STATEMENT OF ENVIRONMENTAL EFFECTS

DISPLAY HOME

25 COACH STREET, WALLABADAH

For

Carolyn Zorzino

Our Ref:	24/101
Project Name:	Display Home – 25 Coach Street, Wallabadah
Client:	Carolyn Zorzino
Author:	Sally Cottom Senior Planner BURP
Certification:	*I hereby certify that this Statement of Environmental Effects has been prepared in accordance with the requirements of the Environmental Planning and Assessment Act 1979 and its associated Regulations. I certify to the best of my knowledge the information contained within this report is neither false nor misleading.*
Signature:	

This report was prepared by Upper Hunter Planning a business of RA PEASLEY Consulting Pty Ltd.

Revision	Date	Revision Details	Author
Draft	12/07/2024	Draft	SC
Client Review	09/10/2024	Client Review	Client
Final	09/10/2024	Final	SC
REV#1	16/10/2024	REV#1	SC

Disclaimer

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1. INTRODUCTION

This Statement of Environmental Effects has been prepared on behalf of the applicant Carolyn Zorzino by Upper Hunter Planning to accompany a Development Application to Liverpool Plains Shire Council for a Display Home at 25 Coach Street, Wallabadah.

The proposed development is consistent with the relevant strategies of the Liverpool Plains Local Government Area, objectives of the development standards under Liverpool Plains *Local Environmental Plan 2011* and the relevant development controls under *Liverpool Plains Development Control Plan 2012.*

The subject site is zoned RU5 Village with the proposed development being permissible with consent under this zone.

This Statement of Environmental Effects and Development Application addresses the matters required to be considered by the consent authority in accordance with Section 4.15(1) of the *Environmental Planning and Assessment Act 1979* (EP&A Act).

1.1 OWNER AND SITE DETAILS

The Owner(s):

The site is located at 25 Coach Street, Wallabadah, Lot 13 DP792237 and is owned by Nathan Bastian.

The Applicant:

Carolyn Zorzino
C/- Upper Hunter Planning
10 Top Knot Place
Muscle Creek NSW 2333

Contact:

Sally Cottom
Phone: (0400) 168 996

1.2 LOCATION AND CONTEXT

The site is located at 25 Coach Street, Wallabadah in the Liverpool Plains Local Government Area (LPLGA). The site is 2,023 square meters in area (**Figure 1**).

Figure 1: Location of Site (Source: Six Maps)

The site contains a Prefabricated Dwelling 5.67m x 7.07m with a building height of 3.755m proposed to be used as a 'Display Home' (**Appendix A** and **B**).

The site has existing access to Coach Street being a public sealed classified road (**Figure 1** and **Appendix A**).

The site is surrounded by land zoned RU5 Village and is used for a range of village purposes including residential dwellings, commercial uses, education, religious and other village facilities associated with a rural village (**Figure 2**).

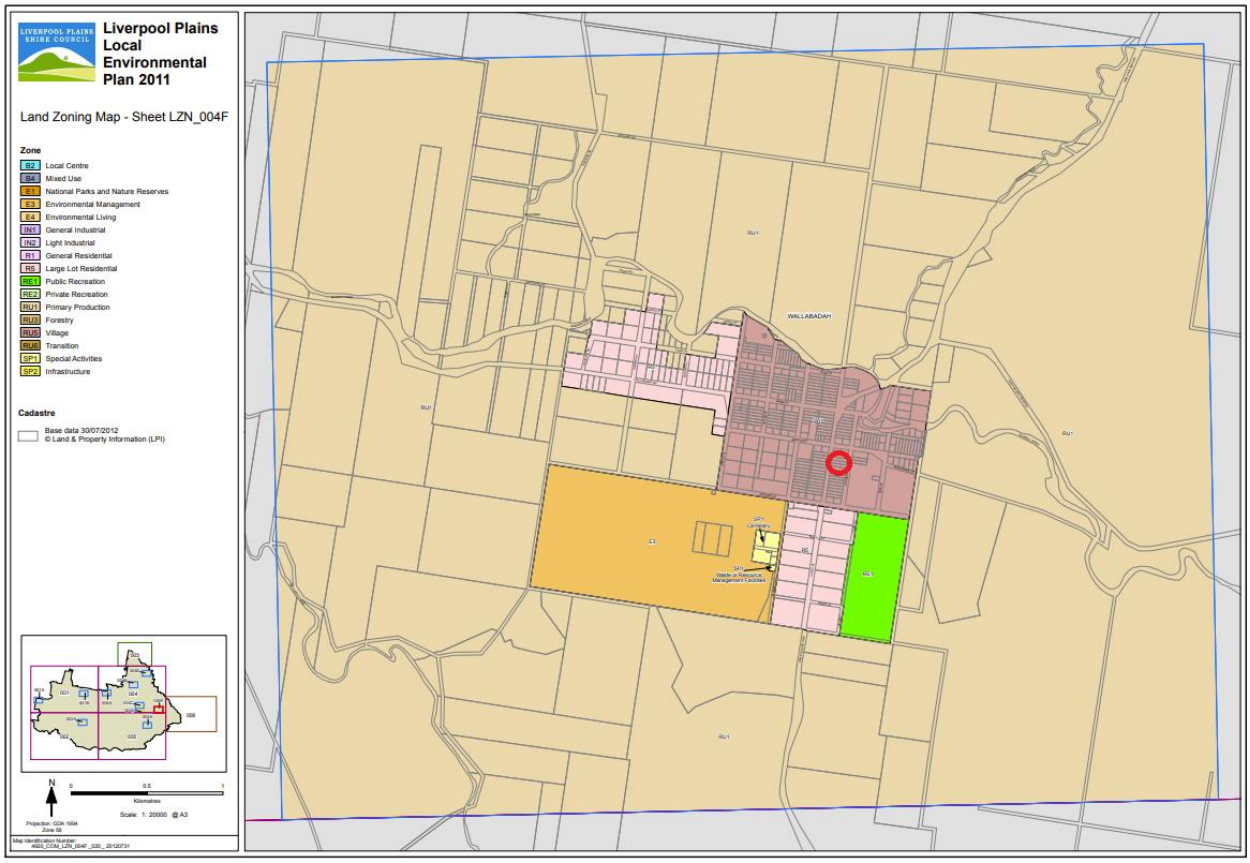


Figure 2: Land Zoning Map (Source: Liverpool Plains LEP 2011)

2. PROPOSED DEVELOPMENT

The proposed development involves a Prefabricated Dwelling being used for the Commercial Purpose as a Display Home (**Figure 3, 4 and 5** and **Appendix A**).

Figure 3: Architectural Plans (Source: SG BUILDING DESIGN)

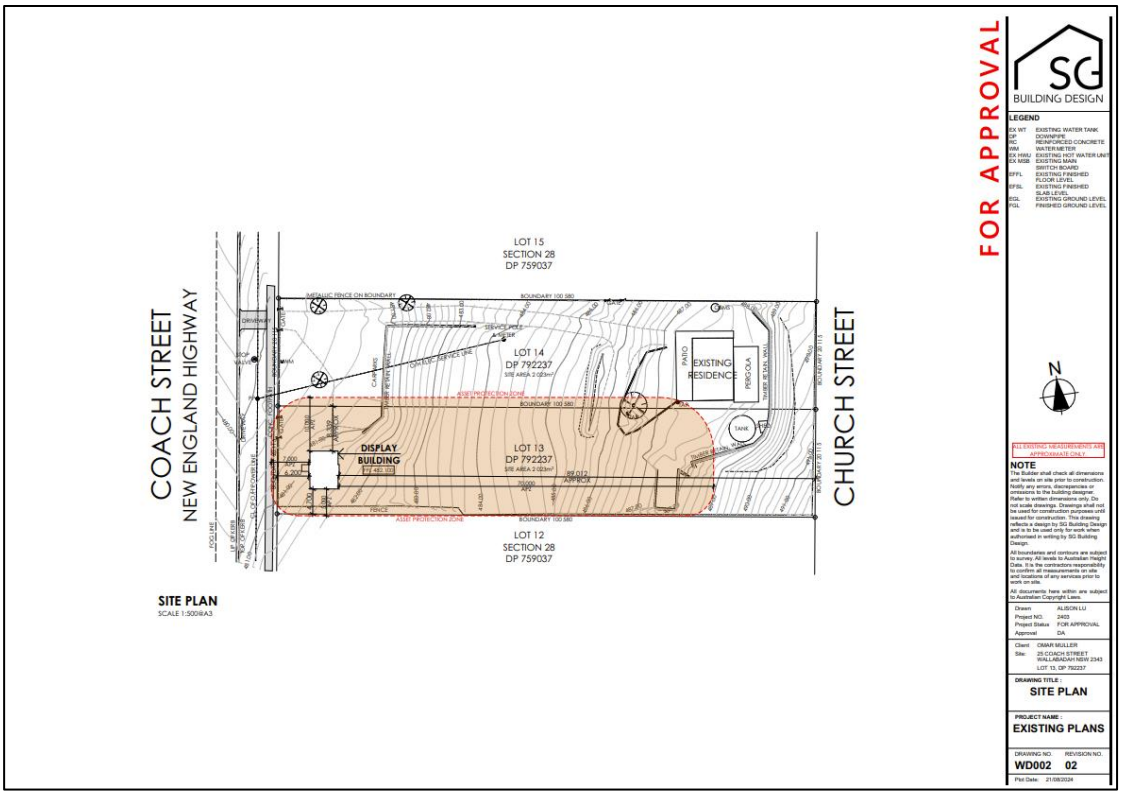


Figure 4: Architectural Plans (Source: SG BUILDING DESIGN)

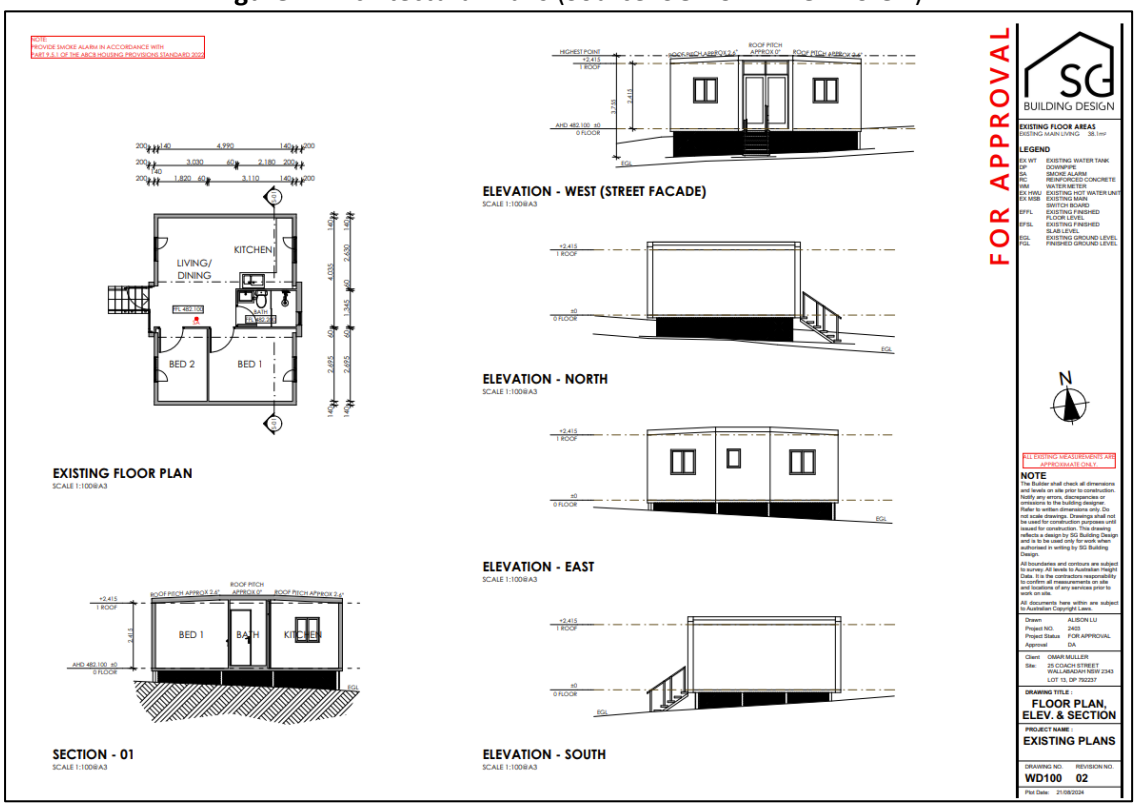


Figure 5: Architectural Plans (Source: SG BUILDING DESIGN)

The Display Home is 5.67m x 7.07m with a building height of 3.755m (Ceiling to Ridge).

External Finishes Schedule:

EXTERNAL FINISHES SCHEDULE			
LOCATION	**MATERIAL**	**COLOUR**	**IMAGE**
WALL CLADDING	CORRUGATED STEEL SHEETING (HORIZONTAL)	ZINCALUME (OR SIMILAR)	
ROOF SHEETING	CORRUGATED STEEL SHEETING	ZINCALUME (OR SIMILAR)	
ENTRY FEATURE CLADDING	STACK STONE TILES	GREY MIX	
GLAZING FRAME	ALUMINIUM	MONUMENT	

The Display Home contains 2 bedrooms, a bathroom and an open kitchen/living/dining room with a front staircase with handrails.

The Display Home involves: -

- Operational Hours (8am to 5pm by Appointment – 7 days per week)
- Staff Numbers – 1 person

The development will include future commercial signage which consists of: -

- Pole - 89 x 89 x 2mm square (single pole)
- Foundation - cemented into ground
- Sign - 2m x 1m rectangle (2mm thickness aluminium)
- Colours - White background, blue writing, with black logo
- Sign draft - “Walk through our display home”, those words will take up majority of sign. “Contact us 0427084927”, will be bottom aligned to left. “Logo”, will be bottom aligned to the right.

The site has direct frontage to a public sealed classified road (**Appendix A**).

Onsite car parking for customers and staff is not considered necessary as the display home will be by appointment only. There is adequate public parking in Coach Street for the parking of 1 staff member and 1 customer parking when viewing the display home (**Appendix A**).

Electricity supply and the provision of water/sewer is not considered to be necessary as the development is for a Display Home only (**Appendix A**).

The prefabricated display home has certification that the structure and future structures comply with the National Construction Code requirements for a habitable dwelling (**Appendix C**).

3. PLANNING CONSIDERATIONS

The proposed development is being determined under the provisions of the *Environmental Planning and Assessment Act 1979* (EP&A Act), subject to determination by Council. Section 3 of this report identifies the statutory planning provisions that apply to the subject site.

3.1 ENVIRONMENTAL PLANNING AND ASSESSMENT ACT 1979

Section 4.15 of the EP&A Act specifies the matters for consideration required for the evaluation of a development application as outlined below. Relevant headings of this report detail the proposed development against the relevant heads of consideration in Section 4.15(1), EP&A Act.

(1) Matters for consideration—general

In determining a development application, a consent authority is to take into consideration such of the following matters as are of relevance to the development the subject of the development application—

(a) the provisions of—

(i) any environmental planning instrument, and

(ii) any proposed instrument that is or has been the subject of public consultation under this Act and that has been notified to the consent authority (unless the Planning Secretary has notified the consent authority that the making of the proposed instrument has been deferred indefinitely or has not been approved), and

(iii) any development control plan, and

(iiia) any planning agreement that has been entered into under section 7.4, or any draft planning agreement that a developer has offered to enter into under section 7.4, and

(iv) the regulations (to the extent that they prescribe matters for the purposes of this paragraph),

(v) (Repealed)

that apply to the land to which the development application relates,

(b) the likely impacts of that development, including environmental impacts on both the natural and built environments, and social and economic impacts in the locality,

(c) the suitability of the site for the development,

(d) any submissions made in accordance with this Act or the regulations,

(e) the public interest.

These matters have been addressed under the relevant headings below.

3.1.1 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(A)(I) - Provision of any Environmental Planning Instrument that apply to the Land

State Environmental Planning Policies

Consideration of the State Environmental Planning Policies that are applicable to the development type and the land has been undertaken.

State Environmental Planning Policy (Industry and Employment) 2021

Chapter 3 Advertising and Signage

3.1 Aims, objectives etc

(1) This Chapter aims—

(a) to ensure that signage (including advertising)—
(i) is compatible with the desired amenity and visual character of an area, and
(ii) provides effective communication in suitable locations, and
(iii) is of high quality design and finish, and
(b) to regulate signage (but not content) under Part 4 of the Act, and
(c) to provide time-limited consents for the display of certain advertisements, and
(d) to regulate the display of advertisements in transport corridors, and
(e) to ensure that public benefits may be derived from advertising in and adjacent to transport corridors.

(2) This Chapter does not regulate the content of signage and does not require consent for a change in the content of signage.

Schedule 5 Assessment criteria

1 Character of the area

- Is the proposal compatible with the existing or desired future character of the area or locality in which it is proposed to be located?
- Is the proposal consistent with a particular theme for outdoor advertising in the area or locality?

Planning Comment: The proposed signage is consistent with existing signage in the locality for commercial uses. Signage in the locality consists of a range of pole or post supported signage.

2 Special areas

- Does the proposal detract from the amenity or visual quality of any environmentally sensitive areas, heritage areas, natural or other conservation areas, open space areas, waterways, rural landscapes or residential areas?

Planning Comment: The proposed signage is located wholly within the subject lot and does not detract from the amenity of any environmentally sensitive area or heritage areas, open space, waterways, rural landscapes or residential area.

3 Views and vistas

- Does the proposal obscure or compromise important views?
- Does the proposal dominate the skyline and reduce the quality of vistas?
- Does the proposal respect the viewing rights of other advertisers?

Planning Comment: The proposed signage is located at the frontage of the site within the front setback, it does not compromise any important views, will not protrude above the skyline and will respect the viewing rights of other advertisers along Coach Street.

4 Streetscape, setting or landscape

- Is the scale, proportion and form of the proposal appropriate for the streetscape, setting or landscape?
- Does the proposal contribute to the visual interest of the streetscape, setting or landscape?
- Does the proposal reduce clutter by rationalising and simplifying existing advertising?
- Does the proposal screen unsightliness?
- Does the proposal protrude above buildings, structures or tree canopies in the area or locality?
- Does the proposal require ongoing vegetation management?

Planning Comment: The proposed signage will be of a scale, proportion and form which is consistent with the streetscape, it will contribute to the visual interest of Coach Street, will reduce clutter and will not protrude above any existing or adjoining buildings. The site is currently maintained lawn and will be continued to be maintained after construction.

5 Site and building

- Is the proposal compatible with the scale, proportion and other characteristics of the site or building, or both, on which the proposed signage is to be located?
- Does the proposal respect important features of the site or building, or both?
- Does the proposal show innovation and imagination in its relationship to the site or building, or both?

Planning Comment: The proposed signage is compatible with the scale, proportion and other characteristics of the site and building, it will be constructed to the south-western corner within the front setback and will not impact on the building or adjoining development.

6 Associated devices and logos with advertisements and advertising structures

- Have any safety devices, platforms, lighting devices or logos been designed as an integral part of the signage or structure on which it is to be displayed?

Planning Comment: The proposed signage will contain a logo (to be designed), it will not contain any lighting devices, platforms or safety devices.

7 Illumination

- Would illumination result in unacceptable glare?
- Would illumination affect safety for pedestrians, vehicles or aircraft?
- Would illumination detract from the amenity of any residence or other form of accommodation?
- Can the intensity of the illumination be adjusted, if necessary?
- Is the illumination subject to a curfew?

Planning Comment: The proposed signage is not illuminated.

8 Safety

- Would the proposal reduce the safety for any public road?
- Would the proposal reduce the safety for pedestrians or bicyclists?
- Would the proposal reduce the safety for pedestrians, particularly children, by obscuring sightlines from public areas?

Planning Comment: The proposed signage will be constructed wholly within the subject lot and will not overhang the existing pedestrian footpath. The signage is not illuminated and will not adversely impact on any public road, pedestrian or vehicles.

State Environmental Planning Policy (Resilience and Hazards) 2021

Chapter 4 Remediation of Land

4.1 Object of this Chapter

(1) The object of this Chapter is to provide for a Statewide planning approach to the remediation of contaminated land.

(2) In particular, this Chapter aims to promote the remediation of contaminated land for the purpose of reducing the risk of harm to human health or any other aspect of the environment—

(a) by specifying when consent is required, and when it is not required, for a remediation work, and
(b) by specifying certain considerations that are relevant in rezoning land and in determining development applications in general and development applications for consent to carry out a remediation work in particular, and
(c) by requiring that a remediation work meet certain standards and notification requirements.

Planning Comment: Historical uses of the site show that the land contains an existing residential dwelling and an old, galvanized iron shed (removed by others). The site is not identified on the NSW EPA or POEO Register as containing any contamination. The proposed use of the site for a Display Home is unlikely to be impacted by previous use of residential.

State Environmental Planning Policy (Sustainable Buildings) 2022

1.3 Aims of Policy

The aims of this Policy are as follows—

(a) to encourage the design and delivery of sustainable buildings,
(b) to ensure consistent assessment of the sustainability of buildings,
(c) to record accurate data about the sustainability of buildings, to enable improvements to be monitored,
(d) to monitor the embodied emissions of materials used in construction of buildings,
(e) to minimise the consumption of energy,
(f) to reduce greenhouse gas emissions,
(g) to minimise the consumption of mains-supplied potable water,
(h) to ensure good thermal performance of buildings.

Planning Comment: Chapter 2 Standards for residential development – BASIX does not apply to the proposed development. A prefabricated dwelling is a type of moveable dwelling, a moveable dwelling is not within the definition of building under the Environmental Planning and Assessment Act 1979, therefore a BASIX certificate is not required for this type of development. (This information was sourced from Planning Circular PS 21-016, dated 2 December 2021). Therefore, this SEPP does not apply to the proposed development.

It is considered that no further investigation is required for this development.

Local Environmental Plans

The Liverpool Plains *Local Environmental Plan 2011* applies to the land. The relevant provisions of the plan have been addressed in **Table 1**.

Table 1 – ***Liverpool Plains Local Environmental Plan 2011***

SECTION	PROVISION	STATEMENT OF COMPLIANCE
PART 1	**Preliminary**	**Noted**
PART 2	**Permitted or Prohibited Development**	**Noted**
2.1	Land use zones.	RU5 Village
2.2	Zoning to which Plan applies.	RU5 Village
2.3	Zone objectives and Land Use Tables **Zone RU5 Village** • *To provide for a range of land uses, services and facilities that are associated with a rural village.* • *To enable development on a scale compatible with the general residential character of village areas and that will not prejudice the viability of established shopping and commercial centres.*	The proposed commercial development is within the RU5 Village zone. Commercial Development is permissible with Consent and the development is consistent with the objectives of the RU5 Village zone.
PART 3	**Exempt and Complying Development**	**Part 3 does not apply.**
PART 4	**Principal Development Standards**	**Part 4 does not apply.**
PART 5	**Miscellaneous Provisions**	**Part 5 does not apply.**
PART 6	**Urban Release Areas**	**Part 6 does not apply.**
PART 7	**Local Provisions**	
7.4	Essential Services *Development consent must not be granted to development unless the consent authority is satisfied that any of the following services that are essential for the proposed development are available or that adequate arrangements have been made to make them available when required—* *(a) the supply of water,* *(b) the supply of electricity,* *(c) the disposal and management of sewage,* *(d) stormwater drainage or on-site conservation,*	The site has existing provision to the following essential services: - • Reticulated water supply – Not considered to be required, display home only. • Supply of electricity – Not considered to be required, display home only. • Sewer disposal (OSMS) – Not considered to be required, display home only. • Stormwater drainage – If required, can comply by installation of a rainwater tank or piped to street frontage. • Access to a public sealed road - Existing

SECTION	PROVISION	STATEMENT OF COMPLIANCE
	(e) suitable road access.	

3.1.2 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(A)(II) - Provisions of any Proposed Instrument that is or has been the Subject of Public Consultation under this Act and that has been Notified by the Consent Authority

Draft State Environmental Plans

There are no draft State Environmental Plans that apply to this development.

Draft Local Environmental Plans

There are no draft Local Environmental Plans that apply to this development.

3.1.3 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(A)(III) - Provision of any Development Control Plan that apply to the Land

Development Control Plans

The *Liverpool Plains Development Control Plan 2012* applies to the land. The relevant development controls of this plan have been addressed in **Table 2**.

Table 2 – ***Liverpool Plains Development Control Plan 2012***

SECTION	DEVELOPMENT CONTROL	STATEMENT OF COMPLIANCE
1	**Introduction**	Noted
2	**Submitting and Application**	Noted
3	**Development Specifications and Standards**	
3.5	Commercial and Retail Development	
3.5.1	Building Setbacks	There are no minimum setbacks specified. Front Setback to Coach Street – 6.2m and 7m Side Setbacks – 4.7m, 5m, 10m and 8.339m Rear Setback – 89.012m

SECTION	DEVELOPMENT CONTROL	STATEMENT OF COMPLIANCE
		Side and Rear Setbacks will meet the BCA requirements.
3.5.2	Building Height	There are no height restrictions specified. The development has a building height of 3.755m (ceiling to ridge). It is unlikely that the development height would have an adverse impact on adjoining development.
3.5.3	Traffic and Access	Coach Street is identified as a Classified Road. There are approximately 3,000 vehicle movements per day through the town at a reduced speed of 60kph. Passing traffic stop at the first fleet gardens, historical church, the pub, saddlery and cafe. Traffic generated by customers viewing the display home will be by appointment only to genuine buyers which will be estimated at 5-6 car movements per week. Traffic impact to the site is considered to be minor traffic generation. The site has an existing gate to Coach Street, pedestrian access to the site only as there is no onsite car-parking part of this application.
3.5.4	Off-street Parking	Off-street parking is negligible as the development is considered to be minor traffic generation. Off-street parking for potentially 2 cars per day (maximum) for up to 1 hour (maximum) viewing time is considered not to create additional public parking. Adequate public parking is available in Coach Street.
3.5.4.1	Economic Development Considerations	Not Applicable
3.5.5	Utilities and Services	Servicing Strategy is not relevant to this development. The Display Home is not required to be connected to essential services.
3.5.6	Design	Appendix B.

SECTION	DEVELOPMENT CONTROL	STATEMENT OF COMPLIANCE
3.5.7	Outdoor Lighting	Outdoor lighting to the commercial premises is not required. Display home times are within daylight times.
3.5.8	Outdoor Signage	Signage is not part of this application.
3.5.9	Post supported verandahs and balconies	Not Applicable
3.5.10	Landscaping	Not Applicable.
3.5.11	Health Consulting Rooms	Not Applicable
4	**General Development Specifications**	
4.1	Other Types of Development Controls	
4.1.1	Development on Flood Affected Land	The site is not identified as flood prone land
4.1.2	Outdoor signage	Signage is not part of this application.
4.1.3	Outdoor Lighting	Outdoor lighting to the commercial premises is not required. Display home times are within daylight times.
4.1.4	Parking	Public parking within Coach Street.
4.1.5	Landscaping	Not Applicable.
4.1.6	Heritage Conservation	Not Applicable - No local, State or Aboriginal heritage items.
4.2	Environmental Controls	
4.2.1	Environmental Effects	
	Traffic	Traffic Impact Assessment not considered to be required. The Development is of a low impact to existing traffic generation.
	Bushfire Prone Land	The site is identified as Bushfire Prone Land Bushfire Threat Assessment (**Appendix D**). Planning for Bushfire Protection 2019 Building Class 7b Under the building classification system within the NCC, Class 5 to 8 buildings include offices, shops, factories, warehouses, public car parks and other commercial and industrial facilities. The NCC does not provide for any bush fire specific performance requirements for

SECTION	DEVELOPMENT CONTROL	STATEMENT OF COMPLIANCE
		these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP. Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning: • to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation; • to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development; • to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and • provide for the storage of hazardous materials away from the hazard wherever possible. The general fire safety construction provisions of the NCC are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.
	Flood Liability	Not Applicable
	Slope	Detail/Contour Survey (**Appendix A**).
	Construction impacts	No Construction Works on this site – Display Home only.
	Solid and Liquid Waste	Not Applicable
	Air Quality (odour and pollution)	Not Applicable
	Noise emissions	Not Applicable
	Water Quality	Not Applicable

SECTION	DEVELOPMENT CONTROL	STATEMENT OF COMPLIANCE
	Sustainability	Not Applicable
4.2.2	Erosion and Sediment Controls	N/A - No excavation works.
4.2.3	Land use buffers	Not Applicable
4.2.4	On-site waste management systems	Not Applicable only a Display home.
4.2.5	Waste Management	Existing kerbside collection
4.2.6	Stormwater management	Stormwater drainage to rainwater tank (if required).
4.2.7	Noise	Noise Mitigation Not Required, display home only. No Construction Works.
4.2.8	Geology	N/A - No excavation works
4.2.9	Vegetation Management & Biodiversity	N/A - Not identified as containing terrestrial and/or non-epi biodiversity lands. Development does not include the removal of any significant vegetation
5	**Development Contributions Plan**	
5.1	Liverpool Plains Development Contributions Plan	Noted.
6	**Site Specific Requirements**	
6.1	Quirindi East Urban Release Area	N/A
6.1.1	Quirindi East Urban Release Area Master Plan	N/A
	Appendices	
A	Flood Prone Land Maps	N/A
B	Road Widening Maps	N/A
C	Parking Schedule	Operational Hours (8am to 5pm by Appointment – 7 days per week) Staff Numbers – 1 person There are no specific parking requirements for the display of prefabricated home or a commercial premises. Parking considered negligible as it is not of high impact.

3.1.4 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(A)(IIIA) - Provisions of any Planning Agreement that has been entered into under Section 7.4, or any Draft Planning Agreement that a Developer has offered to enter into under Section 7.4

To our knowledge there has been no Planning Agreement or Draft Planning Agreement that a Developer has entered or offered to enter into under Section 7.4.

3.1.5 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(A)(IV) - Provisions of the Regulations that apply to the Land

There are no sections of Regulations that apply to the land at the time of this report.

3.1.6 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(B) - The Likely Impact of the Development including Environmental Impacts on both the Natural and Built Environments, and Social and Economic Impacts in the Locality.

Context and Setting

The proposed development for a prefabricated dwelling used for a commercial purpose as a display home is consistent with the village zone's context and setting. Surrounding development is used for a range of village purposes including residential dwellings, commercial uses, education, religious and other village facilities all types of uses associated with a rural village.

Soils and Geology

In accordance with NSW Government Planning Industry and Environment ESPADE the site is within the Quipolly soil landscape.

This soil landscape is limited to 80.3 km2 rolling low hills and hills on Permian-Carboniferous sediments and pyroclastics. Total relief <320m, local relief 40–100 m; elevation 500–950 m; slopes 10–30%; rock outcrop 0–50%. Woodland and open-woodland, 85% cleared.

Soils in this landscape consist of well-drained, very shallow (<15 cm) Clastic and Leptic Rudosols (Lithosols) and Brown Kurosols (minimal Brown Podzolic Soils) occur on crests and sideslopes. Well to moderately well-drained, shallow to deep (35–>100 cm) Brown Chromosols (Non-calcic Brown Soils and Brown Podzolic Soils) occur on sideslopes on coarse-grained conglomerates and sandstones. On finer grained mudstones, volcanic sediments and other volcanic parent materials, welldrained, moderately deep (50 cm) Black Dermosols (Chocolate Soils) occur on crests, and imperfectly to poorly drained, moderately deep to very deep (50–>150 cm) Black Dermosols and Vertosols (Chocolate Soils and Black Earths) occur on mid to lower slopes and drainage lines.

Soil quality is limited to low permeability, hardsetting surface, high organic matter and high shrink-swell. Localised stoniness, sodicity/dispersion, high erodibility, high permeability, salinity and low

plant available waterholding capacity. Engineering hazard and minor erosion hazard. Localised steep slopes, rock outcrop, complex terrain, complex soils, mass movement hazard and shallow soils

The proposed development does not involve any excavation work; therefore, the proposed development is unlikely to have an adverse impact on the soil and geology in the locality.

Earthworks

The development does not include any earthworks.

Hydrology, Flooding and Water Quality

The site is not identified as flood prone land and is not affected by any intermittent or permanent watercourses; therefore, the proposed development is unlikely to have an adverse impact on the hydrology, flooding or water quality in the locality.

Flora and Fauna

A search of the NSW Bionet Atlas did not identify any threatened species of flora and fauna on or within proximity to the subject site. The development for a display home is unlikely to have an adverse impact on the flora and fauna in the locality.

Bushfire

The site is identified as Bushfire Prone Land – Vegetation Buffer and Vegetation Category 1 and 3. The location of the Prefabricated Dwelling Display Home is identified within the area zoned as Vegetation Buffer.

In accordance with the NSW Rural Fire Service Document Planning for Bushfire Protection 2019, the development is Building Class 7b.

Under the building classification system within the NCC, Class 5 to 8 buildings include offices, shops, factories, warehouses, public car parks and other commercial and industrial facilities.

The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP.

Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning:

- to provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation;

- to provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development;

- to provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and

- provide for the storage of hazardous materials away from the hazard wherever possible.

The general fire safety construction provisions of the NCC are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.

A Bushfire Threat Assessment has been submitted with this Development Application. The Bushfire Threat Assessment concluded that: -

In accordance with the provisions of PBP 2019, the recommendations outlined within this assessment will reduce the risk of damage and/or harm in the event of a bushfire event to acceptable levels. Compliance with the below recommendations can be achieved or practically implemented without substantial change to the proposed layout or construction methodology. It is recommendations that development consent be granted subject to the following conditions:

Asset Protection Zones

At the commencement of building works and in perpetuity the property around the proposed development shall be maintained as an inner protection area (IPA) as outlined within Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW RFS document Standards for asset protection zones. to a distance of:

▪ 10 metres on the northern elevation (or to the lot boundary whichever is furthest),

▪ 70 metres on the eastern elevation (or to the lot boundary whichever is furthest),

▪ 7 metres on the western elevation (or to the lot boundary whichever is furthest),

▪ 5 metres on the southern elevation (or to the lot boundary whichever is furthest).

Landscaping

A Landscaping plan is required to illustrate:

▪ Compliance with APZ standards within Appendix 4 of PBP 2019,

▪ If fencing, retaining wall, garden/path edging is within 6m of a building or in areas of BAL-29 or greater shall illustrate constructed of non-combustible materials,

▪ A minimum 1-metre-wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building,

▪ No shrub planting within 6m of the building.

Construction Standards

No specific construction standards are imposed.

Construction and site layout plans

It is recommended that a page within the construction and site layout plans is dedicated to Bushfire Construction standards together with the landscaping plan to ensure bushfire requirements are clearly understood and applied throughout the project and beyond.

Access

The proposed development meets these performance criteria through the acceptable solutions.

Water Supply

10,000Lt static water tank provided in accordance with Table 7.4a of PBP 2019. This includes:

▪ A connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet, ▪ Ball valve and pipes are adequate for water flow and are metal,

▪ Supply pipes from tank to ball valve have the same bore size to ensure flow volume,

▪ Underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank,

▪ A hardened ground surface for truck access is supplied within 4m,

▪ Above-ground tanks are manufactured from concrete or metal,

▪ Raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F AS 3959),

▪ Unobstructed access can always be provided,

▪ Static Water Supplies (SWS) are clearly marked with SWS signage place at the front gate and in location that guide responding fire agencies to the location of the water supply on site (Refer to Appendix),

▪ Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters,

▪ All exposed water pipes external to the building are metal, including any fittings.

Electricity services

Were possible electricity should be placed underground. If overhead power supply is provided, the const authority shall determine vegetation management is in accordance with Energy Australia 'Vegetation Safety Clearances' (NS179, April 2002).

Gas services

No gas services are proposed.

Emergency Management

There are no performance criteria requirements for this type of development within PBP 2019.

Aboriginal and Cultural Heritage

The site is not affected by any local, State or Aboriginal Heritage items or places.

Acoustic

The proposed development for a commercial use as a Display Home is unlikely to cause any negative noise impacts.

Air Quality / Energy / Climate

The proposed development is unlikely to have an adverse impact on the air quality, energy needs or climate in the locality.

Access, Traffic and Transportation

The site has existing access to a public sealed road known as Coach Street. Coach Street forms part of the New England Highway which is a Classified Road.

Traffic generated from this development is considered to be minor.

Wallabadah has approximately 3,000 vehicles pass through the town per day travelling at 60kph.

Visual Characteristics

The proposed Commercial Use of the site for the display of a prefabricated home is unlikely to cause any adverse visual impacts. The site has a minor slope from east to west and the development does not protrude above natural tree lines or ridgelines.

Social / Economic

The proposed development will: -

- Will have a positive impact on the housing availability and affordability in the locality and surrounding areas

Therefore, the proposed development will have a positive social and economic impact on the locality.

Waste Management

The site has an existing kerbside collection. Waste generated from the display of the prefabricated home is limited to minor volumes which will be included in initial kerbside collection.

Cumulative Environmental Impacts

The proposed development is consistent with the relevant planning controls of the Liverpool Plains Local Environmental Plan 2011 and Liverpool Plains Development Control Plan 2012 and is unlikely to cause any adverse cumulative environmental impacts.

3.1.7 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(C) - The Suitability of the Site for the Development

The proposed development is consistent with the context and setting of the site and the adjoining development, it is consistent with the relevant planning controls and standards as well as being consistent with the objectives of the RU5 Village zone. It is considered that on this basis the site is suitable for the proposed development.

3.1.8 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(D) - Any Submissions made in accordance with this Act or the Regulations

The development application will be notified in accordance with the Development Control Plan that applies to the Land and at Council's discretion. Any submissions received will be addressed and any additional information provided to the consent authority to enable the assessment of the application.

3.1.9 Environmental Planning and Assessment Act 1979 Clause:

4.15(1)(E) - The Public Interest

The public interest is best served through the orderly use of the land for purposes which it is zoned and in accordance with Planning Controls and Policies that apply to the Land. The proposed development is consistent with the Planning Controls and Policies, is permissible with consent and complies with the relevant controls and policies governing the land.

3.2 OTHER LEGISLATION

Consideration was afforded to the following legislation:

- Fisheries Management Act 1994
- Threatened Species Conservation Act 1995 and Biodiversity Conservation Act 2016
- Heritage Act 1977
- Coal Mine Subsidence Compensation Act 2017
- Contaminated Land Management Act 1997
- National Parks and Wildlife 1974
- Protection of the Environment Operations Act 1997
- Roads Act 1993
- Rural Fires Act 1997
- Water Management Act 2000

It was considered on review of the abovementioned legislation that the proposed development is not deemed Integrated Development and that no further investigation is required for the proposed development.

It is noted that the site is within Bushfire Prone Land, the development for a Display Home is not considered to be a development under the Rural Fires Act 1997, Clause 100B as being a Subdivision, a residential or rural residential development, and is not a special fire protection purpose, therefore, the development is not required to be referred to the NSW Rural Fire Service and must be constructed in accordance with the National Construction Code (NCC).

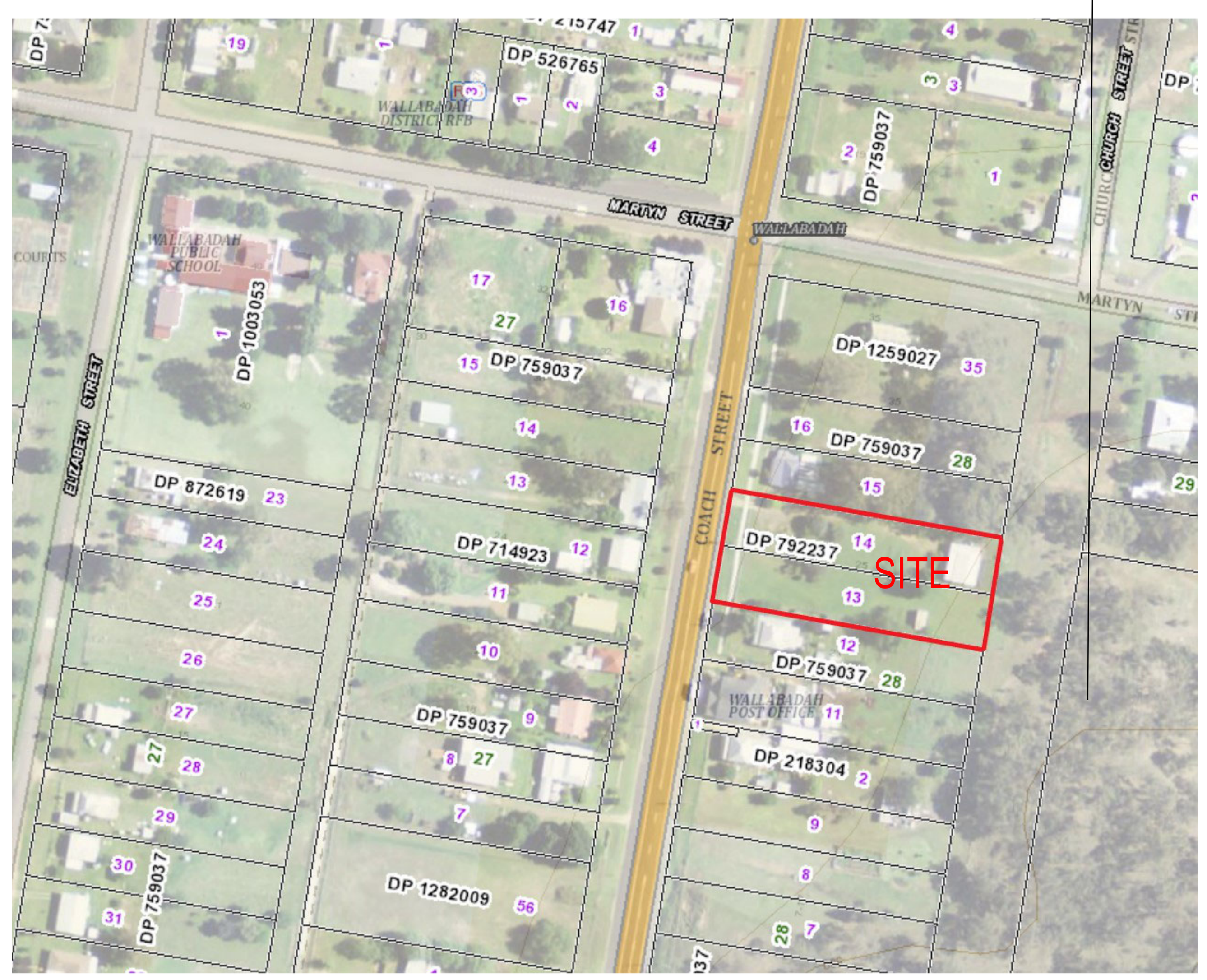
4. CONCLUSION

This report has been prepared to accompany a Development Application to Liverpool Plains Shire Council for a Display Home at 25 Coach Street, Wallabadah.

It is recommended that the proposed development be supported on the following grounds:

- The proposal is considered acceptable in terms of the provisions of Section 4.15 of the Environmental Planning and Assessment Act 1979;
- The proposal is permissible with consent and consistent with the relevant development standards and provisions of the Liverpool Plains Local Environmental Plan 2011;
- The proposal complies with the relevant provisions of the Liverpool Plains Development Control Plan 2012;
- The proposal shall support the continuation of existing uses on the site;
- The proposed development is not anticipated to generate any adverse impacts in the locality; and
- The proposed development is considered suitable for the site and its surrounds.

APPENDIX A – Detail Contour Survey Plan



RAP SURVEYING

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M: 0400 863 950 E: ROSS@RAPSURVEYING.COM.AU W: WWW.RAPSURVEYING.COM.AU

Professional Memberships: Consulting Surveyors NSW; NSW Country Surveyors Association

Client: **CAROLYN ZORZINO**

Project/Site: DETAILED SURVEY OF No.25 COACH STREET, WALLABADAH BEING THE LAND COMPRISED IN LOTS 13 & 14 IN DP 792237

JOB REF:	2024/101
DWG FILE:	24101_DETAIL.dwg
PLAN No.	1
REVISION No.	0
SCALES:	1:150 (A1)
DATE:	18/7/2024 (Surveyed)

REVISION NOTES

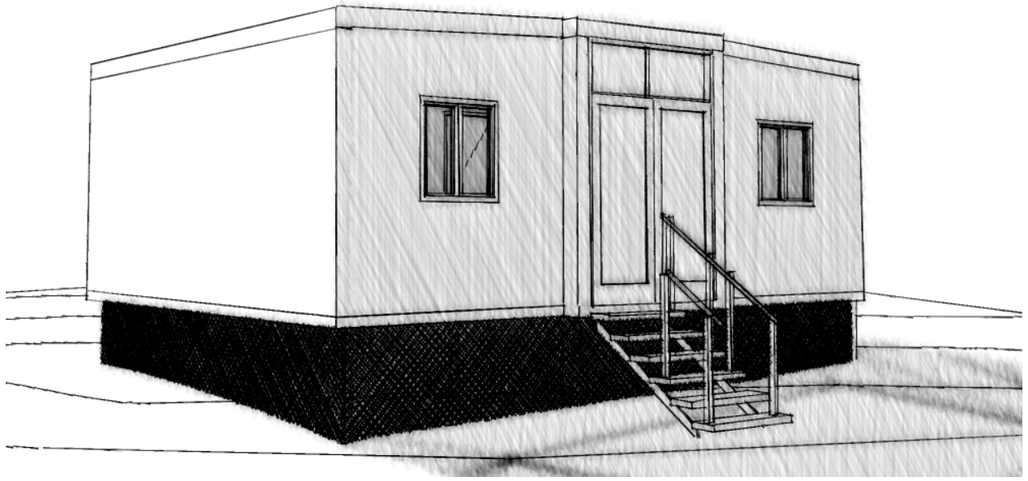
Disclaimer & Important Notes:

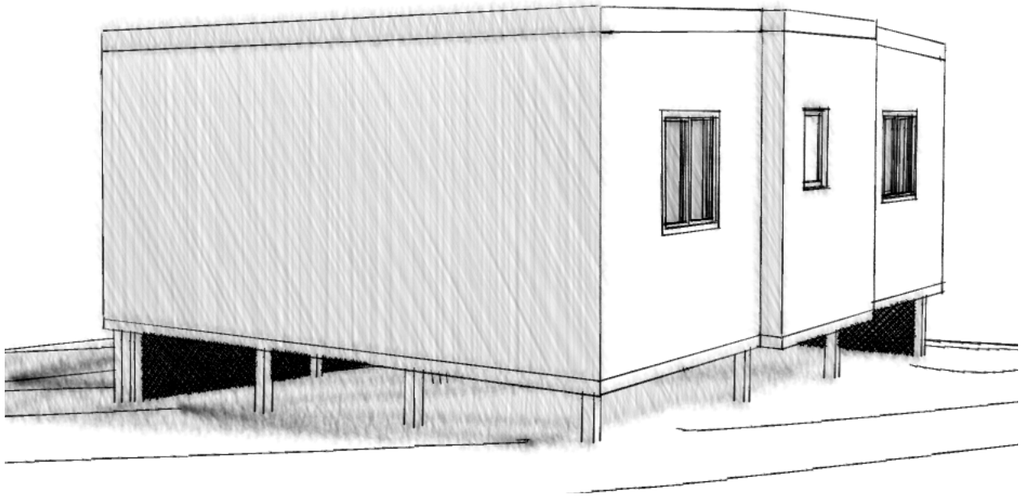
1. This plan and electronic data is for the exclusive use of Carolyn Zorzino. Any matter arising from the use and/or misuse of this plan and electronic data whether in whole or in part by a subsequent party without the written authority of RAP SURVEYING (Author) is not the responsibility of the author. This includes any loss or damage suffered from the subsequent party involved.
2. Reduced levels shown are based on Australian Height Datum [AHD]. Origin thereof is PM31692 [RL.478.030m AHD]
3. Contour interval is 0.1 metres. Unless otherwise stated all dimensions shown are in metres.
4. Title Boundaries have been determined from cadastral marks found from plans on public record
5. No investigation of underground services has been undertaken. If any intended excavation is planned on site it is strongly recommended that an Underground Service Locating Contractor be engaged as well as a Dial Before you Dig search.

SHEET 1 of 1

www.dialbeforeyoudig.com.au DIAL 1100 BEFORE YOU DIG

APPENDIX B – Architectural Plans





EXISTING PREFABRICATED DISPLAY BUILDING

25 COACH STREET, WALLABADAH NSW 2343

EXISTING DWELLING

EXTERNAL FINISHES SCHEDULE			
LOCATION	**MATERIAL**	**COLOUR**	**IMAGE**
WALL CLADDING	CORRUGATED STEEL SHEETING (HORIZONTAL)	ZINCALUME (OR SIMILAR)	
ROOF SHEETING	CORRUGATED STEEL SHEETING	ZINCALUME (OR SIMILAR)	
ENTRY FEATURE CLADDING	STACK STONE TILES	GREY MIX	
GLAZING FRAME	ALUMINIUM	MONUMENT	

FOR APPROVAL

SG BUILDING DESIGN

Drawn	ALISON LU
Project NO.	2403
Project Status	FOR APPROVAL
Approval	DA

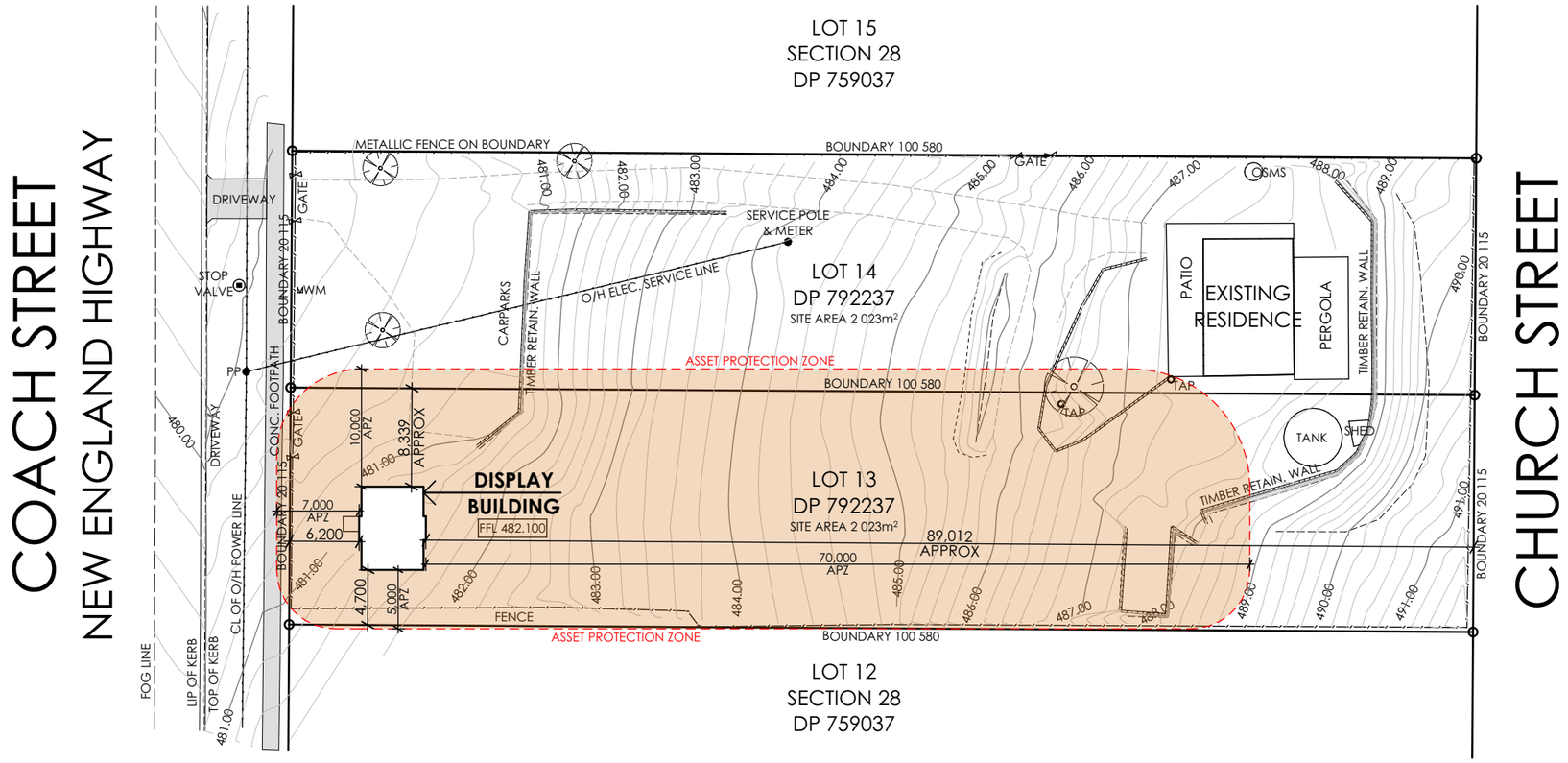
Client OMAR MULLER
Site: 25 COACH STREET WALLABADAH NSW 2343
LOT 13, DP 792237

DRAWING TITLE :
COVER PAGE

PROJECT NAME :
EXISTING PLANS

DRAWING NO. **WD001** REVISION NO. **02**

Plot Date: 21/08/2024



SITE PLAN

SCALE 1:500@A3

FOR APPROVAL

SG BUILDING DESIGN

LEGEND

EX WT	EXISTING WATER TANK
DP	DOWNPIPE
RC	REINFORCED CONCRETE
WM	WATER METER
EX HWU	EXISTING HOT WATER UNIT
EX MSB	EXISTING MAIN SWITCH BOARD
EFFL	EXISTING FINISHED FLOOR LEVEL
EFSL	EXISTING FINISHED SLAB LEVEL
EGL	EXISTING GROUND LEVEL
FGL	FINISHED GROUND LEVEL

N

ALL EXISTING MEASUREMENTS ARE APPROXIMATE ONLY.

NOTE

The Builder shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the building designer. Refer to written dimensions only. Do not scale drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by SG Building Design and is to be used only for work when authorised in writing by SG Building Design.

All boundaries and contours are subject to survey. All levels to Australian Height Data. It is the contractors responsibility to confirm all measurements on site and locations of any services prior to work on site.

Drawn	ALISON LU
Project NO.	2403
Project Status	FOR APPROVAL
Approval	DA

Client OMAR MULLER

Site: 25 COACH STREET WALLABADAH NSW 2343
LOT 13, DP 792237

DRAWING TITLE :

SITE PLAN

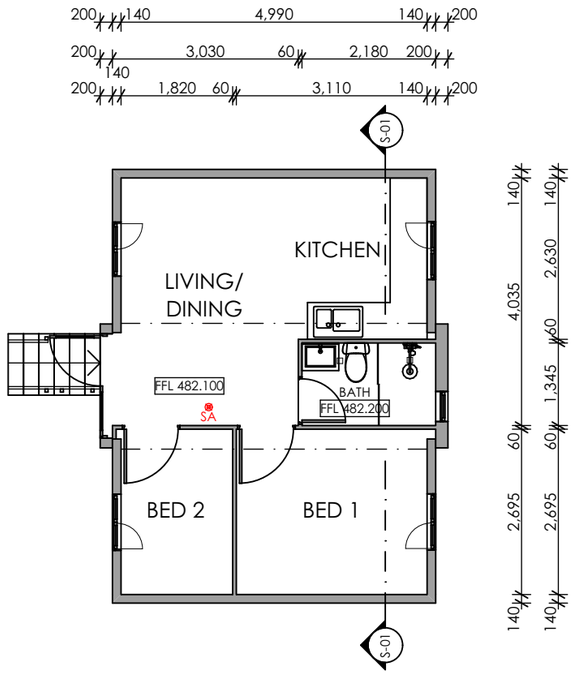
PROJECT NAME :

EXISTING PLANS

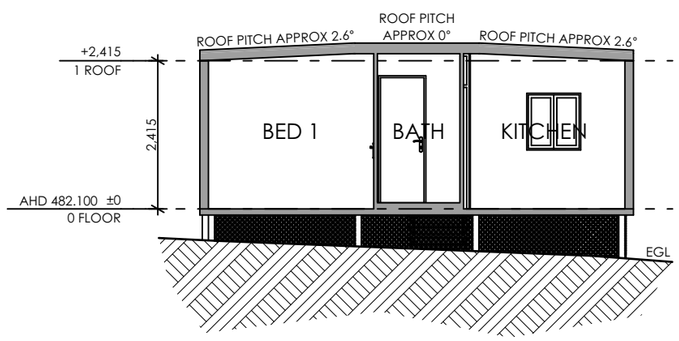
DRAWING NO.	REVISION NO.
WD002	**02**

Plot Date: 21/08/2024

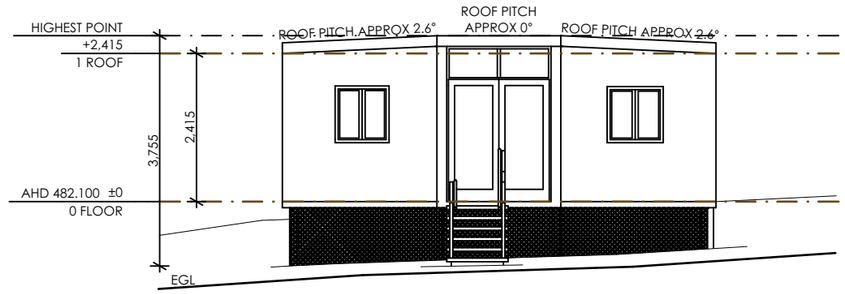
NOTE:
PROVIDE SMOKE ALARM IN ACCORDANCE WITH
PART 9.5.1 OF THE ABCB HOUSING PROVISIONS STANDARD 2022



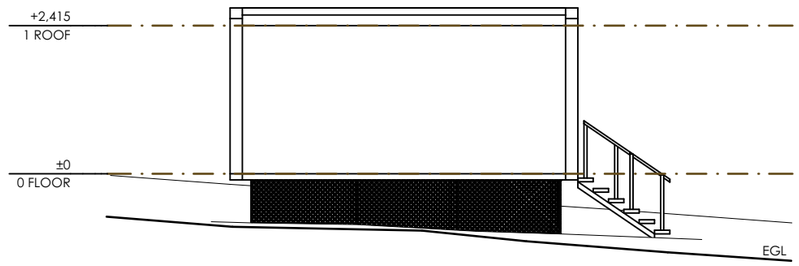
EXISTING FLOOR PLAN
SCALE 1:100@A3



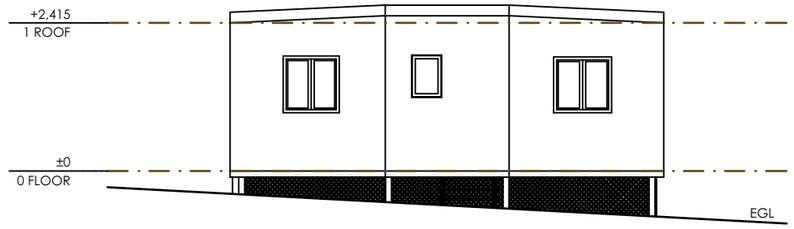
SECTION - 01
SCALE 1:100@A3



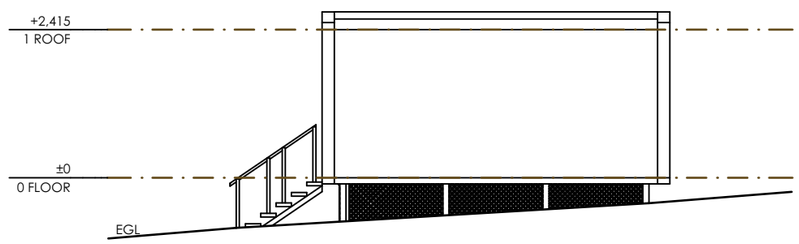
ELEVATION - WEST (STREET FACADE)
SCALE 1:100@A3



ELEVATION - NORTH
SCALE 1:100@A3



ELEVATION - EAST
SCALE 1:100@A3



ELEVATION - SOUTH
SCALE 1:100@A3

FOR APPROVAL

SG BUILDING DESIGN

EXISTING FLOOR AREAS
EXISTING MAIN LIVING 38.1m²

LEGEND

EX WT	EXISTING WATER TANK
DP	DOWNPIPE
SA	SMOKE ALARM
RC	REINFORCED CONCRETE
WM	WATER METER
EX HWU	EXISTING HOT WATER UNIT
EX MSB	EXISTING MAIN SWITCH BOARD
EFFL	EXISTING FINISHED FLOOR LEVEL
EFSL	EXISTING FINISHED SLAB LEVEL
EGL	EXISTING GROUND LEVEL
FGL	FINISHED GROUND LEVEL

N

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Drawn	ALISON LU
Project NO.	2403
Project Status	FOR APPROVAL
Approval	DA

Client	OMAR MULLER
Site:	25 COACH STREET WALLABADAH NSW 2343
	LOT 13, DP 792237

DRAWING TITLE :
FLOOR PLAN, ELEV. & SECTION

PROJECT NAME :
EXISTING PLANS

DRAWING NO. **WD100**
REVISION NO. **02**

Plot Date: 21/08/2024

APPENDIX C – Structural Engineer/BCA

RHM Consulting Engineers

Civil & Structural Consulting Engineers
ABN 82 153 018 800
PO Box 312, Scone NSW 2337
Ph: 02 6545 2800
www.rhmce.com.au

4 October 2024

Job Number: 24-074-2401
Reference: 24-074-2401 2024-10-04

Mr Omar Muller
19 Coach Street
WALLABADAH NSW 2343

Attention: Omar Muller
Email: omarvpt@gmail.com

Dear Omar,

STRUCTURAL CERTIFICATION – MOVEABLE DWELLING LOCATED AT 25 COACH STREET WALLABADAH

Further to your request, RHM Consulting Engineers (RHMCE) has undertaken a structural assessment on the moveable display home located at 25 Coach Street Wallabadah (Lot 13 of DP792237). The purpose of the assessment was to confirm the adequacy of the structure with reference to relevant Australian Standards and building regulations. It is RHMCE's understanding that the Certifying Authority is seeking a Building Certificate for the structure following its installation on site. Refer to architectural drawings provided by SG Building Design "SK001 and SK100 Rev 01" dated 9 June 2024, enclosed within Annexure A.

The assessment of the structure was undertaken following:

1. Inspection of the as-built display home and measurements undertaken on the 22 August 2024 and 27 September 2024.
2. Review of OEM drawings and construction materials.
3. Wind site classification in accordance with AS4055: 2021 and AS1170.2: 2021.

The inspection of the structure revealed the following:

- Dimensions on site reflected the architectural dimensions, with building footprint being approximately 6.3m x 5.9m with approximately 2.4m (min) head-height internally throughout.
- The central portion of the dwelling is a fabricated shipping container construction, with stiffened corrugated roofing. A proposed 50mm insulated panel is to be provided over the top of the central section, and supported off the container via proprietary brackets
- The structure is suspended off the ground via isolated pier footings and cast-in 90 x 90 SHS posts with adjustable head brackets. The posts support 90 x 90 x 2.0 SHS bearers that support the pre-fabricated RHS floor frame. The fold-out floor portions to both sides are fixed via four (4) hinges that connect to the inner container portions, with the fold-out sections bearing onto 90 x 90 SHS contiguous bearer for continuity.
- The fold-out portions of the roofing and wall consist of 70mm thick structural insulated panel with 1mm pressed aluminium sheet front and back. The fold-out walls and roof are fixed together with four (4) hinges per junction and an equal angle trimmer that runs the full length of the walls and roof. The elements are locked in-place with pre-set bored holes and bolts.
- The structure as installed was square and true at the time of the inspection, with fixings (such as screws, hinges and bolts) being engaged

A site wind assessment at the structure confirmed the site as N2 in accordance with AS4055:2021, equivalent to an ultimate wind speed of 40m/s (however adopted 41m/s per Local Government Regulation 461). The site wind parameters adopted for the classification are:

- Region A.
- Terrain Category 2.5 (TC2.5).
- Topographic Class – T0.
    - Approx site RL = 482m.
    - Approx RL of adjacent topographic peak = 537m (SE of Site).
    - Approx RL of adjacent topographic low = 465m (Water Gully – NW of site).
    - Lower Third Zone = L (465m to 489m).
- No Shielding (NS).

Table 2.2 — Site wind classification from wind region and site conditions

Wind region	TC	Topographic classification												
		T0	T0	T0	T1	T1	T1	T2	T2	T2	T3	T3	T4	T5
		FS	PS	NS	FS	PS	NS	FS	PS	NS	PS	NS	NS	NS
A	3	N1	N1	N1	N1	N2	N2	N2	N2	N2	N3	N3	N3	N4
	2.5	N1	N1	N2	N1	N2	N2	N2	N3	N3	N3	N3	N4	N4
	2	N1	N2	N2	N2	N2	N3	N2	N3	N3	N3	N3	N4	N4
	1	N2	N2	N3	N2	N3	N3	N3	N3	N3	N4	N4	N4	N5
B	3	N2	N2	N3	N2	N3	N3	N3	N3	N4	N4	N4	N4	N5
	2.5	N2	N3	N3	N3	N3	N3	N3	N4	N4	N4	N4	N5	N5
	2	N2	N3	N3	N3	N3	N4	N3	N4	N4	N4	N5	N5	N6
	1	N3	N3	N4	N3	N4	N4	N4	N4	N5	N5	N5	N6	N6
C	3	C1 (0-50)	C2 (0-10) C1 (10-50)	C2 (0-20) C1 (20-50)	C2 (0-5) C1 (5-50)	C2 (0-30) C1 (30-50)	C2 (0-40) C1 (40-50)	C2 (0-25) C1 (25-50)	C3 (0-5) C2 (5-50)	C3 (0-20) C2 (20-50)	C3 (0-25) C2 (25-50)	C3 (0-30) C2 (30-50)	C4 (0-10) C3 (10-50)	C4 (0-35) C3 (35-50)
	2.5	C1 (0-50)	C2 (0-25) C1 (25-50)	C2 (0-35) C1 (35-50)	C2 (0-20) C1 (20-50)	C2 (0-40) C1 (40-50)	C3 (0-10) C2 (10-50)	C2 (0-35) C1 (35-50)	C3 (0-20) C2 (20-50)	C3 (0-30) C2 (30-50)	C3 (0-35) C2 (35-50)	C4 (0-5) C3 (5-50)	C4 (0-25) C3 (25-50)	NA (0-15) C4 (15-50)
	2	C2 (0-10) C1 (10-50)	C2 (0-35) C1 (35-50)	C2 (0-45) C1 (45-50)	C2 (0-30) C1 (30-50)	C3 (0-10) C2 (10-50)	C3 (0-25) C2 (25-50)	C3 (0-10) C2 (10-50)	C3 (0-30) C2 (30-50)	C3 (0-40) C2 (40-50)	C4 (0-10) C3 (10-50)	C4 (0-20) C3 (20-50)	NA (0-5) C4 (5-50)	NA (0-25) C4 (25-50)
	1	C2 (0-30) C1 (30-50)	C3 (0-10) C2 (10-50)	C3 (0-25) C2 (25-50)	C3 (0-10) C2 (10-50)	C3 (0-30) C2 (30-50)	C4 (0-5) C3 (5-50)	C3 (0-25) C2 (25-50)	C4 (0-10) C3 (10-50)	C4 (0-20) C3 (20-50)	C4 (0-30) C3 (30-50)	NA (0-5) C4 (5-50)	NA (0-25) C4 (25-50)	NA (0-45) C4 (45-50)

Site Wind Classification of N2 as per AS4055:2021 – 25 Coach Street Wallabadah

The dwelling is not considered to be susceptible to snow loads, as Alpine and Sub-Alpine regions for the Northern Tablelands is at altitudes above 600m. The subject site is at approximately 482m, significantly below the Sub-Alpine region.

A structural assessment on the flooring (to include items such as floor coverings, joists, bearers and posts) was undertaken and concluded the system is adequate to support an applied live load of 1.5kPa. This live load is typically associated with applied loadings for domestic use as per AS1170.1.

Following our assessment, RHMCE confirm that the structural system for the roof, walls, and floor comply with the loading and construction requirements in accordance with the following Australian Standards and construction regulations:

- AS 1170.0: 2002 – Structural Design Actions – General Principles.
- AS 1170.1: 2002 (R2016) – Structural Design Actions – Permanent, imposed & other actions.
- AS 1170.2: 2021 – Structural Design Actions – Wind Actions.
- AS 1170.3: 2003 – Structural Design Actions – Snow and Ice Actions.
- AS 1170.4: 2024 – Structural Design Actions – Earthquake Actions in Australia.
- AS 4100: 2020 – Steel Structures.
- AS 1163: 2016 – Structural Steel Hollow Sections.
- National Construction Code NCC2022.
- Local Government Regulation 2021-461 (Manufactured Home Estates, Caravan parks, Camping Grounds and Moveable Dwellings).

If you have any queries please do not hesitate to contact the undersigned.

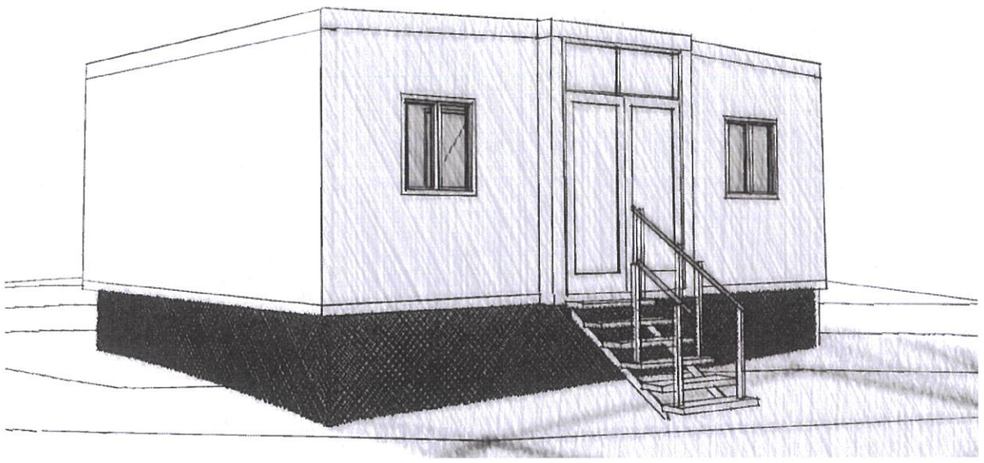
Yours faithfully
On behalf of RHM Consulting Engineers

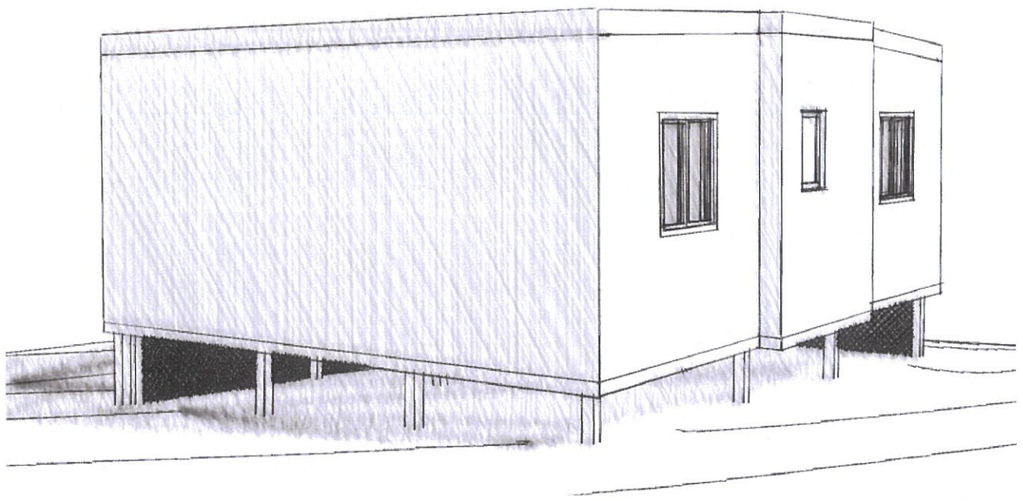
Justin Smart
Design Engineer
MIEAust

Brett Hails
MIEAust, CPEng, NPER
Director – Engineering

ANNEXURE A – Architectural Drawings by SG Building Design

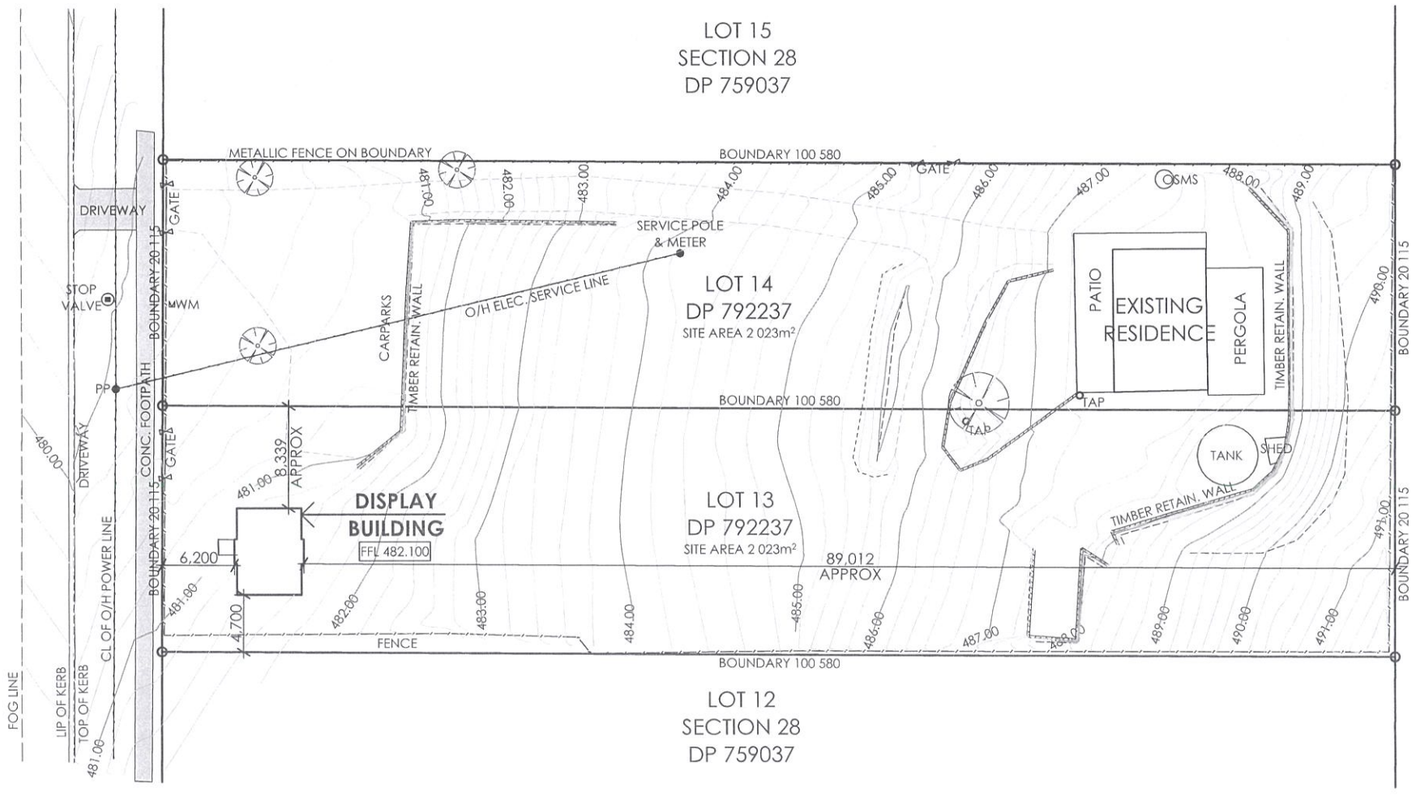
PRELIMINARY





EXISTING PREFABRICATED DISPLAY BUILDING

25 COACH STREET, WALLABADAH NSW 2343



SITE PLAN

SCALE 1:500@A3

SG BUILDING DESIGN

LEGEND

EX WT	EXISTING WATER TANK
DP	DOWNPIPE
RC	REINFORCED CONCRETE
WM	WATER METER
EX HWU	EXISTING HOT WATER UNIT
EX MSB	EXISTING MAIN SWITCH BOARD
EFFL	EXISTING FINISHED FLOOR LEVEL
EFSL	EXISTING FINISHED SLAB LEVEL
EGL	EXISTING GROUND LEVEL
FGL	FINISHED GROUND LEVEL

N

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Drawn	ALISON LU
Project NO.	2403
Project Status	PRELIMINARY
Approval	DA
Client	OMAR MULLER
Site:	25 COACH STREET WALLABADAH NSW 2343 LOT 13, DP 792237

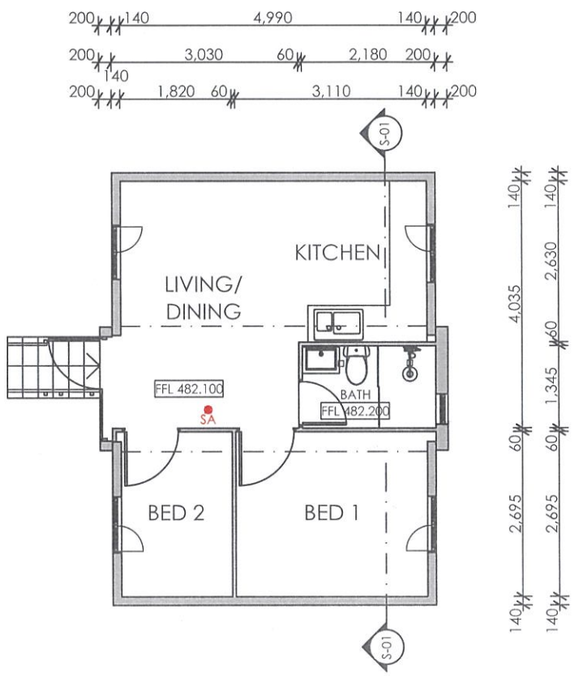
DRAWING TITLE :
SITE PLAN

PROJECT NAME :
EXISTING PLANS

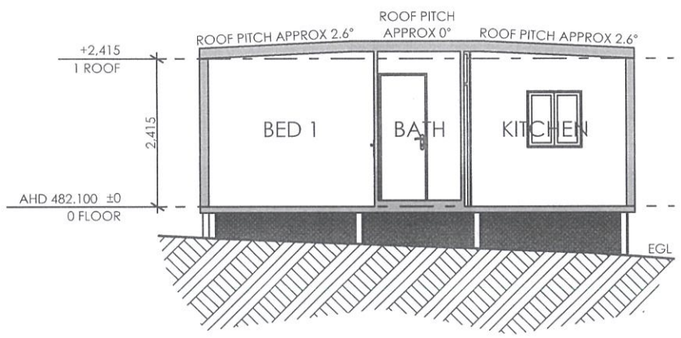
DRAWING NO.	REVISION NO.
SK001	01

Plot Date: 9/08/2024

NOTE:
PROVIDE SMOKE ALARM IN ACCORDANCE WITH
PART 9.5.1 OF THE ABCB HOUSING PROVISIONS STANDARD 2022



EXISTING FLOOR PLAN
SCALE 1:100@A3



SECTION - 01
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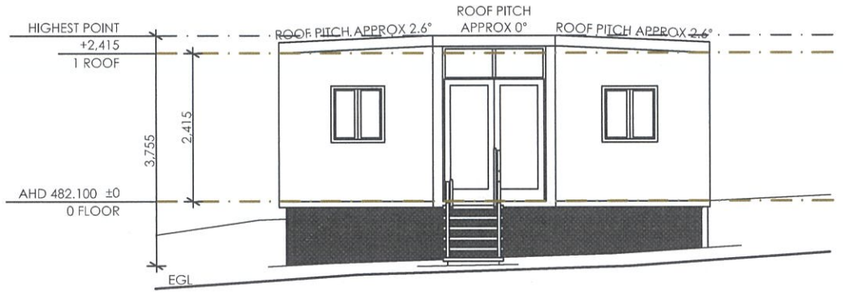

ELEVATION - WEST (STREET FACADE)
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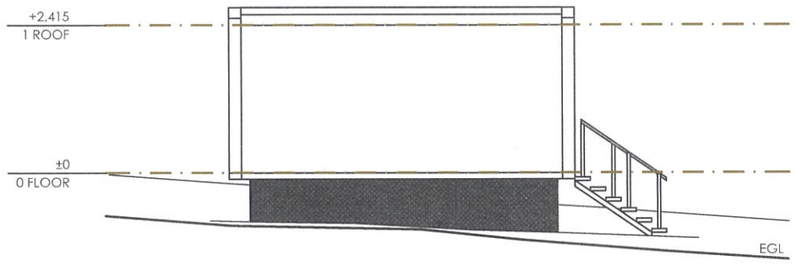
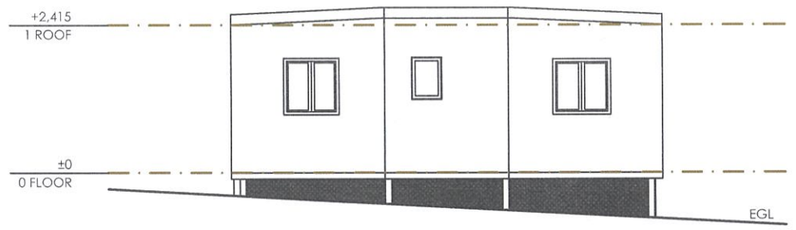
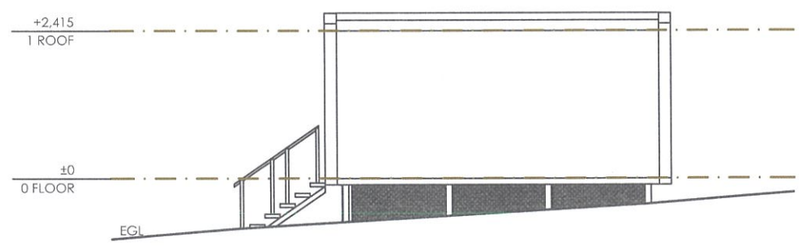


ELEVATION - NORTH
SCALE 1:100@A3



ELEVATION - EAST
SCALE 1:100@A3



ELEVATION - SOUTH
SCALE 1:100@A3

PRELIMINARY

SG BUILDING DESIGN

EXISTING FLOOR AREAS
EXISTING MAIN LIVING 38.1m²

LEGEND

EX WT	EXISTING WATER TANK
DP	DOWNPIPE
SA	SMOKE ALARM
RC	REINFORCED CONCRETE
WM	WATER METER
EX HWU	EXISTING HOT WATER UNIT
EX MSB	EXISTING MAIN SWITCH BOARD
EFFL	EXISTING FINISHED FLOOR LEVEL
EFSL	EXISTING FINISHED SLAB LEVEL
EGL	EXISTING GROUND LEVEL
FGL	FINISHED GROUND LEVEL

N

ALL EXISTING MEASUREMENTS ARE APPROXIMATE ONLY.

NOTE
The Builder shall check all dimensions and levels on site prior to construction. Notify any errors, discrepancies or omissions to the building designer. Refer to written dimensions only. Do not scale drawings. Drawings shall not be used for construction purposes until issued for construction. This drawing reflects a design by SG Building Design and is to be used only for work when authorised in writing by SG Building Design.

All boundaries and contours are subject to survey. All levels to Australian Height Data. It is the contractors responsibility to confirm all measurements on site and locations of any services prior to work on site.

Drawn	ALISON LU
Project NO.	2403
Project Status	PRELIMINARY
Approval	DA

Client	OMAR MULLER
Site:	25 COACH STREET WALLABADAH NSW 2343 LOT 13, DP 792237

DRAWING TITLE :
FLOOR PLAN, ELEV. & SECTION

PROJECT NAME :
EXISTING PLANS

DRAWING NO. **SK100** REVISION NO. **01**

Plot Date: 9/08/2024

APPENDIX D – Bushfire Threat Assessment

BEMC

Bushfire
Environmental
Management
Consultancy

BUSH FIRE ASSESSMENT REPORT

Class 5-8 Buildings - Display home/office
25 Coach Street, Wallabadah, NSW, 2343
Lot 13 / DP 792237

Reference No# : 241915

FPA AUSTRALIA
BRONZE MEMBER
Fire Protection Association Australia

BPAD
Bushfire Planning & Design
Accredited Practitioner
Level 3

Bush Fire Certificate

Certificate issued unders4.14(1)(b) of the *Environmental Planning & Assessment Act, 1979*

This Certificate has been issued by a person accredited by Fire Protection Association Australia (FPA Australia) under the Bush Fire Planning and Design (BPAD) Accreditation Scheme and who is recognised by the NSW Rural Fire Service as a qualified consultant in bushfire risk assessment within the meaning of section 4.14(1)(b) of the *Environmental Planning and Assessment Act 1979* (NSW).

Property Details and Description of Works				
Address Details	**Unit no**	**Street no** 25	**Street name** Coach Street	**Lot/Sec/DP** Lot 13 / DP 792237
	Suburb Wallabadah		**State** NSW	**Postcode** 2343
Local Government Area	Liverpool Plains			
BCA class of the building	Class 5-8			
Description of the proposal	Display home/office			
Development Application Reference	N/A			

Bush Fire Assessment Report	
A detailed Bush Fire Assessment Report is attached, which includes the relevant submission requirements set out in *Appendix* 2 of *Planning for Bush Fire Protection 20*19 together with recommendations as to how the relevant specifications and requirements are to be achieved.	**YES** ☒ **NO** ☐
Report Reference No#	241915
Report Date	01/08/2024

BPAD Certification		
Duncan Scott-Lawson **Bushfire and Environmental Management Consultancy Pty Ltd** **ABN: 606 409 656 44**	I hereby certify, in accordance with Section 4.14(1)(b) of the *Environmental Planning and Assessment Act 1979* that: • I am a person recognised by the NSW Rural Fire Service as a qualified consultant in bush fire risk assessment; and • the development conforms to the relevant specifications and requirements of Planning for Bush Fire Protection 2019 in accordance with section 4.14(1)(b) of the *Environmental Planning and Assessment Act 1979* (NSW).	
BPAD Accreditation Number **# 47789** BPAD Bushfire Planning & Design Accredited Practitioner Level 3	**Signature**	**Date** 01/08/2024

Disclaimer

Please note that every effort has been made to ensure that information provided in this report is accurate. It should be noted that the information is for the client for the specific purpose for which it is supplied, that is to support a DA application. This report is strictly limited to the purpose including the facts and matters stated within it and is not to be used, directly or indirectly, for any other application, purpose, use or matter.

Due consideration has been given to site conditions and to appropriate legislation and documentation available at the time of preparation of the report. As these elements are liable to change over time, the report should be considered current at the time of preparation only. Should further information become available regarding the conditions at the site, BEMC reserves the right to review the report in the context of the additional information. BEMC has made no allowance to update this report and has not considered events occurring after the time its assessment was conducted.

Bushfire and Environmental Management Consultancy (BEMC) Pty Ltd will not be liable in respect of any losses arising out of any event or events beyond our reasonable control. Samantha Jennings or Duncan Scott-Lawson or will not be liable in respect of any business losses, including without limitation, loss of or damage to profits, income, revenue, use, production, anticipated savings, business, contracts, commercial opportunities, or goodwill. Samantha Jennings or Duncan Scott-Lawson will not be liable to you in respect of any special, indirect, or consequential loss or damage.

Title	Bush Fire Assessment Report			
Description	25 Coach Street, Wallabadah, NSW, 2343 - Lot 13 / DP 792237			
Created By	Duncan Scott-Lawson 0408 667 137 duncan@emconsultancy.com.au			
Prepared For	Carolyn Zorzino carolynzed@hotmail.com 0427 084 927			
Version Number	**Modified By**	**Modifications Made**	**Date Modified**	**Status**
1	SJ	Draft	27/07/2024	Draft
2	DSL	Final	01/08/2024	Completed

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Abbreviations and Acronyms

APZ	Asset Protection Zone
AS/NZS 1221:1997	Australian Standard – Fire hose reels
AS1596-2014	Australian Standard – The storage and handling of LP Gas
AS2419-2021	Australian Standard – Fire hydrant installations
AS2441:2005	Australian Standard – Fire hose reels installation
AS3745:2010	Australian Standard – Planning for emergencies in facilities
BAL	Bush fire Attack Level
BCA	Building Code of Australia
BFAR	Bush Fire Assessment Report
BFSS	Bush Fire Strategic Study
BPA	Bush fire Prone Area (Also Bush fire Prone Land)
BPL Map	Bush fire Prone Land Map
BPMs	Bush fire Protection Measures
BV	Biodiversity Values
EP&A Act	*NSW Environmental Planning and Assessment Act 1979*
FFDI	Forest Fire Danger Index
GFDI	Grass Fire Danger Index
ha	Hectare
HOC	Heat Of Combustion
IPA	Inner Protection Area
kJ/kg	Kilo Joules per Kilo gram
LGA	Local Government Area
LAT	Large Air Tanker
OPA	Outer Protection Area
PBP	Planning for Bush fire Protection
RF Act	*Rural Fires Act 1997*
RF Regs	*Rural Fires Regulations 2013*
RHG	Restricted Head Growth
SEED	Sharing and Enabling Environmental Data in NSW
SFR	Short Fire Run

1 EXECUTIVE SUMMARY AND RECOMMENDATIONS

BEMC Pty Ltd was engaged by Carolyn Zorzino to complete a Bush Fire Assessment on the proposed Class 5 development at 25 Coach Street, Wallabadah, NSW, 2343 - Lot 13 / DP 792237 **(Figure 1, page 6).** The proposed development includes of show/display home which is unoccupied and will be used for as an office for professional or commercial purposes.

BEMC has used Method 1 assessment pathway from PBP to undertake this assessment and to prepare the Bush Fire Assessment Report (BFAR).

Based upon the assessment, perusal of the site plan prepared by RAP Surveying **(Appendix 1, page 22)**, and a site visit, it is recommended that development consent be granted subject to the following conditions to comply with PBP 2019:

Recommendation 1 - Asset Protection Zones
At the commencement of building works and in perpetuity the property around the proposed development shall be maintained as an inner protection area (IPA) as outlined within Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW RFS document Standards for asset protection zones. to a distance of:

- 10 metres on the northern elevation (or to the lot boundary whichever is furthest),
- 70 metres on the eastern elevation (or to the lot boundary whichever is furthest),
- 7 metres on the western elevation (or to the lot boundary whichever is furthest),
- 5 metres on the southern elevation (or to the lot boundary whichever is furthest).

Recommendation 2 - Landscaping
A Landscaping plan is required to illustrate:

- Compliance with APZ standards within Appendix 4 of PBP 2019,
- If fencing, retaining wall, garden/path edging is within 6m of a building or in areas of BAL-29 or greater shall illustrate constructed of non-combustible materials,
- A minimum 1-metre-wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building,
- No shrub planting within 6m of the building.

Recommendation 3 - Construction Standards
No specific construction standards are imposed.

Recommendation 4 - Water Supply
>10,000Lt static water tank is provided. This static water supply shall meet the following provisions in accordance with Table 7.4a of PBP 2019:

- A connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet,
- Ball valve and pipes are adequate for water flow and are metal,
- Supply pipes from tank to ball valve have the same bore size to ensure flow volume,
- Underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank,
- A hardened ground surface for truck access is supplied within 4m,
- Above-ground tanks are manufactured from concrete or metal,
- Raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F AS 3959),
- Unobstructed access can always be provided,

- Static Water Supplies (SWS) are clearly marked with SWS signage place at the front gate and in location that guide responding fire agencies to the location of the water supply on site (Refer to Appendix),
- Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters,
- All exposed water pipes external to the building are metal, including any fittings.

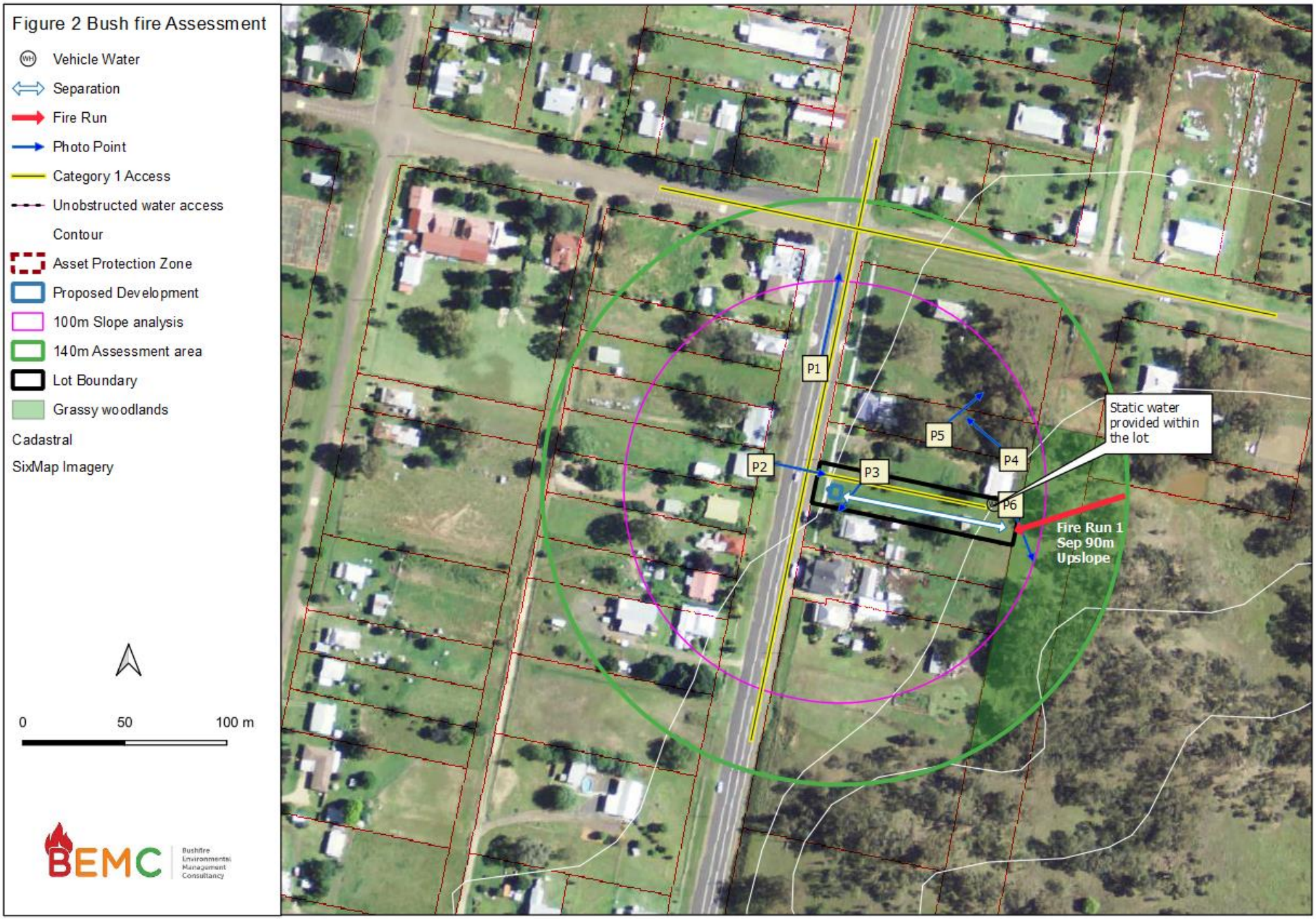
Recommendation 5 - Electricity services
Were possible electricity should be placed underground.

If overhead power supply is provided, the const authority shall determine vegetation management is in accordance with Energy Australia 'Vegetation Safety Clearances' (NS179, April 2002).

Finally, the implementation of the adopted measures and recommendations forwarded within this report comply with Planning for Bush fire Protection (2019) and will contribute to the amelioration of the potential impact of any bush fire upon the development, but they do not and cannot guarantee that the area will not be affected by bush fire at some time.

Figure 1 *Property location of 25 Coach Street, Wallabadah, NSW, 2343 - Lot 14 / DP 792237 (Mecone Mosaic, 2024)*

Figure 2 Bush fire Assessment



2 INTRODUCTION

BEMC Pty Ltd was engaged by Carolyn Zorzino to complete a bush fire assessment to accompany a Development Application for the Class 5 development at 25 Coach Street, Wallabadah, NSW, 2343 - Lot 13 / DP 792237, hereafter referred to as the 'site' (**Figure 1, page 6**).

The identification of bush fire prone lands (BPL Map) in NSW is required under section 10.3 of the Environment Planning and Assessment Act 1979 (EP&A Act). Section 4.14 of the EP&A Act requires developments to comply with NSW Rural Fire Service, Planning for Bush fire Protection (PBP 2019) if any part of a development site is affected by a bush fire hazard as indicated within the BPL Map.

This development falls within the Bush Fire Vegetation Buffer zone on the Mid Coast Council bush fire prone land map which triggers development assessment provisions under 4.14 of the EP&A Act and compliance with PBP 2019. The consent authority may consult with the RFS under section 4.15 of the EP&A Act for development in bush fire prone lands.

The bush fire requirements of non-occupied developments need to align with the unique features of the development type. The general fire safety construction provisions of the NCC are taken as acceptable solutions however construction requirements for bush fire protection will need to be considered on a case-by-case basis.

It is important to ensure that a defendable space is provided for the size and scale of the development. Proposed measures must operate in combination to minimise the impact of bush fire and ensure that access and services are adequate.

It is clear from the investigation and assessment of the property that the site is located within Bush fire Prone Land.

The Site Plan for the property prepared by RAP Surveying is provided in **Appendix 1, page 22.**

2.1 DESCRIPTION OF PROPOSED DEVELOPMENT

Table 1 *Description of Proposed development*

Boundaries	Existing buildings north, south and west, Coach Street west, sporadic forest vegetation and unmanaged grasslands east.
Topography	Upslope east, downslope west.
Type of development	Class 5
Roof construction	TBC
External wall construction	TBC
Landscaping plan provided	No
Bush fire Prone Land	Yes – Liverpool Plains – FFDI – 80

The proposed development comprises of show/display home which is unoccupied and will be used for as an office for professional or commercial purposes.

The proposed location of the development is provided in **Figure 1, page 6** with further development details provided in **Appendix 1, page 22**.

2.2 Objectives of Assessment

This assessment has been undertaken to enable council to make determination of the proposed development in consideration of the requirements of s4.14 of the Environmental Planning and Assessment Act 1979, PBP 2019 and AS 3959-2018.

In order to comply the following conditions must be met:

- satisfy the aim and objectives of PBP outlined in Chapter 1 of PBP;
- Consider any issues listed for the specific purpose for the development set out in this chapter; and
- Propose an appropriate combination of BPMs.

This report assesses to requirements of the development to meet the six objectives listed in section 1.1 of PBP 2019, which provide for the protection of human life and minimize impacts on property.

- Afford buildings and their occupants protection from exposure to a bushfire.
- Provide for a defendable space to be located around buildings.
- Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings.
- Ensure appropriate operation access and egress for emergency services personnel and residents is available.
- Provide for ongoing management and maintenance of Bush fire Protection Measures (BPMs); and
- Ensure the utility services are adequate to meet the needs of firefighters.

2.3 National Construction Code

The National Construction Code (NCC) is the updated version of the Building Code of Australia (BCA). The proposed building is a building Class 5 in accordance with the NCC.

NSW G5P1 Bushfire resistance of the NCC outlines the requirements for buildings in designated bushfire prone areas. Part G5 states that a building must be designed and constructed to:

- Reduce the risk of ignition from a design bushfire with an annual exceedance probability not more than 1:100 years, or 1:200 years for a Class 9 building; and
- Take account of the assessed duration and intensity of the fire actions of the design bushfire: and
- Prevent internal ignition of the building and its contents; and
- Maintain the structural integrity of the building for the duration of the design bushfire.

2.4 Specific Objectives of Other Developments

Whilst bush fire is not captured in the NCC for Class 5-8 buildings, the following objectives will be applied in relation to access, water supply and services, and emergency and evacuation planning:

- To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation.
- To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development.
- To provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building; and
- Provide for the storage of hazardous materials away from the hazard wherever possible.

3 BUSH FIRE RISK STRATEGIC STUDY

Planning for Bushfire Protection (2019) is based on the worst-case scenarios for each of the bush fire behaviour elements of fire weather, vegetation, slope and assumes not human intervention. All development shall be assessed on an individual basis as broad-brush approaches of documents such as PBP 2019 may not be applicable in every instance.

A Bush Fire Risk Strategic Study (BFRSS) was prepared to inform the context of the Bush Fire Assessment Report (BFAR). The level of information gathered and analysis within the BFRSS depends upon the nature and scale of the development. The BFRSS provides a broad-brush approach to determine landscape wildfire risk in considerations of vegetation continuity, distribution, and proximity to development; human intervention; access and evacuation. This enables an assessment the *actual* bushfire risk, determine if strict adherence to PBP 2019 is warranted, and if a proposed development is appropriate in the bush fire hazard context.

Table 2 *Bush fire risk strategic study*

ELEMENT	Low Threat		Moderate Threat		High Threat		Extreme Threat	
Adjoining Lands	The proposed development and changing land use will have positive impacts on the ability of adjoining landowners to implement Bush fire Protection Measures		The proposed development and changing land use do not impact on the ability of adjoining landowners to implement Bush fire Protection Measures	√	The proposed development and changing land use will impact on the ability of adjoining landowners to implement Bush fire Protection Measures		The proposed development will significantly impact on the wildfire risk profile of adjoining lands.	
Surrounding infrastructure	The proposed development does not significantly impact on community water, electricity, or gas services.		The proposed development is associated with community water, electricity, or gas services but will not have significant impact.	√	The proposed development impact on community water, electricity, or gas services.		The wildfire risk profile of significant infrastructure will increase due to this development.	
Emergency services	The proposed development does not significantly impact on the ability of emergency services to plan, prepare, respond, or recover prior, during or after a bush fire event.		The proposed development is located within 30-minute flight from a Large Air Tanker (LAT) airbase and within 30-minutes of multiple fire response units.	√	The proposed development is located more than 30-minute flight from a Large Air Tanker (LAT) airbase and only 1 or 2 fire response units within 30-minutes.		It is unlikely emergency services will respond to wildfire in this location during extreme and catastrophic events.	

ELEMENT	Low Threat		Moderate Threat		High Threat		Extreme Threat	
Access	Good, multiple route evacuation is possible and connects with the public road network in a direction away from the wildfire threat to shelter location.		More than one access or egress routes is provided from the property to a safer location which then can access the public road network with multiple access/egress routes o shelter location.	√	One access or egress routes is provided, which is <200m from the property to a safer location.		Only one access or egress route with no nearby safe location.	
Emergency egress	Seamless integration with existing settlement - no effect on evacuation.		Short bushland pinch points that may restrict access temporarily or carry fire across roads. Unlikely impact on evacuation.	√	Pinch points that are likely to restrict access along evacuation routes for short periods (15-30mins) and carry fire across roads.		Large areas of bushland or multiple pinch points along evacuation routes that could block evacuation routes for an extended time.	
Vegetation continuity	Forested vegetation beyond 140m form the site is scattered with low continuity due to built development.		Forested vegetation beyond 140m form the site is scattered and isolated, forming a dominate fast moving grassland or open woodland fire event.	√	Patches of forested vegetation associated riparian and isolated ridgelines beyond 140m from the site may result in localised forest fire event.		Continuous forested areas within mountainous terrain beyond 140m from the site will result in broadscale landscape emergency management operations.	
Vegetation connectiveness	Forested vegetation corridors beyond 140m are restricted and do not enable landscape fire to enter and move through the site by a continuous fire path.		Forested vegetation corridors beyond 140m from the site exist, although grasslands >100m provide separations between forested vegetation restricting the fire head progression of landscape fire.		Forested vegetation corridors beyond 140m from the site exist, although grasslands <100m provide separations between forested vegetation restricting the fire head progression of landscape fire.	√	Forested vegetation corridors beyond 140m from the site provide for passage of landscape fire to enter and move through the site.	
Vegetation Location	Wildfire within forests can only approach from one direction surrounded by a suburban, township or urban area managed in a minimum fuel condition.	√	Wildfire within forests can only approach from two directions and the site is within a suburban, township or urban area managed in a minimum fuel condition.		Wildfire within forests can approach from several directions although gaps within forested vegetation or are present.		Wildfire within forests can approach from several directions and have hours or days to grow and develop before impacting and/or site is surrounded by unmanaged vegetation.	
Separation	Hazard separation between forested hazard and buildings of greater than 100m.		Hazard separation between forested hazard and buildings of 50-100m		Hazard separation between forested hazard and buildings of 30-50m		Hazard separation between forested hazard and buildings of <30m	√

ELEMENT	Low Threat		Moderate Threat		High Threat		Extreme Threat	
Vegetation flammability	Within the dominated fire direction, the fire fuel is restricted to surface, partially managed and separated through land use practises.		Within the dominated fire direction, the fire fuel is highly aerated, with significant separations (>50m) between these patches with partially managed vegetation between.		Within the dominated fire direction, the fire fuel is highly aerated, with <50m between these patches with partially managed vegetation between	√	Within the dominated fire direction, the fire fuel is highly aerated, continuous continuity vertically and horizontally with flammable species.	
Wildfire Behaviour	Extreme Wildfire behaviour at the site is not possible given the broader landscape.		Extreme Wildfire behaviour at the site is unlikely given the broader landscape.	√	Extreme Wildfire behaviour at the site is likely given the broader landscape.		Extreme Wildfire behaviour at the site is very likely given the broader landscape.	
Overall Threat Rating:			Wildfire provides **MODERATE** threat to this proposal	√				

In this case, a **moderate** threat has been determined and strict compliance with PBP is not warranted due to:

- More than one access or egress routes is provided from the property to a safer location which then can access the public road network with multiple access/egress routes o shelter location.
- Forested vegetation beyond 140m form the site is scattered and isolated, forming a dominate fast moving grassland or open woodland fire event.
- Extreme Wildfire behaviour at the site is unlikely given the broader landscape.

4 BUSHFIRE HAZARD ASSESSMENT

This section details the site assessment methodology. It provides detailed analysis of the bushfire threat and bushfire planning requirements in and around the proposed site.

4.1 ASSESSMENT METHODOLOGY

The assessment of the vegetation, slope and other bushfire characteristics within and surrounding the site has been carried out with the aid of the follows:

- Nearmap and sixmap aerial photograph Interpretation.
- Kogan 6*25 Laser distance finder.
- Photo Theodolite application supported by contour and terrain profiles.
- Sharing and Enabling NSW Environmental Data portal.
- Reference to regional vegetation community mapping, and
- Site assessment in August 2024.

4.2 FIRE DANGER INDEX

This assessment utilises Liverpool Plains Council area with a FFDI 80.

4.3 BAL ASSESSMENT

A simplified Method 1 assessment in accordance with Appendix 1 of PBP 2019 has been completed. The output of this assessment is provided in **Table 3** and illustrated in **Figure 2, page 7.**

Table 3 *BAL Assessment (Method 1 PBP 2019)*

Elements	Method (unit)	Fire Run 1
Vegetation	PBP 2019	Grassy woodlands
Provided separation	Site -Laser finder (m)	90m
Effective slope	Site visit – Theodolite (°)	Upslope
Fire Danger Index (FFDI)	Council Area	80
OUTPUTS (Table A1.12.6)		
BAL FZ		<6m
Separation to Achieve BAL40		6 - <8m
Separation to Achieve BAL29		8 - < 12m
Separation to Achieve BAL19		12 - < 17m
Separation to Achieve BAL12.5		17 - < 100m

4.4 Asset protection Zone

An APZ is a buffer zone between a bush fire hazard and buildings. The APZ is managed to minimise fuel loads and reduce potential radiant heat levels, flame, localised smoke and ember attack. The appropriate APZ distance is based on vegetation type, slope and the nature of the development.

For this proposed development the entire lot shall be managed to APZ standards.

4.5 Landscaping

A combination of hard (materials) and soft (design) landscaping will benefit the survivability of a building during a bushfire event. The type, quantity and condition of fuel has a very important effect on bushfire behaviour in proximity to a building.

For this proposed development the following landscaping requirements are applied:

- Compliance with APZ standards within Appendix 4 of PBP 2019,
- If fencing, retaining wall, garden/path edging is within 6m of a building or in areas of BAL-29 or greater shall illustrate constructed of non-combustible materials,
- A minimum 1-metre-wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building,
- No shrub planting within 6m of the building.

4.6 Access

Design of access roads shall enable safe access and egress for residents attempting to leave the area while emergency service personnel are arriving to undertake firefighting operations.

For this proposed development meets acceptable solutions for access.

4.7 Electricity

Electricity should be located so as not to contribute to the risk of fire or impede the firefighting effort.

For this proposed development overhead powerline supply is provided. Providing underground power supply throughout the lot will support meeting the aims and objectives of PBP and mitigating bush fire risk bush fire risk.

4.8 Gas

Gas should be located so as not to contribute to the risk of fire or impede the firefighting effort.

For this proposed development gas bottles are not proposed.

4.9 Water

An adequate supply of water is essential for firefighting purposes.

For this proposed development a static water supply feed by the roof of the shed will support meeting the aims and objectives of PBP and mitigating bush fire risk bush fire risk.

4.10 Construction Standards

The NCC does not provide for any bush fire specific performance requirements for these particular classes of buildings. As such AS 3959 and the NASH Standard are not considered as a set of Deemed to Satisfy

provisions, however compliance with AS 3959 and the NASH Standard must be considered when meeting the aims and objectives of PBP.

Due to the separations to vegetation, ample access, water provisions, placement, or absence of hazardous materials (gas and electricity), no near-by structures the proposal mitigates fire risk and no specific construction standards are imposed.

4.11 HAZARDOUS INDUSTRY

Some developments are considered by their very nature to be hazardous, as much for their ability to start bush fires as their susceptibility to bush fire impacts.

The proposed development is not considered hazardous industry.

4.12 FM GLOBAL PROPERTY LOSS PREVENTION DATA SHEETS

FM Global Property Loss Prevention Data Sheets provide standards help you reduce the chance of property loss due to fire, weather conditions, and failure of electrical or mechanical equipment, which can be applied to bush fire risk mitigation.

Data Sheet 9-19, Wildland Fire has been reviewed with the following recommendations incorporated into this risk analysis:

- Strips of vegetation less than 20 m wide perpendicular to the exposed building wall and not within 20 m of the building or other vegetation is not considered a bushfire threat (such as perimeter screening vegetation).
- Apply construction schedules to protect built assets from direct flame, radiant heat and embers.
- Remove all combustible elements (vegetation, wooden fencing and landscaping) within 1.5m of the built asset.
- If the level of radiant heat is higher than 12.5 kW/m^2 for combustible wall construction (timber), or higher than 30 kW/m2 (rounded up from 27 kW/m2 in FM Global Property Loss Prevention Data Sheet 1-20 for this application only) for non-combustible exposed wall construction, then the wildland fire exposure exceeds the passive protection of the exposed building. If the wildland fire exposure exceeds the passive protection further works are required, such as increasing the reduced-fuel zone (APZ); upgrading the construction materials or providing and adequately designed exterior sprinkler systems.
- Avoid combustible yard storage.

Data Sheet 1-20, Protection Against Exterior Fire Exposure has been reviewed with the following recommendations incorporated into this risk analysis:

- The type, height and bulk of yard storage needs to be considered for the separations to buildings.
- Loaded trailers are considered yard storage.
- Provide > 10 m horizontally between combustible yard storage and building air intakes or exhaust vents.
- The location of hydrants needs to be considered in consecutively with yard storage plans.
- Locate dumpsters > 9m from building if opening (windows and doors) in exposed wall and wall has a < 1-hr fire rated.
- Provide a water supply capable of providing a minimum duration of 60 minutes to a specific application design within automatic-type sprinklers, water-spray nozzles, corrosion-resistant pipe and fittings and various other requirements.
-

Data Sheet 3-29, Reliability of Fire Protection Water Supplies

FM Global client loss history in sprinklered buildings shows that lack of adequate valve supervision, impairment handling, and lack of adequate testing and maintenance cause approximately 80% of sprinkler system failures. A further 16% of sprinkler system failures are attributed to prematurely shutting off the sprinkler system during a fire event. There is almost no history of uncontrolled fire losses at adequately sprinklered properties where a single water supply exists that is properly designed, installed, maintained, and tested. For this reason, FM Global recommends a single adequate and reliable fire protection water supply. Additional considerations, such as facility size/value, business continuity, occupancy, arrangement and condition of water supply and geographic location may drive the need for higher levels of reliability and water supply duplication.

Data Sheet *Understanding the Hazard: Wildland Fire Exposure (P0414)* has been reviewed with the following recommendations incorporated into this risk analysis:

- Keep gutter free of debris.
- Cover vents with wire mesh to keep burning embers out.
- Treat wooden exterior walls with fire retardant paint.
- Remove all combustible yard storage.
- Develop written contingency plans.
- Fully trained and equip emergency response team where required.
- Create clearance zones around buildings and structures.
- Protect windows and frames with shutters.
- Consider protecting ay combustible exteriors walls with sprinklers.
- Provide adequate an reliable water supply.

5 BUSHFIRE ASSESSMENT AND PERFORMANCE MEASURES

This section assesses Bushfire Performance Measures (BPMs) for the proposed development at 25 Coach Street, Wallabadah, NSW, 2343 - Lot 13 / DP 792237 in consideration of the aims and objectives and Chapter 8 of Planning for Bushfire protection 2019

Table 4 *Planning for bushfire protection compliance (PBP 2019)*
Section 8.3.1 – Buildings of Class 5 to 8 under NCC on bushfire prone lands

	PERFORMANCE CRITERIA	COMPLIANCE for 25 Coach Street, Wallabadah, NSW, 2343 - Lot 14 / DP 792237
Aims and Objectives of PBP	Afford buildings and their occupants protection from exposure to a bush fire	• APZ and landscaping standards applied. • Staff will be able to evacuate to Coach Road with alternate escape routes.
	Provide for a defendable space to be located around buildings	• APZ and landscaping standards applied. • No shrub vegetation within 6m of building with static water supply.
	Provide appropriate separation between a hazard and buildings which, in combination with other measures, prevent the likely fire spread to buildings	• APZ and landscaping standards applied. • No shrub vegetation within 6m of building with static water supply. • Access provided directly from Coach Road.
	Ensure that appropriate operational access and egress for emergency service personnel and occupants is available	• Access provided directly from Coach Road. • Staff will be able to evacuate to Coach Road with alternate escape routes.
	Provide for ongoing management and maintenance of BPMs	• APZ and landscaping standards applied to me manage into perpetuity, o for as long as the building remains on site.
	Ensure that utility services are adequate to meet the needs of firefighters	• Static water supplies provided within 70m of furthest elevation of building. • Access provided directly from Coach Road.
Specific Objective off Class 5-8 Buildings	To provide safe access to/from the public road system for firefighters providing property protection during a bush fire and for occupant egress for evacuation	• Staff will be able to evacuate to Coach Road with alternate escape routes.
	To provide suitable emergency and evacuation (and relocation) arrangements for occupants of the development	• Staff will be able to evacuate to Coach Road with alternate escape routes.
	To provide adequate services of water for the protection of buildings during and after the passage of bush fire, and to locate gas and	• Static water supplies provided within 70m of furthest elevation of building. • Gas bottles not proposed. • Electricity to be underground where practical.

	electricity so as not to contribute to the risk of fire to a building	
	Provide for the storage of hazardous materials away from the hazard wherever possible	• Proposal is not considered hazardous.

6 CONCLUSION AND RECOMMENDATIONS

In accordance with the provisions of PBP 2019, the recommendations outlined within this assessment will reduce the risk of damage and/or harm in the event of a bushfire event to acceptable levels. Compliance with the below recommendations can be achieved or practically implemented without substantial change to the proposed layout or construction methodology. It is recommendations that development consent be granted subject to the following conditions:

Asset Protection Zones

At the commencement of building works and in perpetuity the property around the proposed development shall be maintained as an inner protection area (IPA) as outlined within Appendix 4 of Planning for Bush Fire Protection 2019 and the NSW RFS document Standards for asset protection zones. to a distance of:

- 10 metres on the northern elevation (or to the lot boundary whichever is furthest),
- 70 metres on the eastern elevation (or to the lot boundary whichever is furthest),
- 7 metres on the western elevation (or to the lot boundary whichever is furthest),
- 5 metres on the southern elevation (or to the lot boundary whichever is furthest).

Landscaping

A Landscaping plan is required to illustrate:

- Compliance with APZ standards within Appendix 4 of PBP 2019,
- If fencing, retaining wall, garden/path edging is within 6m of a building or in areas of BAL-29 or greater shall illustrate constructed of non-combustible materials,
- A minimum 1-metre-wide area (or to the property boundary where the setbacks are less than 1 metre), suitable for pedestrian traffic, must be provided around the immediate curtilage of the building,
- No shrub planting within 6m of the building.

Construction Standards

No specific construction standards are imposed.

Construction and site layout plans

It is recommended that a page within the construction and site layout plans is dedicated to Bushfire Construction standards together with the landscaping plan to ensure bushfire requirements are clearly understood and applied throughout the project and beyond.

Access

The proposed development meets these performance criteria through the acceptable solutions.

Water Supply

10,000Lt static water tank provided in accordance with Table 7.4a of PBP 2019. This includes:

- A connection for firefighting purposes is located within the IPA or non-hazard side and away from the structure; 65mm Storz outlet with a ball valve is fitted to the outlet,
- Ball valve and pipes are adequate for water flow and are metal,
- Supply pipes from tank to ball valve have the same bore size to ensure flow volume,
- Underground tanks have an access hole of 200mm to allow tankers to refill direct from the tank,
- A hardened ground surface for truck access is supplied within 4m,
- Above-ground tanks are manufactured from concrete or metal,
- Raised tanks have their stands constructed from non-combustible material or bush fire-resisting timber (see Appendix F AS 3959),

- Unobstructed access can always be provided,
- Static Water Supplies (SWS) are clearly marked with SWS signage place at the front gate and in location that guide responding fire agencies to the location of the water supply on site (Refer to Appendix),
- Tanks on the hazard side of a building are provided with adequate shielding for the protection of firefighters,
- All exposed water pipes external to the building are metal, including any fittings.

Electricity services
Were possible electricity should be placed underground.

If overhead power supply is provided, the const authority shall determine vegetation management is in accordance with Energy Australia 'Vegetation Safety Clearances' (NS179, April 2002).

Gas services
No gas services are proposed.

Emergency Management
There are no performance criteria requirements for this type of development within PBP 2019.

7 REFERENCES

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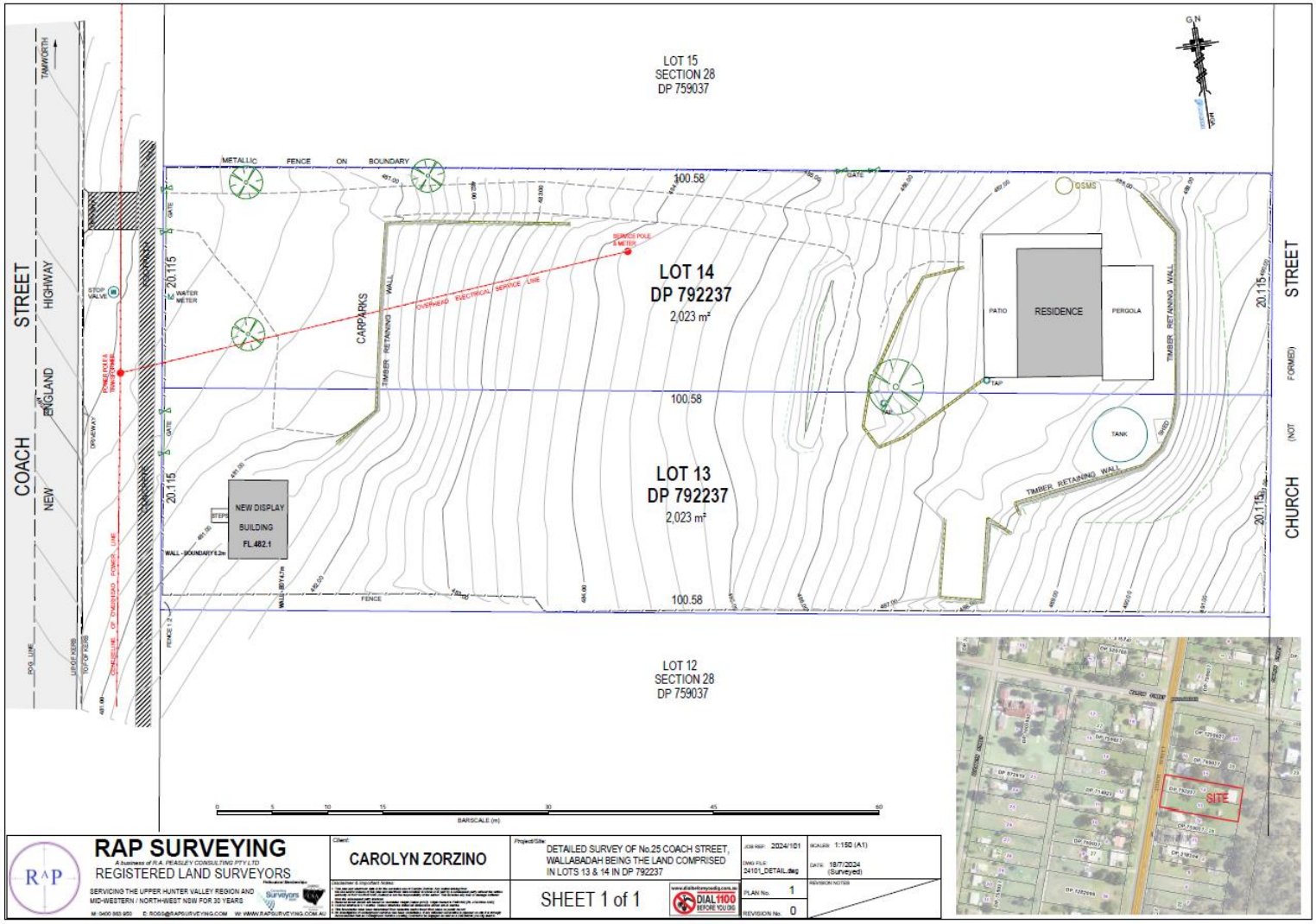
8 APPENDIX 1 SITE LAYOUT PLANS



9 APPENDIX 2 PLATES (PHOTOGRAPHS)

Plates 1 –6 depict the elements in and around the site that are considered within the bush fire hazard assessment. The classified vegetation, separations, effective and site slope are identified in **Table 3, page 13** and displayed in **Figure 2, page 7**.

Plate 1 *(P1) Access along Coach Road*

Plate 2 *(P2) Entrance into property from Coach Road*

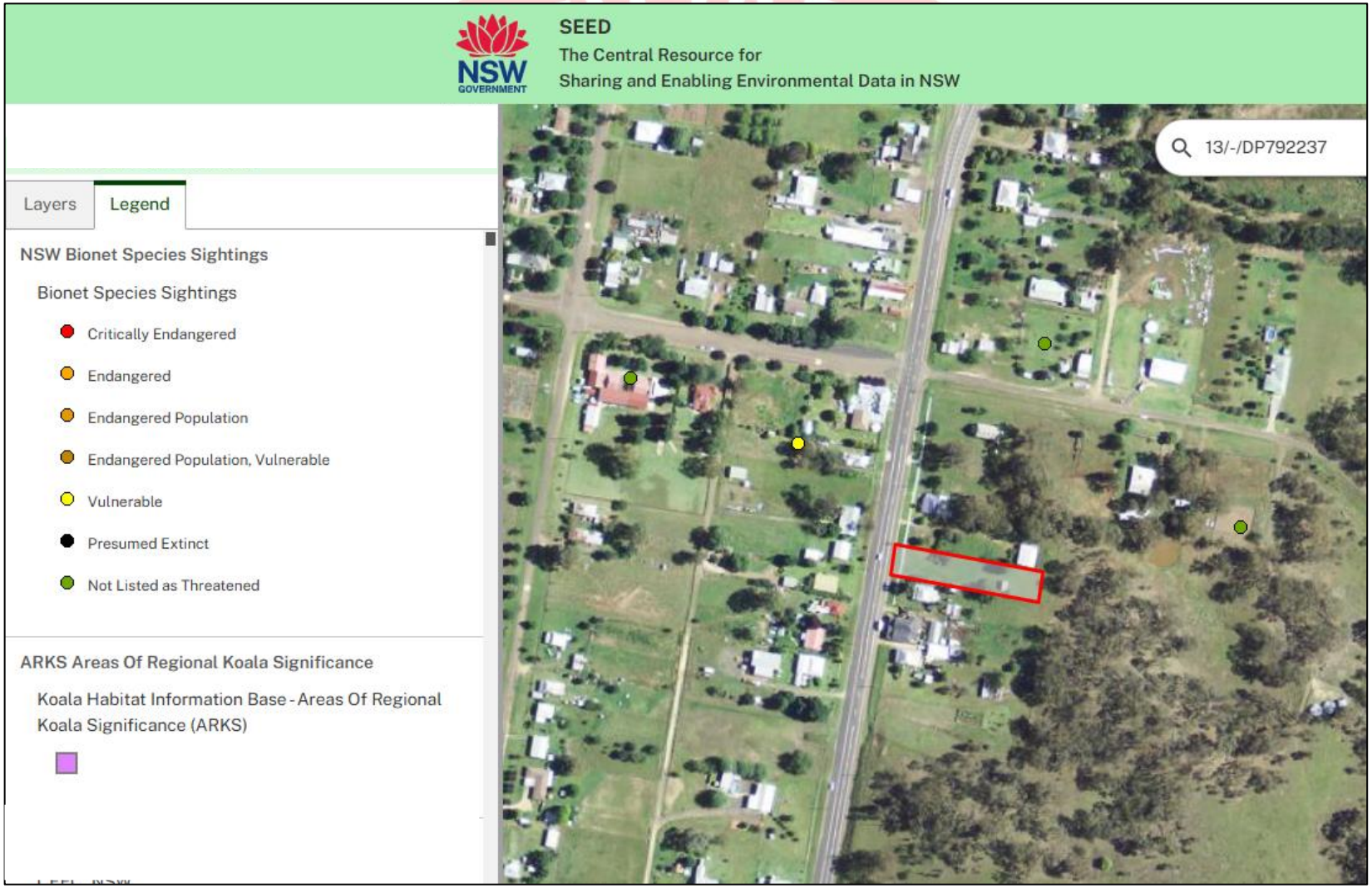
Plate 3 *(P3) Subject building*

Plate 4 *(P4) Managed vegetation to the south of the site*

Plate 5 *(P5) Managed vegetation to the north-east of the site*

Plate 6 *(P6) Vegetation that creates a bushfire threat to the south-east*

10 APPENDIX 3 NSW SHARING AND ENABLING ENVIRONMENTAL DATA



11 APPENDIX 4 BIODIVERSITY MAP

Biodiversity Values Map and Threshold Tool

The Biodiversity Values (BV) Map and Threshold Tool identifies land with high biodiversity value, particularly sensitive to impacts from development and clearing.

The map forms part of the Biodiversity Offsets Scheme threshold, which is one of the factors for determining whether the Biodiversity Offset Scheme (BOS) applies to a clearing or development proposal. You can use the Threshold Tool in the map viewer to generate a BV Threshold Report for your nominated area. The report will calculate results for your proposed development footprint and determine whether or not you will need to engage an accredited assessor to prepare a Biodiversity Development Assessment Report (BDAR) for your development.

This report can be used as evidence for development applications submitted to councils, native vegetation clearing not requiring development consent in urban areas and areas zoned for environmental conservation under State Environmental Planning Policy (Biodiversity and Conservation) 2021 - Chapter 2 vegetation in non-rural areas.

What's new?

For more information about the latest updates to the Biodiversity Values Map and Threshold Tool go to the updates section on the Biodiversity Values Map webpage.

Map Review: Landholders can request a review of the BV Map where they consider there is an error in the mapping on their property. For more information about the map review process and an application form for a review go to the Biodiversity Values Map Review webpage.

If you need help using this map tool see our Biodiversity Values Map and Threshold Tool User Guide. or contact the Map Review Team at map.review@environment.nsw.gov.au or on 1800 001 490.

12 APPENDIX 5 BUSH FIRE PROTECTION MEASURES

The following information on building survivability and the application of Bushfire Protection Measures should be considered continually for the life of the development. These measures facilitate meeting the aims and objectives of PBP 2019 and mitigating bushfire risk and are provided to inform the client.

Why do buildings burn during bush fires?

Research has been undertaken to over the last decades to analysis and determine the elements that determine the survivability of a building during a bush fire event. As the research is validated, these elements are incorporated into planning documentation that guides construction in bush fire prone areas, such as Australian Standard 3959 and NSW RFS Planning for Bushfire Protection.

Research has illustrated that there are three ways a bush fire impacts a building:

1. Direct flame contact,
2. Radiant heat from the bush fire, and
3. Embers generated by the bush fire.

Most people expect direct flame contact to be the biggest risk to homes in a bush fire, but this is not the case. Over 80% of house loss during bush fires occurs because of ember attack; the burning firebrands of bark, leaves and twigs with winds drive away from the main fire front. They find weaknesses in houses such as gaps, cracks to combustible construction materials and can quickly lead to ignition of the building.

Significantly, vegetation that is established adjacent to the building and within the Asset Protection Zone following the construction of the building, which provides fuel for burning embers to ignite and increase the ignitability of the building. It is critical that the Asset Protection Zone are maintained throughout the life of the property, so that wildfire is not encouraged closer to the building.

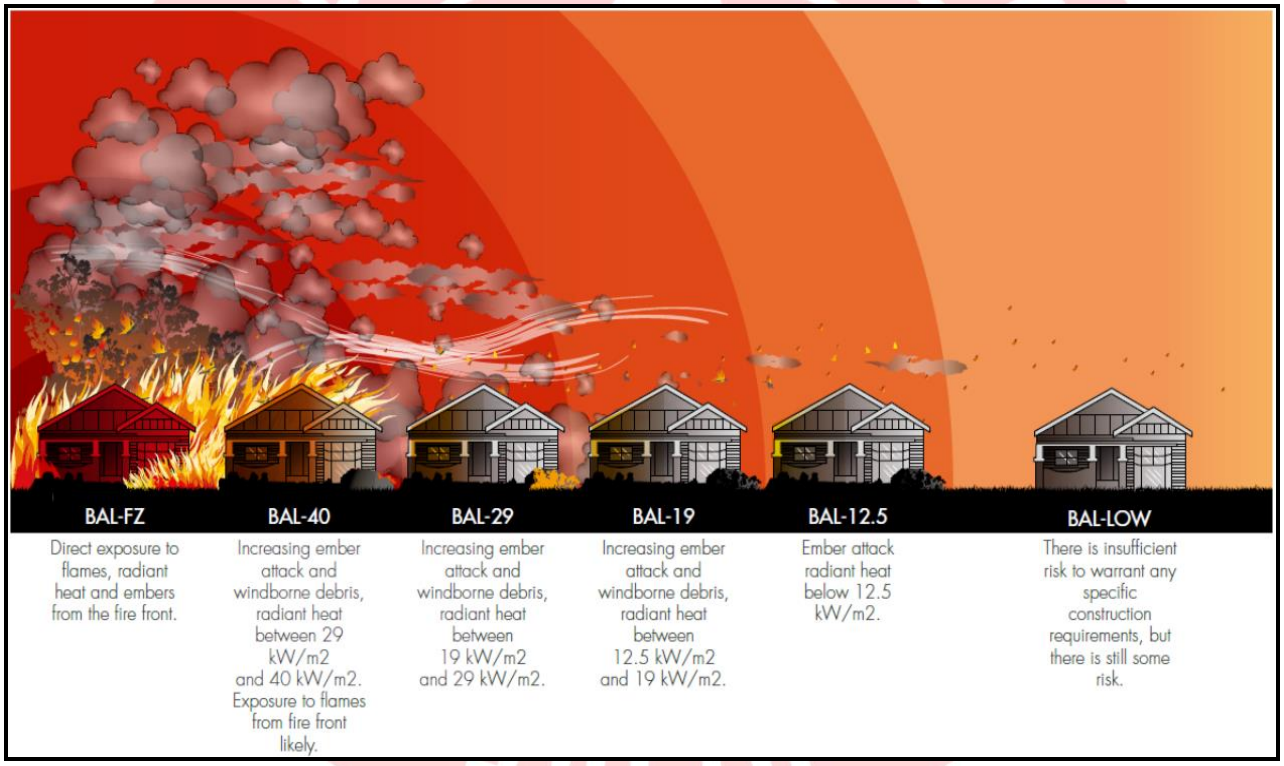
The research has illustrated the separation between the bushfire threat and building; and the construction standards of the building are the principal elements to building survivability. It is critical that:

1. Any future alterations and additions to the building are undertaken with materials that comply with the relevant BAL of the building.
2. The separations between the building and bush fire threat (known as the Asset Protection Zones (APZ)) are maintained to low flammability. This means restricted gardens and combustible elements, such as timber landscaping and furnishings. It is critical to maintain '*fire hygiene'* around the building.

Australia Standard 3959 Construction of buildings in Bush fire prone areas and Bush fire Attack Level (BAL)

Bush fire Attack Level (BAL) ratings refer to the fire intensity your house is likely to be subjected to in a bush fire, expressed in terms of radiant heat. The BAL assessment forms the construction component of the bush fire assessment process. The other component is the Bush fire planning, which includes Asset Protection Zones (APZ), separation to provide defendable spaces, access, water, electricity, gas, landscaping and emergency management.

Furthermore, the measures contained in the *Australian Standard 3959 Construction of buildings in Bushfire Prone Areas* for each BAL construction level are not for fire resistance. The building will burn. The construction standards are aimed at slowing the ignition and fire spread of the building to provide adequate time to enable occupants to shelter within the building as the bushfire front passes. The degree of vegetation management within the APZ, the unpredictable nature of behaviour of fire, and extreme weather conditions make building adjacent to vegetation very dangerous.



Relationship between fire behaviour and BAL (WA Guidelines for Planning in Bush fire Prone Areas, 2017)

Design and Siting

The design and siting of a building can be of critical importance during bush fire attack event. The appropriate design and siting can reduce the impact of bush fire attack mechanisms of direct flame, radiant heat, ember attack, smoke, and wind. Key principles to consider when designing and siting a new development include the following:

- Avoid building on ridges, saddles and build on level ground wherever possible.
- Utilise cut-in benches, rather than elevating the building when building on sloping land.
- Avoid raised floors and protect the sub-floor areas by enclosing or screening.

- Provide an appropriate shelter room that is located on the lowest or non-bush fire hazard side of the building, near building exits and provides the occupant views of the outside environment.
- Reduce bulk of building, limit re-entrant corners, and incorporate simplified roof that are able to self-clean of debris.
- No gutters on second or consecutive storeys of building and avoid box gutters.
- If gutters are installed, incorporate gutter guards with a flammability index more than 5 when tested to AS1530.2, or aluminium, bronze, or stainless steel with maximum aperture of 5mm.
- Limit glazing elements on the sides of the building exposed to the bush fire threat and use shutters to protect glazing elements.
- Carparking provided in a location that does not interfere with escape routes.
- Position development so any gas supplies and overhead electricity are positioned not to impede egress to and from the site.
- Class 10a buildings (such as shed, carport, and garages) should be a minimum of 6m away from any other building. Consider the storage of hazardous materials (petrol, kerosene, alcohol, LPG, natural gas, acetylene, vehicle, machinery etc.) within Class 10a buildings when siting in proximity to Class 1a occupied building and escape routes.
- Provide unobstructed access around the entire building supported by a minimum 1m wide concreted path to the external wall.

Asset Protection Zones

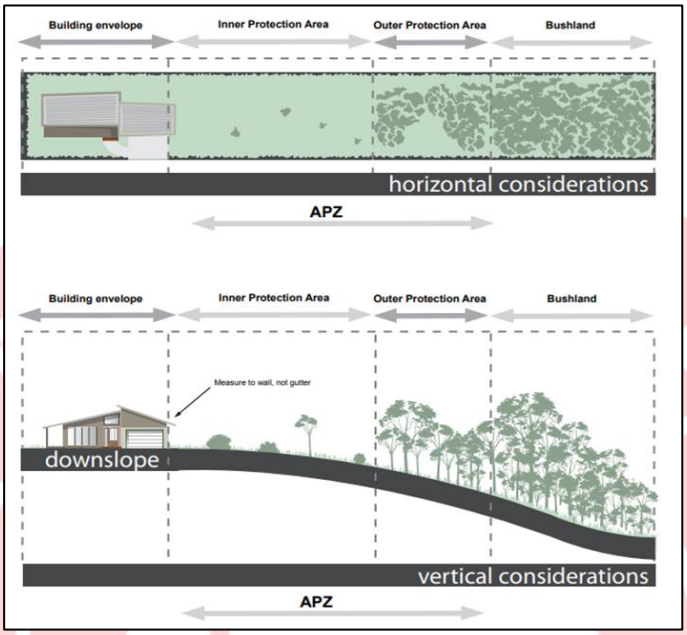
An APZ is an area surrounding a development that is managed to reduce the bushfire hazard to an acceptable level to mitigate the risk to life and property. The required width of the APZ varies with slope and the type of hazard. An APZ should be maintained in perpetuity to ensure ongoing protection from the impact of bush fires. Maintenance to the below standards should be undertaken on an annual basis, in advance of the fire season, as a minimum.

For a complete guide to APZs and landscaping, download the NSW RFS document Standards for Asset Protection Zones at www.rfs.nsw.gov.au/resources/publications .

An APZ can consist of both an Inner Protection Area (IPA) and an Outer Protection Area (OPA) as indicated below. An APZ can include the following:

Footpaths	Driveways
Lawns	Unattached non-combustible garages as long as suitably separated
Discontinuous gardens	Open space / parkland
Swimming pools	Car parking

Isolated areas of shrub and timbered vegetation are generally not a bush fire hazard as they are not large enough to produce fire of an intensity that will threaten dwellings. These areas include narrow strips of vegetation along road corridors.



Components of an APZ (Figure A4.1 - PBP 2019)

Any areas that are designated Asset Protection Zones, should be delineated by rural fencing, signposted or bollards (whatever is practical in the circumstances) to ensure vegetation creep does not occur and further landowners and ground management are aware that the area is to be maintained for Bush fire protection purposes. Examples are provided below:

Inner Protection Area (IPA)

The IPA extends from the edge of the OPA to the development. The IPA is the area closest to the asset and creates a fuel-managed area which can minimise the impact of direct flame contact and radiant heat on the development and be a defendable space. The intent of an IPA is to stop the transmission of flame and reduce the transmission of radiant heat by the elimination of available fire fuel. This area also allows

airborne embers to fall safely without igniting further outbreaks and provides a safer firefighting position and is operationally important for implementation of clear fire control lines.

In practical terms the IPA is typically the curtilage around the dwelling, consisting of a mown lawn and well-maintained gardens. When establishing and maintaining an IPA the following requirements apply:

- Vegetation within the IPA should be kept to a minimum level. Litter fuels (leaves and vegetation debris) within the IPA should be continually removed and kept below 1cm in height and be discontinuous. There is minimal fine fuel at ground level which could be set alight by a bushfire.
- Canopy cover should be less than 15% (at maturity). Trees (at maturity) should not touch or overhang the building and should be separated by 2 to 5m.
- Lower limbs of canopy trees should be removed up to a height of 2m above ground.
- Preference should be given to smooth barked and evergreen trees.
- Large discontinuities or gaps in the shrub vegetation shall be established to slow down or break the progress of fire towards buildings.
- Shrubs should not be located under trees and not form more than 10% ground cover
- Clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation.
- Grasses should be kept mown (as a guide grass should be kept to no more than 100mm in height), and
- Woodpiles, wooden sheds, combustible material storage areas, large areas / quantities of garden mulch, stacked flammable building materials etc. are not permitted in the IPA.

Outer Protection Area (OPA)

An OPA is located between the IPA and the unmanaged vegetation. Vegetation within the OPA can be managed to a more moderate level. The reduction of fuel in this area substantially decreases the intensity of an approaching fire and restricts the pathways to crown fuels, reducing the level of direct flame, radiant heat and ember attack on the IPA.

Because of the nature of an OPA, they are only applicable in forest vegetation.

In practical terms the OPA is an area where there is maintenance of the understorey and some

separation in the canopy. When establishing and maintaining an OPA the following requirements apply:

- Tree canopy cover should be less than 30%, canopies should be separated by 2 to 5m
- Shrubs should not form a continuous canopy and form no more than 20% of ground cover
- Grasses should be kept to no more than 100mm in height with leaf and other debris should be mown, slashed or mulched.

Furthermore, the edge of the APZ should be clearly delineated to ensure vegetation creep does not occur over time, reducing the separation between the bushfire hazard and building.

Gardens and vegetation within the APZ

All vegetation will burn under the right conditions.

In choosing plants for landscaping consideration should be given to plants that possess properties, which help to protect buildings. If the plants themselves can be prevented from ignition, they can improve the defence of buildings by:

- Filtering out wind-driven burning debris and embers.
- Acting as a barrier against radiation and flame, and
- Reducing wind forces.

Consequently, landscaping with vegetation of the site should consider the following:

- Meet the specifications of an Inner Protection Area (IPA) detailed in PBP 2019.
- Priority given to retaining or planting species which have a low flammability and high moisture content.
- Priority given to retaining or planting species which do not drop much litter in the bushfire season, and which do not drop litter that persists as ground fuel in the bush fire season, and
- Create discontinuous or gaps in the vegetation to slow down or break the progress of fire towards the dwellings.
- Avoid gardens within 10m of the exterior building envelop.
- Trees and shrubs within 40m are not continuous, but instead arranged as discrete patches separated by a ground layer with low fuel hazard, such as mown grass.
- Position courtyards, gardens, and grassed areas in locations that facilitate the protection of the building.
- Install pebble/rock garden beds avoiding the use of mulch and wood chip.

Consideration should be given to vegetation fuel loads present on site. Careful thought must be given to the type and physical location of any proposed site landscaping.

Inappropriately selected and positioned vegetation has the potential to 'replace' any previously removed fuel load.

Whilst it is recognised that fire-retardant plant species are not always the most aesthetically pleasing choice for site landscaping, the need for adequate protection of life and property requires that a suitable balance between visual and safety concerns be considered. The below list of well know ground fire-retardant plants is intended as a guide only, check with your local council for information more specific to your area.

Lomandra longifolia	*Dampiera*
Lomandra hystrix	*Scaevola aemula*
Anigozanthos hybrids	*Succulents (most)*
Agapanthus orientalis	*Carpobrotus (Pigface)*
Liriope muscari	*Cotyledon*
Carpobrotus glaucescens	*Ajuga australis*
Casuarina glauca	*Myroporum*
Ajuga	*Nepeta* (catmint)
Brachyscome	*Mesembryanthemum*

Strategically positioned elevated vegetation (fire-retardant tree and shrub species) can act as 'windbreaks' and 'ember filter', reducing wind velocities and suppressing the density of embers attacking a building. It is critical that this vegetation is:

- On flat ground place >30m from the building (ideally 40m forming the outer perimeter of the IPA).
- >20m separation from the hazardous vegetation.
- Located on the side of the bush fire hazard.
- No gardens of shrubs under the trees.
- Shrub patches no greater than $10m^2$.

The below list of well know fire-retardant trees and shrubs is intended as a guide only, check with your local council for information more specific to your area:

Melia azederach (Cape Lilac)	*Citrus trees*
Brachychiton aecerifolius (Flame tree)	*Loquot*
Magnolia grandiflora	*Arbutus Quercus (only the deciduous oak)*
Pyrus (most ornamental pears)	*Feijoa*
Magnolia Little Gem	*Gleditzia*
Ulmus chinensis (Chinese Elm)	*Ficus (all including edible)*
Acacia howitii	*Aloe (all)*
Cercis (Judus Tree)	*Correa*
Acmena smithii (Lilypily)	*Acacia iteaphyla*
Prunus (all including ornamental)	*Scaevola crassifolia*
Cupaniopsis anacardiopsis (Tuckeroo)	*Viburnum tinus*
Malus (apple trees)	*Atriplex (saltbush)*
Eleocarpus	*Escallonia*
Mullbery	*Maireana (Cottonbush)*
Eremophila (Emu bush)	*Leucophyta brownii*
Melaleuca nodosa	*Plectranthus*
Syzygium (lilypilly)	*Santolina*
Photinia	*Coprosma*
Rhagodia (saltbush)	*Strelitzia*
Acacia Cyclops	*Senna (Silver Cassia)*

Recent post-fire research from the 2019/20 bushfire season suggests greenness factor (the extent to which plants are actively growing) had an impact on building survivability to a bushfire, indicating that maintained green grasses and landscape watering features are beneficial during a bushfire.

It is essential that any vegetation and landscaped areas and surrounds are subject to ongoing fuel management and reduction to ensure that fine fuels do not build up.

Landscaping features within the APZ

A combination of hard (materials) and soft (design) landscaping will benefit the survivability of a building during a bushfire event. The type, quantity and condition of fuel has a very important effect on bushfire behaviour in proximity to a building. Poorly located vegetation that burns readily may expose a house to increased levels of radiant heat and flame contact.

- Non-flammable features such as tennis courts, swimming pools, dams, patios, driveways or paths should be incorporated into the proposal, especially on the northern and western sides of the proposed building.
- Remove other flammable objects from around the house. These include sheds, caravans, outdoor furniture, barbeques, gas bottles, wood piles and organic mulch.
- Avoid flammable mulches within the APZ. Alternatives include gravel, scoria, pebbles, shells or recycled crushed bricks.
- Use non-combustible, moveable containers and pots that can be relocated in the summer.
- Restrict the use of door mats and place firewood stacks >10m from building.
- Restrict the use of timber and use materials such as brick, earth, stone, concrete and galvanised iron
- Metal screens can help to shield your house from radiant heat, direct flame contact and ember attack.
- An intensive area of planting centred on a contoured garden mound provide an effective screening.
- Fencing in BAL 29 or within 6m of a building should be of non-combustible materials.
- Establish a path immediately around the external wall of the building. Do not place garden beds adjacent to the external fabric of the building and under windows.
- Clumping shrubs and trees so they do not form a continuous canopy and are separated by areas of low fuel (maintained green grass lawn).

Further information can be found here - Landscaping for bushfires

Access Requirements

In the event of a serious bushfire threat to the proposed development, it will be essential to ensure that adequate ingress/ egress and the provision of defendable space are afforded in the development/building design.

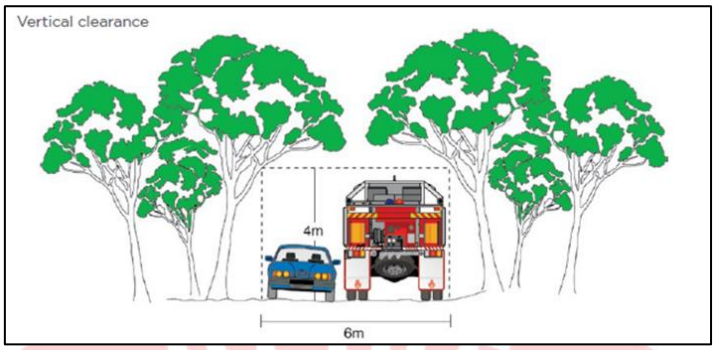
Local Area Traffic Management (LATM)

The objective of LATM is to attain an acceptable level of speed, volume, and composition of traffic within a local area and reduce the number of road accidents. This is achieved by modifying the street environment through the installation of various traffic control devices. LATM devices by their nature are designed to restrict and or impede the movement of traffic, especially large vehicles, which conflicts with the intent for access required by the NSW RFS and may significantly increase response times for emergency services.

Where LATM devices are provided they are to be designed so that they do not impede fire vehicle access.

Vertical clearance

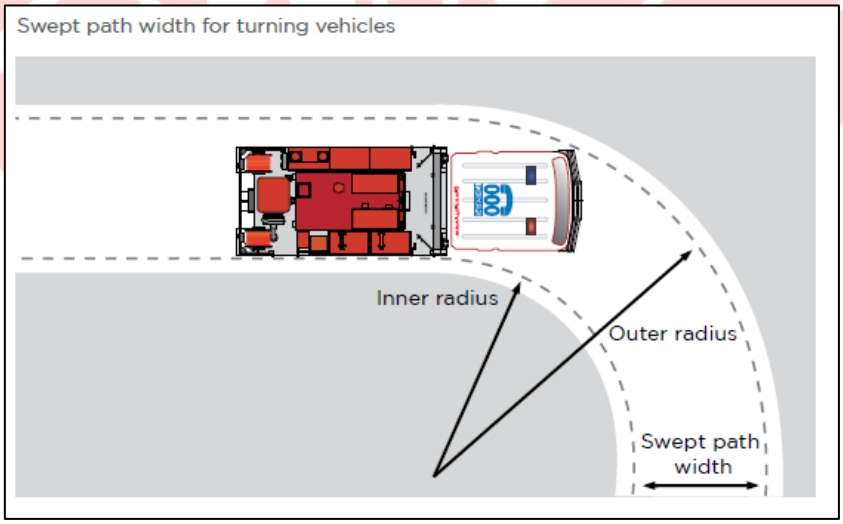
An unobstructed clearance height of 4 metres should be maintained above all access ways including clearance from building construction, archways, gateways/doorways, and overhanging structures (e.g., ducts, pipes, sprinklers, walkways, signs and beams). This also applies to vegetation overhanging roads and fire trails.

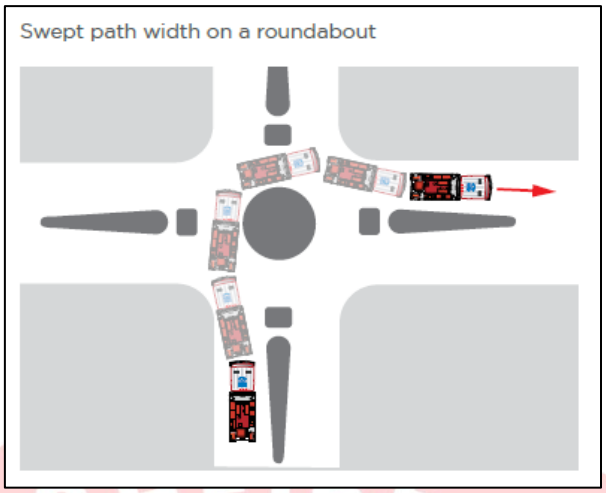


Vehicle Turning Requirements

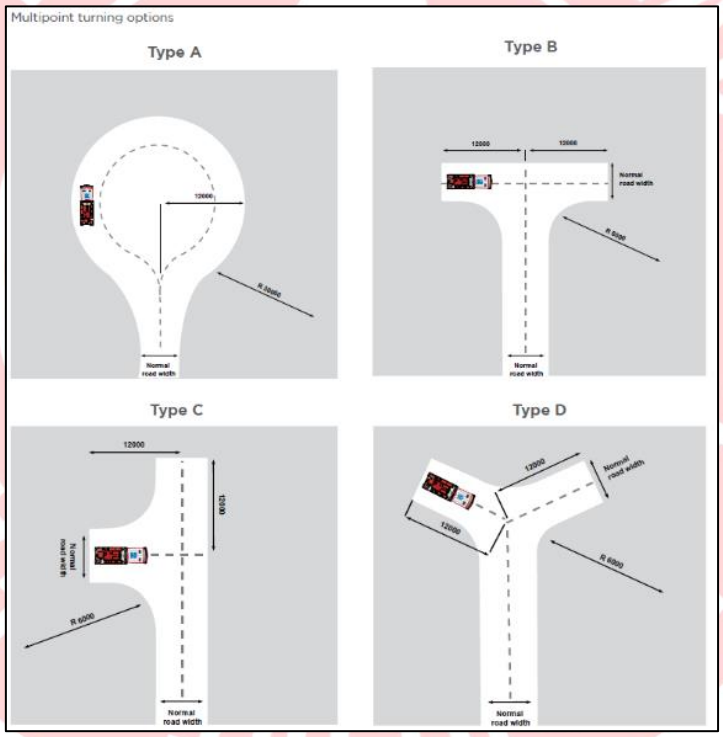
Fire crews must have rapid access and egress for vehicles, therefore curved carriageways should be constructed using the minimum swept path. The below diagrams from PBP2019 provide indication of the requirements to be achieved.

Minimum curve radius (inside edge (m))	Swept path (m) wide
<40	4.0
40 -69	3.0
70 - 100	2.7
>100	2.5





Where a turning head is proposed the NSW RFS requires that dead ends having a length greater than 20 metres should be provided with a turning head area which avoids multipoint turns.



Passing Bays

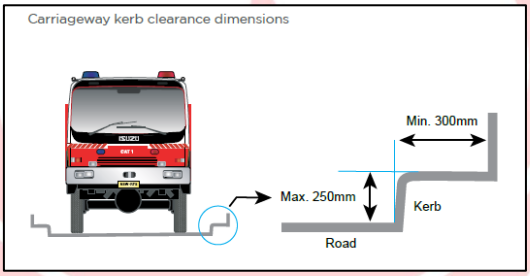
The construction of passing bays, where required, shall be 20m in length, provide a minimum trafficable width at the passing point of 6m.

Parking

Parking can create a pinch point within the road reserve. The location of parking should be carefully considered to ensure fire appliance access is unimpeded. Hydrants should be located clear of any parking areas to ensure that access is always available.

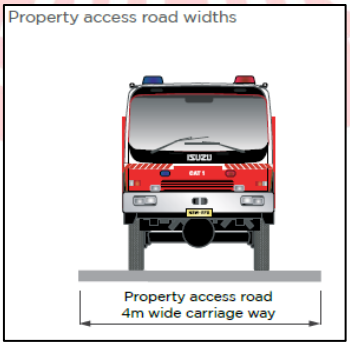
Kerb Dimensions

All kerbs constructed around access lanes should be no higher than 250mm and free of vertical obstructions at least 300mm back from the kerb face to allow clearance for front and rear body overhang.



Road Types

Property access is required to be 4m wide all-weather road. Can be sealed or unsealed.



Water Supply

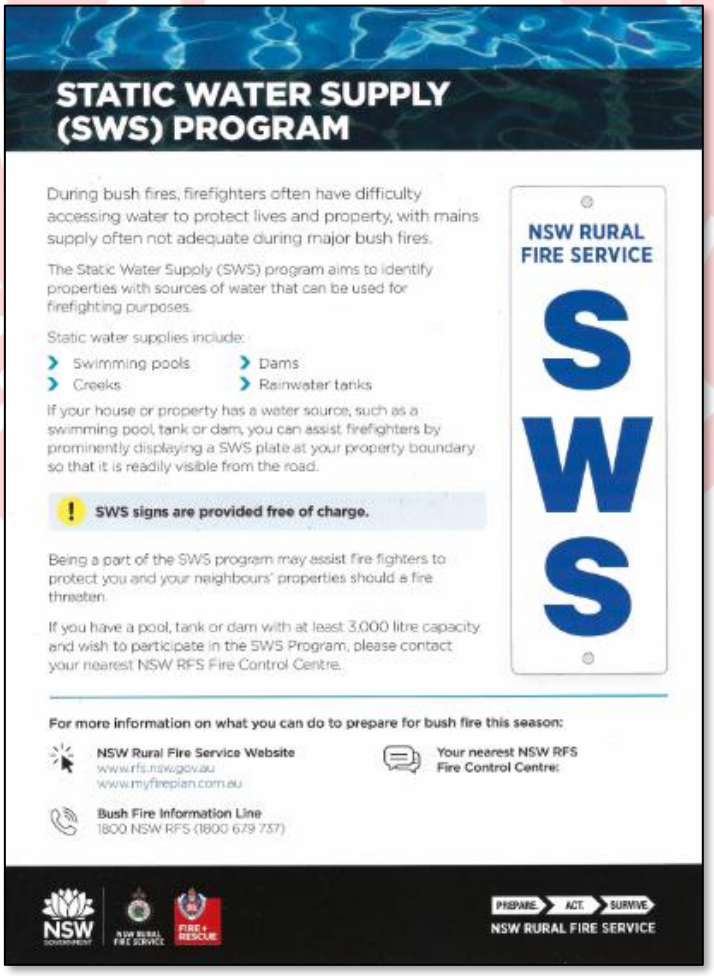
The intent of water measures is to provide adequate services of water for the protection of dwellings during and after the passage of a bush fire.

Where reticulated water supply is not provided, a static water supply for fire-fighting purposes should be above-ground, accessible, clearly marked and manufactured from concrete or metal. If raised, the tank stand should be made from non-combustible material. These static water supplies (tanks) should be positioned on the non-hazard side of the building and have 65mm Storz outlet with a ball valve fitted to the outlet within the IPA. If not appropriate, they should be appropriately shielded to protect the tank and fire fighters accessing the water. Category 1 fire appliances should be able to access within 4 m of static water supply with a hardened ground surface to support this access.

All exposed water pipes, values, taps and fittings should be metal and the supply line from tank to ball valve have the same bore size.

Where pumps are provided, they are a minimum 5hp or 3kW petrol or diesel-powered pump and are shielded against bush fire attack. Any hose and reel for firefighting connected to the pump shall be 19mm (internal diameter), and fire hose reels are constructed in accordance with AS/NZS 1221:1997 Fire hose reels and installed in accordance with AS 2441:2005 Installation of fire hose reels.

Where static water supply is provided the following signage should be installed at the front gate and at a location that is clearly visible (assume smoke) to approaching emergency services to guide them to the static water supply.



Electricity, Gas supplies and Hazardous materials

The intent of electricity, gas and hazardous material measures is to locate these utilities and materials so as not to contribute to the risk of fire to a building.

Electricity

Location of electricity services should limit the possibility of igniting the surrounding bush land or the fabric of buildings. Where practicable, electrical transmission lines are underground. If overhead, electrical transmission lines are installed with short pole spacing (30m), unless crossing gullies, gorges, or riparian areas, then no part of a tree is closer to a power line than the distance set out in accordance with the specifications in ISSC3 Guideline for Managing Vegetation Near Power Lines.

For further information visit https://www.electricitysafety.com.au/

Gas

Any reticulated or bottled gas should be installed and maintained according to the requirements of the relevant authorities and AS/NZS 1596:2014. All fixed gas cylinders are kept clear of all flammable materials to 10m and shielded on the hazard side. All above-ground pipes and connections to and from gas cylinders are metal, and polymer-sheathed flexible gas supply lines to gas meters adjacent to buildings are not permitted. Furthermore, if gas cylinders need to be kept close to the building, safety valves are directed away from the building and at least 2m away from any combustible material, so they do not act as a catalyst to combustion. Gas utilities should be positioned to not impede fire fighters accessing water supplies while undertaking suppression operations.

Hazardous Materials

Hazardous materials are any materials that can fuel the fire, such as leaf litter, grass, garden mulch and woodpiles. They can also be made up of solid combustibles or flammable liquids and gases such as petrol, kerosene, alcohol, LPG, natural gas, and acetylene. Vehicle, machinery, and other mechanical equipment that utilise fuels for operations can also be considered hazardous. The incorrect design and placement of carport and garages in residential developments could propagate fire towards the residential dwelling. Any liquids or fuels that are considered hazardous should be positioned away from the dominant bush fire threat. If located in a building/structure, it should be a minimum of 6m away from any other building. Vegetation surrounding these locations shall be maintained to IPA standards and the construction standards shall minimise the impact of ember attack to ignite the structure.

Construction Requirements

Groundwork and Sub-structure construction phase

During the ground phase potential ignition sources of the subject development may include hot works, incorrect disposal of cigarette butts and hot exhausts from vehicles, electrical failures, and sparks from metal contact.

Groundwork and Sub-structure construction phase fire management plan should be developed. Preparation of the site should include mitigating fire ignition sources. This should include vegetation management such as slashing and mowing long grasses in and around the development site, car parking

and access tracks. This is especially important during summer months where Rates of Spread of fire can significantly increase due to the prevailing weather condition.

Handheld fire extinguishers should be carried on each vehicle and on site for quick access and suppression of fires.

Where neither reticulated water nor an existing static water supply is available during the construction phase, a temporary 10,000 litre Static Water Supply within proximity of the development site shall be provided before the commencement of any construction works. This temporary supply will allow for the replenishment of attending fire services which will facilitate the rapid suppression of any potential ignitions. The temporary supply may be removed when the prescribed fire-fighting water supply is installed.

Ongoing Operations

Routine inspections of bush fire safety systems and equipment generally occur annually and are supported by a Bushfire Plan. Ideally these inspections should occur moving out of the colder months in preparation for the bushfire season. The most common types of inspections that are required are surface, near surface (grasses and debris) and elevated (shrub) fire fuel level accumulation in APZs, canopy separation reequipments in APZs, and maintaining building fire hygiene such as cleaning gutters and down pipes.

Developing and annually reviewing a bushfire plan, no matter how big or small the development, is critical to the ongoing maintenance of the Bushfire Protection Measures identified within this report.

Construction Standards

Australian Standard 3959 ''Construction of buildings in bushfire-prone areas‟ provides for six (6) levels of building construction these being BAL - Low, BAL - 12.5, BAL - 19, BAL - 29, BAL - 40 and BAL - FZ. The Australian Standard 3959 specifies construction standards for buildings within various Bushfire Attack Levels as determined by the Planning for Bushfire Protection – 2019 document.

Retrofitting

Any future alterations, extension to structures, even if they are complying, should consider the appropriate bushfire construction standards at that time. Homes built prior to August 2002 were not required to be built to meet bush fire construction standards. Constructions in Bush fire prone lands after August 2002 required bush fire construction standards, which have also changed over time.

The current construction standards are based on your Bush fire Attack Level (BAL). Evidence from large wildfire events over the last 20 years illustrate that house ignition is concentrated within 100m from the vegetation, although it can occur kilometres from the burning vegetation under worst case scenarios. Developments outside the bush fire prone area (100m from the vegetation) will benefit from increasing construction standards to withstand ember-attack to protect the building during a bush fire event.

When undertaking alterations and additions to a dwelling in Bush fire prone land only the new construction is required to conform with the current requirements, although this only partially protects your home.

Research has illustrated that ember-attack from the wildfire is the principal mechanism that ignites homes. The most vulnerable elements are timber decks, Eave fascia boards, gutters timber window frames and timber stairs. Furthermore, house-to-house fires occur following the ignition of a neighbouring

property. Appropriate amount of effort should be placed to ensure that vegetation and landscaping should be maintained to reduce the likelihood of ember attack igniting fire fuels near the house, and separation between neighbouring houses is achieved to reduce house-to-house fires. The use of non-combustible fencing and appropriately positioned windows can go a long way to reducing the risk of house-to-house fires.

While retrofitting identifies available construction protection methods as per *AS3959 – Construction of buildings in Bushfire Prone Area*, **it should be clearly understood that such building enhancements are complementary to good site preparation and vegetation management in the context of the bushfire survival plan**.

Routine maintenance is an important part of bushfire protection for your home, out-buildings and garden. For example, if a window/door metal shutter is fitted, it needs to work at the time of a bushfire threat just like your fire equipment needs to be ready to go.

Each retrofitting measure is a step towards making your home safer against the impact of embers and radiant heat in the event of a bushfire. If you want your home to be comparable to the construction requirements under AS 3959, then *ALL* the works associated with a particular BAL category will need to be undertaken.

Some of the basic retrofitting that can be undertaken:

- Enclose existing sub floors with suitable materials or construct the floor and structure with non-combustible materials
- Cover, seal, overlap, back or butt-joint all joints in the external surface material of walls to prevent gaps greater than 2mm.
- Seal vents, weepholes, breathers and openings with metal screens of aperture <2mm.
- Replace flammable external walls with non- combustible materials.
- Apply sarking-type material (flammability index >5) over the outer face of the building frame prior to re-fixing of any external cladding.
- Screen all windows and doors with metal screens of aperture <2mm and metal frames.
- Establish weather strips, draught excluders or draught seals around doors and panel lift garage doors.
- Garage roller doors could have guide tracks with a maximum gap area of 3mm and be fitted with a nylon brush in contact with the door.
- Above-ground, exposed water, gutter downpipes and gas supply pipes should be metal.
- incorporate gutter guards with a flammability index more than 5 when tested to AS1530.2, or aluminium, bronze, or stainless steel with maximum aperture of 5mm.
- Only use Bushfire resisting timber as specified in AS 3959 Appendix F.

Further information can be found at Guide-retrofit-your-home-for-better-bushfire-protection.

Electric Vehicles (EVs)

EVs are an ever-growing part of the transport environment with government aims of EV vehicles dominating throughout the 2030's. There are a variety of different technologies, battery types, and chemistries in vehicles, e-scooter and e-bikes creating complexity on the risk of '*thermal runaway*'.

Thermal runaway is an unstable chemical process that begins when heat generated within a battery exceeds the amount of heat that is dissipated to its surroundings, which can lead to the battery catch fire. EV batteries tend to put out toxic fumes resulting in suppression difficulties.

Although the chances of batteries catching fire is relatively small <0.1%, approximately 1/3rd of fires occur during charging. the location of residential parking of Plug-in Hybrid Electric Vehicles (PHEVs) vehicles should be considered when planning inconsideration of occupied buildings and extinguishment requirements.

Having a smoke/heat alarm, a F-500 (class A, B and F) Lithium-Ion Battery fire extinguisher in an open-air charging station (unenclosed building) that is location >6m from any building or flammable vegetation will significantly mitigate risk of a EV fire spreading.

Further information can be obtained at: https://www.evfiresafe.com/

Bushfire Emergency / Survival Plan

No matter how big or small the development is within a bush fire prone area, a bush fire plan is critical to preparing the property in the event of a bush fire. To ensure appropriate measures are taken, the worst-case scenario bush fire behaviour should be used to determine the course of action.

There is extreme noise, smoke, heat, and wind during the passing of a bush fire front under worst-case conditions. Vision, hearing, breathing, and communication are significantly affected during this period.

State bush fire authorities have established kits to help residential and small property owners to develop appropriate plans to plan and prepare for bush fire events. In NSW Bush fire survival Plans can be accessed from https://www.rfs.nsw.gov.au/plan-and-prepare/bush-fire-survival-plan.

The principal elements of the Bush fire survival Plans are:

- Know your risk.
- Know and understand the bush fire alert levels.
- Access to 'Fires Near Me' app.
- Knowledge of Local radio, local ABC/emergency broadcaster frequency, and TV.
- Prepare yourself, your home and your family.
- Leave early or prepare to stay.
    - If leaving, when to leave, where will you go, how will I get there, what will I take, who will you call, what is your back-up plan.
    - If you stay, do you have all the equipment you need, what are the signal to start defending the dwelling, what to do before, during and after the passing of the fire front, do all members of the household know what to do, check your equipment, develop action checklist, what is your back-up plan.
- Discuss all elements with your family and neighbours.

Furthermore, knowledge of escape routes (generally the public road system around your dwelling), refuges and location of any nearby Neighborhood Safer Places is critical knowledge prior to a bush fire event.

A bushfire emergency management and evacuation plans are prepared consistent with Australian Standard AS 3745:2010 Planning for emergencies in facilities. State agencies also have developed guidelines to facilitate the development of the documents and other Australian Standards are relevant for different development type. Bushfire emergency management and evacuation plans should be complemented with a Bushfire Management Plan (BMP).

A simple 4 step process can be undertaken to develop a basic bushfire emergency survival plan:

DISCUSS

STEP 1

DISCUSS WHAT TO DO IF A BUSH FIRE THREATENS YOUR HOME

Many households find that having a discussion over dinner works best as everybody is together and focussed.

Download the Step 1 discussion guide (PDF, 985.3 KB).

PREPARE

STEP 2

PREPARE YOUR HOME AND GET IT READY FOR BUSH FIRE SEASON

There are simple things you can do around your home to prepare it for a bush fire, like keeping the grass low and having a cleared area around your home.

Download the Step 2 checklist (PDF, 595.5 KB).

KNOW

STEP 3

KNOW THE BUSH FIRE ALERT LEVELS

If there is a fire in your area you will find its alert level on the NSW RFS website and in the 'Fires Near Me' app. You need to keep track of the alert level so you know what you should do.

Download Step 3 (PDF, 166.1 KB).

KEEP

STEP 4

KEEP ALL THE BUSH FIRE INFORMATION NUMBERS, WEBSITES AND THE SMARTPHONE APP

In a bush fire, it's important that you stay up to date on conditions in your area.

Download Step 4 (PDF, 219.1 KB).

Bushfire Management Plan

No matter how big or small the development is within a bushfire prone area, a bushfire plan is critical to preparing the property in the event of a bushfire. To ensure appropriate measures are taken, the worst-case scenario bushfire behaviour should be used to determine the course of action.

State bushfire authorities have established kits to help residential and small property owners to develop appropriate plans to plan and prepare for bushfire events. These can be accessed by contacting your local fire authority.

For larger development such as industrial, commercial and developments that accommodate vulnerable people, more comprehensive emergency management requirements and procedures should be developed.

At a minimum, the Bushfire Management Plan should illustrate the Bushfire Protection Measures (location and type of hazard (vegetation), defendable space, access, water, and construction standards) that will be implemented as part of the development to reduce the risk from bushfire to an acceptable level and should be clearly displayed within the property to ensure current occupants are aware of the bush fire risk.

Furthermore, the BMP can provide information that assists in wildfire suppression operations, such as:

- 24/7 emergency contact details including alternative telephone contact.
- Location of site infrastructure and assets.
- Fire-fighting water supply plan.
- Site access and neighbour/ internal road plan.
- Identification of built, natural and cultural assets in and around the site.
- Emergency escape routes, refuges, and location of any nearby Neighbourhood Safer Places.
- Location of Fire Management Zone, specifically Asset Protection Zones.
- Location of hazards (Physical, Chemical and Electrical) that will impact on fire-fighting operations and procedures to manage identified hazards during fire-fighting operations.
- Aviation assets (helipads and aviation water supplies) and risks (powerlines).
- Fire history in and around the site, and
- Schedule of on-ground works and review and updating schedule.

Construction in Flame Zones

Flame zone is defined as 'radiant heat received by the proposed building exceeds 40kW/m^2 or calculated by the point of potential flame contact, whichever occurs first'.

BAL FZ development applications should be referred to the NSW RFS. To satisfy the performance requirement the following applies:

1. Buildings subject to BAL FZ must comply with specific conditions of development consent for construction at this level.
2. The requirements above as modified by the development consent following consultation with the RFS under Section 4.14 of the Environmental Planning and Assessment Act 1979; or
3. The requirements of (a) as modified by development consent with a bush fire safety authority under Section100b of the Rural Fires Act 1997 for the purposes of integrated development

Although Section 9 of AS3959 2009 is excluded in NSW, it nonetheless should be used as a basis for assessment of compliance for construction in the flame zone.

For developments in the flame zone (as determined above), systems complying with AS3959 Section 9 will be considered, except that there is to be no flaming of the specimen unless:

1. The situation is infill development and specifically alterations and additions,
2. The outcome as the result of the alterations and additions is positive regarding bush fire safety (i.e., a better outcome is achieved),
3. The applicants are referred to the link that has the Bush Fire Survival Plan and engaged in the bush fire issues associated with their situation, and
4. The flaming is not considered to add to the existing overall bush fire risk of the development.

Materials that allow flaming can be problematic in flame zone and are not generally supported by the NSW RFS.

Construction elements of the building with 10m of the bushfire hazard are generally required to conform with AS1530.8.2.

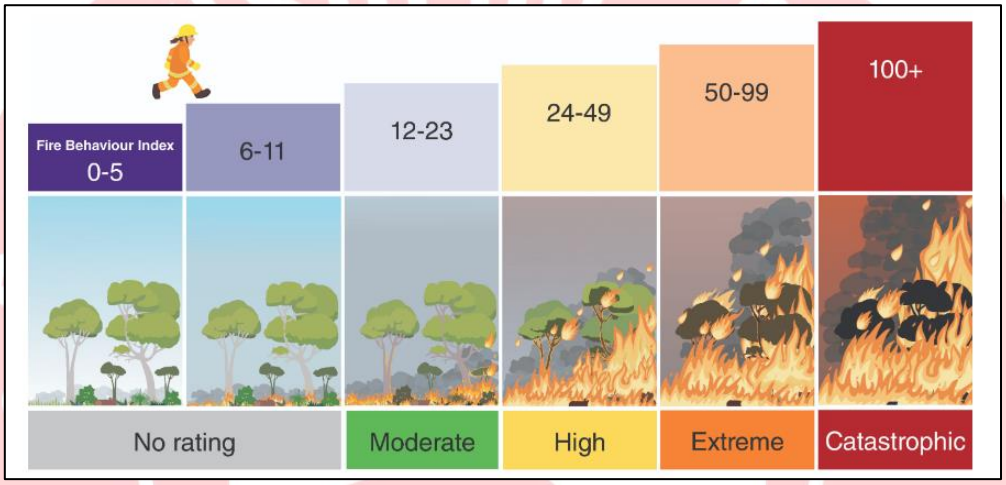
An integrated approach to the construction standards, design, and type of hazardous industry in Flame Zones will provide the best outcome to establish a development that will sustain bush fire attack.

Updated Australian Fire Danger Rating System

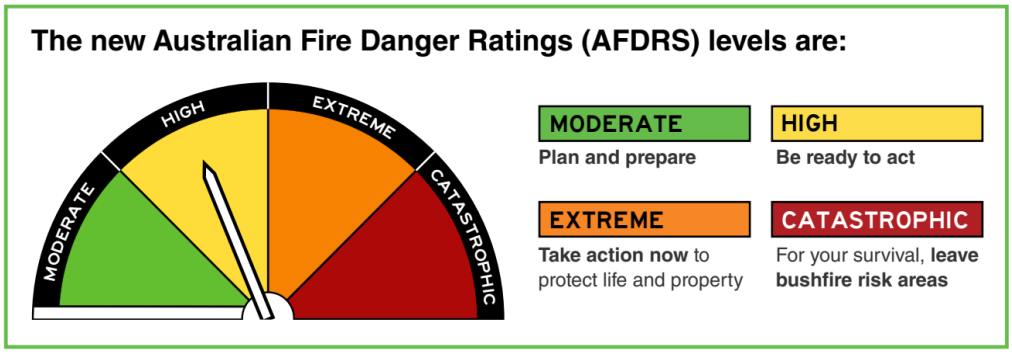
The principal objective of the new Australian Fire Danger Rating System (AFDRS) is to implement a more accurate and nationally consistent system that will enable improved decision-making by response agencies and industry and provoke the desired community response to messaging in order to improve public safety. More information at https://www.rfs.nsw.gov.au/news-and-media/newfdr and eLearning at https://www.afac.com.au/initiative/afdrs/afdrs-training .

The AFDRS uses the latest scientific understanding about weather, fuel and how fire behaves in different types of vegetation to improve the reliability of fire danger forecasts. This strengthens the ability of those working in emergency services to be better prepared, make improved decisions, and provide better advice to the community.

It is aimed at a simplified, action-oriented Fire Danger Rating System.



Accessed from AFAC: https://www.afac.com.au/initiative/afdrs/afdrs-faqs



Accessed from AFAC: https://www.afac.com.au/initiative/afdrs/afdrs-faqs

MODERATE: *Plan and Prepare* - Have a plan and be ready to act if a fire starts.

HIGH: *Be ready to act* - Be alert for fires in your area and be ready to leave or be ready to defend.

EXTREME: *Take action* - Act before a fire starts.

CATASTROPHIC: *Leave high risk areas* - Protect your life, leave early.

APPENDIX E – Database Searches

Property Report

25 COACH STREET WALLABADAH 2343

Property Details

Address:	25 COACH STREET WALLABADAH 2343	
Lot/Section /Plan No:	13/-/DP792237	14/-/DP792237
Council:	LIVERPOOL PLAINS SHIRE COUNCIL	

Summary of planning controls

Planning controls held within the Planning Database are summarised below. The property may be affected by additional planning controls not outlined in this report. Please contact your council for more information.

Local Environmental Plans	Liverpool Plains Local Environmental Plan 2011 (pub. 9-12-2011)
Land Zoning	RU5 - Village: (pub. 14-4-2023)
Height Of Building	NA
Floor Space Ratio	NA
Minimum Lot Size	1000 m²
Heritage	NA
Land Reservation Acquisition	NA
Foreshore Building Line	NA

Detailed planning information

State Environmental Planning Policies which apply to this property

State Environmental Planning Policies can specify planning controls for certain areas and/or types of development. They can also identify the development assessment system that applies and the type of environmental assessment that is required.

- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Allowable Clearing Area (pub. 21-10-2022)
- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Biodiversity and Conservation) 2021: Subject Land (pub. 2-12-2021)
- State Environmental Planning Policy (Exempt and Complying Development Codes) 2008: Land Application (pub. 12-12-2008)
- State Environmental Planning Policy (Housing) 2021: Land Application (pub. 26-11-2021)
- State Environmental Planning Policy (Industry and Employment) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Planning Systems) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Primary Production) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Resilience and Hazards) 2021: Land Application (pub. 2 -12-2021)
- State Environmental Planning Policy (Resources and Energy) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy (Sustainable Buildings) 2022: Land Application (pub. 29-8-2022)
- State Environmental Planning Policy (Transport and Infrastructure) 2021: Land Application (pub. 2-12-2021)
- State Environmental Planning Policy No 65—Design Quality of Residential Apartment Development: Land Application (pub. 26-7-2002)

Other matters affecting the property

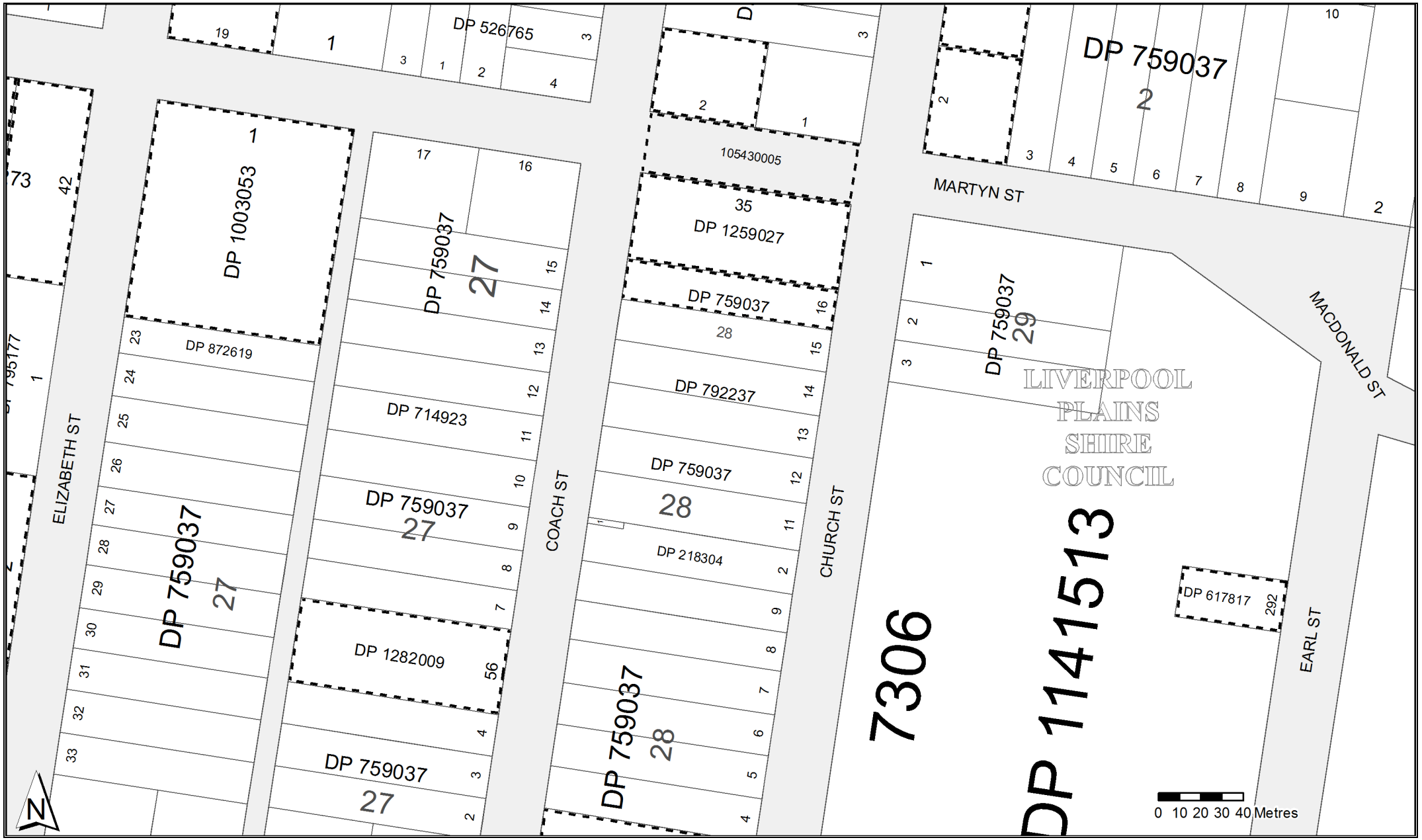
Information held in the Planning Database about other matters affecting the property appears below. The property may also be affected by additional planning controls not outlined in this report. Please speak to your council for more information

1.5 m Buffer around Classified Roads	Classified Road Adjacent
Bushfire Prone Land	Vegetation Buffer
	Vegetation Category
Land near Electrical Infrastructure	This property may be located near electrical infrastructure and could be subject to requirements listed under ISEPP Clause 45. Please contact Essential Energy for more information.
Local Aboriginal Land Council	NUNGAROO
Regional Plan Boundary	New England North West

Cadastral Records Enquiry Report : Lot 13 DP 792237

Ref : NOUSER

Locality : WALLABADAH
Parish : WALLABADAH
LGA : LIVERPOOL PLAINS
County : BUCKLAND



This information is provided as a searching aid only.Whilst every endeavour is made to ensure that current map, plan and titling information is accurately reflected, the Registrar General cannot guarantee the information provided. For ALL ACTIVITY PRIOR TO SEPTEMBER 2002 you must refer to the RGs Charting and Reference Maps

	Status	Surv/Comp	Purpose
DP617817			
Lot(s): 292			
CA159141 - LOT 292 DP617817			
DP759037			
Lot(s): 16 Section : 28			
DP1304475	UNREGISTERED	SURVEY	SUBDIVISION
Lot(s): 2 Section : 26			
CA93433 - LOTS 2, 5, 6 AND 7 SECTION 26 DP759037			
Lot(s): 3 Section : 28			
CA93470 - LOTS 1-3 SECTION 28 DP759037			
Lot(s): 2 Section : 3			
CA93665 - LOT 2 SECTION 3 DP759037			
Lot(s): 1, 2 Section : 2			
CA93989 - LOTS 1 AND 2 DP759037			
DP1003053			
Lot(s): 1			
DP759037	HISTORICAL	COMPILATION	CROWN ADMIN NO.
DP1153273			
Lot(s): 41			
DP1120880	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
Lot(s): 42			
DP1120875	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
CA124039 - LOT 41 DP1120875			
Lot(s): 43			
DP664047	HISTORICAL	COMPILATION	DEPARTMENTAL
DP1259027			
Lot(s): 35			
DP759037	HISTORICAL	COMPILATION	CROWN ADMIN NO.
DP1304475	UNREGISTERED	SURVEY	SUBDIVISION
DP1282009			
Lot(s): 56			
DP759037	HISTORICAL	COMPILATION	CROWN ADMIN NO.
CA93568 - LOTS 5-6 SECTION 27 DP759037			
DP1300150			
Lot(s): 19			
DP1085385	HISTORICAL	COMPILATION	LIMITED FOLIO CREATION
Road			
Polygon Id(s): 105430005			
DP1189382	REGISTERED	SURVEY	SURVEY INFORMATION ONLY

Plan	Surv/Comp	Purpose
DP134621	COMPILATION	DEPARTMENTAL
DP215747	SURVEY	SUBDIVISION
DP218304	SURVEY	SUBDIVISION
DP526765	COMPILATION	SUBDIVISION
DP617817	SURVEY	RESUMPTION OR ACQUISITION
DP714923	SURVEY	OLD SYSTEM CONVERSION
DP751031	COMPILATION	CROWN ADMIN NO.
DP759037	COMPILATION	CROWN ADMIN NO.
DP792237	SURVEY	OLD SYSTEM CONVERSION
DP795177	COMPILATION	DEPARTMENTAL
DP872619	SURVEY	PRIMARY APPLN NON SUBDIVISION
DP1003053	SURVEY	OLD SYSTEM CONVERSION
DP1037574	COMPILATION	LIMITED FOLIO CREATION
DP1141513	COMPILATION	CROWN LAND CONVERSION
DP1141539	COMPILATION	CROWN LAND CONVERSION
DP1153273	SURVEY	SUBDIVISION
DP1259027	UNRESEARCHED	CONSOLIDATION
DP1259027	COMPILATION	CONSOLIDATION
DP1282009	COMPILATION	CONSOLIDATION
DP1282009	UNRESEARCHED	CONSOLIDATION
DP1300150	SURVEY	DELIMITATION
DP1300150	UNRESEARCHED	DELIMITATION

NEW SOUTH WALES LAND REGISTRY SERVICES - TITLE SEARCH

FOLIO: 13/792237

SEARCH DATE	TIME	EDITION NO	DATE
9/7/2024	11:58 AM	9	13/11/2023

LAND

LOT 13 IN DEPOSITED PLAN 792237
AT WALLABADAH
LOCAL GOVERNMENT AREA LIVERPOOL PLAINS
PARISH OF WALLABADAH COUNTY OF BUCKLAND
TITLE DIAGRAM DP792237

FIRST SCHEDULE

NATHAN BASTIAN (T AT597178)

SECOND SCHEDULE (2 NOTIFICATIONS)

1 RESERVATIONS AND CONDITIONS IN THE CROWN GRANT(S)
2 AT597179 MORTGAGE TO REGIONAL AUSTRALIA BANK LTD

NOTATIONS

UNREGISTERED DEALINGS: NIL

*** END OF SEARCH ***

PLAN FORM 1

WARNING: CREASING OR FOLDING WILL LEAD TO REJECTION

*OFFICE USE ONLY

Council Clerk's Certificate

I hereby certify that –

(a) the requirements of the Local Government Act, 1919 (other than the requirements for the registration of plans), and

*(b) the requirements of section 34B of the †Metropolitan Water, Sewerage, and Drainage Act, 1924, as amended. †Hunter District Water, Sewerage, and Drainage Act, 1938, as amended.

have been complied with by the applicant in relation to the proposed .... (Insert "new road", "subdivision" or "consolidated lot") set out herein

Subdivision No. ....

Date ....

(Signature) ....
Council Clerk

*This part of certificate to be deleted where the application is only for a consolidated lot or the opening of a new road or where the land to be subdivided is wholly outside the areas of operations of the Metropolitan Water Sewerage and Drainage Board and the Hunter District Water Board.
†Delete if inapplicable.

Surveyor's Certificate

I, RALPH GORDON KIDSON
of BROWN & KRIPPNER PTY LTD P.O. BOX 260 (DX6118) TAMWORTH 2340
a surveyor registered under the Surveyors Act, 1929, as amended, hereby certify that the survey represented in this plan is accurate and has been made *(1) by me (2) ~~under my immediate supervision~~ in accordance with the Survey Practice Regulations, 1933, and was completed on † 13th AUGUST 1986

Signature R. G. Kidson

Surveyor registered under Surveyors Act, 1929, as amended.
Datum Line of Azimuth. 'X' – 'Y'
*Strike out either (1) or (2). †Insert date of survey.

PLAN OF ALLOTMENTS 13 AND 14 IN SECTION 28 IN THE TOWN OF WALLABADAH

~~Mun/City~~/Shire: QUIRINDI Locality: WALLABADAH

Parish: WALLABADAH County: BUCKLAND

Reduction Ratio 1:1250 Lengths are in metres

DP 792237

Registered: 30-1-1990

C.A.: ——

Title System: OLD SYSTEM

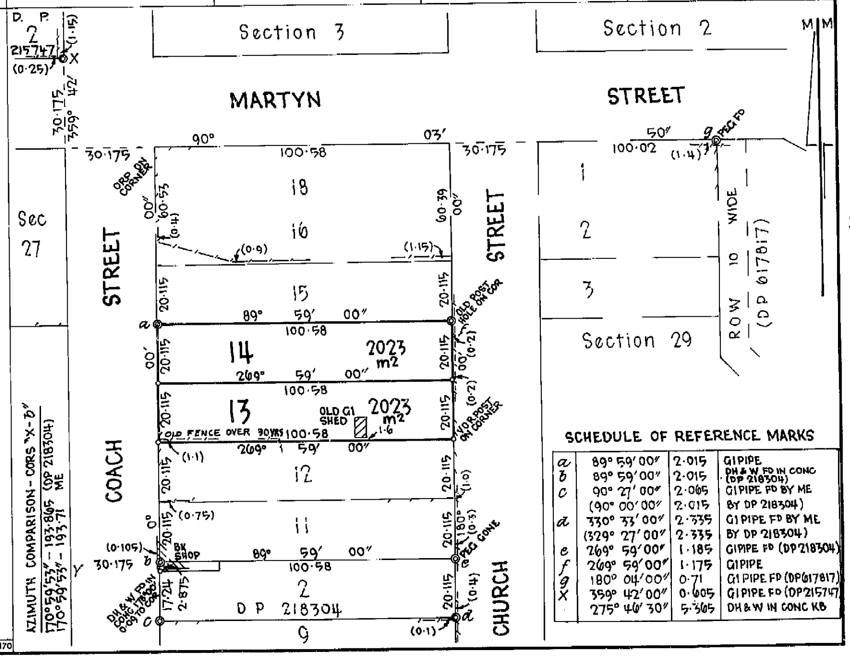
Purpose: PA. 61467

Ref. Map: TN. WALLABADAH SH. 13

Last Plan: ——

N O O 2 J I C

Signatures, seals and statements of intention to dedicate public roads or to create public reserves, drainage reserves, easements or restrictions as to user.



SCHEDULE OF REFERENCE MARKS

a	89° 59' 00"	2·015	GI PIPE
b	89° 59' 00"	2·015	DH & W FD IN CONC (DP 218304)
c	90° 27' 00"	2·065	GI PIPE FD BY ME
	(90° 00' 00"	2·015	BY DP 218304)
d	330° 33' 00"	2·335	GI PIPE FD BY ME
	(329° 27' 00"	2·335	BY DP 218304)
e	269° 59' 00"	1·185	GI PIPE FD (DP 218304)
f	269° 59' 00"	1·175	GI PIPE
g	180° 04' 00"	0·71	GI PIPE FD (DP 617817)
X	359° 42' 00"	0·605	GI PIPE FD (DP 215747)
Y	275° 46' 30"	5·365	DH & W IN CONC KB

Table of mm 10 20 30 40 50 60 100 110 120 130 140 150 160 170

Plan Drawing only to appear in this space

SURVEYOR'S REFERENCE 3723

This negative is a photograph made as a permanent record of a document in the custody of the Registrar General this day. 31st JANUARY, 1990

10 20 30 40 50 60 70 Table of mm 110 120 130 140

qu QUIPOLLY

Landscape—80.3 km^2 rolling low hills and hills on Permian-Carboniferous sediments and pyroclastics. Total relief <320m, local relief 40–100 m; elevation 500–950 m; slopes 10–30%; rock outcrop 0–50%. Woodland and open-woodland, 85% cleared.

Landscape Variant—**qua**—colluvial variant; slopes >30%.

Soils— well-drained, very shallow (<15 cm) Clastic and Leptic Rudosols (Lithosols) and Brown Kurosols (minimal Brown Podzolic Soils) occur on crests and sideslopes. Well to moderately well-drained, shallow to deep (35–>100 cm) Brown Chromosols (Non-calcic Brown Soils and Brown Podzolic Soils) occur on sideslopes on coarse-grained conglomerates and sandstones. On finer grained mudstones, volcanic sediments and other volcanic parent materials, well-drained, moderately deep (50 cm) Black Dermosols (Chocolate Soils) occur on crests, and imperfectly to poorly drained, moderately deep to very deep (50–>150 cm) Black Dermosols and Vertosols (Chocolate Soils and Black Earths) occur on mid to lower slopes and drainage lines.

Qualities and Limitations—low permeability, hardsetting surface, high organic matter and high shrink-swell. Localised stoniness, sodicity/dispersion, high erodibility, high permeability, salinity and low plant available waterholding capacity. Engineering hazard and minor erosion hazard. Localised steep slopes, rock outcrop, complex terrain, complex soils, mass movement hazard and shallow soils.

LOCATION AND SIGNIFICANCE

80.3 km^2 common, rolling to steep hills and low hills on Carboniferous and Carboniferous-Permian conglomerates and lithic sandstones of the Melville Ranges extending north onto the Tamworth sheet. Examples occur in the hills around Wallabadah and north-east of Willow Tree. Type location is on Hamiltons Road south-west of Wallabadah (map reference: 2 90000E, 65 07000N).

LANDSCAPE

Geology and Regolith

Carboniferous Merlewood Formation (Cmm) and Carboniferous-Permian Temi Formation (P-Ct, Plt)—polymictic conglomerates and lithic sandstones and shales. Field investigation in this landscape also identified quartz sandstone, mudstone, basalt and acid to alkaline volcanics. Some of the sediments, particularly conglomerate, have a volcanic matrix. This matrix weathers to produce the heavy clay soils that characterise this landscape. Bedrock condition is highly variable from highly weathered saprolite to slightly weathered rock. Soil depths are generally <2 m, and are often <1 m.

Terrain

Rolling low hills and hills with slopes ranging 10–30%. Slopes are typically 500–2 500 m long. Elevation ranges 500–950 m. Total relief to 320 m, local relief 40–100 m. Typical landform elements include narrow crests, with steep, hummocky, maximal or waning upper slopes and waning mid to lower slopes. Rock outcrop and surface rock ranges from absent to 50%. Drainage lines are deeply incised and convergent.

Vegetation

Woodland and open-woodland predominates, 85% cleared for grazing. Dominant species include *Eucalyptus albens* (white box), *E. dealbata* (tumble-down red gum), *E. blakelyi* (Blakely's red gum), *E. crebra* (narrow-leaved ironbark), *E. melliodora* (yellow box) and *Callitris glaucophylla* (white cypress pine). Other species encountered include *Angophora floribunda* (rough-barked apple), *E. macrorhyncha* ssp. *macrorhyncha* (red stringybark), *Brachychiton populneus*

(kurrajong), *Notelaea microcarpa* (native olive), *Casuarina cunninghamiana* (river oak) along creeks, *Bursaria spinosa* (blackthorn), *Acacia implexa* (hickory wattle), *Acacia* sp. (wattles), *Cassinia laevis* (cough bush) and occasional *Ficus rubiginosa* (rusty fig).

Ground cover species include *Danthonia* spp. (wallaby grasses), *Stipa aristiglumis* (plains grass), *Dichanthium sericeum* (Queensland bluegrass), *S.* spp. (spear grasses) and *Poa* sp. (snow grass) in cooler areas.

Land Use

Mostly used for grazing of cattle and sheep.

Land Degradation

Minor sheet and gully erosion occur in localised areas.

Included Soil Landscape

Small areas of the Basin Gully (**ba**) soil landscape have been included on broader crests and rock benches.

Landscape Variant

The areas mapped as **qua** on the map have slopes >30%. Otherwise they have similar landscape features. These areas were included in this landscape on the adjacent Tamworth sheet (Banks 2001).

LANDSCAPE QUALITIES AND LIMITATIONS

Engineering hazard; minor erosion hazard; localised steep slopes, rock outcrop, complex terrain, complex soils, mass movement hazard and shallow soils.

Erodibility

	Non-concentrated Flows	Concentrated Flows	Wind
qu1	very low	moderate–high	low
qu4	moderate	high	very low
qu6	moderate	high	very low
qu7	low	moderate–high	very low
qu8	moderate	high	very low
qu9	moderate	high	very low

Erosion Hazard

	Non-concentrated Flows	Concentrated Flows	Wind
Grazing	low–moderate	high	low
Cultivation	moderate–high	high	low
Urban	moderate–high	high	low

SOILS Variation and Distribution

Soils are moderately variable, changing with parent material and position in the landscape, over tens to hundreds of metres.

On coarse-grained conglomerates and sandstones—well-drained, very shallow Clastic and Leptic Rudosols (Lithosols) and Brown Kurosols (minimal Brown Podzolic Soils) occur on crests and sideslopes; and well to moderately well-drained, shallow to deep Brown Chromosols (Non-Calcic Brown Soils and Brown Podzolic Soils) occur on sideslopes. On finer grained mudstones, volcanic sediments and other volcanic parent materials—well-drained, moderately deep Black Dermosols (Chocolate Soils) occur on crests; and imperfectly to poorly drained, moderately deep to very deep Black Dermosols and Vertosols (Chocolate Soils and Black Earths) occur on mid to lower slopes and drainage lines. Soil map confidence—80%.

Dominant Soil Materials—Qualities and Limitations

qu1—hardsetting clay loam (topsoil—A1 horizon).

Dark reddish brown (5YR 3/2) to very dark grey (10YR 3/1) to brown (7.5YR 4/3) clay loam to less commonly loam; typically weak structure, rarely strong, granular to polyhedral peds 5–20 mm; field pH 5.5–7.0. Hardsetting surface; acidity; high organic matter; localised high erodibility, stoniness, sodicity/dispersion and salinity.

qu4—structured sandy clay (subsoils—B2, B22 horizons).

Brown (7.5YR 4/3–7.5YR 4/4) sandy clay to heavy sandy clay; moderate to strong structure, prismatic and columnar peds 50–100 mm, breaking down to sub-angular blocky to polyhedral peds 20 –50 mm; field pH 6.5–7.0. Low permeability; localised acidity and high organic matter.

qu6—hardsetting sandy loam (topsoil—A1 horizon).

Very dark grey (5YR 3/1–10YR 3/1) to brown (7.5YR 4/3) sandy loam to sandy clay loam; moderate to weakly structured, granular to sub-angular blocky peds 5–20 mm; field pH 6.5–7.0. Hardsetting surface; high permeability; high organic matter; localised sodicity/dispersion.

qu7—dark brown structured clay (topsoil—A1 horizon).

Very dark grey (7.5YR 3/1) to brown (7.5YR 4/2) light clay to medium-heavy clay; strongly structured, rarely weak, polyhedral peds 5–20 mm; field pH 7.0. Hardsetting surface; high shrink-swell; low permeability; high organic matter; localised stoniness.

qu8—dark heavy clay (subsoil—B2 horizon).

Dark brown (7.5YR 3/2) medium to heavy clay; strongly structured, sub-angular blocky peds 20–50 mm to polyhedral peds 5–10 mm; field pH 7.0–8.0. High shrink-swell; low permeability.

qu9—brown medium clay (subsoil—B2 horizon).

Brown (10YR 4/3–7.5YR 4/4) to reddish brown (5YR 4/3) light clay to heavy clay; moderately structured, rarely weak, sub-angular blocky to columnar peds 20–50 mm; field pH 5.0–7.0. Low permeability; localised high organic matter.

Associated Soil Materials

qu2—hardsetting sandy clay (topsoil—A1 horizon).

Dark brown (7.5YR 3/2) sandy clay; weakly structured, granular peds 10–20 mm; field pH 6.5. Occurs on quartz sandstone.

qc3—dark cracking clay (topsoil—A1 horizon).

Dark medium clay; strongly structured, polyhedral peds 10–20 mm; field pH 7.0.

qu5—dark cracking clay (subsoil—B2 horizon).

Dark medium-heavy clay; strongly structured, polyhedral peds 10–20 mm; field pH 7.0.

Type Profiles

Type Profile 1: simple slope
Dominance: ~30% of soil landscape
Soil classification (Isbell 1996 (Stace *et al.* 1968)): Haplic, Eutrophic, Brown Chromosol (Non-calcic Brown Soil); thin, slightly gravelly, loamy, clay loamy, shallow
Surface condition: firm, hardsetting when dry
Drainage: moderately well-drained
Depth: 50 cm; **rooting depth:** ~55 cm
General soil fertility: moderate to high
Location: WALLABADAH 1:25 000 sheet, batter on Hamiltons Road (map reference: 2 89600E, 65 07400N). Profile 106. Voluntary/native pasture

Soil Material Description

Layer 1, A1 **qu6,** 0–3 cm	brown (7.5YR 4/3) sandy loam; weak pedality, 5–10 mm granular peds, rough-faced fabric, very weak and crumbly (dry); field pH 7.0; moderately permeable; few (2–10%) gravels (6–20 mm); many <1 mm roots; clear boundary to…
Layer 2, B2 **qu4**, 3–50 cm	brown (7.5YR 4/4) sandy clay; moderate pedality, 20–50 mm sub-angular blocky peds, rough-faced fabric, moderately weak and crumbly (moderately moist); field pH 7.0; slowly permeable; few (2–10%) gravels (6–20 mm); many <1 mm roots, few 1–2 mm roots; layer overlies moderately weathered lithic sandstone.

Type Profile 2: crest
Dominance: ~30% of soil landscape
Soil classification (Isbell 1996 (Stace *et al.* 1968)): Haplic, Eutrophic, Brown Kurosol (Brown Podzolic Soil); thin, slightly gravelly, loamy, clayey, very shallow
Surface condition: firm, hardsetting when dry; few (2–10%) surface coarse gravels (20–60 mm)
Drainage: well-drained
Depth: 12 cm; **rooting depth:** ~13 cm
General soil fertility: moderate to low
Location: TEMI 1:25 000 sheet, pit on "Chilcotts Creek" (map reference: 2 98992E, 64 95049N). Profile 337. Improved pasture

Soil Material Description

Layer 1, A1 **qu6,** 0–3 cm	very dark grey (10YR 3/1) fine sandy loam; weak pedality, 10–20 mm granular peds, rough-faced fabric, moderately weak and crumbly (moderately moist); field pH 6.0; moderately permeable; few (2–10%) coarse gravels (20–60 mm); many <1 mm roots, common 1–2 mm roots; abrupt boundary to…
Layer 2, B2 **qu9,** 3–12 cm	brown (10YR 4/3) light clay; weak pedality, 20–50 mm sub-angular blocky peds, rough-faced fabric, moderately weak and crumbly (moderately moist); field pH 5.0; slowly permeable; few (2–10%) coarse gravels (20–60 mm); many <1 mm roots, few 1–2 mm roots; layer overlies moderately weathered conglomerate.

Type Profile 3: simple slope
Dominance: ~30% of soil landscape
Soil classification (Isbell 1996 (Stace *et al.* 1968)): Basic, Lithosolic, Clastic Rudosol (Lithosol); medium, moderately gravelly, clay loamy, very shallow
Surface condition: hardsetting; surface gravels (6–20 mm) are common (10–20%)
Drainage: well-drained

Depth: 10 cm; **rooting depth:** ~15 cm
General soil fertility: low
Location: WALLABADAH 1:25 000 sheet, batter on New England Highway near Lewis Road (map reference: 2 93977E, 65 05165N). Comprehensive Regional Assessment (CRA) Profile 27. Voluntary/native pasture

Soil Material Description

Layer 1, A**1** **qu1,** 0–10 cm	very dark red clay loam; weak pedality, 10–20 mm granular peds, rough-faced fabric (moderately moist); field pH 7.0; moderately permeable; many (20–50%) coarse fragments; layer overlies moderately weathered mudstone.

Type Profile 4: open-depression
Dominance: ~10% of soil landscape
Soil classification (Isbell 1996 (Stace *et al.* 1968)): Haplic, Eutrophic, Black Dermosol (Black Earth); thin, slightly gravelly, clayey, clayey, moderately deep
Surface condition: soft; hardsetting when dry
Drainage: poorly drained
Depth: >50 cm; **rooting depth:** >50 cm
General soil fertility: high
Location: TEMI 1:25 000 sheet, pit just off Chilcotts Creek Road (map reference: 2 96059E, 64 97175N). Profile 346. Voluntary/native pasture

Soil Material Description

Layer 1, A1 **qu7,** 0–5 cm	very dark grey (7.5YR 3/1) medium heavy clay; strong pedality, 5–10 mm polyhedral peds, smooth-faced fabric, moderately weak and plastic (moist); field pH 7.0; very slowly permeable; few (2–10%) fine gravels (2–6 mm); many <1 mm roots; clear boundary to…
Layer 2, B2 **qu8,** 5–>50 cm	dark brown (7.5YR 3/2) heavy clay; strong pedality, 20–50 mm sub-angular blocky peds, smooth-faced fabric, moderately firm and plastic (moist); field pH 8.0; very slowly permeable; few (2–10%) fine gravels (2–6 mm); layer continues.

SOIL QUALITIES AND LIMITATIONS

Soil Fertility

General soil fertility and nutrient holding capacity is moderate to very high. Organic matter content is highly variable, ranging from low in **qu1** to very high in **qu6** and **qu7**. Soil pH ranges from very strongly acid to neutral. Plant available waterholding capacity is low in **qu1**, moderate in **qu4**, moderate to very high in **qu6**, and very high in **qu7** and **qu8**. Plant available phosphorus is very high in **qu6** and **qu9**, and very low to moderate in all other soil materials. Exchangeable calcium is low to balanced. Exchangeable potassium and magnesium range from balanced to deficient.

Foundation Hazard

Foundation hazard is high to extreme in all materials except **qu9**. Soils have localised high shrink-swell potential and high organic matter content. Landscape considerations include localised steep slopes and mass movement hazard. Areas of shallow soils and rock outcrop require individual assessment to determine suitability.

Urban and Rural Capability

Generally moderate limitations exist for urban development due to engineering and erosion hazard. Localised areas of steep slopes, complex terrain and mass movement hazard have high limitations.

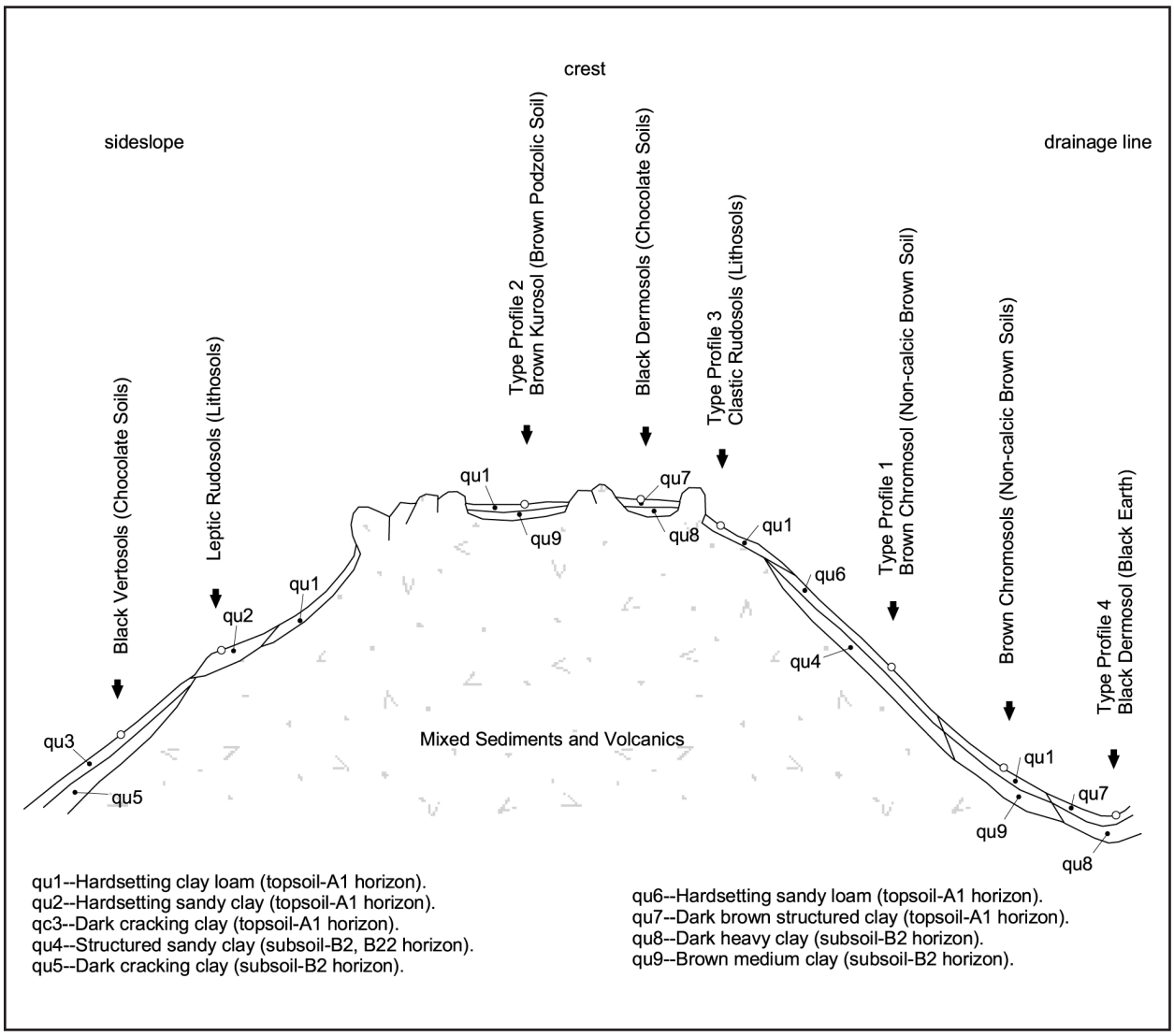
Generally high to severe limitations for cultivation due to erosion hazard, steep slopes, mass movement hazard and shallow soils. Localised soil sodicity/dispersibility, high erodibility and salinity also occurs.

Limitations for grazing are generally low to moderate due to slope and erosion hazard.

Sustainable Land Management Suggestions

Maintain or improve ground cover to a minimum of 70% at all times to reduce erosion risk. Retain or promote native vegetation through planting or regeneration of up to 30% tree cover, or 40% for **qua**. Pasture weeds can be a problem in this landscape, and an effective weed management program is required, particularly in high rainfall areas.

Areas mapped as **qua** have slopes >30% and agroforestry is the recommended land use. They include areas mapped as 'steep or highly erodible land' under the *Local Land Services Act 2013*. Contact the Hunter Local Land Service for further information.



■ ***Distribution diagram of Quipolly soil landscape illustrating occurrence and relationship of dominant soil materials.***

AHIMS Web Services (AWS)
Search Result

Your Ref/PO Number : 24101

Client Service ID : 908382

Upper Hunter Planning

Date: 09 July 2024

10 Topknot Place
Muswellbrook New South Wales 2333

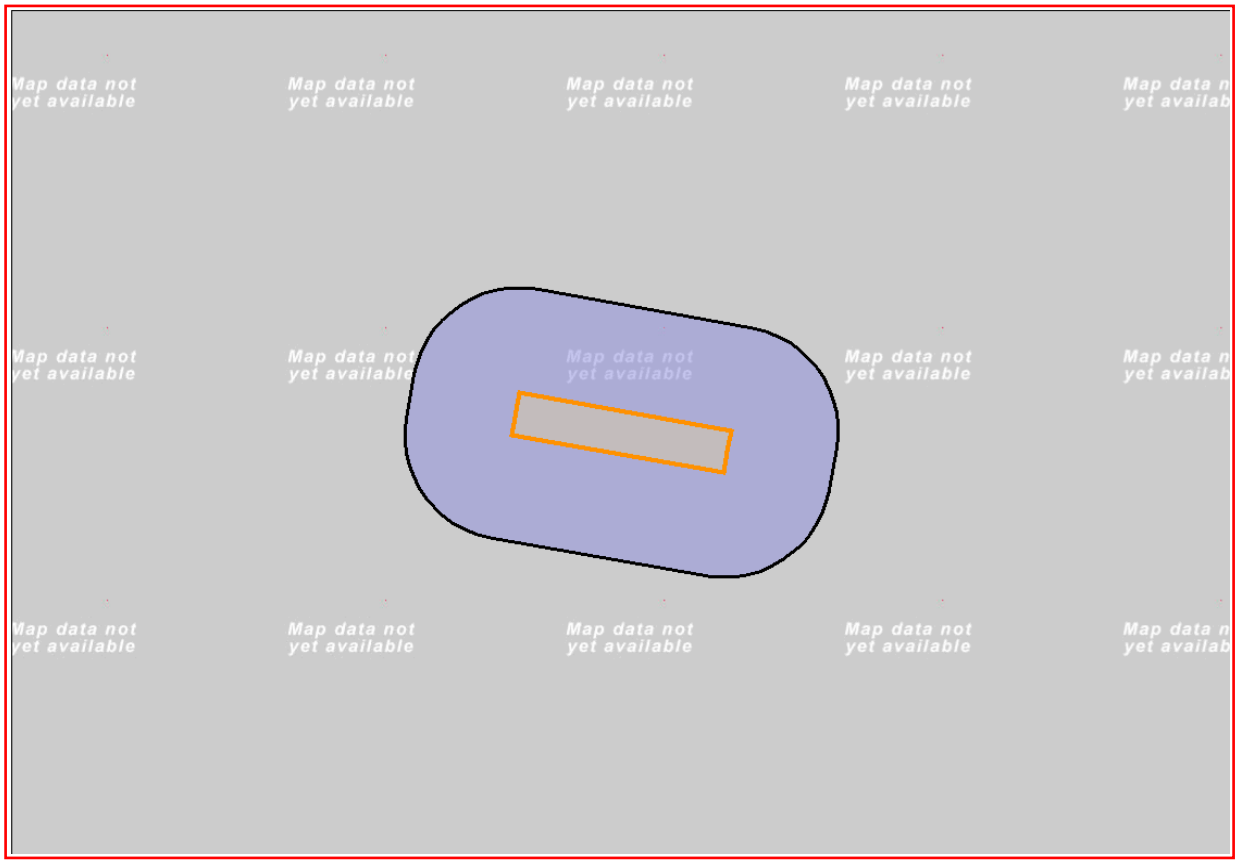
Attention: Sally Cottom

Email: sally@uhplanning.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 13, DP:DP792237, Section : - with a Buffer of 50 meters, conducted by Sally Cottom on 09 July 2024.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of Heritage NSW AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the NSW Government Gazette (https://www.legislation.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Heritage NSW upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Heritage NSW and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date. Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Level 6, 10 Valentine Ave, Parramatta 2150
Locked Bag 5020 Parramatta NSW 2124
Tel: (02) 9585 6345

ABN 34 945 244 274
Email: ahims@environment.nsw.gov.au
Web: www.heritage.nsw.gov.au

Department of Planning and Environment

Biodiversity Values Map and Threshold Report

This report is generated using the Biodiversity Values Map and Threshold (BMAT) tool. The BMAT tool is used by proponents to supply evidence to your local council to determine whether or not a Biodiversity Development Assessment Report (BDAR) is required under the Biodiversity Conservation Regulation 2017 (Cl. 7.2 & 7.3).

The report provides results for the proposed development footprint area identified by the user and displayed within the blue boundary on the map.

There are two pathways for determining whether a BDAR is required for the proposed development:

1. Is there Biodiversity Values Mapping?
2. Is the 'clearing of native vegetation area threshold' exceeded?

Biodiversity Values Map and Threshold Report

Date of Report Generation		09/07/2024 12:03 PM
1. Biodiversity Values (BV) Map - Results Summary (Biodiversity Conservation Regulation Section 7.3)		
1.1	**Does the development Footprint intersect with BV mapping?**	no
1.2	Was ALL BV Mapping within the development footprinted added in the last 90 days? (dark purple mapping only, no light purple mapping present)	no
1.3	**Date of expiry of dark purple 90 day mapping**	N/A
1.4	**Is the Biodiversity Values Map threshold exceeded?**	no
2. Area Clearing Threshold - Results Summary (Biodiversity Conservation Regulation Section 7.2)		
2.1	**Size of the development or clearing footprint**	5,008.6 sqm
2.2	**Native Vegetation Area Clearing Estimate (NVACE)** (within development/clearing footprint)	3,400.5 sqm
2.3	**Method for determining Minimum Lot Size**	LEP
2.4	**Minimum Lot Size** (10,000sqm = 1ha)	1,000 sqm
2.5	**Area Clearing Threshold** (10,000sqm = 1ha)	2,500 sqm
2.6	**Does the estimate exceed the Area Clearing Threshold?** (NVACE results are an estimate and can be reviewed using the Guidance)	yes

REPORT RESULT: Is the Biodiversity Offset Scheme (BOS) Threshold exceeded for the proposed development footprint area? (Your local council will determine if a BDAR is required)	**yes**

What do I do with this report?

• If the result above indicates the BOS Threshold has been exceeded, your local council may require a Biodiversity Development Assessment Report with your development application. Seek further advice from Council. An accredited assessor can apply the Biodiversity Assessment Method and prepare a BDAR for you. For a list of accredited assessors go to: https://customer.lmbc.nsw.gov.au/assessment/AccreditedAssessor.

• If the result above indicates the BOS Threshold has not been exceeded, you may not require a Biodiversity Development Assessment Report. This BMAT report can be provided to Council to support your development application. Council can advise how the area clearing threshold results should be considered. Council will review these results and make a determination if a BDAR is required. Council may ask you to review the area clearing threshold results. You may also be required to assess whether the development is '"likely to significantly affect threatened species" as determined under the test in Section 7.3 of the *Biodiversity Conservation Act 2016*.

• If a BDAR is not required by Council, you may still require a permit to clear vegetation from your local council.

• If all Biodiversity Values mapping within your development footprint was less than 90 days old, i.e. areas are displayed as dark purple on the BV map, a BDAR may not be required if your Development Application is submitted within that 90 day period. Any BV mapping less than 90 days old on this report will expire on the date provided in Line item 1.3 above.

For more detailed advice about actions required, refer to the Interpreting the evaluation report section of the Biodiversity Values Map Threshold Tool User Guide .

Review Options:

• If you believe the Biodiversity Values mapping is incorrect please refer to our BV Map Review webpage for further information.

• If you or Council disagree with the area clearing threshold estimate results from the NVACE in Line Item 2.6 above (i.e. area of Native Vegetation within the Development footprint proposed to be cleared), review the results using the Guide for reviewing area clearing threshold results from the BMAT Tool.

Acknowledgement

I, as the applicant for this development, submit that I have correctly depicted the area that will be impacted or likely to be impacted as a result of the proposed development.

Signature: _____ Date:_____

(Typing your name in the signature field will be considered as your signature for the purposes of this form)

09/07/2024 12:03 PM

Biodiversity Values Map and Threshold Tool

The Biodiversity Values (BV) Map and Threshold Tool identifies land with high biodiversity value, particularly sensitive to impacts from development and clearing.

The BV map forms part of the Biodiversity Offsets Scheme threshold, which is one of the factors for determining whether the Scheme applies to a clearing or development proposal. You have used the Threshold Tool in the map viewer to generate this BV Threshold Report for your nominated area. This report calculates results for your proposed development footprint and indicates whether Council may require you to engage an accredited assessor to prepare a Biodiversity Development Assessment Report (BDAR) for your development.

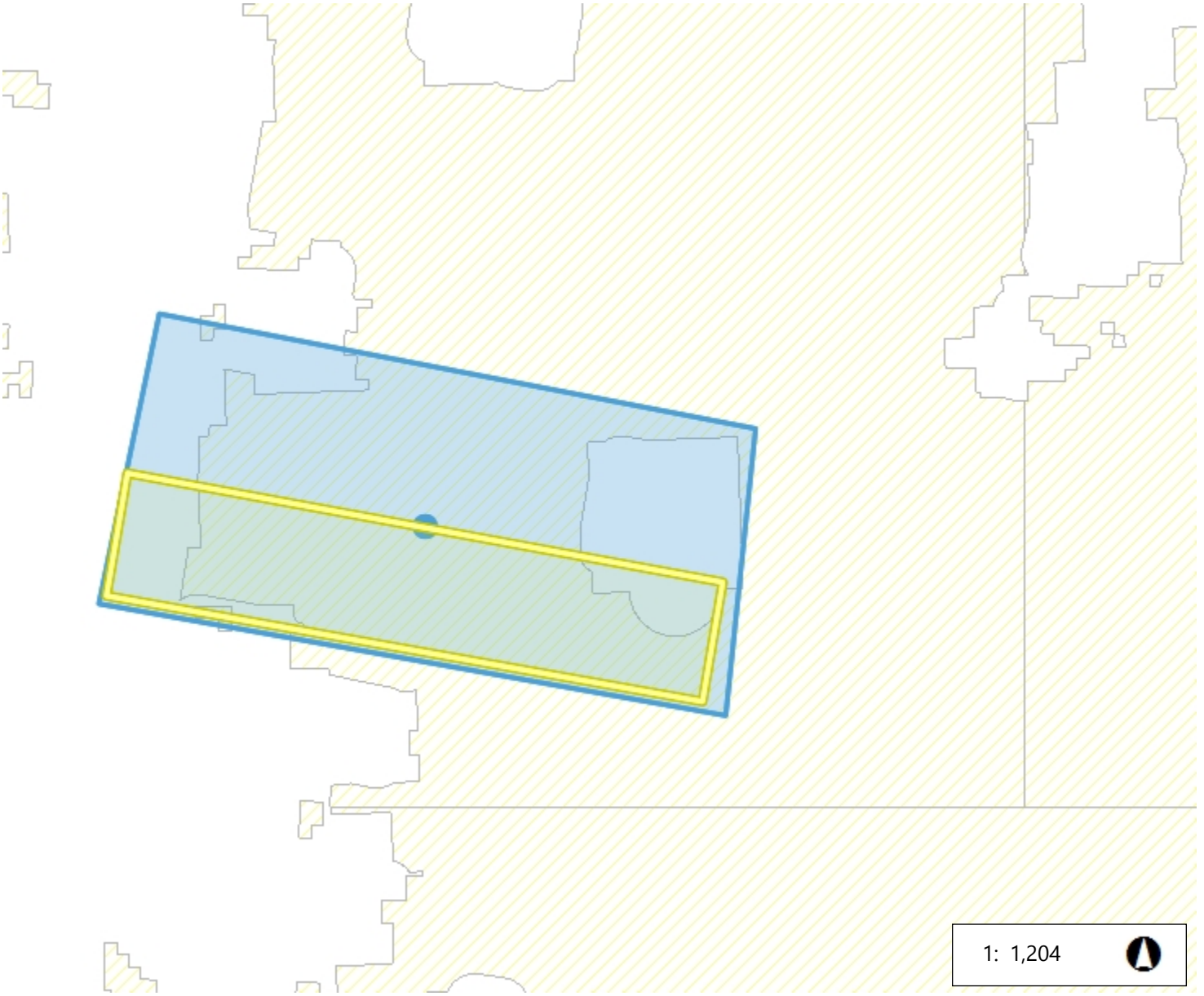
This report may be used as evidence for development applications submitted to councils. You may also use this report when considering native vegetation clearing under the State Environmental Planning Policy (Biodiversity and Conservation) 2021 - Chapter 2 vegetation in non-rural areas.

What's new? For more information about the latest updates to the Biodiversity Values Map and Threshold Tool go to the updates section on the Biodiversity Values Map webpage.

Map Review: Landholders can request a review of the BV Map where they consider there is an error in the mapping on their property. For more information about the map review process and an application form for a review go to the Biodiversity Values Map Review webpage.

If you need help using this map tool see our Biodiversity Values Map and Threshold Tool User Guide or contact the Map Review Team at map.review@environment.nsw.gov.au or on 1800 001 490.

Biodiversity Values Map



61.2 0 30.58 61.2 Metres

WGS_1984_Web_Mercator_Auxiliary_Sphere

This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable.

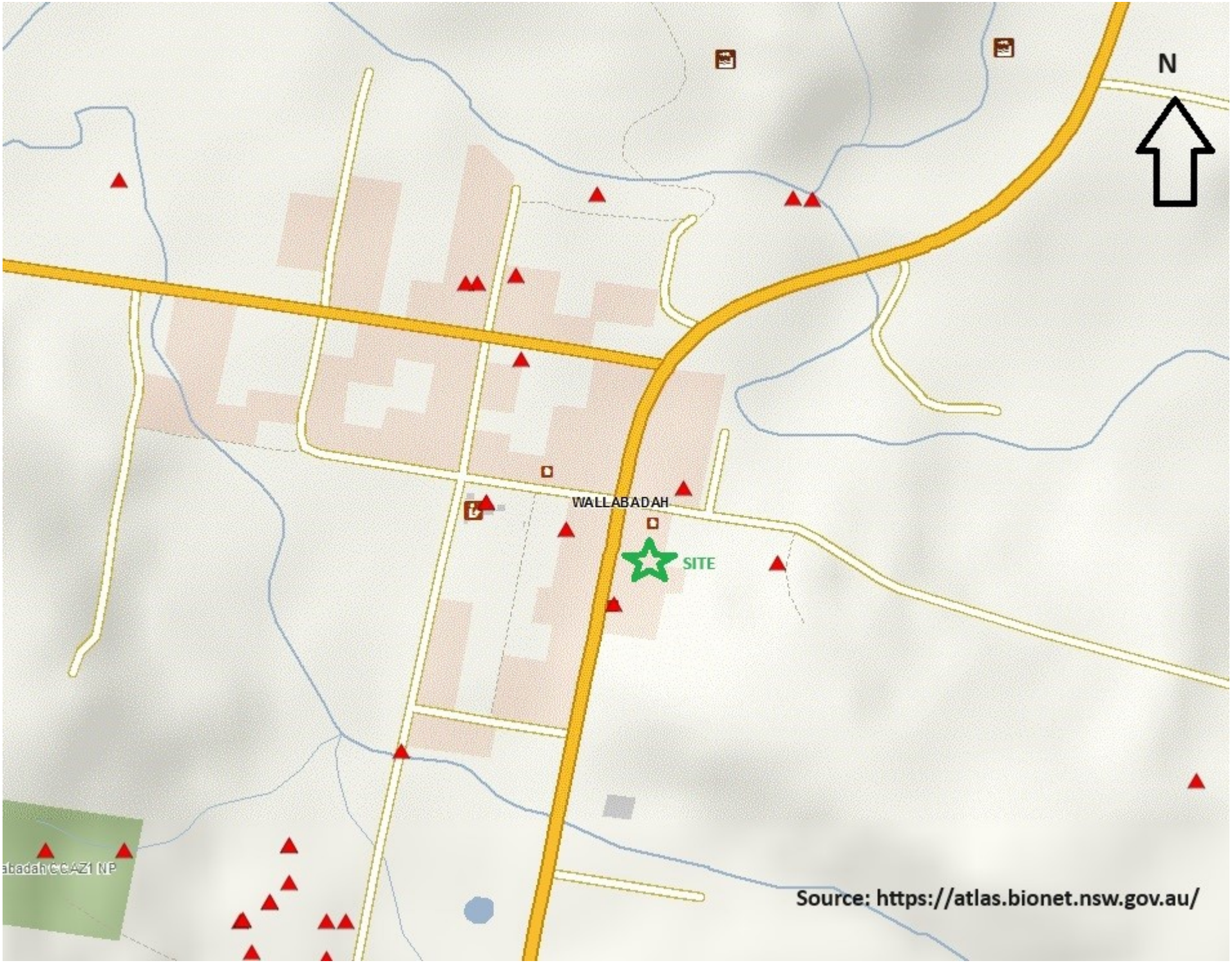
Legend

- Biodiversity Values that have been mapped for more than 90 days
- Biodiversity Values added within last 90 days
- Native Vegetation Area Clearing Estimate (NVACE)
- Development area selected by proponent

09/07/2024 12:03 PM

The results provided in this tool are generated using the best available mapping and knowledge of species habitat requirements.

This map is valid as at the date the report was generated. Checking the Biodiversity Values Map viewer for mapping updates is recommended.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SITE
Source: https://atlas.bionet.nsw.gov.au/

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

Report created: 09-Jul-2024

Summary

Matters of National Environment Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance.

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance (Ramsar	3
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	4
Listed Threatened Species:	42
Listed Migratory Species:	11

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at https://www.dcceew.gov.au/parks-heritage/heritage

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Lands:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	19
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None
Habitat Critical to the Survival of Marine Turtles:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	1
Regional Forest Agreements:	None
Nationally Important Wetlands:	None
EPBC Act Referrals:	2
Key Ecological Features (Marine):	None
Biologically Important Areas:	None
Bioregional Assessments:	1
Geological and Bioregional Assessments:	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar Wetlands)		[Resource Information]
Ramsar Site Name	Proximity	Buffer Status
Banrock station wetland complex	1000 - 1100km upstream from Ramsar site	In feature area
Riverland	900 - 1000km upstream from Ramsar site	In feature area
The coorong, and lakes alexandrina and albert wetland	1100 - 1200km upstream from Ramsar site	In feature area

Listed Threatened Ecological Communities			[Resource Information]
For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps. Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.			
Community Name	Threatened Category	Presence Text	Buffer Status
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community likely to occur within area	In feature area
New England Peppermint (Eucalyptus nova-anglica) Grassy Woodlands	Critically Endangered	Community may occur within area	In feature area
Weeping Myall Woodlands	Endangered	Community may occur within area	In feature area
White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland	Critically Endangered	Community likely to occur within area	In feature area

Listed Threatened Species			[Resource Information]
Status of Conservation Dependent and Extinct are not MNES under the EPBC Act. Number is the current name ID.			
Scientific Name	Threatened Category	Presence Text	Buffer Status
BIRD			

Scientific Name	Threatened Category	Presence Text	Buffer Status
Anthochaera phrygia Regent Honeyeater [82338]	Critically Endangered	Foraging, feeding or related behaviour likely to occur within area	In feature area
Aphelocephala leucopsis Southern Whiteface [529]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat may occur within area	In feature area
Calidris acuminata Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
Calyptorhynchus lathami lathami South-eastern Glossy Black-Cockatoo [67036]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Climacteris picumnus victoriae Brown Treecreeper (south-eastern) [67062]	Vulnerable	Species or species habitat known to occur within area	In feature area
Falco hypoleucos Grey Falcon [929]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Lathamus discolor](#)			
Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area	In feature area
[Melanodryas cucullata cucullata](#)			
South-eastern Hooded Robin, Hooded Robin (south-eastern) [67093]	Endangered	Species or species habitat likely to occur within area	In feature area
[Neophema chrysostoma](#)			
Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area	In feature area
[Polytelis swainsonii](#)			
Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area	In feature area
[Rostratula australis](#)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area	In feature area
[Stagonopleura guttata](#)			
Diamond Firetail [59398]	Vulnerable	Species or species habitat known to occur within area	In feature area
FISH			
[Maccullochella peelii](#)			
Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area	In feature area
FROG			
[Litoria booroolongensis](#)			
Booroolong Frog [1844]	Endangered	Species or species habitat likely to occur within area	In feature area
MAMMAL			
[Chalinolobus dwyeri](#)			
Large-eared Pied Bat, Large Pied Bat [183]	Endangered	Species or species habitat likely to occur within area	In feature area
[Dasyurus maculatus maculatus (SE mainland population)](#)			
Spot-tailed Quoll, Spotted-tail Quoll, Tiger Quoll (southeastern mainland population) [75184]	Endangered	Species or species habitat likely to occur within area	In feature area
[Nyctophilus corbeni](#)			
Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Petauroides volans Greater Glider (southern and central) [254]	Endangered	Species or species habitat may occur within area	In buffer area only
Petaurus australis australis Yellow-bellied Glider (south-eastern) [87600]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Endangered	Species or species habitat likely to occur within area	In feature area
Pseudomys novaehollandiae New Holland Mouse, Pookila [96]	Vulnerable	Species or species habitat may occur within area	In feature area
Pteropus poliocephalus Grey-headed Flying-fox [186]	Vulnerable	Foraging, feeding or related behaviour known to occur within area	In feature area
PLANT			
Cadellia pentastylis Ooline [9828]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Dichanthium setosum bluegrass [14159]	Vulnerable	Species or species habitat known to occur within area	In feature area
Eucalyptus nicholii Narrow-leaved Peppermint, Narrow-leaved Black Peppermint [20992]	Vulnerable	Species or species habitat may occur within area	In feature area
Euphrasia arguta [4325]	Critically Endangered	Species or species habitat may occur within area	In feature area
Lepidium aschersonii Spiny Peppercress [10976]	Vulnerable	Species or species habitat may occur within area	In feature area
Lepidium monoplocoides Winged Pepper-cress [9190]	Endangered	Species or species habitat may occur within area	In buffer area only

Scientific Name	Threatened Category	Presence Text	Buffer Status
Pomaderris brunnea			
Rufous Pomaderris, Brown Pomaderris [16845]	Vulnerable	Species or species habitat may occur within area	In feature area
Prasophyllum sp. Wybong (C.Phelps ORG 5269)			
a leek-orchid [81964]	Critically Endangered	Species or species habitat may occur within area	In feature area
Swainsona murrayana			
Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Thesium australe			
Austral Toadflax, Toadflax [15202]	Vulnerable	Species or species habitat likely to occur within area	In feature area
Vincetoxicum forsteri listed as Tylophora linearis			
[92384]	Endangered	Species or species habitat may occur within area	In buffer area only
REPTILE			
Anomalopus mackayi			
Five-clawed Worm-skink, Long-legged Worm-skink [25934]	Vulnerable	Species or species habitat may occur within area	In buffer area only
Aprasia parapulchella			
Pink-tailed Worm-lizard, Pink-tailed Legless Lizard [1665]	Vulnerable	Species or species habitat may occur within area	In feature area
Delma impar			
Striped Legless Lizard, Striped Snake-lizard [1649]	Vulnerable	Species or species habitat may occur within area	In feature area
Uvidicolus sphyrurus			
Border Thick-tailed Gecko, Granite Belt Thick-tailed Gecko [84578]	Vulnerable	Species or species habitat likely to occur within area	In feature area

Listed Migratory Species			[Resource Information]
Scientific Name	Threatened Category	Presence Text	Buffer Status
Migratory Marine Birds			
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area	In feature area
Migratory Terrestrial Species			

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area	In feature area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area	In buffer area only
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area	In feature area
[Rhipidura rufifrons](#) Rufous Fantail [592]		Species or species habitat likely to occur within area	In feature area
Migratory Wetlands Species			
[Actitis hypoleucos](#) Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
[Calidris acuminata](#) Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
[Calidris ferruginea](#) Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area	In feature area
[Calidris melanotos](#) Pectoral Sandpiper [858]		Species or species habitat may occur within area	In feature area
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area	In feature area

Other Matters Protected by the EPBC Act

Commonwealth Lands [Resource Information]

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Commonwealth Land Name	State	Buffer Status
Communications, Information Technology and the Arts - Telstra Corporation Limited		
Commonwealth Land - Australian Telecommunications Commission [12947]	NSW	In buffer area only

Listed Marine Species [Resource Information]

Scientific Name	Threatened Category	Presence Text	Buffer Status
Bird			
Actitis hypoleucos			
Common Sandpiper [59309]		Species or species habitat may occur within area	In feature area
Apus pacificus			
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area	In feature area
Bubulcus ibis as Ardea ibis			
Cattle Egret [66521]		Species or species habitat may occur within area overfly marine area	In feature area
Calidris acuminata			
Sharp-tailed Sandpiper [874]	Vulnerable	Species or species habitat may occur within area	In feature area
Calidris ferruginea			
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat may occur within area overfly marine area	In feature area
Calidris melanotos			
Pectoral Sandpiper [858]		Species or species habitat may occur within area overfly marine area	In feature area
Chalcites osculans as Chrysococcyx osculans			
Black-eared Cuckoo [83425]		Species or species habitat likely to occur within area overfly marine area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
[Gallinago hardwickii](#) Latham's Snipe, Japanese Snipe [863]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
[Haliaeetus leucogaster](#) White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area	In feature area
[Hirundapus caudacutus](#) White-throated Needletail [682]	Vulnerable	Species or species habitat likely to occur within area overfly marine area	In feature area
[Lathamus discolor](#) Swift Parrot [744]	Critically Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area
[Merops ornatus](#) Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area	In feature area
[Monarcha melanopsis](#) Black-faced Monarch [609]		Species or species habitat may occur within area overfly marine area	In buffer area only
[Motacilla flava](#) Yellow Wagtail [644]		Species or species habitat may occur within area overfly marine area	In feature area
[Myiagra cyanoleuca](#) Satin Flycatcher [612]		Species or species habitat known to occur within area overfly marine area	In feature area
[Neophema chrysostoma](#) Blue-winged Parrot [726]	Vulnerable	Species or species habitat may occur within area overfly marine area	In feature area
[Pterodroma cervicalis](#) White-necked Petrel [59642]		Species or species habitat may occur within area	In feature area

Scientific Name	Threatened Category	Presence Text	Buffer Status
Rhipidura rufifrons			
Rufous Fantail [592]		Species or species habitat likely to occur within area overfly marine area	In feature area
Rostratula australis as Rostratula benghalensis (sensu lato)			
Australian Painted Snipe [77037]	Endangered	Species or species habitat likely to occur within area overfly marine area	In feature area

Extra Information

State and Territory Reserves [Resource Information]

Protected Area Name	Reserve Type	State	Buffer Status
Wallabadah	CCA Zone 1 National Park	NSW	In buffer area only

EPBC Act Referrals [Resource Information]

Title of referral	Reference	Referral Outcome	Assessment Status	Buffer Status
Not controlled action				
Improving rabbit biocontrol: releasing another strain of RHDV, sthrn two thirds of Australia	2015/7522	Not Controlled Action	Completed	In feature area
Not controlled action (particular manner)				
Aerial baiting for wild dog control	2006/2713	Not Controlled Action (Particular Manner)	Post-Approval	In feature area

Bioregional Assessments [Resource Information]

SubRegion	BioRegion	Website	Buffer Status
Hunter	Northern Sydney Basin	BA website	In buffer area only

Caveat

1 PURPOSE

This report is designed to assist in identifying the location of matters of national environmental significance (MNES) and other matters protected by the Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act) which may be relevant in determining obligations and requirements under the EPBC Act.

The report contains the mapped locations of:

- World and National Heritage properties;
- Wetlands of International and National Importance;
- Commonwealth and State/Territory reserves;
- distribution of listed threatened, migratory and marine species;
- listed threatened ecological communities; and
- other information that may be useful as an indicator of potential habitat value.

2 DISCLAIMER

This report is not intended to be exhaustive and should only be relied upon as a general guide as mapped data is not available for all species or ecological communities listed under the EPBC Act (see below). Persons seeking to use the information contained in this report to inform the referral of a proposed action under the EPBC Act should consider the limitations noted below and whether additional information is required to determine the existence and location of MNES and other protected matters.

Where data are available to inform the mapping of protected species, the presence type (e.g. known, likely or may occur) that can be determined from the data is indicated in general terms. It is the responsibility of any person using or relying on the information in this report to ensure that it is suitable for the circumstances of any proposed use. The Commonwealth cannot accept responsibility for the consequences of any use of the report or any part thereof. To the maximum extent allowed under governing law, the Commonwealth will not be liable for any loss or damage that may be occasioned directly or indirectly through the use of, or reliance

3 DATA SOURCES

Threatened ecological communities

For threatened ecological communities where the distribution is well known, maps are generated based on information contained in recovery plans, State vegetation maps and remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Threatened, migratory and marine species

Threatened, migratory and marine species distributions have been discerned through a variety of methods. Where distributions are well known and if time permits, distributions are inferred from either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc.) together with point locations and described habitat; or modelled (MAXENT or BIOCLIM habitat modelling) using

Where little information is available for a species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc.).

In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More detailed distribution mapping methods are used to update these distributions

4 LIMITATIONS

The following species and ecological communities have not been mapped and do not appear in this report:

- threatened species listed as extinct or considered vagrants;
- some recently listed species and ecological communities;
- some listed migratory and listed marine species, which are not listed as threatened species; and
- migratory species that are very widespread, vagrant, or only occur in Australia in small numbers.

The following groups have been mapped, but may not cover the complete distribution of the species:

- listed migratory and/or listed marine seabirds, which are not listed as threatened, have only been mapped for recorded
- seals which have only been mapped for breeding sites near the Australian continent

The breeding sites may be important for the protection of the Commonwealth Marine environment.

Refer to the metadata for the feature group (using the Resource Information link) for the currency of the information.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment and Heritage, New South Wales
-Department of Environment and Primary Industries, Victoria
-Department of Primary Industries, Parks, Water and Environment, Tasmania
-Department of Environment, Water and Natural Resources, South Australia
-Department of Land and Resource Management, Northern Territory
-Department of Environmental and Heritage Protection, Queensland
-Department of Parks and Wildlife, Western Australia
-Environment and Planning Directorate, ACT
-Birdlife Australia
-Australian Bird and Bat Banding Scheme
-Australian National Wildlife Collection
-Natural history museums of Australia
-Museum Victoria
-Australian Museum
-South Australian Museum
-Queensland Museum
-Online Zoological Collections of Australian Museums
-Queensland Herbarium
-National Herbarium of NSW
-Royal Botanic Gardens and National Herbarium of Victoria
-Tasmanian Herbarium
-State Herbarium of South Australia
-Northern Territory Herbarium
-Western Australian Herbarium
-Australian National Herbarium, Canberra
-University of New England
-Ocean Biogeographic Information System
-Australian Government, Department of Defence
Forestry Corporation, NSW
-Geoscience Australia
-CSIRO
-Australian Tropical Herbarium, Cairns
-eBird Australia
-Australian Government – Australian Antarctic Data Centre
-Museum and Art Gallery of the Northern Territory
-Australian Government National Environmental Science Program
-Australian Institute of Marine Science
-Reef Life Survey Australia
-American Museum of Natural History
-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania
-Tasmanian Museum and Art Gallery, Hobart, Tasmania
-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the Contact us page.

Department of Climate Change, Energy, the Environment and Water
GPO Box 3090
Canberra ACT 2601 Australia
+61 2 6274 1111