEGEND: A - Appurtenant Easement E - Encumbering Easement R - Encumbering Easement (Road)

Easement Reference	Purpose	Width (Metres)	Origin	Land Benefited/In Favour Of

OnePlan
LAND DEVELOPMENT GROUP
LICENSED LAND SURVEYORS

P:1300 853 157
M:0400 543 157
sks@oneplangroup.com.au
www.oneplangroup.com.au
GIPPSLAND - MELBOURNE

SURVEYORS FILE REF: 232375PS-1

ORIGINAL SHEET SIZE: A3

SHEET 1 OF 2 SHEETS

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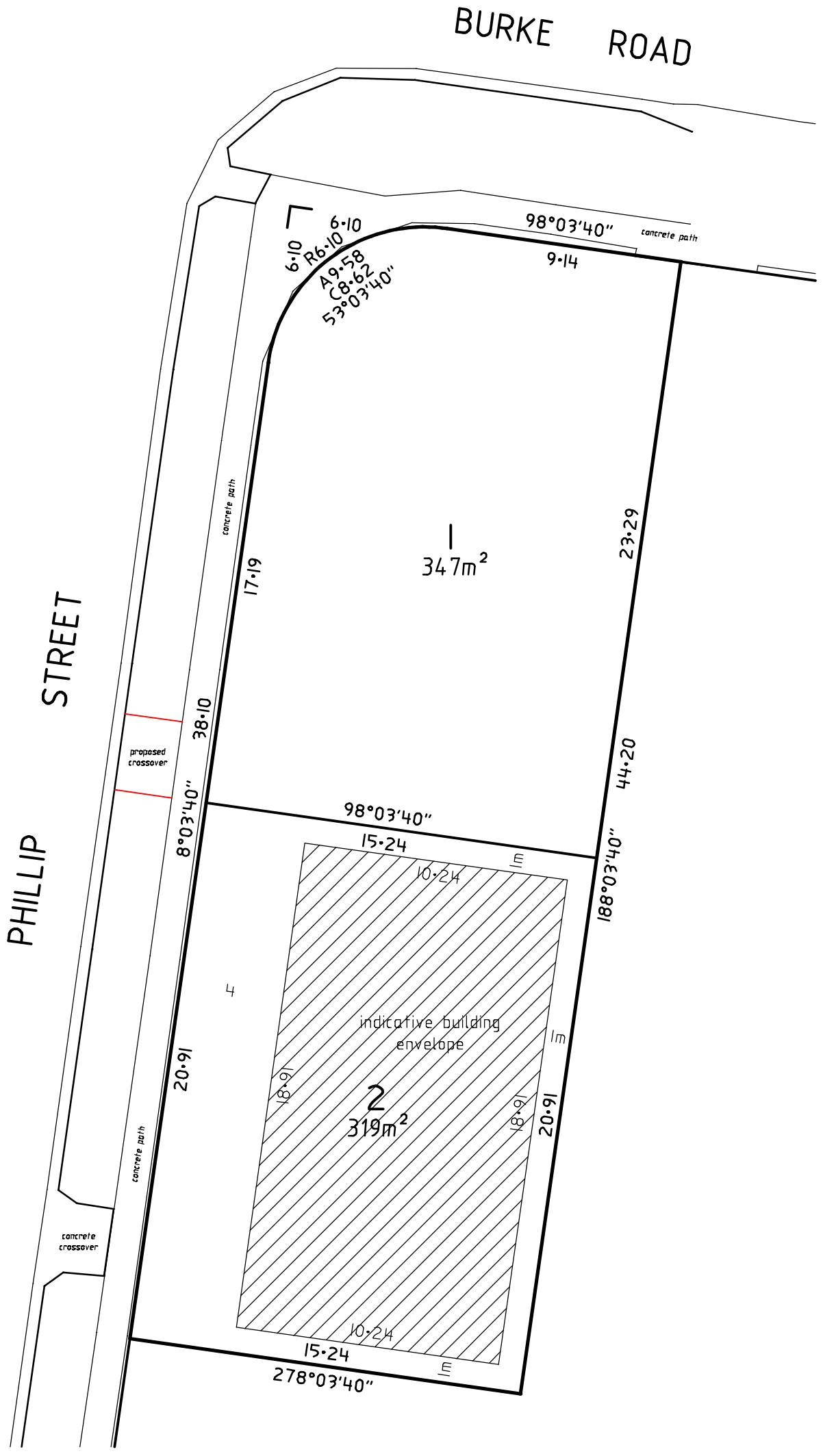
PS 921931P

MGA94 ZONE 55

N



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P:1300 853 157
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SCALE 1:200

2 0 2 4 6 8
LENGTHS ARE IN METRES

ORIGINAL SHEET SIZE: A3

SHEET 2

Digitally signed by: Scott Charles Kimm, Licensed Surveyor, Surveyor's Plan Version (2), 23/07/2024, SPEAR Ref: S224602E

Objectives A development must meet all these objectives	**Standard** A development should meet all these standards.	**Assessment**
Clause 56.02 - Policy Implementation		
Clause 56.02 -1 Strategic implementation objective	**Standard C1**	**Not Applicable**
Clause 56.03 - Livable and Sustainable Communities		
Clause 56.03-1 Compact and walkable neighbourhoods objectives	**Standard C2**	**Not Applicable**
Clause 56.03-2 Activity centre objective	**Standard C3**	**Not Applicable**
Clause 56.03-3 Planning for community facilities objective	**Standard C4**	**Not Applicable**
Clause 56.03-4 Built environment objective	**Standard C5**	**Not Applicable**
Clause 56.03-5 **Neighbourhood character objective** ▪ To design subdivisions that respond to neighbourhood character.	**Standard C6** Subdivision should: ▪ Respect the existing neighbourhood character or achieve a preferred neighbourhood character consistent with any relevant neighbourhood character objective, policy or statement set out in this scheme. ▪ Respond to and integrate with the surrounding urban environment. ▪ Protect significant vegetation and site features.	**Achieved.** The proposed design, size and orientation of the lots responds to the existing subdivision pattern of other residentially zoned land in the area. The total area of the subject land is 666m². Proposed lot 1 will be 347m² while proposed lot 2 will be 319m². Access to both lots will be achieved via Phillip Street. No vegetation is proposed to be removed and the proposed subdivision will have no impact on the streetscape.

Clause 56.04 - Lot Design		
Clause 56.04-1 **Lot diversity and distribution objectives**	**Standard C7**	**Not Applicable**
Clause 56.04-2 **Lot area and building envelopes objective** ▪ To provide lots with areas and dimensions that enable the appropriate siting and construction of a dwelling, solar access, private open space, vehicle access and parking, water management, easements and the retention of significant vegetation and site features.	**Standard C8** An application to subdivide land that creates lots of less than 300 square metres should be accompanied by information that shows: ▪ That the lots are consistent or contain building envelope that is consistent with a development approved under this scheme, or ▪ That a dwelling may be constructed on each lot in accordance with the requirements of this scheme. Lots of between 300 square metres and 500 square metres should: ▪ Contain a building envelope that is consistent with a development of the lot approved under this scheme, or ▪ If no development of the lot has been approved under this scheme, contain a building envelope and be able to contain a rectangle measuring 10 metres by 15 metres, or 9 metres by 15 metres if a boundary wall is nominated as part of the building envelope. If lots of between 300 square metres and 500 square metres are proposed to contain dwellings that are built to the boundary, the long axis of the lots should be within 30 degrees east and 20 degrees west of north unless there are significant physical constraints that make this difficult to achieve. Lots greater than 500 square metres should be able to contain a rectangle measuring 10 metres by 15 metres, and may contain a building envelope. A building envelope may specify or incorporate any relevant siting and design requirement. Any requirement should meet the relevant standards of Clause 54, unless: ▪ The objectives of the relevant standards are met, and ▪ The building envelope is shown as a restriction on a plan of subdivision registered under the Subdivision Act 1988, or is specified as a covenant in an agreement under Section 173 of the Act. Where a lot with a building envelope adjoins a lot that is not on the	**Achieved.** Each of the new lots are of sufficient size and shape to accommodate a rectangle of 10m x 15m and a dwelling with secluded open space, vehicle access and parking. An indicative building envelope has been shown to illustrate this is possible. Proposed lot 1 contains an existing residence. Proposed lot 2 is vacant and no vegetation will need to be removed for the future development of a dwelling.

	same plan of subdivision or is not subject to the same agreement relating to the relevant building envelope: ▪ The building envelope must meet Standards A10 and A11 of Clause 54 in relation to the adjoining lot, and ▪ The building envelope must not regulate siting matters covered by Standards A12 to A15 (inclusive) of Clause 54 in relation to the adjoining lot. This should be specified in the relevant plan of subdivision or agreement. Lot dimensions and building envelopes should protect: ▪ Solar access for future dwellings and support the siting and design of dwellings that achieve the energy rating requirements of the Building Regulations. ▪ Existing or proposed easements on lots. ▪ Significant vegetation and site features.	
Clause 56.04-3 **Solar orientation of lots objective** ▪ To provide good solar orientation of lots and solar access for future dwellings.	**Standard C9** Unless the site is constrained by topography or other site conditions, at least 70 percent of lots should have appropriate solar orientation. Lots have appropriate solar orientation when: ▪ The long axis of lots are within the range north 20 degrees west to north 30 degrees east, or east 20 degrees north to east 30 degrees south. ▪ Lots between 300 square metres and 500 square metres are proposed to contain dwellings that are built to the boundary, the long axis of the lots should be within 30 degrees east and 20 degrees west of north. ▪ Dimensions of lots are adequate to protect solar access to the lot, taking into account likely dwelling size and the relationship of each lot to the street.	**Achieved.** The proposed subdivision creates a vacant lot which is large enough to accommodate the future development of a dwelling with adequate solar orientation as prescribed in Standard C9.
Clause 56.04-4 **Street orientation objective**	**Standard C10**	**Not Applicable**
Clause 56.04-5 **Common area objectives**	**Standard C11**	**Achieved N/A**

▪ To identify common areas and the purpose for which the area is commonly held. ▪ To ensure the provision of common area is appropriate and that necessary management arrangements are in place. ▪ To maintain direct public access throughout the neighbourhood street network.	An application to subdivide land that creates common land must be accompanied by a plan and a report identifying: ▪ The common area to be owned by the body corporate, including any streets and open space. ▪ The reasons why the area should be commonly held. ▪ Lots participating in the body corporate. ▪ The proposed management arrangements including maintenance standards for streets and open spaces to be commonly held.	
Clause 56.05 - Urban Landscape		
Clause 56.05-1 **Integrated urban landscape objectives**	**Standard C12**	**Not Applicable**
Clause 56.05-2 **Public open space provision objectives**	**Standard C13**	**Not Applicable**
Clause 56.06 – Access and Mobility Management		
Clause 56.06-1 **Integrated mobility objectives**	**Standard C14**	**Not Applicable**
Clause 56.06-2 **Walking and cycling network objectives**	**Standard C15**	**Not Applicable**
Clause 56.06-3 **Public transport network objectives**	**Standard C16**	**Not Applicable**
Clause 56.06-4 **Neighbourhood street network objective**	**Standard C17**	**Not Applicable**

Clause 56.06-5 **Walking and cycling network detail objectives**	**Standard C18**	**Not Applicable**
Clause 56.06-6 **Public transport network detail objectives**	**Standard C19**	**Not Applicable**
Clause 56.06-7 **Neighbourhood street network detail objective**	**Standard C20**	**Not Applicable**
Clause 56.06-8 **Lot access objective** ▪ To provide for safe vehicle access between roads and lots.	**Standard C21** Vehicle access to lots abutting arterial roads should be provided from service roads, side or rear access lanes, access places or access streets where appropriate and in accordance with the access management requirements of the relevant roads authority. Vehicle access to lots of 300 square metres or less in area and lots with a frontage of 7.5 metres or less should be provided via rear or side access lanes, places or streets. The design and construction of a crossover should meet the requirements of the relevant road authority.	**Achieved.** The proposed subdivision will not alter any access arrangements for Lot 2. There is already one vehicle crossover servicing the subject property as shown on the enclosed plans. The proposed access crossing for Lot 1 will be used to provide vehicular access. There is excellent visibility when entering and exiting the existing access point. The crossover is set back a significant distance from the nearest road intersection and is considered unlikely to cause any detrimental impact in terms of the streetscape, pedestrian safety
Clause 56.07 - Integrated Water Management		
Clause 56.07-1 **Drinking water supply objectives** ▪ To reduce the use of drinking water. ▪ To provide an adequate, cost-effective supply of	**Standard C22** The supply of drinking water must be: ▪ Designed and constructed in accordance with the requirements and to the satisfaction of the relevant water authority.	**Achieved.** Both lots will be provided with a connection to the reticulated water

drinking water.	▪ Provided to the boundary of all lots in the subdivision to the satisfaction of the relevant water authority.	supply in accordance with the requirements of the Responsible Authority
Clause 56.07-2 **Reused and recycled water objective** ▪ To provide for the substitution of drinking water for non-drinking purposes with reused and recycled water.	**Standard C23** Reused and recycled water supply systems must be: ▪ Designed, constructed and managed in accordance with the requirements and to the satisfaction of the relevant water authority, Environment Protection Authority and Department of Human Services. ▪ Provided to the boundary of all lots in the subdivision where required by the relevant water authority.	**Achieved.** **Variation.** It is not proposed to provide a reticulated recycled water supply system.
Clause 56.07-3 **Waste water management objective** ▪ To provide a waste water system that is adequate for the maintenance of public health and the management of effluent in an environmentally friendly manner.	**Standard C24** Waste water systems must be: ▪ Designed, constructed and managed in accordance with the requirements and to the satisfaction of the relevant water authority and the Environment Protection Authority. ▪ Consistent with any relevant approved domestic waste water management plan. Reticulated waste water systems must be provided to the boundary of all lots in the subdivision where required by the relevant sewerage authority.	**Achieved.** Both lots will be provided with a connection to the reticulated water supply in accordance with the requirements of the Responsible Authority
Clause 56.07-4 **Urban run-off management objectives** ▪ To minimise damage to properties and inconvenience to residents from urban run-off. ▪ To ensure that the street operates adequately during major storm events and provides for public safety. ▪ To minimise increases in stormwater run-off and protect the environmental values and physical characteristics of receiving waters from degradation by urban run-off.	**Standard C25** The urban stormwater management system must be: ▪ Designed and managed in accordance with the requirements and to the satisfaction of the relevant drainage authority. ▪ Designed and managed in accordance with the requirements and to the satisfaction of the water authority where reuse of urban run-off is proposed. ▪ Designed to meet the current best practice performance objectives for stormwater quality as contained in the Urban Stormwater – Best Practice Environmental Management Guidelines (Victorian Stormwater Committee 1999) as amended.	**Achieved.** The subdivision relies on existing infrastructure and the subdivision and future development of lot 2 will have little if any impact on the receiving waters further down the catchment. The volume of stormwater collected from the subdivision is not expected to exceed the current carrying capacity of the Municipal system.

	▪ Designed to ensure that flows downstream of the subdivision site are restricted to predevelopment levels unless increased flows are approved by the relevant drainage authority and there are no detrimental downstream impacts. The stormwater management system should be integrated with the overall development plan including the street and public open space networks and landscape design. For all storm events up to and including the 20% Average Exceedence Probability (AEP) standard: ▪ Stormwater flows should be contained within the drainage system to the requirements of the relevant authority. ▪ Ponding on roads should not occur for longer than 1 hour after the cessation of rainfall. For storm events greater than 20% AEP and up to and including 1% AEP standard: ▪ Provision must be made for the safe and effective passage of stormwater flows. ▪ All new lots should be free from inundation or to a lesser standard of flood protection where agreed by the relevant floodplain management authority. ▪ Ensure that streets, footpaths and cycle paths that are subject to flooding meet the safety criteria da Vave < 0.35 m2/s (where, da = average depth in metres and Vave = average velocity in metres per second). The design of the local drainage network should: ▪ Ensure run-off is retarded to a standard required by the responsible drainage authority. ▪ Ensure every lot is provided with drainage to a standard acceptable to the relevant drainage authority. Wherever possible, run-off should be directed to the front of the lot and discharged into the street drainage system or legal point of discharge. ▪ Ensure that inlet and outlet structures take into account the effects of obstructions and debris build up. Any surcharge drainage pit should discharge into an overland flow in a safe and predetermined manner. ▪ Include water sensitive urban design features to manage run-off in streets and public open space. Where such features are provided, an application must describe maintenance responsibilities, requirements and costs. Any flood mitigation works must be designed and constructed in accordance with the requirements of the relevant floodplain management	

	authority.	
Clause 56.08 - Site Management		
Clause 56.08-1 **Site management objectives** ▪ To protect drainage infrastructure and receiving waters from sedimentation and contamination. ▪ To protect the site and surrounding area from environmental degradation or nuisance prior to and during construction of subdivision works. ▪ To encourage the reuse of materials from the site and recycled materials in the construction of subdivisions where practical.	**Standard C26** A subdivision application must describe how the site will be managed prior to and during the construction period and may set out requirements for managing: ▪ Erosion and sediment. ▪ Dust. ▪ Run-off ▪ Litter, concrete and other construction wastes. ▪ Chemical contamination. ▪ Vegetation and natural features planned for retention. Recycled material should be used for the construction of streets, shared paths and other infrastructure where practicable.	**Achieved.** No building or works are proposed as part of this subdivision.
Clause 56.09 - Utilities		
Clause 56.09-1 **Shared trenching objectives** ▪ To maximise the opportunities for shared trenching. ▪ To minimise constraints on landscaping within street reserves.	**Standard C27** Reticulated services for water, gas, electricity and telecommunications should be provided in shared trenching to minimise construction costs and land allocation for underground services.	**Achieved.** The proposed subdivision will utilise utility /service connections and shared trenching will be employed where possible.
Clause 56.09-2 **Electricity, telecommunications and gas objectives** ▪ To provide public utilities to each lot in a timely, efficient and cost effective manner. ▪ To reduce greenhouse gas emissions by supporting generation and use of electricity from renewable sources.	**Standard C28** The electricity supply system must be designed in accordance with the requirements of the relevant electricity supply agency and be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant electricity authority. Arrangements that support the generation or use of renewable energy at a lot or neighbourhood level are encouraged.	**Achieved.** Each lot will be provided with appropriate connections for electricity, telecommunications and gas as required by the Responsible Authority.

	The telecommunication system must be designed in accordance with the requirements of the relevant telecommunications servicing agency and should be consistent with any approved strategy, policy or plan for the provision of advanced telecommunications infrastructure, including fibre optic technology. The telecommunications system must be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant telecommunications servicing authority. Where available, the reticulated gas supply system must be designed in accordance with the requirements of the relevant gas supply agency and be provided to the boundary of all lots in the subdivision to the satisfaction of the relevant gas supply agency.	
Clause 56.09-3 **Fire hydrants objective**	**Standard C29**	**Not Applicable**
Clause 56.09-4 **Public lighting objective**	**Standard C30**	**Not Applicable**

Location: 119 Burke Street, Warragul 3820

Client:

Planning Application No. PLA0023/24

Document Reference No. MS 24127 V.2

Project Arborist: Mathew Sorenson (*dip. arb*)

PROJECT OVERVIEW

TREE LOCATION MAP

PROJECT DETAILS & DOCUMENT OBJECTIVES

The land at 119 Burke Street, Warragul is proposed to be developed. The proposed development will include the subdivision of the land into 2 lots and the construction of a new crossover.

This report has been commissioned to assess all nominated trees on the nature-strip abutting the subject property that may be impacted by the proposed development.

A site assessment was performed by Mathew Sorenson on 16/04/2024. Only tree roots visible from above ground level (surface roots) were assessed. Detailed inspections of tree root systems using root zone exploratory methods were not performed.

The Tree Protection Management Plan is intended to provide instructions for all project managers and construction personnel on the establishment, implementation, and management of all Tree Protection Zones during the development process.

The Tree Protection Management Plan outlines key stages in which the project arborist is to carry out site inspections and provide written certification that the tree protection management requirements are being met.

The Tree Protection Management Plan is to be made available to all construction personnel accessing the site and involved directly with site operations.

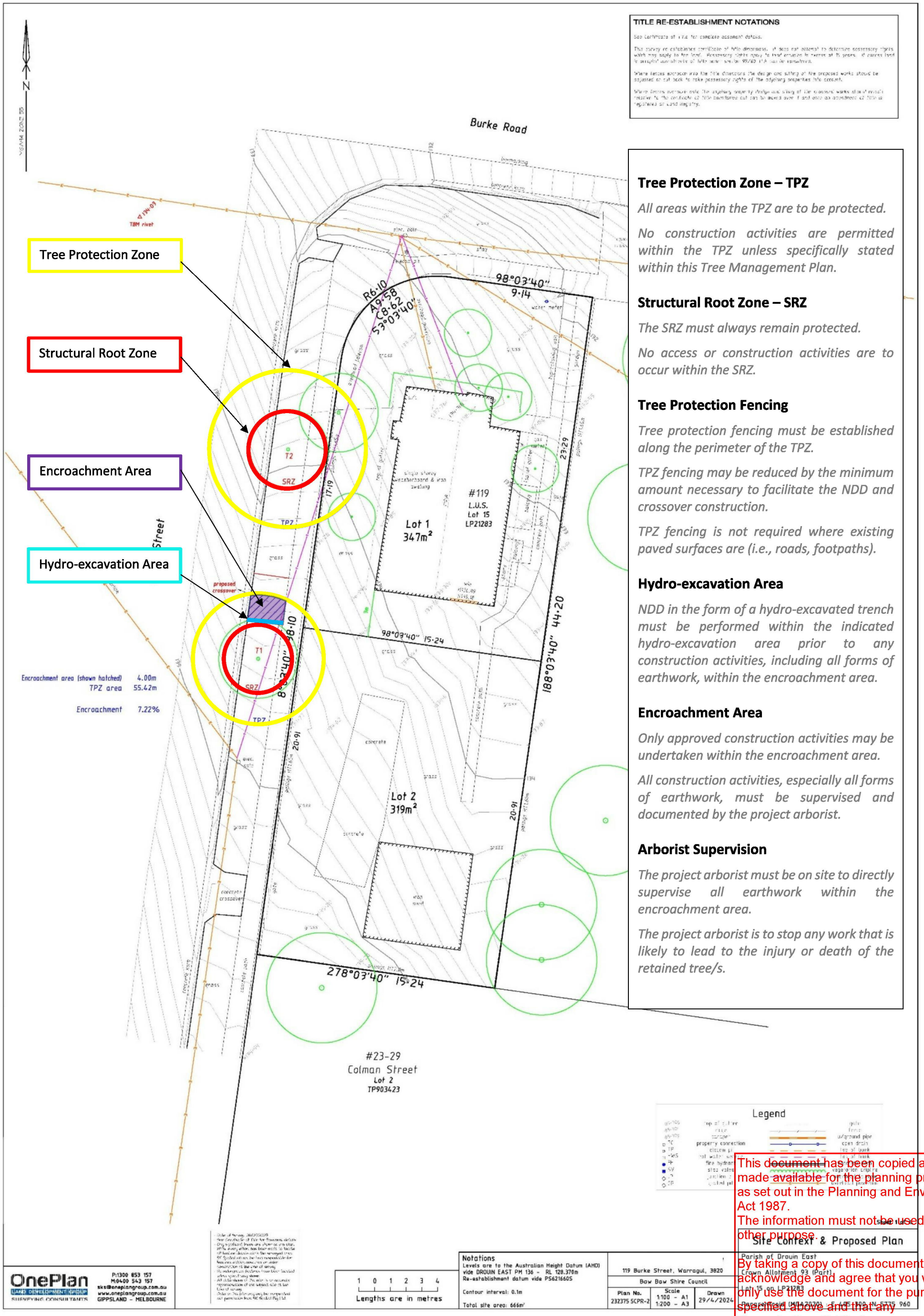
TREE SURVEY

Tree #	**T1**
Botanical Name	*Jacaranda mimosifolia*
Common Name	Jacaranda
Origin	Exotic
Age	Semi-Mature
Height (m)	9
Spread(m)	**N**-3, **S**-3, **E**-2, **W**-4
D.B.H (cm)	35
D.A.B (cm)	39
Health	Good
Structure	Good
ULE	20-30
Significance	Amenity
Retention Value	Medium
T.P.Z (AS 4970)	4.20m (radius)
S.R.Z (AS 4970)	2.23m (radius)
Risk of Harm (QTRA)	<1/1 000 000 (ALARP)

Tree #	**T2**
Botanical Name	*Jacaranda mimosifolia*
Common Name	Jacaranda
Origin	Exotic
Age	Semi-Mature
Height (m)	8
Spread(m)	**N**-4, **S**-4, **E**-2, **W**-3
D.B.H (cm)	32, 27 (47)
D.A.B (cm)	47
Health	Good
Structure	Good
ULE	20-30
Significance	Amenity
Retention Value	Medium
T.P.Z (AS 4970)	5.02m (radius)
S.R.Z (AS 4970)	2.41m (radius)
Risk of Harm (QTRA)	<1/1 000 000 (ALARP)

**Combined DBH shown in brackets for multi-stemmed trees. Refer to Appendix A for details on the tree risk assessment methodology. Refer to Appendix B for Tree Descriptors.*

TREE PROTECTION PLAN



TREE PROTECTION ZONES

When carrying out construction activities in the vicinity of trees, it is important to consider the protection requirements of the retained trees. The best principles for protecting trees on development sites are set out within the Australian Standard, AS 4970 – 2009, *Protection of Trees on Development Sites*.

DEFINITIONS

Tree Protection Zone (TPZ)

The TPZ is the area around the tree (both above and below ground) where all forms of construction activities (including excavation, fill and machine use) are excluded. The purpose of the TPZ is to protect the tree during the development process, allowing the tree to access the required resources in which it needs to remain viable.

The basic TPZ without alterations is simply a circle around the tree where the radius is measured from the centre of the stem at ground level. The radius of the TPZ is calculated for each tree by multiplying its DBH by 12 (TPZ = DBH x 12). Note; the minimum size of a TPZ is 2m and the maximum is 15m.

Structural Root Zone (SRZ)

The SRZ is an area calculated to determine the requirements of maintaining a trees stability. The SRZ is an area smaller in size than the TPZ and alone will not fulfil the requirements to maintain the viability of a tree. The true area occupied by the structural roots of a tree are influenced by many factors and may differ from the indicative SRZ. A thorough root investigation will provide much more accurate and detailed information and location on the extent of structural roots.

Minor Encroachment

An encroachment of the TPZ is where the calculated TPZ is modified to allow permitted construction activities to occur. If the area proposed to be encroached is less than 10% of the total TPZ area, and is outside of the SRZ, it is considered a minor encroachment. A minor encroachment of the TPZ is generally acceptable, however individual tree requirements and site conditions will need to be considered to determine the overall impact on the tree.

Major Encroachment

When a proposed encroachment is greater than 10% of the TPZ or inside the SRZ, it is considered a major encroachment. When a major encroachment is proposed the consulting arborist must determine if the tree/s will remain viable. Considerations including species, soil characteristics, age & vitality of the tree along with construction methods, will help determine if a tree/s will be tolerant.

TPZ & SRZ Dimensions

Tree ID	TPZ (m)	SRZ (m)	TPZ area (m2)
T1	4.20	2.23	55.42
T2	5.02	2.41	79.30

Pre-Construction Phase

Site Meeting

A pre-construction meeting is to be held between key construction personnel and the project arborist prior to the commencement of demolition and construction activities within the site. During this meeting the directions of the Tree Protection Management Plan shall be clearly conveyed to all parties involved.

Tree Pruning

Branches overhanging the proposed crossover are to be pruned to achieve a maximum vertical clearance of 3.0m. All pruning is to be carried out prior to the development construction phase. BBSC's Tree Maintenance Coordinator must be contacted prior to any pruning work and all pruning must be completed by one of councils approved tree contractors. All tree pruning is to be carried out in accordance with AS 4373 – 2007, *Pruning of Amenity Trees*.

Tree Protection Fencing & Signs

Prior to the commencement of all construction work, tree protection fencing is to be installed in accordance with the Tree Protection Plan. Only permitted tree removal and pruning may be carried out prior to the installation of tree protection fencing.

The perimeter of the calculated TPZ(s) should be clearly marked and identified to all personnel involved throughout the development. Generally, it is not possible to erect tree protection fencing on adjoining properties, however fencing will need to be erected for any portions of the TPZ/s that occur within the subject site.

Tree protection fencing shall be a minimum of 1.5 meters high above ground level (see figure 1.5) and be constructed of prefabricated wire mesh (or similar). In situations where the TPZ fencing is permitted to be reduced or temporarily removed (i.e. for vehicle access) temporary fencing, in the form of high visibility flagging (see figure 1.6), attached to timber/steel pickets, at height of 1.2m must be installed to restrict all unauthorised activities until the full TPZ fencing is re-established. All TPZ areas need to be clearly identified by suitable signs (see figure 1.7). Signs should be attached to the TPZ fencing at intervals no less than 5m apart.

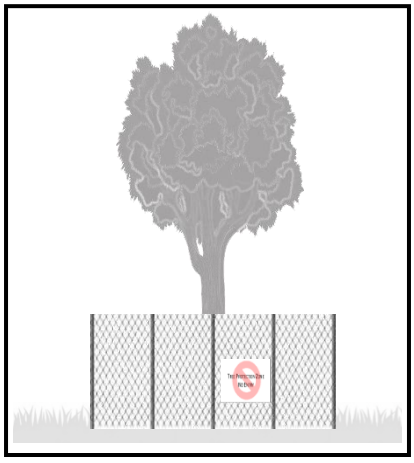


Figure 1.5. *Standard TPZ*

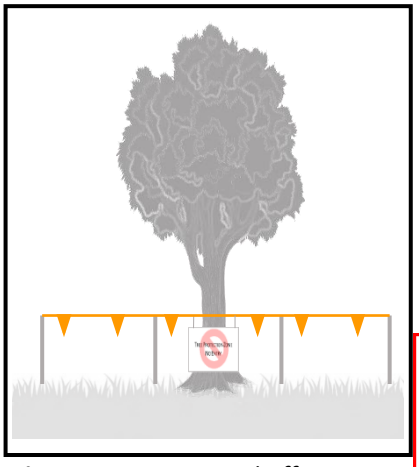


Figure 1.6. *Linear TPZ buffer*

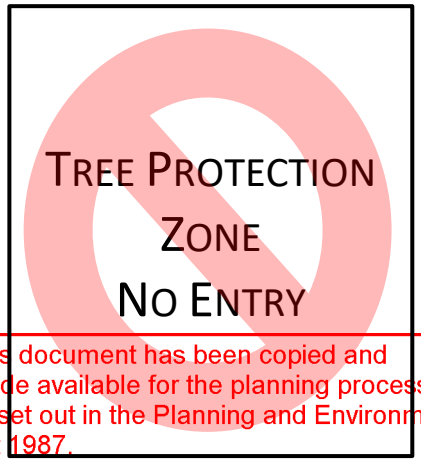


Figure 1.7. *Standard TPZ Signs*

Certification

Once the TPZ fencing has been installed, and prior to all construction work, the project arborist must be invited to inspect the site and provide written certification that the tree protection fencing is adequate.

Construction Phase

Tree Protection Fencing & Signs

Construction activities can only commence once the tree protection fencing, and signs have been installed to the satisfaction of the project arborist and certification provided.

All tree protection fencing must remain in place for the duration of the construction phase. Only in areas where work has been approved by the project arborist may the tree protection fencing be reduced. Additional controls will need to be implemented within areas where TPZ encroachment occurs, see ***Approved Work Within the TPZ – Crossover Construction*** below.

TPZ fencing is permitted to be reduced by the minimum amount necessary to facilitate both the NDD hydro-excavation trench and the construction of the crossover.

NDD Hydro-excavation

After the establishment of TPZ fencing and signs, the project arborist is to supervise the hydro-excavation along the southern perimeter of the proposed crossover. The purpose of the hydro-excavation trench is to investigate the extent of tree roots radiating out into the encroachment/crossover area.

The project arborist must ascertain and perform acceptable root pruning for any encountered non-critical roots (not exceeding 30mm dia. in size) and ensure the protection & retention of all critical tree roots (>30mm dia. in size). All critical roots encountered that radiate into the crossover area must be carefully exposed using hydro-excavation and small hand tools. At the completion of the hydro-excavation all exposed tree roots are to be recovered with either topsoil or wet jute mat (or similar). The project arborist is to record all findings of the root zone investigation/hydro-excavation work.

Approved Work Within the TPZ – Crossover Construction

To facilitate the construction of the proposed crossover the tree protection fencing is permitted to be reduced by the minimum amount necessary. The project arborist must inspect the modified TPZ fencing prior to work commencing.

The project arborist must directly supervise the earthwork and preparation stage of the crossover construction and supervise and document all remaining stages of its construction. No earthwork, including all forms of excavation (done either manually or mechanically) and/or the addition and compaction of fill is to occur without the project arborist on site.

During the construction of the crossover all critical tree roots previously identified during the NDD hydro-excavation must be protected. Excavation up to a depth of 75mm may occur using methods sensitive to critical tree roots, namely in the form of hand tools with the assistance of small machines (no greater than 1.8t).

Prior to the addition of the base material, geofabric is to be installed within the crossover footprint. Multiple layers of geofabric is to be installed over and beside all exposed critical roots. Plastic is to be used to separate the base material from the concrete crossover and to limit the contamination of the soil below during the pouring of the concrete. Steel pegs and boxing are to be installed in a sensitive manner and avoid all critical roots. No fill material or washing of machines, trucks, tools, or equipment is permitted to occur within the TPZ area.

Clean high-quality topsoil may be spread along the southern perimeter of the crossover as a batter to match the natural ground level. This topsoil must remain un-compacted and sown with suitable lawn seed.

Construction Phase (continued)

Additional Tree Care

A watering regime is to be established for the protected tree during the construction phase. This will require the application of 200lt of suitable rainwater per every 20cm of stem diameter every fortnight. The water used needs to be of suitable quality, free of contaminants, ensuring that the water soaks deep into the root zone.

It is recommended that mulch is spread within the SRZ of the retained tree. Mulch needs to be a good quality, coarse organic wood chip mulch, free of weeds and other contaminants. Mulch is to be spread at a thickness of 75-100mm and topped up periodically. No machine use is to be used to spread the mulch within the TPZ/SRZ area.

Temporary Access For Vehicles & Machinery

In some situations, a TPZ may restrict the access of vehicles and machinery needed to perform construction activities both outside of the TPZ and approved activities within the TPZ. If temporary access is required additional control measures need to be implemented such as using marker paint to identify the unfenced TPZ and installing ground protection and branch/truck protection. Ground protection can be achieved by covering the ground surface with a 100mm layer of mulch with rumble boards/industrial bog mats placed on top. For branch/trunk protection boards and padding should be attached by means of strapping and avoid damaging the bark.

Footing Holes for Fences

Post holes required to facilitate the construction of fences must be dug using hand tools when within the TPZ, avoiding damage to any roots >30mm. dia. relocation of footing holes may be necessary if such damage cannot be avoided. Any roots <30mm. dia. requiring pruning shall be done in a manner that encourages tree health. All roots cut shall be done using sterilized hand tools by a suitably experienced person.

Installation of Underground Services

Excavation inside a TPZ poses a significant level of risk to the tree's health and viability. If underground services must be installed inside a TPZ directional drilling at a minimum depth of 800mm (top of bore) is recommended. If boring is unachievable hydro-excavated open trenches may also be approved and undertaken under supervision of the project arborist. If hydro-excavation under the supervision of the project arborist is advised. Roots critical to tree stability need to be identified and protected.

Other Restrictions

The base area of the TPZ(s) shall be unaltered by cut, fill, trenching, fertilizers, or liquid chemical overland flow except under the conditions set out in Construction within TPZs. Building materials or waste shall not be stored within the TPZ(s). An area as far away from the tree(s) as practical shall be selected for all long-term storage. Nothing shall be attached to any retained tree, including service wires, nails, screws, etc.

Certification

On the completion of the crossover construction the project arborist must inspect the site and the protected tree and provide written certification that the tree protection measures have been followed.

Schedule of Site Visits

The project arborist is required to attend site throughout the development process to ensure compliance with the Tree Protection Management Plan. It is the responsibility of the project manager/construction supervisor to ensure that the project arborist is notified of the development progress and to arrange site visits in accordance with the TPMP Schedule of Site Visits.

Stage/Trigger	Action
Pre-Construction Site Meeting. Prior to all construction activities, including site staging, fence installation, plant & machine access & the set-up of site facilities	• Ensure the recommendations of this report are adequately conveyed to all personnel • Respond to any questions or concerns about the tree protection program
Inspect Tree Pruning Once the extent of tree pruning is determined.	• To ensure BBSC's Tree Maintenance Coordinator is notified • To ensure the tree pruning meets the requirements of AS 4373
Inspect TPZ Fencing Following the establishment of tree protection fencing and prior to the construction phase.	• Assess tree condition. • Ensure tree pruning has been carried out in accordance with AS:4373. • Ensure tree protection fencing has been established correctly
When Accessing TPZ At any time access to a TPZ is required in conflict with the recommendations of this report.	• Determine what access is required and assess the potential impact on the tree(s) under protection • Notify the statutory authority to seek approval for the proposed access • Supervise access if deemed necessary
Tree Damage Occurs If a retained tree is damaged or a decline in health is noticed.	• Assess tree condition • Suspend construction works if appropriate • Determine if remedial works are appropriate • Recommend appropriate actions • Notify the statutory authority
During the Hydro-excavation stage During the NDD along the northern perimeter of the crossover.	• Supervise NDD hydro-excavation • Ascertain & perform required tree root pruning • Ensure additional tree protection measures are implemented
During the construction of the crossover During the excavation & preparation of the crossover	• Ensure all critical roots are protected • Ensure sensitive construction methods are employed • Ensure additional tree protection measures are implemented
At the completion of the construction phase and prior to dismantling tree protection fencing.	• Assess tree condition.
12 months after completion of the construction phase.	• Assess tree condition.

Table 1.8. *Schedule of site visits*

Certification Templates

Pre-construction

Stage	Pre-Construction	Date	
Site Address	119 Burke Street, Warragul	Municipality	Baw Baw Shire
Project Arborist	Mathew Sorenson	Contact	0432 215 764
Site Supervisor		Contact	

Demolition Completed	
Tree protection fencing in place and adequate	
Tree Pruning meets AS 4373	
Pre-construction meeting held	
Tree condition	
Modification of TMP required	

Comments:

Further Action:

Compliant | Signed

Construction Phase

Stage	Construction	Date	
Site Address	119 Burke Street, Warragul	Municipality	Baw Baw Shire
Project Arborist	Mathew Sorenson	Contact	0432 215 764
Site Supervisor		Contact	

Tree protection fencing in place and adequate	
Arborist Supervision during critical works	
Arborist supervision report supplied	Ref. No
Tree care requirements met	
Tree condition	
Modification of TMP required	

Comments:

Further Action:

Compliant | Signed

Appendix A DETERMINING TREE RISK

A.A RISK VS. BENEFIT: A BALANCED APPROACH

A.B

A.B.A Risk is an inherent component of life. It is unachievable to completely eliminate all risk from our daily lives. Instead, wherever reasonably practicable, we must manage our exposure to risk and that of the people under our care. When determining what is a tolerable level of risk, we must also consider the benefits gained from being exposed to such risk.

A.B.B

A.B.C Trees provide a vital role in sustaining life. Both within urban environments and natural environments, the benefits attributed to trees are countless. To gain the benefits provided by trees we must also accept a certain level of risk. For a tree manager, finding the ideal balance between risk and benefit can be a challenge. This is sometimes credited to the lack of understanding shared by the general public on the value of trees within the urban/natural environment and at other times due to the difference in individual tolerances to tree related and non-tree related risk.

A.B.D

A.B.E In order for a tree manager to provide a balanced approached to tree risk management, it is important to consider other typical, commonly encountered risks. When universally recognised risk management principles (such as ISO 31000) are applied to the management of tree related risk the outcome is a more balanced approach and one that is in-line with other common organisational risk management policies.

A.B.F

A.C CALCULATING TREE RISK

AD

A.D.A The risk assessment methodology used within this report employs the Quantified Tree Risk Assessment (QTRA Version 5) model. QTRA applies internationally accepted risk management principles to determine the risk from falling trees and branches. The QTRA Practice Note (V5.2.3) is available at; https://www.qtra.co.uk/

A.D.B

A.D.C QTRA quantifies three (3) primary input components; **Targets**, **Size** & **Probability of Failure** (**PoF**) with the resulting risk value expressed as the **Risk of Harm** (**RoH**).

Targets x **Size** x **PoF** = **RoH**

- **Targets** – are the people and property exposed to tree risk. Targets are broadly represented within three (3) categories: *vehicle traffic*, *human occupation* & *the repair/replacement cost of damage to property.* Targets are represented within six (6) value ranges **1** – **6**. With **1** being the highest value range (1/1 – >1/10) and **6** being the lowest value range (1/100 00 – 1/1 000 000).

- **Size** – is the size of the tree part (branch, stem or whole tree) identified as being likely to impacting a target in the event of failure. Size is represented within four (4) value ranges **1** – **4**. With **1** being the largest value range (>450mm dia.) and **4** being the smallest value range (100mm dia. – 25mm dia.).

- **Probability of Failure** (**PoF**) – is the likelihood of the identified tree or branch failing within the coming year. The Probability of Failure is estimated within seven (7) value ranges **1** – **7**. With **1** being the highest probability of failure range (1/1 – >1/10) and **7** being the lowest probability of failure range (1/1 000 000 – 1/10 000 000).

CALCULATING TREE RISK (CONTINUED)

- **Risk of Harm** (**RoH**) – is calculated by entering the value ranges (determined by the assessor) for each of the three (3) input components using the QTRA manual calculator or software application. The Risk of Harm is the risk presented by the tree or branch over the coming year.

A.D.D The calculated Risk of Harm is benchmarked within the QTRA Advisory Risk Thresholds (see below) to advise appropriate management.

QTRA Advisory Risk Thresholds

Threshold	Description	Action
	Unacceptable Risks will not ordinarily be tolerated.	• Control the risk.
1/1 000		
	Unacceptable (where imposed on others) Risks will not ordinarily be tolerated	• Control the risk • Review the risk.
	Tolerable (by agreement) Risks may be tolerable of those exposed to the risk accept it, or the tree has exceptional value.	• Control the risk unless there is broad stakeholder agreement to tolerate it, or the tree has exceptional value • Review the risk
1/10 000		
	Tolerable (where imposed on others) Risks are tolerable if ALARP	• Assess costs and benefits of risk control • Control the risk only where a significant benefit might be achieved at reasonable cost. • Review the risk
1/1 000 000		
	Broadly Acceptable Risk is already ALARP	• No action currently required • Review the risk

QTRA Advisory Risk Thresholds

A.E AS LOW AS REASONABLY PRACTICABLE (ALARP)

A.E.A When determining whether a risk is **ALARP** (As Low As Reasonably Practicable) both the amount of risk reduction and the sacrifice/cost involved in reducing the risk must be considered. The sacrifice/cost of controlling a risk is not only that of a financial one but also the loss of tree related benefits (QTRA 2017). The sacrifice/cost of implementing risk control measures need to be proportionate to the reduction in risk.

A.F Risk Control Measures

A.G

A.G.A Risk control measures can be broken into two (2) main categories, **Target Isolation** & **Remedial Tree Work**.

A.G.B

A.G.C **Target Isolation** – is the complete removal or restriction of targets from the vicinity of an identified tree risk. If targets can be sufficiently isolated from a particular tree the overall risk will generally be reduced. Temporary target isolation may also be required where a tree related risk has been identified and the work required to mitigate the risk, such as remedial tree pruning or removal, cannot be implemented within the recommended timeframe.

A.G.D

A.G.E Recommendations based on the feasibility of target isolation are limited by the arborist's knowledge of the site and its management. The site manager may identify target isolation options additional to that of the arborists recommendations in which case may be implemented alternatively to the arborists tree risk mitigation recommendations. In such circumstances, the arborist should be consulted, and re-assessment of the tree's risk may be required.

A.G.F

A.G.G **Remedial Tree Work** – If targets cannot be sufficiently isolated from the vicinity of an identified tree risk, remedial tree pruning, or complete tree removal, may be required to reduce the risk of harm. Where the current risk of harm is low, preventative tree maintenance recommendations have also been included to help inform long-term tree management strategies.

A.H Priority of Work

A.H.A The Priority of Work recommendations, provided within this report, are intended to help the tree manager determine the timing in which risk control measures should be implemented. The priority of work is a recommendation based upon the QTRA Advisory Risk Thresholds and has been divided into four (4) categories:

A.H.B

- **Urgent –** recommendations to be implemented within the indicated specific set time frame.
- **High –** recommendations should be implemented as soon as practicable (within 6 months)
- **Medium –** recommendations to be implemented when reasonably practicable (within 12 months)
- **Low –** review the cost and if risk is considered ALARP implement the recommendations within a long-term tree management strategy
- **No Action –** no risk mitigation control measures are currently required

A.I Re-Assessment Timeframe

A.J

A.J.A Trees are living organisms which inevitably age and deteriorate over time and as such ongoing risk assessment is generally required. The age, size, health and land-use around the tree will largely determine the frequency in which future risk assessments should occur. Where a Re-Assessment Timeframe period has been provided, it is a recommendation of the maximum duration before a follow up tree risk assessment is required. **NB:** QTRA only calculates the RoH for the 12 months following the date of the assessment.

A.J.B

A.J.C The Re-Assessment Timeframe period is a recommendation under normal weather events only. At any sign of changes in tree condition or after any extreme weather event, re-assessment of tree risk is likely to be necessary.

Appendix B TREE DESCRIPTORS

B.A TREE ID

B.A.A **For trees assessed individually** a tree number is allocated for quick referencing and corresponds to the site map.

B.A.B **For populations of trees assessed collectively; 'G'** following the tree ID indicates the assessment of a group of trees.

B.B TREE NAME

B.B.A **Botanical name** is the name given to the tree which is universally recognised and expressed in Latin, consisting of both the Genus and Species name.

B.B.B **Common name** is the most common informal name the tree is referred to in a regional context.

B.C TREE DIMENSIONS

B.C.A Tree Dimensions calculated by the Arborist during site assessment.

D.B.H	Diameter at Breast Height. Measured 1.4 Meters above the ground.
D.A.B	Diameter at Base. Measured immediately above root buttress/flare.
Height	The estimated height of the tree in meters.
Spread	A measurement of the tree canopy in meters. Measured on the ground by walking out the distance along the widest axis under the canopy.

B.D ORIGIN

B.D.A The recorded/accepted natural origin of the tree.

I - *Indigenous*	The tree is indigenous to the area and growing as a result of natural regeneration (i.e. not planted).
V/N - *Vic Native*	The tree is native to Victoria. However, it is outside of its naturally occurring range or has been planted.
N - *Native*	The tree is of Australian origin, but not naturally occurring within Victoria
E - *Exotic*	The tree is not of Australian origin.

B.E AGE

B.E.A The estimated age of the tree as determined by the Arborist

J - *Juvenile*	A recently formed, emerging tree or sapling.
Y - Young	A young tree that is dynamic and actively growing.
S/M - *Semi-mature*	A tree which is established within its environment and continuing to actively grow towards its maximum size.
M - *Mature*	A tree which has reached its expected growing potential for the species and location and has slowed in growth.
S - *Senescent*	A tree which has reached full maturity, is not continuing to actively grow and may be in decline.
D - Dead	The tree is dead.

B.F HEALTH

B.F.A The overall health of the tree as observed by the Arborist.

Good	The tree displays a full canopy containing little or no dead wood, with good colour and shows indicators of good compartmentalisation of wounds (if present). The tree shows little or no signs of the presence of pathogens. The tree shows no visible sign of decay and no visible signs of root damage.
Fair	The tree is showing a combination of the following symptoms of fair health; signs of deadwood of up to 20%, minor presence of pathogens, small amounts of epicormic growth. Less than a full canopy with some discolouration in the leaves.
Fair - Poor	The Tree displays intermediate characteristics of both *Fair* & *Poor*
Poor	The tree is showing a combination of the following symptoms; up to 50% die back in the canopy with high quantities of deadwood. Discolouration of leaves. Large amounts of epicormic growth. Visible signs of pathogens causing decay and/or other damage.
Significant Decline	The tree is likely to be showing most if not all of the following symptoms; Canopy die back >75%. Extensive deadwood throughout the entire tree. Severe attack from pathogens. Large/extensive decay within root zone, trunk and branches.
Dead	The Tree is dead.

B.G STRUCTURE

B.G.A The structural assessment of the tree as determined by the Arborist by visual ground-based observations. (Unless otherwise specified)

Good	Branch unions sound, little or no signs of decay within tree. Form is promoting good structural growth. Scaffold limbs and leaders display good taper.
Good-Fair	The Tree displays intermediate characteristics of both *Good* & *Fair*
Fair	Shows some evidence of structural defects including; rubbing branches, branches growing in an overextended lateral direction, minor cavities in trunk and branches, some evidence of decay, small amounts of damage to roots and missing bark.
Fair-Poor	The Tree displays intermediate characteristics of both *Fair* & *Poor*
Poor	Movement of root plate may be visible. Vertical cracks present. Large amounts of decay are observed. Large hollows or cavities are obvious. Included bark and poor branch unions present with co-dominant stems. Large epicormic branches.
Immediate Hazardous	The tree poses an immediate risk to people and property and requires immediate attention (e.g. isolation, remedial pruning or removal)
Dead	Tree is dead.

B.H USEFUL LIFE EXPECTANCY

B.H.A U.L.E (Useful Life Expectancy). The estimated time in which the tree will remain within the landscape with limited additional care and with a satisfactory level of risk.

30+ Years	Very Long
20-30 Years	Long
10-20 Years	Medium
5-10 Years	Short-Medium
<5 Years	Short
0 Years	Tree is dead, in severe decline, hazardous, impacting a fixed asset, presenting an obstruction, posing weed potential or a combination of these characteristics, removal may be necessary

B.I SIGNIFICANCE –

B.I.A Significance can be described in many contexts including amenity, landscape, ornamental, heritage and ecological.

B.I.B The table below details the significance criteria used to determine the significance of the assessed each tree.

Descriptor	Category	Criteria
Low (Lo)	**(All)**	The tree does not meet the criteria of any of the categories listed below. The tree is considered to have a low value in the context of all other significance categories.
Amenity (A)	**Amenity**	The tree has a medium amenity value based on its functionality. Examples include (but not limited to); the tree provides important shade, wind suppression, water management and/or erosion management.
Ecological (E)	**Ecological**	The tree has a medium ecological value due to its contribution to native flora and fauna (in a local, regional, state or national context). Examples include (but not limited to); the tree forms part of remnant vegetation which is now restricted and/or threatened within the area. Tree provides significant amounts of habitat for local Fauna. Tree is protected under local, state or national agreements/Acts.
Heritage (H)	**Heritage**	The tree is protected by local, state or national heritage classification.
Landscape (L)	**Landscape**	The tree has a medium landscape value due to its contribution to the local landscape. Examples include (but not limited to); the tree is of exceptional size and/or age. Tree forms a focal point within the local landscape. Tree is part of a uniform and collective planting iconic to the local area.
Ornamental (O)	**Ornamental**	The tree has a medium ornamental value due to its ornamental or botanical features. Examples include (but not limited to); the tree is of exceptional size and/or age for its species, is considered to be uncommon within cultivation or of particular importance within the wider horticultural community, the tree may contribute to the heritage of the site although not officially recognised.
High (Hi)	**(All)**	The tree has a high value in one or more of the above categories or a medium value in three (3) or more of the above categories.

B.J RETENTION VALUE

B.J.A A value (see below) given to the tree that considers all the above information. It provides the necessary guide for which trees are suitable for retention and which trees are recommended for removal with consideration to the current and future intended land use.

High	*Highest retention score, Tree is of High Significance. Retain.*
Medium	*Tree is suitable for retention and has a reasonable ULE. Retain if possible.*
Low	*Consider tree for removal. If site cannot accommodate tree requirements removal is recommended. Consider for removal.*
Poor	*Tree is unsuitable for retention, due to poor health and/or structure, weed classification, hazardous or other reasons. Remove.*
*	*Privately owned trees, i.e. trees on neighbouring properties or on nature strips, generally require protection '*' following the retention value indicates that the tree is privately owned. Unless the relevant tree owner/manager grants permission for its removal; Protect Tree. Note statutory/planning controls still apply.*

B.K TARGET ISOLATION

Target Isolation Category	Recommended Examples of Control
Limit	Limit the land use within identified target isolation area by avoiding the construction of park furniture, play equipment and all other built structures which will attract high human occupancy rates.
Restrict	Ensure no fixed structures (incl. buildings, play equipment, park furniture, shelters, above ground services and carparking spaces) are located within the identified target isolation area. Walking/cycling paths and roads should be avoided within the area where possible. Mulch and plant out as much of the area as possible with ground covers aimed at reducing the duration of human occupation within the area.
Prohibit	Establish permeant fencing around the perimeter of the identified target isolation area, such as chain and bollard fencing or post and wire fencing. Erect advisory signs identifying the area as '*No access*' or '*Beware of falling branches*'. Mulch and plant out the area with ground covers and understory plants aimed at reducing the desirability of people accessing the area.

Target Isolation Areas	Details
Tree Protection Zone	The area around the tree identified by the consulting arborist in accordance with AS 4970 – 2009, *Protection of Trees on Development Sites*.
Dripline	The area directly beneath the canopy of the tree. **NB** *this may increase over time*
Fall Zone	The area between the base of the tree and extending out to the equal distance of the height of the tree (1 x tree height). **NB** *this may increase over time*
Other	Specific area identified by the consulting arborist, i.e., the area beneath the large northern scaffold branch.

B.L REMEDIAL TREE WORK

Class	Description
Tree Removal (R1)	Removal of the tree's branches, stems and trunk to a near ground level. In some situations, the stump may be retained at a recommended height (e.g. 1, 3 or 5m high). If regrowth (e.g. root suckers, basal shoots or epicormic growth) is expected, treating the cut stump appropriately with a herbicide designed and approved for such purposes is recommended.
Tree & Stump Removal (R2)	Removal of the tree's branches, stems, trunk and stump. It is generally recommended that a stump grinding machine be used to remove the stump to limit soil disturbance and erosion. However, excavation of the tree stump and root zone area may also be recommended, this is often the case when a serious pathogen is identified (e.g. *Armillaria luteobubalina*) and could be further spread.
Formative Pruning (FP)	This is a form of preventative tree pruning undertaken on young trees aimed at encouraging a desirable form and one that is less likely to develop structural weaknesses or interfere with future land use, assets and services. This form of pruning can lead to a reduction of risk presented by the tree in the future
Deadwood Pruning (DW)	Pruning to remove dead branches (including hangers) from throughout the tree canopy/part of the tree canopy where a target is present. The size of dead branches is generally identified when deadwood pruning is recommended and is expressed as the branch diameter (e.g. prune deadwood >75mm dia. from above carparking area).
Clearance Pruning (CP)	This includes pruning in order to maintain clearance from utilities, services, buildings, walking paths and roads. Regular small amounts of pruning are generally recommended opposed to major infrequent cutting back of large branches.
Weight Reduction (WR)	Weight reduction pruning may be recommended on a specific scaffold branch or leader where a defect has been identified (e.g. large overextended, lateral branch over a target or branch with evidence of significant decay and/or damage, such as cracking/splitting).
Restorative Pruning (RES)	Restorative pruning is recommended on mature, senescent and or structurally compromised trees where the tree poses an unacceptable level of risk. Restorative pruning can sometimes be considered to be the lesser of two evils when the only other viable risk control option is complete tree removal. It is recommended to reduce the crown or height/weight of the entire tree or stems where a defect (such as, large cavities with significant decay, partial stem failure, previous failure or poor management resulting in poorly developed codominant stems, branches and canopy). Restorative pruning is aimed at reducing both the static and dynamic forces imposed on the defected tree part. Restorative pruning can often result in further poor tree structure which may require ongoing monitoring and management.
Habitat Pruning (HP)	Habitat pruning is a form of remedial tree maintenance aimed at balancing the risk posed by a tree at the same time as maintaining important fauna habitat. Habitat pruning is generally only carried out on dead trees, however in some situations it may be appropriate to carry out on mature or senescent trees. Although the practice of habitat pruning is common within Australia, particularly in remnant native tree populations found within road and bushland reserves, AS 4373-2007 does not specifically detail the procedure.

Appendix C ASSUMPTIONS & LIMITATIONS

C.A.A Reports are prepared assuming the person making the request has good title and ownership, legitimacy of purpose, the authority to grant access and/or engage service.

C.A.B This report is prepared with reasonable care. To the extent permitted by law, the author accepts no responsibility for any loss or damage sustained by a recipient as a result of acting on its recommendations.

C.A.C The author can neither guarantee nor be responsible for the accuracy of information in this report provided by others.

C.A.D Information provided in a verbal or written report covers only those items examined. It reflects their condition at the time of inspection only.

C.A.E Unless otherwise specified, inspection is limited to visual inspection from ground level without dissection, excavation, drilling, physical or nutritional analysis or quantification of structural integrity. No responsibility is accepted for the consequences of internal or sub-surface defects which present no discernible external symptoms.

C.A.F The report shall not be used for any other purpose or conveyed externally in whole, part or meaning without the prior written consent of the author.

C.A.G Sketches, diagrams, graphs and photographs used as visual aids are not necessarily to scale.

C.A.H Unauthorised alteration or separate use of any part of the report is prohibited and invalidates the whole report.

C.A.I The author accepts no responsibility for the consequences of work performed outside specification, by inappropriately qualified staff or without consultant supervision where it has been recommended.

C.A.J The conclusions reached, and recommendations made do not imply that plants, built landscape or structures will withstand future adverse natural or man-made conditions.

C.A.K There is no warranty or guarantee that problems, deficiencies, faults or failures of plants or property inspected may not arise in the future. Regular re-inspection will be required to identify emerging disorders