

MOJDAP/22 meeting  
scheduled for 16 July 2020 at  
1.30pm has been cancelled as  
DAP/20/01742 has been  
withdrawn.



## **Metro Outer Joint Development Assessment Panel Agenda**

**Meeting Date and Time:** Thursday, 16 July 2020; 1:30pm  
**Meeting Number:** MOJDAP/22  
**Meeting Venue:** This meeting is available for members of the public to attend via electronic means

To connect to the meeting via your computer - <https://zoom.us/j/99895601098>

To connect to the meeting via teleconference dial the following phone number -  
+61 8 7150 1149  
Insert Meeting ID followed by the hash (#) key when prompted - 998 9560 1098

*This DAP meeting will be conducted by electronic means open to the public rather than requiring attendance in person.*

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## **Attendance**

### **DAP Members**

Mr Ian Birch (Presiding Member)  
Ms Sheryl Chaffer (Deputy Presiding Member)  
Mr Jason Hick (Third Specialist Member)  
Cr Casey Rose (Local Government Member, Shire of Murray)  
Cr David Bolt (Local Government Member, Shire of Murray)

### **Officers in attendance**

Mr Alan Smith (Shire of Murray)  
Mr Rod Peake (Shire of Murray)  
Mr Rhys Bloxside (Shire of Murray)  
Mr Cale Luxton (Western Australian Planning Commission)  
Mr Jason Bouwhuis (Western Australian Planning Commission)

### **Minute Secretary**

Mr Phil Goodwin (DAP Secretariat)

### **Applicants and Submitters**

Ms Sally Birkhead (Urbis)  
Mr Kris Nolan (Urbis)  
Mr Rodney Ding (GTA Consultants)

### **Members of the Public / Media**

Nil

#### **1. Opening of Meeting, Welcome and Acknowledgement**

The Presiding Member declares the meeting open and acknowledges the traditional owners and pay respects to Elders past and present of the land on which the meeting is being held.

In response to the COVID-19 situation, this meeting is being conducted by electronic means open to the public. Members are reminded to announce their name and title prior to speaking.

#### **2. Apologies**

Nil

#### **3. Members on Leave of Absence**

Nil

#### **4. Noting of Minutes**

Signed minutes of previous meetings are available on the [DAP website](#).



## 5. Declarations of Due Consideration

Any member who is not familiar with the substance of any report or other information provided for consideration at the DAP meeting must declare that fact before the meeting considers the matter.

## 6. Disclosure of Interests

Nil

## 7. Deputations and Presentations

The Shire of Murray and Western Australian Planning Commission may be provided with the opportunity to respond to questions of the panel, as invited by the Presiding Member.

## 8. Form 1 – Responsible Authority Reports – DAP Applications

### 8.1a Lot 137 (630) Pinjarra Road, Furnissdale

Development Description: Fuel Sales and Convenience Store  
Applicant: Urbis  
Owner: Mandurah Spotlight Property 2 Pty Ltd  
Responsible Authority: Shire of Murray  
DAP File No: DAP/20/01742

### 8.2b Lot 137 Pinjarra Road, Furnissdale

Development Description: Petrol Station and Convenience Store  
Applicant: Yolk Property Group c/Urbis  
Owner: Mandurah Spotlight Property 2 Pty Ltd  
Responsible Authority: Western Australian Planning Commission  
DAP File No: DAP/19/01742

## 9. Form 2 – Responsible Authority Reports – DAP Amendment or Cancellation of Approval

Nil

## 10 State Administrative Tribunal Applications and Supreme Court Appeals

Current SAT Applications				
File No. & SAT DR No.	LG Name	Property Location	Application Description	Date Lodged
DAP/19/01575 DR 256/2019	City of Armadale	Lot 9007 (76) Southampton Drive, Piara Waters	Lifestyle Village (Piara Waters Lifestyle Village)	10/12/2019
DAP/19/01702 DR 049/2020	City of Swan	Lot 11, 152 & 153 Talbot Road, Hazelmere	Industrial Warehouse and Ancillary Uses	18/3/2020





## **11 General Business**

In accordance with Section 7.3 of the DAP Standing Orders 2017 only the Presiding Member may publicly comment on the operations or determinations of a DAP and other DAP members should not be approached to make comment.

## **12 Meeting Closure**



## Form 1 – Responsible Authority Report (Regulation 12)

<b>Property Location:</b>	Lot 137 (630) Pinjarra Road, Furnissdale
<b>Development Description:</b>	Fuel Sales and Convenience Store
<b>DAP Name:</b>	Metro Outer JDAP
<b>Applicant:</b>	Urbis
<b>Owner:</b>	Mandurah Spotlight Property 2 Pty Ltd
<b>Value of Development:</b>	\$2.8 million
<b>LG Reference:</b>	P230/2019
<b>Responsible Authority:</b>	Shire of Murray
<b>Authorising Officer:</b>	Rhys Bloxsidge, Manager Planning
<b>DAP File No:</b>	DAP/20/01742
<b>Report Due Date:</b>	3 July 2020
<b>Application Received Date:</b>	22 January 2020
<b>Application Process Days:</b>	163 days
<b>Attachment(s):</b>	<ol style="list-style-type: none"><li>1. Development Application Report, which includes development plans (SK06, SK07, SK08, SK09, SK13) and a traffic impact assessment</li><li>2. Swept path plan submitted 24 June 2020 (W177920-SK01, P6)</li><li>3. Additional traffic technical note in support of traffic impact assessment</li><li>4. Indicative design for Furnissdale Road (W177920-01, P1)</li><li>5. Indicative interim and ultimate site layout</li><li>6. Bushfire Management Plan</li><li>7. Bushfire Risk Management Plan</li><li>8. Marked Up Swept Path Plan</li><li>9. Submission from nearby Landowner</li><li>10. Barragup Furnissdale Activity Centre Local Planning Policy</li></ol>

### Officer Recommendation:

That the Metro Outer JDAP resolves to:

1. **Accept** that the DAP Application reference DAP/20/01742 is appropriate for consideration as an unlisted land use and compatible with the objectives of the zoning table in accordance with the Shire of Murray Local Planning Scheme No. 4.
2. **Refuse** DAP Application reference DAP/20/01742 and accompanying plans (site plan SK06, floor plan SK07, elevation plan SK08, elevation plan SK09, landscaping plan SK13 and swept path plan W177920-SK01) in accordance with Clause 68 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015* for the following reasons:

## Reasons

1. The proposed means of access to and egress from the site is inadequate and manifestly unsafe, particularly in regard to the location, manoeuvrability restrictions, sweep path requirements and widths of the crossovers and trafficable areas.
2. The proposed layout of the site is considered inadequate to ensure that light vehicles, heavy vehicles, pedestrians and cyclists can be appropriately separated when accessing the site and traversing through the site. The proposed layout is considered highly unsafe.
3. The location of the intersection of the internal access road with Furnissdale Road is inappropriate as it would prevent acceptable access outcomes being achieved for the future commercial development of the land on the opposite side of Furnissdale Road.

## Details: outline of development application

Insert Zoning	PRS:	Urban / Primary Regional Roads
	TPS:	Commercial / Service Commercial
Insert Use Class:		Use not listed
Insert Strategy Policy:		NA
Insert Development Scheme:		NA
Insert Lot Size:		4.3 hectares
Insert Existing Land Use:		Vacant land

Urbis on behalf of Yolk Property Group proposes to construct a fuel sales and convenience retail building at Lot 137 (630) Pinjarra Road, Furnissdale. The proposal entails the following:

- 300m<sup>2</sup> fuel sales and convenience retail building;
- Eight fuel bowzers for small private vehicles with a covering canopy of 345m<sup>2</sup>;
- Four fuel bowzers for trucks with a covering canopy of 145m<sup>2</sup>;
- Pylon sign;
- 17 car parking bays;
- One servicing bay;
- Internal trafficable surfaces and crossovers;
- External trafficable access points and crossovers; and
- Landscaping.

It has been indicated by the proponent that the proposed internal trafficable surfaces that provide access to the service station from the existing road network will ultimately form part of the road network in the future and become road reserves at a later stage.

The proposed land use does not comfortably fit within any of the uses mentioned under the Zoning Table of the Shire of Murray Local Planning Scheme No. 4 (the Scheme). The only land uses contained in the Zoning Table that relate to fuel sales are 'service station' and 'petrol filling station', however the definitions of these uses do not capture the proposal.

A 'service station' means *"land and buildings used for the supply of petroleum products and automotive accessories and includes greasing, tyre repairs and minor mechanical repairs"*. The proposal does not include greasing, type repair or minor mechanical repairs.

A 'petrol filling station' means *"land and buildings used for the supply of petroleum products and automotive accessories"*. This definition does not include convenience retail sales as per the proposal.

Further, whilst not specifically listed in the Zoning Table, the Scheme provides a definition for a 'roadhouse'. A 'roadhouse' means *"land and buildings used primarily as a service station but with a supplementary use a restaurant and/or as a shop providing minor facilities"*. This definition specifically refers to a 'service station', which as discussed above, does not properly capture the proposal.

The subject lot is zoned both 'Commercial' and 'Service Commercial'. The fuel sales and convenience store site is located entirely within the 'Commercial' zone, whereas a section of trafficable area that facilitates access to the site is within the 'Service Commercial' zone. Clause 5.2.3 of the Scheme states that a proposed land use not specifically listed under the Zoning Table can be permitted provided that the use is considered consistent with the objectives of the zone.

The Scheme does not prove specific objectives for the 'Commercial' zone, however the Zoning Table lists a 'petrol filling station' and 'service station' as discretionary uses in the zone, therefore the proposed use would not be considered out of the ordinary for the zone.

### **Background:**

The subject lot is 4.3 hectares in size, however the proposed land use only occupies about a hectare of the lot. The lot has a long frontage to both Pinjarra Road and Furnissdale Road. The lot abuts rural residential properties to the south and east. A small commercial lot is also wedged between the subject lot and the intersection of Pinjarra Road and Furnissdale Road.

The lot is not currently used for any purpose, however it was historically used as a caravan park or park home park. The hardstand areas for many of the caravan and park home sites are still in place. There is a high number of mature trees over the site, however they are spaced out between the previous caravan sites and internal driveways.

An aerial photograph depicting the lot is shown below.



The proposed development requires approval under both the Shire of Murray Local Planning Scheme No. 4 and the Peel Region Scheme as the land abuts a Primary Regional Road reservation (Pinjarra Road) and involves development where access to a regional road reservation is proposed. The Shire has the delegated authority to deal with development applications on land abutting a Primary Regional Road under the Peel Region Scheme if the Shire accepts the advice of Main Roads WA, or where the Shire decides to refuse the Peel Region Scheme application. In this case the Shire does not accept the advice of Main Roads WA in regard to the proposed left in, left out access arrangements to/from Pinjarra Road. Further, whilst the Shire has recommended to refuse the application, it still does not have the delegation to determine it – delegation rests with the JDAP.

To properly inform the JDAP, the Peel Region Scheme application was referred to the Department of Planning, Lands and Heritage (DPLH) to prepare a Responsible Authority Report on behalf of the Western Australian Planning Commission. The DPLH's Responsible Authority Report focuses on regional road matters, whilst the this Responsible Authority Report focusses local planning matters.



## Legislation and Policy:

### Legislation

- Shire of Murray Local Planning Scheme No. 4
- Peel Region Scheme
- *Planning and Development (Local Planning Schemes) Regulations 2015*

### Local Policies

- Barragup Furnissdale Activity Centre Local Planning Policy

## Consultation:

### Public Consultation

In accordance with Regulation 64 of the Deemed Provisions under the *Planning and Development (Local Planning Schemes) Regulations 2015*, a number of nearby landowners were notified of the proposal and invited to make a submission. Only two submissions were received, one of which stated no objection. The other has been summarised in the table below. A full copy of the submission has been included as an appendix.

Issue Raised	Officer's comments
<p>My house is only 60 metres from the 24/7 trafficable areas of the service station. With the current fencing arrangement there will be no privacy, noise barrier or light blockage. The service station is open 24 hours a day, enabling trucks and vehicles to access fuel and goods 24/7, which will mean the area is heavily illuminated and noisy at all hours. A masonry wall installed by the developer along the common boundary would assist with:</p> <ul style="list-style-type: none"><li>• Noise issues</li><li>• Light spill issues</li><li>• Security issues</li><li>• Privacy issues</li><li>• Protection from potential incidents (explosions, spillage)</li></ul> <p>There is a risk that environmental catastrophes could occur (explosions, spillage) and the close proximity of my house to the site, there is a cause for concern.</p> <p>Drug users frequent the site and people have jumped my fence. Consideration needs to be given to reducing anti-social</p>	<p><b>Not supported.</b> The submitter's house is approximately 100m from the edge of the proposed trafficable area, with the separating land occupied by mature vegetation that would substantially screen the development and associated traffic. It would therefore not be considered reasonable to require the developer to construct a masonry wall on the common lot boundary at this stage, however it would be appropriate to consider when subsequent stages of development of the lot are proposed closer to the boundary. Further, new service stations are required to be built to high industry standards, which significantly reduces the likelihood of catastrophes occurring.</p>

behaviour on the property. The Police are in regular attendance.	
Any construction and demolition works should only be undertaken during residential working hours.	

### Consultation with other Agencies or Consultants

A number of State government agencies and service providers were notified of the proposal and invited to submit comments and provide advice. Each submission is summarised below. The reporting officer's comments are included directly underneath each submission. Main Roads WA and the Public Transport Authority also provided comments, however their comments will be addressed in the DPLH's Responsible Authority Report.

#### *Main Roads WA*

Main Roads WA provided their original advice on 12 February 2020 and further advice on 18 June 2020. Main Roads WA do not support the left in, left out access onto Pinjarra Road, and rather would only support a left in access arrangement. Main Roads WA has also expressed other concerns. These are Primary Regional Road issues and will be dealt with in the DPLH's Responsible Authority Report.

#### *Department of Water and Environmental Regulation (DWER)*

- No objection.
- A stormwater management plan should be prepared.
- An emergency response plan should be prepared in relation to contaminant spills.
- Underground fuel tanks should be constructed to an appropriate standard.
- Development should adhere to the requirements of the Government Sewerage Policy.
- Existing septic systems should be decommissioned.
- The land is mapped as being at moderate risk to Acid Sulphate Spoils. Ground disturbing works should be managed appropriately.

Officer's comment – DWER's recommendations are supported and suitable conditions or advice notes should be included should the JDAP grant approval to the development.

#### *Department of Health (DoH)*

- The development is to connect to scheme water and reticulated sewerage and incorporate appropriate infrastructure.

Following receipt of this submission, the Shire informed the DoH that the developer intended to treat wastewater through an on-site system as it was financially unfeasible to connect to the reticulated sewerage network.

The DoH advised that it would be difficult to know whether an on-site system would be acceptable with a specific site and soil evaluation being carried out, however if the site is capable the DoH would have no objection to the disposal of wastewater on site.

Officer's comment – Given the site's previous use as a caravan park that entailed a number of on-site effluent disposal systems and the recent approvals of other onsite effluent disposal systems, it is highly likely that the site would be able to support the disposal of wastewater on site. The majority of the Furnissdale/Barragup area is not connected to the reticulated sewerage network, however there is a significant number of dwellings and other developments in the vicinity that all entail the disposal of wastewater on site.

#### *Department of Fire and Emergency Services (DFES)*

Note: The site is within a bushfire prone area and the service station is considered a high risk land use, therefore the submitted Bushfire Management Plan (BMP) and associated Bushfire Risk Management Plan was referred to DFES for assessment.

- A notification should be placed on the certificate of title advising that the Asset Protection Zone establishment and low threat vegetation management is required in perpetuity.
- To mitigate the risk of non-compliance of the Asset Protection Zone with bushfire policy, any landscape management plan should clearly articulate the extent of vegetation to be removed/modified.
- The establishment of the APZ appears to be subject to clearing of vegetation to achieve compliance with bushfire policy. The landscape management plan should be modified to clearly articulate what vegetation needs to be removed or modified to achieve compliance.
- The BMP is to be modified to provide further detail on classification of vegetation in plot 3.
- The Bushfire Attack Level ratings cannot be validated until the vegetation classification within plot 3 is confirmed.
- The development has not been designed appropriately to ensure bushfire protection measures can be achieved to minimise risk to vulnerable people.
- The BMP is not supported as elements 1 and 2 of the bushfire guidelines has not been demonstrated.

The advice above was referred to the applicant's bushfire consultant. The bushfire consultant provided commentary addressing the classification of vegetation within plot 3 and the validation of the BAL ratings. The bushfire consultant also provided commentary on the landscape management plan and APZ. Pertinently, the bushfire consultant advised that there was no ambiguity regarding the ongoing establishment of the APZ, therefore a notification on the title is unnecessary, especially given that the implementation of the BMP will be required as a condition of development approval. DFES's response to the bushfire consultant's commentary is summarised below:

- The classification of plot 3 is supported, however the BMP should be modified to include more detail on this classification.
- The BAL ratings are validated.



- The ongoing establishment requirements of the APZ remain ambiguous and the landscape management plan should be expanded in scope to address APZ requirements.
- There is sufficient ambiguity in the BMP regarding the APZ that a notification on the title is still warranted.

Officer's comment: If the JDAP is of a mind to approve the development, a condition should be added requiring the BMP to be modified to include the additional detail regarding vegetation classification in plot 3. Further, a condition requiring the landscape management plan to be modified to include detail regarding the APZ should be added. It is not considered necessary to add a condition regarding a notification on the title regarding the APZ specifically, however a general BMP notification could be imposed.

*Department of Biodiversity, Conservation and Attractions (DBCA)*

- The proposal entails some clearing and potential loss of habitat for threatened Black Cockatoos.
- Clearing of native vegetation can only occur if a clearing permit is issued by DWER or the clearing is exempt under legislation.
- Any proposed clearing should be discussed with DWER.
- Three species of Black Cockatoo are vulnerable to extinction, therefore the proposal should be discussed with the Federal Department of Agriculture, Water and the Environment to determine whether there is a requirement to formally refer the proposal in accordance with the *Environmental Protection and Biodiversity Conservation Act*.

Officer's comment – DBCA's comments are noted. It is unlikely that the area to be cleared is Black Cockatoo habitat given that the area is relatively small, is parkland cleared and is not mapped as being Peel Regionally Significant Vegetation or Swan Bioplan. If the JDAP is of a mind to approve the development, an advice note should be included advising the developer to of the possible need for approval under the Environmental Protection and Biodiversity Conservation Act.

*Public Transport Authority (PTA)*

- It is unclear whether the operation of the Transperth service or existing bus stop boarding area will be affected by the new access point to the development site.
- It appears unlikely that the bus stop will be affected, however the developer should provide the PTA with the access design to ascertain whether the bus stop will be impacted.

Officer's comment – this is a Primary Regional Road issue and will be dealt with in the DPLH's Responsible Authority Report.

*Department of Mines, Industry Regulation and Safety (DMIRS)*

- No objection

Officer's comment – DMIRS's comment is noted.

*Water Corporation [NOTE: May be a PRS issue]*

- A Water Corporation raw sewerage pressure main runs across the frontage of the lot within Pinjarra Road.
- The developer should be advised to contact Water Corporation to ensure the new access to the site from Pinjarra Road does not affect the pressure main.

Officer's comment – If the JDAP is of a mind to approve the development, an advice note should be included regarding the need for the developer to consult with the Water Corporation in respect to the impact of the new crossover from Pinjarra Road on the Water Corporation sewer pressure main.

*ATCO Gas*

- ATCO Gas owns and operates high pressure gas pipeline within Pinjarra Road.
- No objection provided that an advice note is added generally requesting the developer to consult with ATCO Gas prior to commencing works.

Officer's comment – If the JDAP is of a mind to approve the development an advice note should be included as requested by ATCO Gas.

**Planning Assessment:**

Local Planning Scheme and Local Planning Policies

Whilst the 'Officer Comments' section of this report focusses predominantly on traffic-related matters, it is still considered prudent to assess the proposal against the other relevant components of the local planning framework. Given the officer recommendation however, each area of non-compliance has not been discussed in detail further in the report.

The Barragup Furnissdale Activity Centre Local Planning Policy typically covers most of the relevant development requirements, as outlined in the table below.

Item	Local Planning Framework Document	Requirement	Proposal	Compliance
Vehicular and pedestrian access	Barragup Furnissdale Activity Centre Local Planning Policy (BFACLPP)	Left in vehicle movement from Pinjarra Road at eastern boundary of property.	Left in, left out vehicle movement from Pinjarra Road at centre of property's frontage.	Does not comply, however the left in, left out movement and location of the crossover will ensure the site could effectively manage expected traffic volumes into the future.
		Widening of Furnissdale Road to a 26m wide boulevard.	A possible design for Furnissdale Road shows a	With the proposed 3m road widening the width would

			26m wide road reserve, including 3m widening from the subject lot.	facilitate the eventual overall 26m required reserve width however the design is not supported.
		Dual use paths along Pinjarra Road frontage.	No upgrading of existing path along Pinjarra Road shown on submitted plans.	Does not comply, however this is a Primary Regional Road matter dealt with by DPLH in their responsible authority report.
		Dual use paths long both side of Furnissdale Road	A possible design for Furnissdale Road shows a road reserve potentially wide enough to accommodate dual use path	Potentially complies, but the design is not supported
		Access from Furnissdale Road at centre of property's frontage.	Access from Furnissdale Road is on northern side of required access point.	Does not comply. Proposed access point would severely restrict access arrangements for the future development of the land opposite.
		Internal road network that provides a central east/west link and otherwise extends around boundary of the property.	Internal road network includes a north/south link through the centre of the property rather than an east/west link.	Does not comply.
		Pedestrian paths with a minimum width of 2m along the frontage of buildings and providing convenient pedestrian connections to adjacent buildings.	The site plan does not show any pedestrian connections between Pinjarra Road and the service station building or between the surrounding road network and the service	Does not comply.

			station building or to adjacent future building sites.	
Car parking	BFACLPP	One car bay per staff member is required for a petrol filling station and 1 bay per 20m <sup>2</sup> of gross floor area is required for a shop. In total, 17 car bays should be provided.	17 dedicated car bays have been provided, and additionally the spaces adjacent to the fuel bowzers can be considered as car bays.	Complies.
		Car parking areas are to include the areas set aside on the street side of the service roads as shown in the BFACLPP.	The proposal entails car parking abutting the convenience store building rather than abutting the service road.	Does not comply.
		Car parking areas are to integrate with adjoining sites.	The proposed future access road along the front of the building provides for access integration to the adjoining Lot 24.	Complies. Although if approved a condition of approval should be included requiring an easement to be placed over the access to facilitate access for the adjoining Lot 24.
		Clear pedestrian paths are provided from the street pedestrian paths through the site to main building.	No paths connecting the public roads to the convenience store have been proposed.	Does not comply.
		Parking areas and access driveways must be paved or sealed with asphalt.	All trafficable areas are proposed to be sealed.	Complies.
Landscaping	BFACLPP	A minimum 8% of the site is to set	Less than 8% of the site will be	Does not comply.

		<p>aside for landscaping, including the first 2 metres of a site adjoining a public road.</p> <p>Landscaping to be designed and located to complement the building design and adjacent road verges to be landscaped</p>	<p>landscaped and no landscape strip adjoining public roads (excluding Pinjarra Road widening land and land within future local road reserves).</p> <p>Submitted landscaping plan details species that would be suitable to provide visual relief, however all the adjacent road verges are not shown to be planted out.</p>	Does not comply.
Setbacks	BFACLPP	A minimum setback of 15.5m and a maximum setback of 21m from the ultimate Pinjarra Road alignment.	The service station building is setback 9m from the ultimate Pinjarra Road alignment.	Does not comply.
Height	BFACLPP	Minimum two storey façade (or equivalent), with a maximum of three storey (or equivalent)	At 4m, the service station building is a little higher than a typical first floor.	Does not comply
Building Form and Character	BFACLPP	<p>Elevation of building facing public streets to be designed to address the street.</p> <p>Architectural form and character must avoid large unrelieved expanses of wall or roof where they face the public realm.</p> <p>Main entrance to the building is to be on the front elevation, clearly</p>	<p>The side wall of the service station building faces the street. This wall is a blank façade.</p> <p>The service station building is a typical 'box' format design with little architectural character.</p> <p>Entrance doors are at the front of the service station building.</p>	<p>Does not comply.</p> <p>Complies.</p>

		<p>visible to the street.</p> <p>Entrance points to buildings are to be designed as focus points and must provide protection for pedestrians by means of integrated building elements such as a verandah or canopy.</p>	<p>No significant architectural focus at the building entry. The canopy does however extend across the to the main building to provide protection for pedestrians at building entrance</p>	Does not comply.
Materials and colours	BFACLPP	Different materials and features should be used to create interest and express changes in the form of the building.	The service station building is a single colour, single material box building.	Does not comply.
Bicycles	BFACLPP	Provision to be made for secure bike parking for employees and the public and for end of trip facilities.	None provided.	Does not comply. No provision made.
Fencing	BFACLPP	No fencing is to be constructed within the street setback area.	No fencing is shown on the submitted plans.	Complies.
Signage	BFACLPP	<p>Signage shall be integrated into the building design.</p> <p>Planning applications for any buildings within the precinct are to include signage strategies.</p>	<p>There is a single pylon sign adjacent to Pinjarra Road and some lessee logos shown on the service station building and canopies.</p> <p>A signage strategy was not submitted.</p>	<p>Somewhat complies, with the exception of the single pylon sign.</p> <p>Does not comply.</p>

## Officer Comments

Traffic issues aside, there are a number of variations proposed to the provisions of the BFACLPP predominantly relating to car parking, setbacks, height, building form and materials/colours. These provisions are typically aimed at more traditional commercial buildings such as bulky goods showrooms and shops rather than service stations. In light of this, and due to the nature of the proposed land use being tailored towards fuel sales, the variations to the BFACLPP are generally considered acceptable with exception to traffic. Improvements could however be made to the character of the building (i.e. it is box-shaped and bland in appearance), landscaping and the pedestrian/cyclist network. These improvements would normally be dealt with through conditions of approval in any case. The primary focus of this section will be on the traffic-related matters due to their significance.

The variations proposed to the vehicular and pedestrian access requirements of the BFACLPP are of significant concern, particular when coupled with the Regulations' requirements for a local government to consider:

- a) the adequacy of the proposed means of access to and egress from the site and arrangements for manoeuvring vehicles; and
- b) the probable effect of a development on traffic flow and safety.

The submitted site plan and associated swept path plan fail to demonstrate that access to and egress from the service station site and the associated internal vehicle movements can occur in a safe and organised manner due to the below points. The marked up swept path plan included as an attachment to this report provides a reference for some of these points for clarification.

- The future (onsite) road reserves are not located appropriately in relation to the service station site to ensure that heavy vehicles can manoeuvre safely into and out of the site and use the future road reserves in manner that meets safe road access outcomes;
- As shown on the swept path plan, heavy vehicles exiting the service station site at the westernmost crossover are required to do so on the wrong side of the proposed crossover, therefore a significant conflict would occur when light/heavy vehicles are attempting to enter the service station site at this crossover at the same time of exiting vehicles;
- In order to cater for the turning movements of heavy vehicles, the width of the easternmost crossover is approximately 24 metres wide. This mass of pavement presents an open expanse that encourages uncontrolled vehicle movements and potential conflict, as it would be the primary entry for both light and heavy vehicles. Crossover widths ought to be much narrower than this to control traffic movements and guide vehicles in a safe manner. Further, this crossover does not account for a future truncation that would be required once the road network is further established. The truncation would remove 8-10 metres of the crossover once constructed, which would severely restrict the turning movements of heavy vehicles at the crossover. There is also conflict within the proposed adjacent intersection should traffic be entering from the south and wanting to access the site;
- Ultimately, the two future road reserves will join up at an intersection at the southeast corner of the site. This intersection will be positioned too close to the easternmost crossover and encourage unsafe traffic movements within and adjacent to the intersection when accessing the site. In particular, heavy

vehicles will stack back into the adjacent future road reserves in situations where other heavy vehicles are waiting to use the fuel bowsers. This situation would be exacerbated where larger RAV vehicles are involved;

- The intersection of the future road reserve with Furnissdale Road restricts access options for the land opposite to an unacceptable degree. The intersection location basically limits any future intersection location to a position further to the south to achieve a suitable 'stagger', however this location would jeopardise design standards for the future signalised intersection at Pinjarra Road and Furnissdale Road;
- As shown on the swept path plan, heavy vehicles accessing the site from Furnissdale Road are required to veer on to the wrong side of the road just before they turn. This problem would be further exacerbated with RAV-2 vehicles, however the swept path plan fails to show a turning movement for such a vehicle and only refers to a semi-trailer. Further, Furnissdale Road is earmarked to be designed to a boulevard standard and would entail a median strip to control traffic speeds. A median strip would prevent heavy vehicles from sweeping over to the other side of the road as indicated;
- The location of the smaller crossover is too close to Pinjarra Road and would cause stacking issues within the proposed slip lane in Pinjarra Road, particularly if small vehicles were forced to wait to turn into the site. This scenario would occur if a heavy vehicle exiting at the intersection was stopped and blocking the crossover. Any stacking that would impact the proper function of the Pinjarra Road intersection is unacceptable and unsafe;
- It is imperative that heavy vehicle movements are separated from light vehicle movements to maximise safety within the site. The proposed layout does little to separate traffic and in fact exacerbates the concerns where traffic are entering and exiting from the westernmost crossover. This will be further exacerbated if the left out access onto Pinjarra Road is not supported by Main Roads, therefore it is the Shire's view the site is not designed appropriately to separate heavy vehicles from light vehicles. In order to exit the site, many small vehicles will opt (or be required) to use the westernmost crossover. This would cause light vehicles to mix with heavy vehicles in an uncontrolled manner and is considered unacceptable, especially when factored with the width of the crossover and the expanse of pavement;
- The site plan does not demonstrate that pedestrians accessing service station building from the proposed road network can do so safely and without having to mix with vehicles.

It is also considered prudent to comment on the advice of Main Roads WA and the reasons for the Shire officers' non-acceptance of their advice in relation to the proposed left in, left out arrangement for Pinjarra Road. As stated, Main Roads WA will only support a left in access arrangement for Pinjarra Road. Whilst it is acknowledged the BFACLPP designates a left in access arrangement for Pinjarra Road rather than a left in, left out arrangement, Shire officers are of the view that restricting the access to a left in arrangement will mean that the only egress point for the property will be onto Furnissdale Road. The property is significant in size and once fully developed will attract a number of commercial developments, which in turn will generate a significant traffic volume. In a left in only arrangement, all the traffic will be forced to Furnissdale Road to exit the property, therefore the pressure applied to the internal road network and Furnissdale Road and its intersection with Pinjarra Road is expected to cause congestion and conflict. Allowing a left in, left out arrangement for Pinjarra Road will assist in alleviating the pressure on the internal



road network and Furnissdale Road and further assist in providing traffic permeability through the property.

**Options/Alternatives:**

No alternative recommendation is considered appropriate given the significance of the issues highlighted in this report.

**Council Recommendation:**

NA

**Conclusion:**

Whilst the use is considered suitable for the site's zoning, there are a substantial number of traffic-related issues that cannot reasonably be resolved through the application of conditions of approval. As the traffic issues basically would cause the site to operate in a potentially dangerous and unsafe manner, there is considered no option but to recommend refusal. The site is clearly too small to accommodate the manoeuvring required for RAV vehicles and separation of light vehicles.



# **PROPOSED SERVICE STATION - LOT 137 (NO.630) PINJARRA ROAD, FURNISSDALE**

DEVELOPMENT APPLICATION

19 DECEMBER 2019  
P0015659  
FINAL  
PREPARED FOR YOLK PROPERTY GROUP



**URBIS STAFF RESPONSIBLE FOR THIS REPORT WERE:**

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Report Number	FINAL

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# INTRODUCTION

This report has been prepared by Urbis on behalf of Yolk Property Group as part of an application for planning approval for the use and development of Lot 137 (No. 630) Pinjarra Road, Pinjarra. This application proposes a Service Centre inclusive of a petrol filling station and ancillary convenience store, on the subject site.

This report considers the planning context of the proposed development and provides an assessment of the application against the relevant state and local planning framework. The information contained in this report confirms that the proposed Service Centre is an appropriate and consistent outcome that reflects the applicable planning framework. The report has been set out in the following manner:

- **Site Details:** a brief contextual discussion and description of the site.
- **Proposal:** a description of the proposed development.
- **Planning Assessment:** an assessment of the proposal against the applicable local and regional framework.

In the preparation of this application, Urbis has held discussions with the Shire of Murray to address preliminary items prior to lodgement. This feedback has been duly considered in the finalisation of the design to the proposed development.

This report demonstrates that the proposal is aligned with the Shire of Murray Local Planning Scheme No.4.

A summary of the site details is outlined below in **Table 1**.

Table 1 – Site Summary

<b>Property Location</b>	<b>Lot 137 (No. 630) Pinjarra Road, Furnissdale</b>
<b>PRS Zoning</b>	Urban
<b>LPS4 Zoning</b>	Commercial / Service Commercial
<b>Region Scheme</b>	Peel Region Scheme
<b>Town Planning Scheme</b>	Shire of Murray Local Planning Scheme No. 4
<b>Existing Land Use</b>	Non-Operating Caravan Park
<b>Lot size</b>	42829.352sq.m (4.3ha)

# 1. SITE CONTEXT

## 1.1. LOCATION

The subject site is located in Furnissdale, within the Shire of Murray. The site is located approximately 67km south of the Perth CBD and is well connected to the regional road network being located directly off Pinjarra Road, which provides connections onto the Kwinana Freeway and Forrest Highway (approximately 4km south-east) as well as connections to the Mandurah CBD (approximately 4km north-west).

A context plan showing the subject site and its surrounding elements is provided in **Figure 1**.

Figure 1 – Location and Context Plan



Source: Urbis

## 1.2. LEGAL DESCRIPTION

The land subject to this application is legally described as Lot 137 on Diagram 71194, (No. 630) Pinjarra Road, Pinjarra WA 6209. Further site details are outlined below in **Table 2** and **Figure 2**.

Table 2 – Lot Details

Lot	Diagram	Vol/Folio	Address	Area	Proprietor
137	71194	1823/827	630 Pinjarra Road, Furnissdale	42829.352sq.m	Mandurah Spotlight Property 2 Pty Ltd

Source: Landgate 2019

The Certificate of Title for the subject lot is attached at **Appendix A**.

Figure 2 – Cadastre Plan



Source: Urbis

### 1.3. SITE DESCRIPTION

Lot 137 is currently vacant, having been subject to demolition to remove the structures relating to the previous Caravan Park use around 2011. It is noted the concrete slabs/foundations and accessways associated with the former use remain on the site.

The following site considerations are noted for the subject site

- **1 in 100 AEP Floodplain Development Control Area** – A drainage plan will be required to be submitted as part of the development application or as a condition of approval. This relates to the Murray River.
- **Acid Sulphate Soils (ASS) Risk** – The Site is within a high to moderate ASS Risk area Risk Class 1.
- **Bushfire Prone Area** – The subject site is located within a Bushfire Prone area as defined by the Department of Fire and Emergency.
- **Threatened Ecological Communities** – The whole extent of the site is covered by a Threatened Ecological Communities layer.
- **Native Vegetation Extent** – Part of the site fronting Pinjarra Road contains recognised Native Vegetation; however, this would be subject to future widening of Pinjarra Road.

### 1.4. LOCAL CONTEXT

The locality is generally characterised mainly by Rural and Residential land holdings with a cluster of Commercial and Service Commercial sites fronting Pinjarra Road.

The subject site has primary frontage to Pinjarra Rd to the north east and is directly adjacent to commercial land use on Lot 626 Pinjarra Road. A road widening for Pinjarra Road sits across the subject site. The site has secondary frontage to Furnissdale Road to the west. The design of the development has sought to allow for appropriate access, create an appropriate street interface and seeks to leverage the amenity from surrounding rural residential and areas to support the development.



To the north-west of the site are a number of commercial developments including a Coles Express brand petrol station, a Celebrations brand liquor outlet, a self-storage/storage facility and hire equipment retailers.

To the west, across Furnissdale Road, is a vacant Service Commercial site, the Peel Caravan Park. Further afield is a Spudshed (c.500 m).

To the east and north-east of the site, are rural land holdings.

To the south of the site are rural and residential lots that are bordered by the Murray River approximately 1.7km from the subject site. This area is mainly serviced by Furnissdale Road, Ronlyn Road and Riverside Drive. Whilst attending a site visit, it was evident that Furnissdale Road carries very low numbers of traffic.

## 1.5. EXISTING TRAFFIC AND ACCESS

The subject site directly adjoins Pinjarra Road. Pinjarra Road is classified as a 'Primary Regional Road' under the Peel Region Scheme.

The site has an existing crossover to Pinjarra Road, located approximately 63m from the intersection of Furnissdale Road, and an existing crossover to Furnissdale Road approximately 65m from the intersection of Pinjarra Road.

The Furnissdale Road and Pinjarra Road intersection is currently controlled by a stop sign and permits full movement. The future development of traffic signals at this location may seek to control or limit some movements.

## 1.6. CONSULTATION

Table 3 – Consultation Table

Stakeholder Consulted	Consultation type	Outcomes
Shire of Murray (Planning Officers)	Pre-lodgement meeting	<p>Urbis outlined the proposal for the Service Centre, staging and variation to LPP, and requested consideration of the development application in context of the similarities with the recently approved development further along Pinjarra Road (Saracen).</p> <p>Shire officers agreed in principle and resolved to confirm after internal discussion.</p>
Shire of Murray (Planning Officers)	Email	<p>Confirmation the Shire is able to vary the provisions of the LPP provide the objectives of the policy are met and variations suitably justified.</p> <p>DA would need to demonstrate the approval of the service station would not compromise the development potential for the remainder of the site.</p>
Main Roads Western Australia	Email	Confirmation of location of intersections with Pinjarra Road and Furnissdale Road and requirements for turning lanes.



## 2. PROPOSAL

Furnissdale has many local attributes which contribute to establishing the area's character and identity. This proposal seeks to maintain the character of the locality through ensuring the built form and site treatments that are consistent with the locality, whilst providing complementary land uses necessary to service the surrounding rural, rural residential and commercial land uses.

The development utilises the Pinjarra Road frontage and topography of the site in order to maximise the development potential of the land and ensure the full development potential of the remainder of the site can be achieved in a co-ordinated manner.

The proposed development makes up stage 1 of the development of the site, with the remaining stages to be subject to future approvals. The intent is that the proposal will be a catalyst for the future and further development of the broader site, which is intended to be redeveloped for additional uses consistent with the commercial and service commercial zoning of the site.

### 2.1. PROPOSED USE

The proposal includes the establishment of a Service Centre comprising of petrol filling station and ancillary convenience store. The design and layout of the proposed uses on the site has been specifically designed to ensure appropriate legibility and interactions across the site, to ensure safety between pedestrian and vehicle movements, and allow for surveillance/CPTED principles to be implemented. Plans supporting the following text can be found in **Appendix B**.

#### 2.1.1. Service Centre

##### 2.1.1.1. Convenience Store / Petrol Filling Station (United Petroleum)

The proposal includes the following components:

- Installation of 4 underground fuel tanks;
- Provision of 8 fuel bowzers for the primary use of small private vehicles;
  - Fuel Canopy to be provided over bowzers (345.1 sq.m);
- Provision of 4 bowzers for the primary use of trucks;
  - Fuel Canopy to be provided over bowzers (144.9 sq.m);
- Convenience store building (300sq.m);
- 17 parking bays (inclusive of 1 disabled parking bay);
- 1 service bay;
- 8m high pylon sign;
- Remediation works of the existing crossover onto Pinjarra Road;
- Creation of a new left-in, left-out crossover onto Pinjarra Road;
- Remediation works of the existing crossover onto Furnissdale Road;
- Creation of new entry/exit crossover onto Furnissdale Road;
- General landscaping over the site

It is proposed that the service station will operate 24/7. The operation will require a maximum of 2 employees to be on site at any one time, with a total of 6 employment positions being created by the activity.

Access to the petrol filling station is via a crossover from the proposed road onto either Pinjarra Road, or Furnissdale Road

The convenience store building is set back approximately 19m from Pinjarra Road with the closest point of the truck canopy being setback approximately 20m. Setbacks of approximately 18.2m and approximately 154.5m are provided to the side and rear boundaries of the service centre site respectively.

A manoeuvring aisle surrounds the use allowing for the required swept paths of the fuel tankers in servicing the site, large vehicles refuelling and parking and for access between the convenience store

The requirement for large vehicle manoeuvring, fuel tanker manoeuvring, landscaping and drainage levels, along with the associated uses on the site restrict a direct frontage to Pinjarra Road. The service yard and bin store facilities are to be enclosed with the façade treatment to be of a high quality in this location. The location of the service yard will also mean this area is screened from view from the surrounding roads.

## 2.2. COLOURS AND MATERIALS

The proposal generally includes the use of corporate colours and branding associated with the United Petroleum provider. The proposal intends to retain a level of consistency to ensure appropriate brand recognition as well as presenting as a cohesive and high-quality development.

The materials to be used will generally consist of the use of concrete tilt-up panels, mixed with feature cladding and elements of glazed glass facades.

## 2.3. PARKING AND ACCESS

Access to the proposal will be via a repositioned and modified left-in, left-out crossover onto Pinjarra Road which is intended to be the primary entry/exit point for the majority of traffic to the site.

Traffic generation has been assessed within the Traffic Impact Assessment. It is considered that much of the traffic is related to trips from vehicles already passing by the site on the surrounding road network. As such, it is considered that there is sufficient capacity within the surrounding road network to accommodate vehicle trips associated with the site.

Pedestrian access through the site is both legible and safe with a number of pedestrian crossings located across the proposed road and through the car parking and raised kerbs providing for pedestrian pathways.

The proposal includes parking associated with the proposed uses including the following:

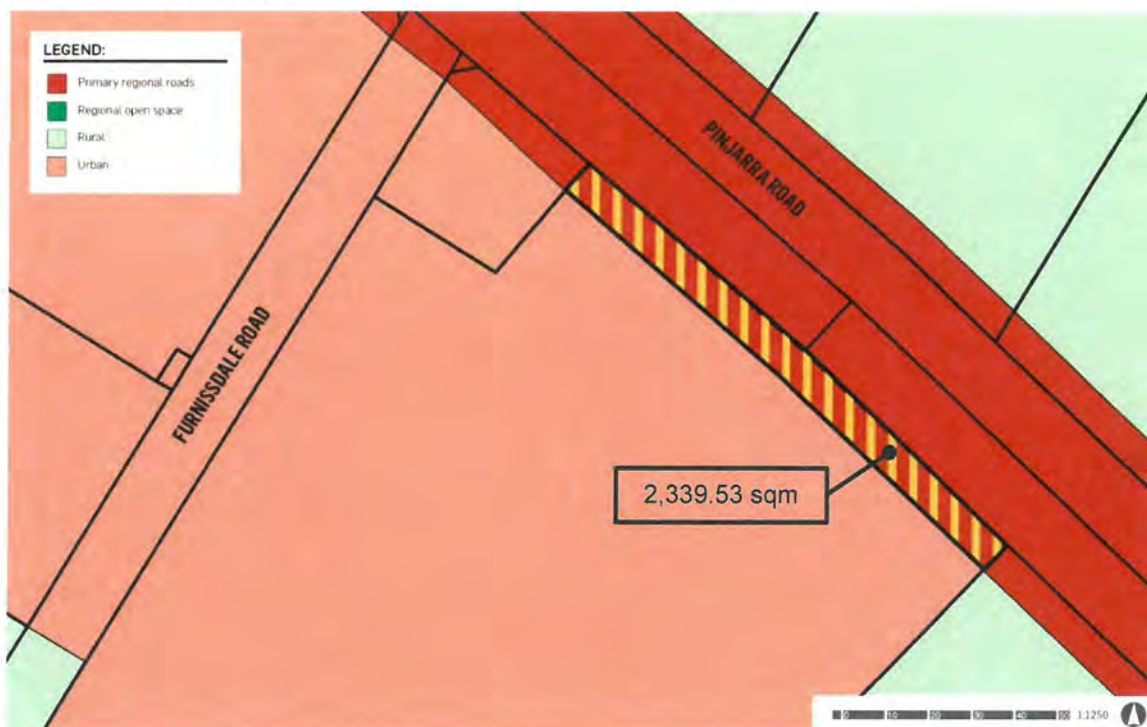
- 17 car parking bays around the periphery of the proposed buildings
- 8 car and 4 truck dispensers under a sheltered canopy

### 2.3.1. Pinjarra Road Widening

A 10m wide portion of the site along Pinjarra Road has been identified for future road widening requirements. The total area required for widening impacting the site equates to 2,339.53sq.m.

Details of the future road widening are still unknown, and as such this portion of the site is intended to be retained and landscaped until such time.

Figure 3 – Road Widening



### 2.3.2. Access to Pinjarra Road / Furnissdale Road

Access to Pinjarra Road is limited to a left in / left out movement, however full movement is permitted along Furnissdale Road and then onto Pinjarra Road at its intersection with Furnissdale Road.

The proposed left in / left out onto Pinjarra Road is proposed to be approximately 155m from the intersection of Pinjarra Road/Furnissdale Road/Watson Place (this measured from centre line to centre line). The proposed Furnissdale Road crossover is proposed to be approximately 115m south of the stop line at the same intersection.

Advice from Main Roads Western Australia provided in April 2018 (refer GTA traffic report in **Appendix C**) indicated that left-in access should be located as far as possible from Furnissdale Road with at least a 145m separation to allow for the provision of left turn pockets on the eastern approach to the intersection of Pinjarra Road/Furnissdale Road/Watson Place in the future upgrade of this intersection to a signalised four-way intersection.

As noted in the previous section Pinjarra Road will be widened in the future, with a 10m road widening reserve allowed for the required turning pockets.

### 2.3.3. Interim / Ultimate Access to Service Station site

The proposal includes an interim and ultimate access scenario to allow access to the service station from the internal road in the current configuration and in the eventual configuration once the Pinjarra Road widening and upgrade is completed.

#### Interim Access

The interim access arrangement allows for access to the service station site adjacent to Pinjarra Road. This allows vehicles to enter the site and access the fuel bowzers or parking areas. In the interim scenario this access point is sufficiently distanced from the intersection with Pinjarra Road to ensure there are no traffic and manoeuvring concerns.

This arrangement also allows for an access easement across the front of the site to the adjacent Lot 24

#### Ultimate Access

As discussed in Section 6.1, Pinjarra Road is to be widened from the current 40m wide road reserve to a 60m wide road reserve with a widening of 10m either side of the current road reservation. As part of this proposed development, this 10m land take will occur on the frontage of the subject site on Pinjarra Road.

This proposed development proposes an access to/from Pinjarra Road in an interim format with a proposed Easement in Gross across the front of the development site to connect to a 20m section of private roadway east of the proposed development. This will thus provide direct access to the private roadway for the Easement in Gross approximately 20m south of the current westbound carriageway of Pinjarra Road (As demonstrated in the Indicative Layout Plan in section 2.8).

The provision of these truncations for the ultimate road reservation for Pinjarra Road due to the conversion of the private roadway to a public road will require an alternate access to continue to provide a legal right of access and thus maintenance of a legal Easement in Gross across this proposed development to future development west of this site, nearer to Furnissdale Road.



## 2.4. SIGNAGE

A proposed 8m high pylon sign is proposed to be located at the northern portion of the lot fronting onto Pinjarra Road.

The pylon sign is intended to be used primarily for the display of the fuel and convenience services available at site, including fuel costs etc. It is considered that such pylon signs are synonymous with similar service station developments.

On building signage relating to the proposed operator includes:

- Illuminated 'QuickSTOP' store fascia sign (3.5m x 0.8m) – South East elevation
- Illuminated 'United 25' canopy/fascia signs
  - 5.3m x 1.0m – South East elevation
  - 5.3m x 1.0m – North East elevation
- On building 'Pie face' signs
  - Square (1.5m x 1.5m) – South East elevation
  - Rectangular (5.4m x 0.5m) – South East elevation
  - Logo and slogan (1.5mx1.7m and 1.85m x 5.13m) – North East elevation

Additional considerations of the signage against the Shire's Local Planning Policy have been explored in Section 0 below.

## 2.5. FUTURE DEVELOPMENT – INDICATIVE LAYOUT PLAN

In recognising that the proposal seeks to develop only a portion of the subject site, an indicative layout plan has been prepared in order to demonstrate the ability for the site to be developed in the manner intended by the local planning framework.

The indicative plan demonstrates the ability for the site to be developed in a coordinated manner which is functional for the range of uses anticipated, provides for suitable vehicle and pedestrian access and allows for high quality-built form to be established.

### Access

The plan demonstrates that the proposed access to the lot, located toward the centre of the site will provide for access to the service station as well as access to the future development lots. This allows for access which is generally consistent with the Barragup Furnissdale Activity Centre Policy Plan and avoids the over roading of the subject site. The proposed movement network can operate either within the capacity of a gazetted road or private driveways, whichever is deemed required as part of the development.

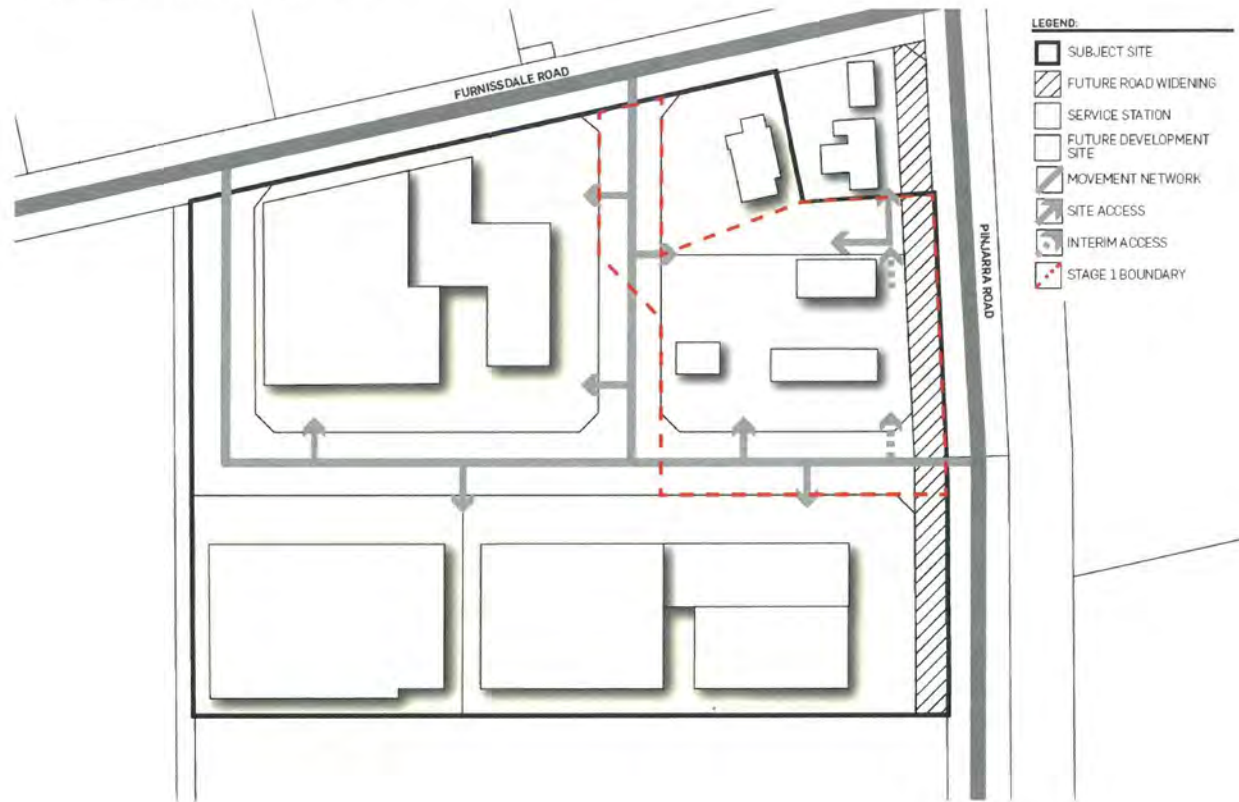
The plan shows the interim access arrangements to the service station as noted in section 2.3 and demonstrates the ability for the site to retain access once the road widening to Pinjarra Road is undertaken.

Access to No. 626 (lot 24 D024314) is provided in both the interim and ultimate scenarios ensuring this parcel does not become landlocked. Access easements will be required over the subject site to facilitate shared access.

### Layout

The indicative layout provides for a range of uses as anticipated by the Scheme, being primarily bulky goods and service-related uses. The indicative layout plan takes into account the size of built form generally associated with these uses and the car parking rates applicable. Whilst it is acknowledged the form and location of the built form will change as development is rolled out, the layout plan demonstrates sufficient developable area for a range of compliant built form outcomes to be achieved.

Figure 4 – Indicative Layout Plan



## 3. PLANNING FRAMEWORK AND ASSESSMENT

### 3.1. STATE PLANNING

Table 4 – State Planning Frameworks

Document	Relevant Provisions/Objectives	Compliance
<b>Peel Region Scheme</b> <i>The Peel Region Scheme (PRS) is a high-level statutory land use plan over the Peel region</i>	<p>The subject site is zoned 'Urban' (Refer <b>Figure 5</b>). The purpose of this zone is to provide for a range of activities are undertaken, including residential, commercial recreational and light industry.</p>	<p>The proposed Service Centre is a commercial land use and is therefore considered consistent with the intentions of the PRS 'Urban' zoning.</p>
<b>Directions 2031 and Beyond</b> <i>High level strategic spatial plan which sets the vision for the future expansion of the Perth and Peel area.</i>	<p>This high-level spatial framework establishes a vision for the future expansion of Perth and a population of 3.5 million people by 2031.</p> <p>The subject site is located within the Peel-west subregion which is located immediately south of the Perth metropolitan region boundary. The subject site is zoned as Industry in the strategy.</p> <p>Directions 2031 estimates that the population subregion will increase to 133 000 by 2031. In addition, the document identifies a high level of employment self-sufficiency with target of 80% by 2031.</p>	<p>The proposed Service Centre and Commercial tenancies are consistent with the strategic intentions of Directions 2031 providing for necessary services within the Furnissdale locality. The proposed Service Centre will contribute to the area's employment sufficiency target with the creation of a number of new jobs.</p>
<b>Perth and Peel @ 3.5 Million</b> <i>Key strategic land use document.</i>	<p>Perth and Peel @ 3.5million is an overarching document that builds on the objectives of Directions 2031 and Beyond and provides a common link between the four sub-regional planning frameworks.</p> <p>The subject site has been identified 'Urban' under the Perth and Peel @ 3.5million spatial plan. The 'Urban' zoning refers to areas that are identified for urban uses such as residential and associated activity and light industrial employment centres, recreation and open space.</p>	<p>The proposal will have no implications on the zoning of the subject site under the Perth and Peel @ 3.5million. Nor will the proposal have any implications on the indicative future locations of regional roads and public infrastructure.</p>

Document	Relevant Provisions/Objectives	Compliance
<p><b>South-Metro-Peel-Sub-Regional Planning Framework (May 2015)</b></p> <p><i>The draft framework considers the long-term strategic intentions for the Perth and Peel Region.</i></p>	<p>The framework identifies key activity centres and community nodes whilst achieving a consolidated and robust urban form. The economy and employment are key objectives, building employment bases whilst utilising existing infrastructure in order to boost employment self-sufficiency within the sub-region. Key aspects relating to the site and surrounds include:</p> <ul style="list-style-type: none"> <li>• Pinjarra Road as a priority transit route</li> <li>• Pinjarra Road removed from the regional freight network.</li> </ul>	<p>The development of the site does not prejudice the ability for long term strategic intentions of the area to be realised.</p> <p>The proposal is consistent with the economic and employment objectives of the sub-regional planning framework. The proposal incorporates a range of land uses which will generate employment thus contributing to the local economy and employment self-sufficiency.</p>

Figure 5 – PRS Extract



Source: Urbis / DPLH

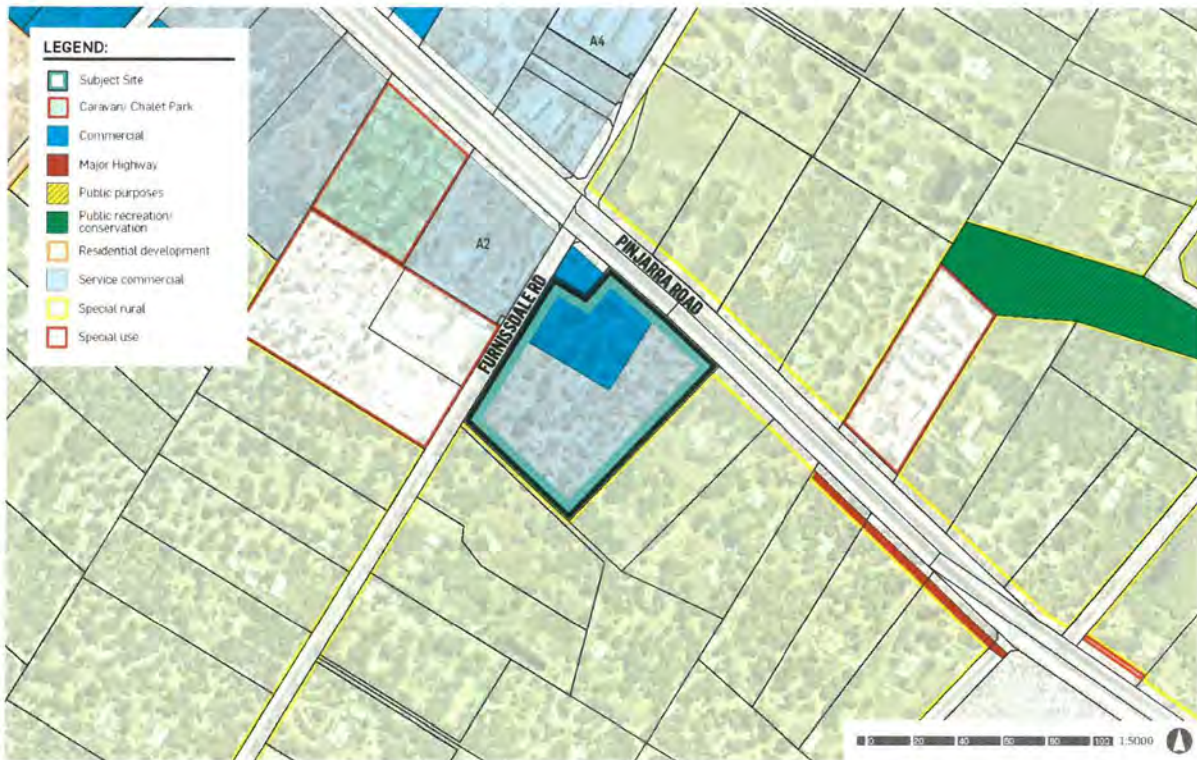


## 3.2. LOCAL PLANNING

### 3.2.1. Shire of Murray Town Planning Scheme No.4

The subject site is located within the Shire of Murray local government area and is subject to the Town Planning Scheme No.4 (TPS 4). Under the provisions of TPS 4 the subject site is included within the 'Service Commercial' zone and 'Commercial' zone as indicated in **Figure 6** below.

Figure 6 – TPS4 Extract



Source: Urbis/DPLH 2019

The various land use permissibility considerations are outlined within the zoning table contained under Clause 5.2 of LPS4.

Accordingly, and in accordance with Clause 5.2.3, "if a person proposes to carry out on a land any use that is not specifically mentioned in the Zoning Table and cannot reasonably be determined as falling within the type, class or genus of activity of any other use category the Council may:

- determine that the use is consistent with the objectives of the particular zone and is therefore permitted;
- determine that the use may be consistent with the objectives of the zone and thereafter follow one or more of the advertising procedures of subclause 5.2.2 in considering an application for approval to commence development; or
- determine that the use is not consistent with the objectives of the particular zone and is therefore not permitted".

The proposed use falls under the following land use definitions:

**Petrol Filling Station** - means the land and buildings used for the supply of petroleum products and automotive accessories.

**Shop** - means any building wherein goods are kept exposed or offered for sale by retail and includes a cafe and a restaurant and receiving depot, but does not include a bank, fuel depot, a market, service station, petrol filling station, milk depot, marine store, timber yard, or land and buildings used for the sale of motor and other vehicles, or for any purpose falling within the definition of industry.

Petrol Filling Station is an 'AA' use and Shop is a 'P' use within the Commercial Zone.



It is noted that the model provisions of the *Planning and Development (Local Planning Schemes) Regulations 2015* amends the definition of Service Station to include:

*"Service Station means premises other than premises used for a transport depot, panel beating, spray painting, major repairs or wrecking, that are used for –*  
*(a) They retail sale of petroleum products, motor vehicle accessories and goods of an incidental or convenience nature; or*  
*(b) The carrying out of greasing, tyre repairs and minor mechanical repairs to motor vehicles"*

It is considered that the use can comfortably fit within subclause (a) and under the Regulations would be classified as a Service Station.

In regard to the above, further consideration of the objectives of both the Commercial and Service Commercial zoning have been considered below.

Table 5 – Zone Objectives

Zone	Objective	Comment
Commercial Zone	To provide for retail shopping, but also other associated non-bulky retail and local office uses that cater for the current and future residents of the Shire consistent with the Commercial Strategy	The proposal allows for the establishment of a use which is consistent with non-bulky retail and will provide a service for the residents within the locality as well as those passing along Pinjarra Road. The development does not prejudice the ability for the remainder of the commercial zone to provide for a wider range of retail and commercial uses, including office should the market allow this in the future. As such, the proposal is considered to be consistent with the objectives for the commercial zone.
Service Commercial Zone	To provide for a mix of non-retail business activities to service the community in planned and fully integrated locations.	The remainder of the subject site is sufficiently sized to accommodate a range of bulky retail and non-retail activities as demonstrated by the indicative layout plan prepared to support this proposal.

## 3.2.2. Local Planning Policies

### 3.2.2.1. Barragup Furnissdale Activity Centre Local Planning Policy

This Policy sets out to guide a coordinated approach to planning for this local area. The Policy seeks to coordinate a safe and functional accessibility for the area. The subject site falls within the 'Business' zone of the Activity Centre.

Requirement	Provision	Compliance
<b>Height</b>		
Development is to present a minimum two storey façade (or equivalent) and no more than three storeys (or equivalent)	The proposed 'convenience store building' will be 4m in height and attached to the fuel canopy of 6.2m in height.	<p><b>Variation to standard requested</b></p> <p>The built form of the service station is directly related to the function it serves. Through this the form works as a type of recognition to those travelling along Pinjarra Road. It is considered the form of the building is suitable and generally consistent with the objectives of the policy. Further, this approach has been taken for service stations along Pinjarra Road.</p>
<b>Setbacks</b>		
East of Ronlyn Road, buildings are to be setback a minimum of 15.5 metres and a maximum of 21 metres to the ultimate alignment of Pinjarra Road, being the boundary of the Primary Regional Road reservation identified under the Peel Region Scheme, and secondary streets with adjacent shared driveways as shown on the plan attached to this policy.	The proposal includes a setback of 19m to Pinjarra Road in the current alignment. In the ultimate scenario (once the Pinjarra Road widening is undertaken) the setback to Pinjarra Road will be 9.0m.	<p><b>Variation to standard requested</b></p> <p>The aim of the setback is to provide the opportunity for an access lane and parking provision along the boundary to Pinjarra Road. The proposal seeks to relocate this access behind the service station, thus maintaining the access whilst allowing for greater activation to Pinjarra Road.</p>
<b>Building Form and Character</b>		
The elevation of buildings facing public streets is to be designed to address the street.	The requirement for large vehicle manoeuvring, fuel tanker manoeuvring, landscaping and drainage levels, along with the associated uses on the site restrict a direct frontage to Pinjarra Road, however these will address the future internal road. The nature of	Complies

Requirement	Provision	Compliance
	the service station use results in a high level of activation within the forecourt, therefore ensuring the intentions of the policy are met.	
Architectural form and character must avoid large unrelieved expanses of wall or roof, where they face the public realm.	The proposal includes a varied architectural form reflective of the use as a service station. The form of the structure and open nature of the forecourt ensures there are no unrelieved expanses of wall fronting to Pinjarra Road or the future internal road network.	Complies
Where more than one building is planned for a site, the design must result in the creation of a group of integrated buildings presenting a harmonious image.	Only one building is proposed for the site. However, the building's orientation and form has considered the potential future development of the remainder of the lot, and in consideration of the included indicative layout plan.  The indicative layout plan demonstrates the ability for the remainder of the site to be developed in a cohesive and co-ordinated manner as required by the policy.	Complies
The main entrance to each building is to be on the front elevation or close to the front of the building, clearly visible from the street.	The entrance to the convenience store building will be directly accessed from the fuel bowers and visible from a clearly defined entrance.	Complies
Entrances to buildings are to be obvious and provided with protection measures such as canopies.	The entrance of the convenience store building will be protected by the adjoining fuel canopy which will extent to the entrance of the building.	Complies
<b>Materials and Colours</b>		
Aim should be to divide up the façades into contrasting smaller areas by introducing differing colours, materials and forms.	The proposal does not include any large bulky structures and as such by the nature of the design includes smaller facades and canopy elements which are broken up by form and colour.	Complies
Consideration should be given to 'breaking up' the façade to create interest using:		
<ul style="list-style-type: none"> <li>Different materials such as concrete panels, profiled metal</li> </ul>		

Requirement	Provision	Compliance
<p>cladding, fibre cement cladding, face brickwork, stone panels separately or in combination.</p> <ul style="list-style-type: none"> <li>• Different materials to express changes in the form of the building.</li> <li>• Feature elements such as the louvre vents and screens, exposed steel columns and bracing, careful placement of roller shutters.</li> <li>• Vertical, horizontal and/or angled grids to break up unrelieved wall surfaces. These could be expressed feature joints in pre-cast concrete panels, fibre cement panel joints, brick banding or rendered panels.</li> <li>• Division of the façade into top, middle and bottom elements using differing materials, grading of colours, horizontal lines such as dado line or parapet capping.</li> <li>• Projecting features such as canopies, sun shading, overhanging roof etc to create shadows on the façades.</li> </ul>		
Where a single development comprises, multiple units occupied by multiple independent tenancies, the use of colours, finishes and materials for each unit should be complementary, whilst allowing each tenancy to be easily distinguishable and identifiable.	The proposal includes on a single tenancy, however, it is considered that this development will not prejudice the ability for the remainder of the site to be developed in a manner which is co-ordinated and complementary as required by the policy	Complies
Building colours should generally be sympathetic and complementary with the surrounding rural/natural environment and to site landscaping.	<p>The proposal includes blue, red and white within the façade. A wood style cladded feature wall with glazing is provided to the primary façade facing the forecourt.</p> <p>This is considered to be generally consistent with the aims of the policy.</p>	Complies

Requirement	Provision	Compliance
Large areas of one material should be treated with muted colours and tones avoiding strong hues. Large expanses of zincalume metal finished cladding will not be accepted.	The form of the building does not result in any large areas being established in one material/colour.	Complies
Small and important building elements such as a feature wall, canopies, steel bracing and columns, sunscreens, ventilation louvres etc should be treated with strong highlight colours to provide visual interest and relief on the building façades.	The proposal includes treatment to screening and operational aspects to ensure suitable visual consideration.	Complies
<b>Landscaping</b>		
A minimum 8% of the site is to be set aside for landscaping, including the first 2 metres of a site adjoining all public roads. Landscape areas should be designed and located to complement the building design.	The proposal includes in excess of 8% of landscaping for the portion of the site upon which the development is proposed including landscaping to Pinjarra Road.  Further, the proposal does not prejudice the ability for the remainder of the site to be developed to the 10% landscaping requirement.	Complies
Existing significant trees should be maintained and incorporated in car parking areas and landscape areas where this is reasonably practical.	There is no vegetation retention proposed as part of the development. The previous use of the site as a caravan park had removed the site of any significant vegetation.	Complies
Car parking areas shall be provided with native trees at the rate of 1 per 4 car bays for shade and visual amenity. These trees shall be maintained on an ongoing basis.	There are no trees proposed as part of the car parking.	<b>Variation to standard requested</b>  Due to the nature of the use and the location of the car bays there are no trees provided to this aspect.  Shade is provided to a portion of the parking bays via the overhead canopy.
Landowners are to landscape all adjacent road verges and be responsible for verge maintenance.	The verge to Pinjarra Road will be landscaped as part of the proposal.	Complies

Requirement	Provision	Compliance
A landscape plan is to be prepared for each development site by a qualified landscape architect or designer as a condition of approval, with landscaping implemented in accordance with the approved plan prior to the development first being occupied.	It is anticipated that a detailed landscaping plan will be required as a condition of approval.	Complies
<b>Car Parking and Access</b>		
Car parking shall be provided at the rate provided for in Town Planning Scheme No 4.	The proposal includes the following parking <ul style="list-style-type: none"> <li>- 17 bays, inclusive of 1 disabled access bay.</li> <li>- 8 small vehicle fuel bowzers</li> <li>- 4 truck fuel bowzers</li> </ul>	Complies
Car parking areas are to include the areas set aside for this purpose on the street side of service roads as shown on the plan attached to this policy.	Car parking areas have been located so as to provide access to the convenience store in a safe location. Car parking is limited to the service station use, however as demonstrated by the indicative layout plan this does not prejudice the ability of the remainder of the site to provide integrated parking opportunities.	Complies
Car parking areas are to be designed as far as practical to integrate with adjoining sites.		
Clear pedestrian paths are to be provided from the street pedestrian paths through the site to the main building entry.	Clear pedestrian paths are provided to the main building entry	Complies
Parking areas and access driveways must be paved or sealed with asphalt.	Parking and access areas are sealed to the specifications of the Shire.	Complies
<b>Bicycles</b>		
Provision shall be made for secure bike parking for employees and the public and 'end of trip facilities' for employees.	No bicycle parking or end of trip facilities have been provided as part of the proposal.	<b>Variation to standard requested</b>
Public bike parking facilities are to be located so they do not disrupt pedestrian movements within the precinct.		The nature of the proposal being a car-oriented use, with the primary purpose for refuelling vehicles does not warrant the provision of bike parking facilities.

Requirement	Provision	Compliance
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### Servicing and Storage

All plant and equipment areas should be screened or located away from public areas, particularly from the street. The exception to this may be where stacks or ductwork that are necessary for the building function are designed to be a feature design element of the building.	All plant and equipment areas are screened behind aluminium slats and tied into the design of the building.	Complies
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No open storage of goods, unserviceable vehicles or machinery shall be carried out on within the front boundary setback area (forward of the building line), which shall be used only for landscaping and drainage, car parking, servicing, loading and unloading, or where appropriate and subject to the approval of the Council, for trade display.	There are no storage areas forward of the building line.	Complies
--	--	----------

All open storage areas shall be screened from the street and adjoining properties by landscaping, fencing and/or other means approved by the Shire. Service areas to be located and designed to minimise noise impacts on surrounding areas.	All storage areas are screened behind aluminium slats and tied into the design of the building.	Complies
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Roof space shall be designed to conceal any plant, equipment, lift motor rooms etc.	There are no plant or equipment visible from the roof.	Complies
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### Fencing

No fencing is to be constructed within the street setback area.	No fencing is proposed as part of this proposal.	Complies
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The minimum fencing standard in the precinct where fencing is visible from the street is an 1800mm high metal tube framed vertical pale and horizontal rail fence with powder coat finish. All vertical pale fencing must feature a minimum nominal open area of 80%.	No fencing is proposed as part of this proposal.	Complies
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### Signage



Requirement	Provision	Compliance
A high standard of signage is required as an integral part of achieving a high-quality urban form in the precinct.	The signage included as part of the proposal is directly associated with the function and operation of the proposed service station. The signage is considered to be of high quality and minimal in order to avoid proliferation of signage.	Complies
Signage shall be integrated into the design of the building, relate to the architectural design of the building and not obscure architectural features.	The on-building signage is fully integrated into the façade or fascia of the proposed building.	Complies
Signage shall be considered as part of building design and is to be restrained. Repetitive or portable freestanding advertising such as banners, A-Frames or flags are not permitted.	The proposal includes the provision of on building signage and a pylon sign for advertising purposes (ensuring compliance with the Petrol Pricing Regulations	
Planning applications for any buildings within the precinct are to include signage strategies.		

### 3.2.2.2. Local Planning Policy: General Development Provision – Building Setbacks, Car Parking Standards

The local planning policy builds upon the provision of LPS4 in prescribing various development requirements for particular development. Requirements applicable to the proposal (Petrol Filling Station) have been explored in the below **Table 6**.

Table 6 – Petrol Filling Station Development Requirements

Consideration	Standard	Requirement	Provision	Compliance
Minimum Setbacks from Boundaries	<b>Street:</b> 9m	<b>Street:</b> 9m	<b>Street:</b> 19m	Complies
	<b>Side:</b> 3m	<b>Side:</b> 3m	<b>Side:</b> 20m	
	<b>Rear:</b> 9m	<b>Rear:</b> 9m	<b>Rear:</b> 154.5m	
Car Parking	1 per staff member	A total of 2 staff members will be on site at one time.  15 bays required for 300sq.m of shop  <b>TOTAL 17 required</b>	17 bays, inclusive of 1 disabled access bay	Complies
	1 per 20sq.m of shop		The proposal also includes:	
			- 8 vehicle bowsters  - 4 truck bowsters	



### 3.2.2.3. Local Planning Policy: Signs

The proposal incorporates a pylon sign, located on the northern boundary of the property adjacent to Pinjarra Road.

The below **Table 7** outlines the specific requirements for pylon signs within the Shire of Murray.

Table 7 – Signs LPP Assessment

Requirement	Provision	Compliance
Not have any part less than 2.75m, or more than 6m, above natural ground level immediately below the sign.	The proposed height of the pylon is 8m	<p><b>Variation to standards requested</b></p> <p>The pylon sign has been designed in accordance with the regulatory requirements for signs relating to the sale of fuel (<i>Petroleum Products Pricing Regulations 2000</i>). These regulations require those selling fuel to allow passing motorists to make informed decisions on fuel purchases and as such require the following aspects within signage:</p> <ul style="list-style-type: none"> <li>• Illumination</li> <li>• Clearly legible sizing for passing motorists</li> <li>• Description and price of each fuel type sold</li> <li>• Prices for a minimum of 3 types of fuel and LPG if provided)</li> </ul> <p>In order to provide for the regulatory signage requirements in addition to identifying the operator of the convenience store and associated uses the pylon sign is required to be greater in height than the 5m set out. This is consistent with United Petroleum signage and ensures customers can make informed choices prior to reaching the site.</p>
Have a maximum width of 2m measured horizontally across the face of the structure.	The proposed width of the pylon sign is 2.8m.	
Have a sign face area no greater than 4m <sup>2</sup> .	The total sign face equals 22.4 sq.m (8m (H) x 2.8m (W))	
Be limited to one sign on each property, per street frontage.	Only one pylon sign is proposed	Complies
Be at least 40m away from another pylon sign on either the same or adjacent site.	No pylon signs have been identified within 40m of the proposed location.	Complies

Requirement	Provision	Compliance
Be as far as practicable centrally located along the frontage of the lot and no closer than 3m to a side boundary	Signage is centrally located for the proposed development and is not within 3m of a side boundary	Complies
Where multiple tenancies exist on the same site the pylon sign should, as far as practicable, be designed to service the multiple tenancies.	The proposed sign is intended to display the United logo, as well as Pie Face logo. Additional fuel pricing information will also be displayed in connection with the service station function.	Complies

As noted within the signs local planning policy, "in addition to Planning Approval, signs may also require the separate approval of Main Roads Western Australia pursuant to the Main Roads (Control of Advertisements) Regulations where signs are proposed within or within close proximity to Main Roads WA controlled roads (including Pinjarra Road, Pinjarra-Williams Road, South Western Highway, Forrest Highway, Kwinana Freeway) and Building Approval under the Building Act".

In this regard, it is expected that further approvals will be required from Main Roads and applied via a relevant condition following the determination of the application.

## 4. CONCLUSION

The Service Centre has been designed to be site responsive with strong synergies to the surrounding rural and commercial character of Furnissdale. The proposal is consistent with the relevant state and local planning framework and will contribute to the diversity of land uses and employment opportunities currently offered in the Furnissdale locality.

The following key matters should be considered in the assessment of this development application:

- The proposed Service station use is consistent with the PRS 'Urban' zoning.
- The proposal will have no implications of the broader strategic planning of the Furnissdale area outlined in Perth and Peel @ 3.5 million and associated state planning documents.
- The proposed land use is afforded a 'AA' use for the petrol filling station and 'P' use for the shop, and are consistent with the subject site's zoning, objectives and development intentions under the TPS4 and the relevant Local Planning Policies.
- Variations to the Barragup Furnissdale Activity Centre Local Planning Policy have been addressed within the document and maintain consistency with the objectives of the policy.
- The Council has discretion to approve the application provided it is satisfied it meets proper and orderly planning and has been subject to an appropriate advertising period.
- The proposed development proposes an appropriately designed and laid out built form incorporating appropriate design features and high-quality landscaping outcomes.
- The proposed development fits within the overall intentions for the development of the wider site, ensuring development will be co-ordinated and present as a cohesive development.
- The proposal will provide the local community and broader area with an everyday commercial service, supporting the development of the surrounding industrial area and wider Furnissdale locality.
- The proposal will create a variety of employment opportunities suitable for residents of all ages.

For these reasons, and the reasons outlined in this report, it is respectfully requested that the Shire of Murray have regard to merits and broader benefits of the proposal when undertaking their assessment of the proposal and approve the application subject to fair and reasonable conditions.



# DISCLAIMER

This report is dated 19 December 2019 and incorporates information and events up to that date only and excludes any information arising, or event occurring, after that date which may affect the validity of Urbis Pty Ltd's (**Urbis**) opinion in this report. Urbis prepared this report on the instructions, and for the benefit only, of York Property Group (**Instructing Party**) for the purpose of Development Application (**Purpose**) and not for any other purpose or use. To the extent permitted by applicable law, Urbis expressly disclaims all liability, whether direct or indirect, to the Instructing Party which relies or purports to rely on this report for any purpose other than the Purpose, and to any other person which relies or purports to rely on this report for any purpose whatsoever (including the Purpose).

In preparing this report, Urbis was required to make judgements which may be affected by unforeseen future events, the likelihood and effects of which are not capable of precise assessment.

All surveys, forecasts, projections and recommendations contained in or associated with this report are made in good faith and on the basis of information supplied to Urbis at the date of this report, and upon which Urbis relied. Achievement of the projections and budgets set out in this report will depend, among other things, on the actions of others over which Urbis has no control.

In preparing this report, Urbis may rely on or refer to documents in a language other than English, which Urbis may arrange to be translated. Urbis is not responsible for the accuracy or completeness of such translations and disclaims any liability for any statement or opinion made in this report being inaccurate or incomplete arising from such translations.

Whilst Urbis has made all reasonable inquiries it believes necessary in preparing this report, it is not responsible for determining the completeness or accuracy of information provided to it. Urbis (including its officers and personnel) is not liable for any errors or omissions, including in information provided by the Instructing Party or another person or upon which Urbis relies, provided that such errors or omissions are not made by Urbis recklessly or in bad faith.

This report has been prepared with due care and diligence by Urbis and the statements and opinions given by Urbis in this report are given in good faith and in the reasonable belief that they are correct and not misleading, subject to the limitations above.



## **APPENDIX A**

## **CERTIFICATE OF TITLE**

WESTERN



AUSTRALIA

**RECORD OF CERTIFICATE OF TITLE**  
UNDER THE TRANSFER OF LAND ACT 1893

REGISTER NUMBER	
<b>137/D71194</b>	
DUPLICATE EDITION	DATE DUPLICATE ISSUED
<b>4</b>	<b>26/10/2017</b>

VOLUME  
**1823**FOLIO  
**827**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.

REGISTRAR OF TITLES

**LAND DESCRIPTION:**

LOT 137 ON DIAGRAM 71194

**REGISTERED PROPRIETOR:**  
(FIRST SCHEDULE)

MANDURAH SPOTLIGHT PROPERTY 2 PTY LTD OF LEVEL 6 111 CECIL STREET SOUTH MELBOURNE VIC 3205  
(T N747774 ) REGISTERED 23/10/2017

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:**  
(SECOND SCHEDULE)

1. N747775 MORTGAGE TO TASOVAC PTY LIMITED REGISTERED 23/10/2017.

Warning A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.  
\* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.  
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

**STATEMENTS:**

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 1823-827 (137/D71194)  
PREVIOUS TITLE: 1508-760, 1508-761  
PROPERTY STREET ADDRESS: 630 PINJARRA RD, FURNISSDALE.  
LOCAL GOVERNMENT AUTHORITY: SHIRE OF MURRAY





Application D985687

WESTERN



AUSTRALIA

VOL.

FOL.

Volume Folio  
1508 760  
1508 761

1823

827

# CERTIFICATE OF TITLE

UNDER THE "TRANSFER OF LAND ACT, 1893" AS AMENDED

I certify that the person described in the First Schedule hereto is the registered proprietor of the undermentioned estate in the undermentioned land subject to the easements and encumbrances shown in the Second Schedule hereto.

REGISTRAR OF TITLES



Dated 9th January, 1989

## ESTATE AND LAND REFERRED TO

Estate in fee simple in portion of Cockburn Sound Location 16 and being Lot 137 the subject of Diagram 71194, delineated on the map in the Third Schedule hereto.

## FIRST SCHEDULE (continued overleaf)

Datasure Pty. Ltd. of Unit 3, 115 Hastings Street, Scarborough



## SECOND SCHEDULE (continued overleaf)




NIL






## THIRD SCHEDULE



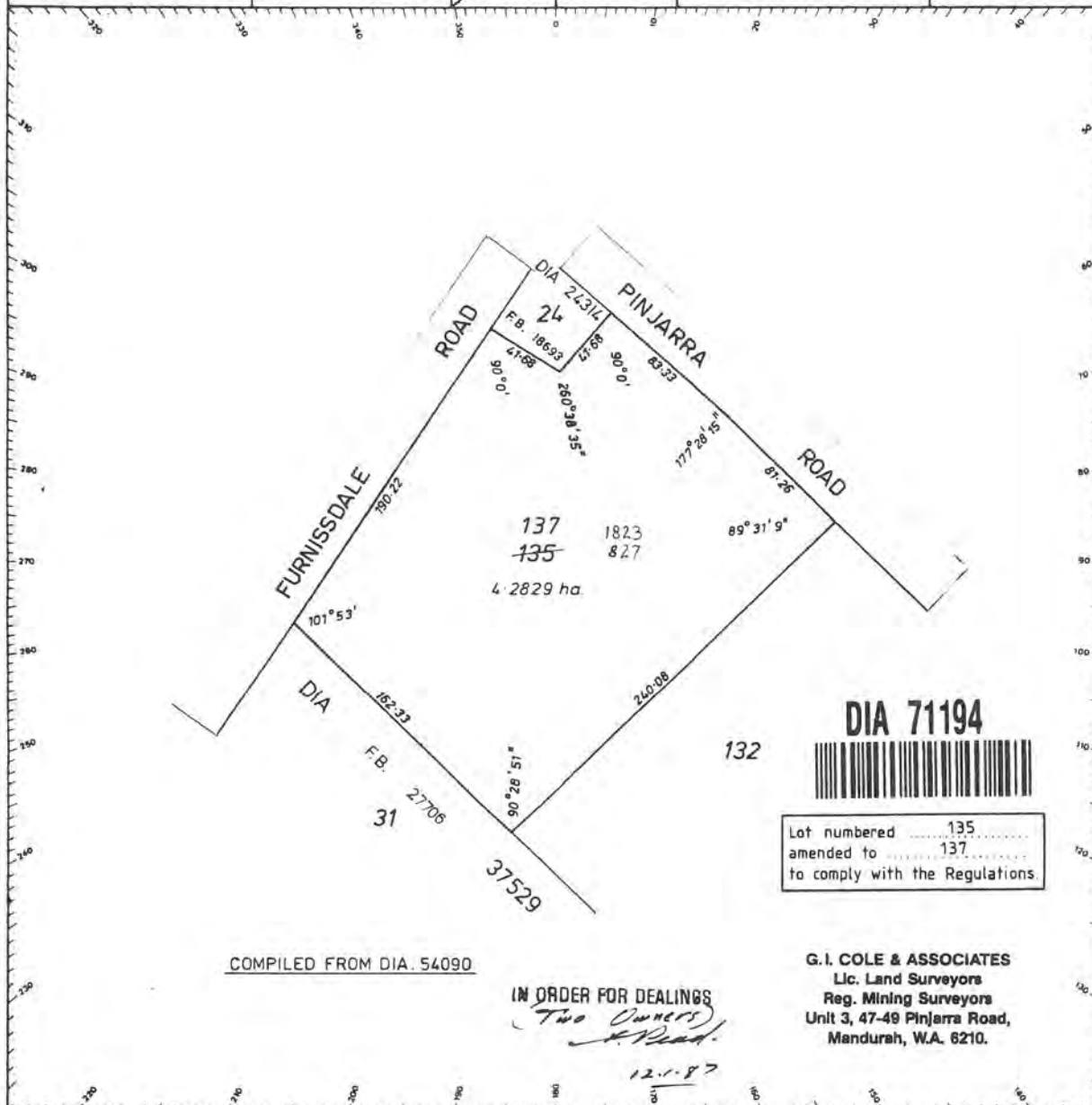
NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS

En42512/310/28615M-1/4444

FIRST SCHEDULE (continued)		NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS					
REGISTERED PROPRIETOR		INSTRUMENT		REGISTERED	TIME	SEAL	CERT OFFICER
		NATURE	NUMBER				
Terry Payne Nominees Pty. Ltd. of 31 Reynolds Road, Applecross.		Transfer	F638425	9.8.94	8.18		C.1
Bevan Pty. Ltd. of 647 Pinjarra Road, Mandurah.		Transfer	G841929	7.7.98	8.46		
Cavaye Investments Pty Ltd of 47 Kinkuna Way, City Beach.		Transfer	H486383	27.6.00	15.42		

SECOND SCHEDULE (continued)		NOTE: ENTRIES MAY BE AFFECTED BY SUBSEQUENT ENDORSEMENTS									
INSTRUMENT		PARTICULARS	REGISTERED	TIME	SEAL	CERT OFFICER	CANCELLATION	NUMBER	REGISTERED OR LODGED	SEAL	CERT OFFICER
NATURE	NUMBER										
Mortgage	F638426	to Australia & New Zealand Banking Group Ltd.	9.8.94	8.18		C.1	Discharged	G841928	7.7.98		C.1
Mortgage	G841930	to National Australia Bank Ltd.	7.7.98	8.46			Discharged	H486382	27.6.00		
Mortgage	H486384	to National Australia Bank Ltd.	27.6.00	15.42							

Town or District.	Number of Lot or Location.	Field Book.	Scale.	Certificate in which Land is Vested.	Area
COCKBURN SOUND	LOTS 130 & 131 of LOC 16		1: 2500	Vol. 1508 1508 Fol. 760 761	



COMPILED FROM DIA. 54090

IN ORDER FOR DEALINGS  
(Two Owners)  
*K. Read*

G.I. COLE & ASSOCIATES  
Lic. Land Surveyors  
Reg. Mining Surveyors  
Unit 3, 47-49 Pinjarra Road,  
Mandurah, W.A. 6210.

<b>CERTIFICATE</b> I hereby certify that this survey was performed by me personally (or under my own personal supervision, inspection and field check) in strict accordance with the Licensed Surveyors (Guidance of Surveyors) Regulations, 1961. Date <u>12.11.1986</u> COMPILED Licensed Surveyor		Approved by State Planning Commission Date <u>25 Nov 1986</u> For Chairman <i>[Signature]</i>	
Approved Examined <u>[Signature]</u> O.W. Haddow 12.80	On Plan <u>54090</u> Diagram <u>MURRAY 2000.09.38</u> Index Plan	REGISTERED OFFICE OF TITLES FEE PAID	Diagram No. <b>71194</b>

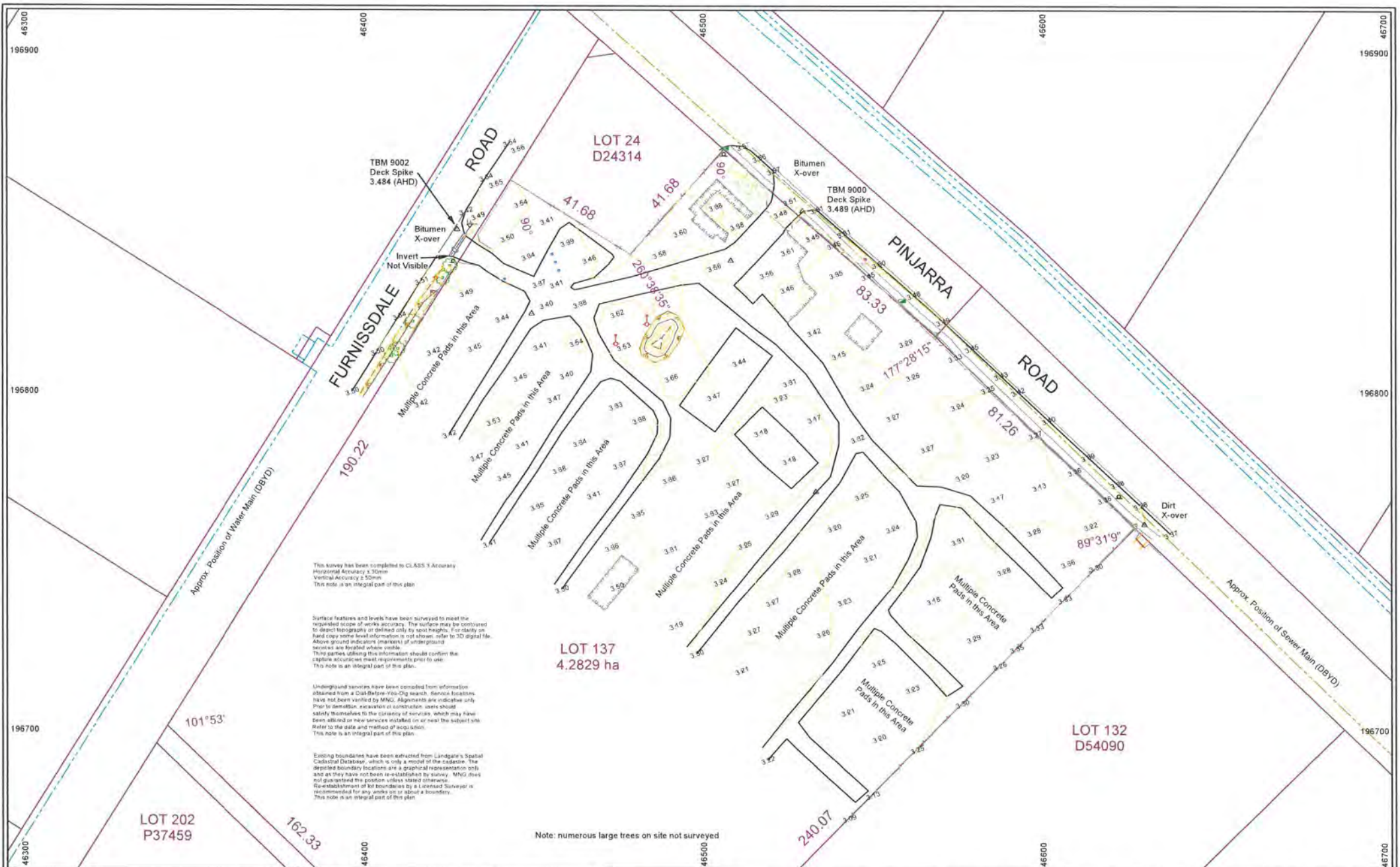
CP22105/4/86-1000 Dkt. Dia. 18745

*Public Landmarks & Environments 9-38*

WAD 186

# **APPENDIX B      DEVELOPMENT PLANS**





Rev	Initial Issue	Description	Drawn	Date	Checked
A	Initial Issue		PLJ	18/09/2019	NS

0 10 20 30 40 50  
SCALE 1:1000 A3  
ALL DISTANCES ARE IN METRES

For a true to scale reproduction of this plan, plot it to A3 with the Paging Scaling set to None

The contents of this plan are correct and correct as of the date stated within the bottom panel. All consultants and persons wishing to utilize this data should satisfy themselves of the plan's currency by contacting the MNG Survey Group.

Surveyor: PLJ  
Survey Date: 18/09/2019  
Project/Job: SCDB

PS 565331 GSH 59267



The boundaries shown on this plan were not re-established as part of this survey, therefore this plan does not guarantee their accuracy. Existing easements, encumbrance or interest are not depicted and a title search is recommended to obtain this information. Re-establishment of the cadastral boundaries is recommended for any proposed works on or near existing boundaries.

**MNG**  
MCMULLEN NOLAN GROUP  
Level 1, 2 Sabre Crescent  
Indalhart, W.A. 6154  
PO Box 9526, Success  
W.A. 6068 Australia  
Offices in: Brisbane, Bunbury, Kunming, Newman, Port Hedland

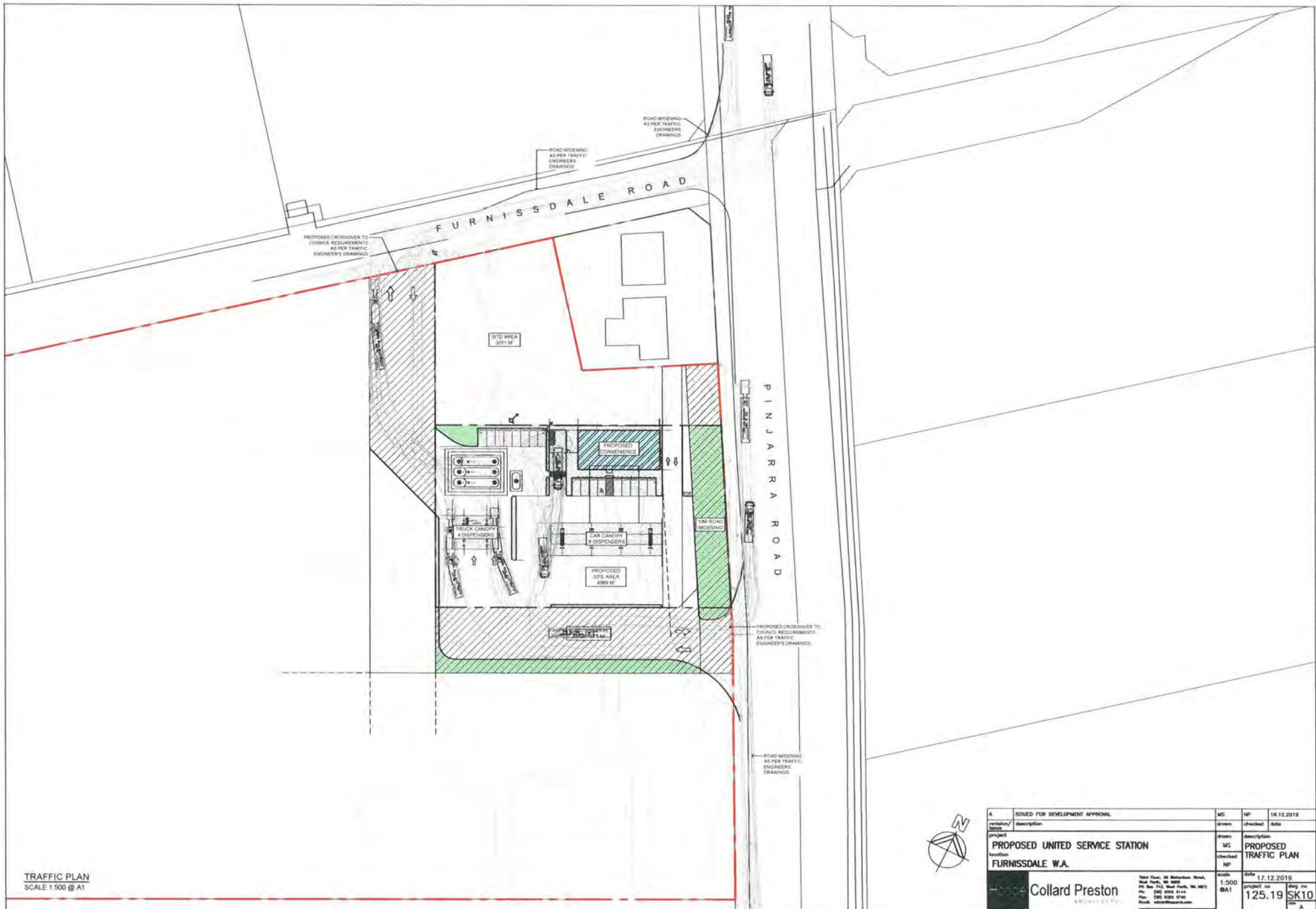
Tel: (08) 6436 1591  
Fax: (08) 6436 1500  
info@mngsurvey.com.au  
www.mngsurvey.com.au  
60M 90 009 353 311

**PINJARRA ROAD, FURNISSDALE  
LOT 137 on D71194 / CT 1823-827  
Feature and Contour Survey**

CLIENT: **YOLK PROPERTY GROUP**

Project Name: 102552 - DE - 001 - A  
Scale: 1:1000  
Type: Plan  
Revision: 001



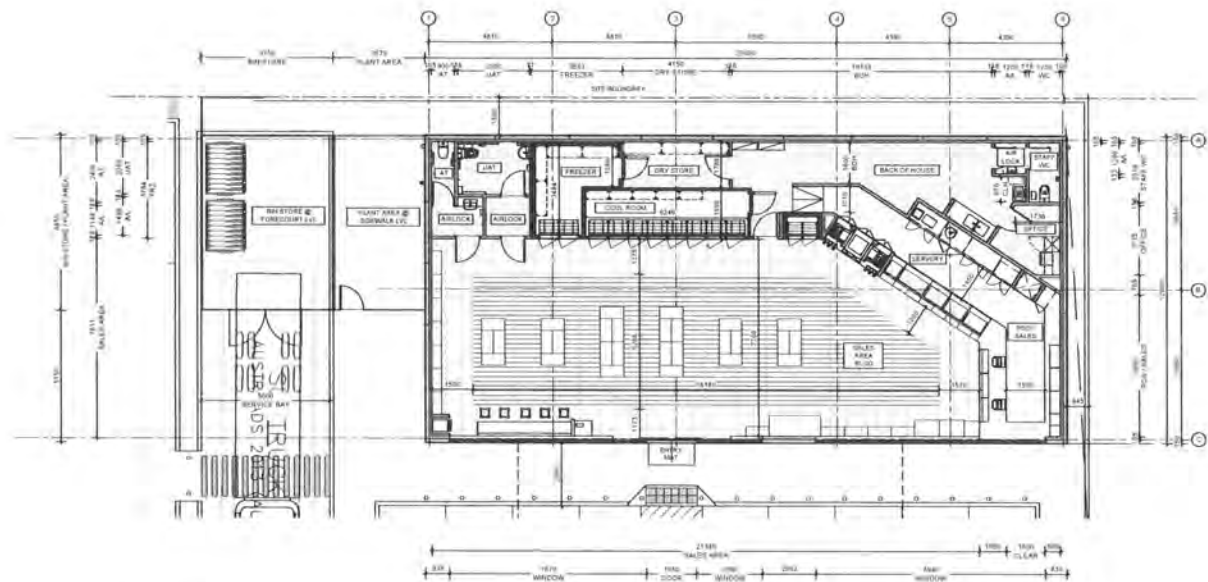


TRAFFIC PLAN  
SCALE 1:500 @ A1



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	revision/	description	drawn	checked	date
	project	PROPOSED UNITED SERVICE STATION	drawn	checked	description
	location	FURNISSDALE W.A.	checked	NP	PROPOSED TRAFFIC PLAN
<b>Collard Preston</b> <small>ARCHITECTS</small> 100/101 Sturt Street, Perth, WA 6000 PO Box 711, West Perth, WA 6001 Ph: (08) 9252 5141 Fax: (08) 9252 5140 Email: info@collardpreston.com		scale	date	17.12.2019	
		1:500 BA1	project no	125.19	dwg no
				SK10	rev
				A	





CONTROL BUILDING FLOOR PLAN  
SCALE 1:100 @ A1

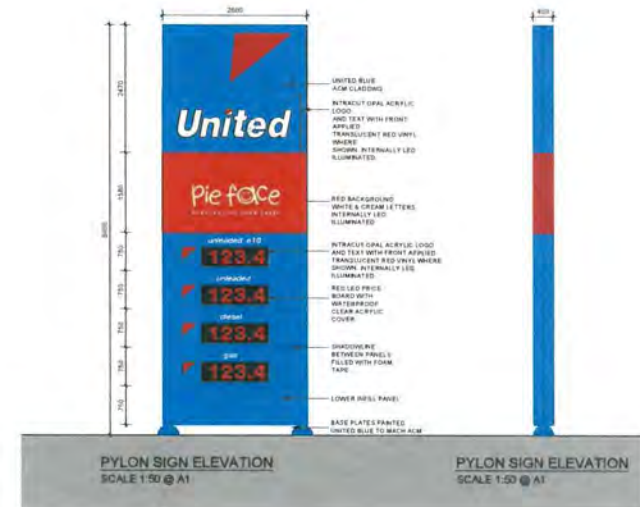
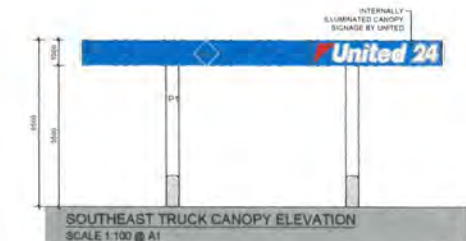
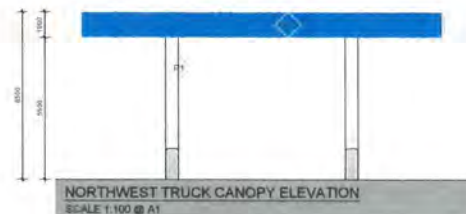
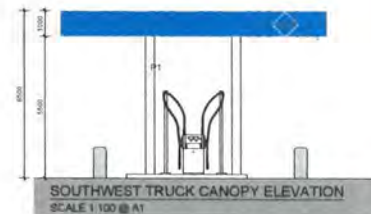
A	ISSUED FOR DEVELOPMENT APPROVAL	MS	HP	18.12.2019
	description	drawn	checked	date
project	PROPOSED UNITED SERVICE STATION	MS	PROPOSED	
	location	checked	FLOOR PLAN	
FURNISSDALE, W.A.		HP		
Collard Preston	1:100	29.11.2019	125.19	SK07
	@ A1			





AC-1	AC-1: 1 CANOPY FASCO ALUCOBOND - UNITED BLUE
AC-2	AC-2: 2 STORES FASCO ALUCOBOND UNITED RED
E18	E18: ALUMINUM SLATS DULUX COLOR BOND
P1	P1: STEEL COLUMN ALUCOBOND UNITED WHITE CLADDING
P2	P2: EXTERNAL WALLS PAINT DULUX - VIVID WHITE
P3	P3: DOORS & WINDOWS POWDERCOATED WHITE
F4	F4: PRECAST CONCRETE DECO CLAD DECO WHITE ALUMINUM CLADDING HORIZONTAL V. GROOVE PROFILE COLOR NATURAL TONE
P5	P5: EXTERNAL WALLS PAINT DULUX - UNITED RED

B	REISSUED FOR DEVELOPMENT APPROVAL	MS	app	18.12.2019
A	DESIGNED FOR DEVELOPMENT APPROVAL	MS	app	18.12.2019
revised/	description	drawn	checked	date
proposed		drawn	description	
	PROPOSED UNITED SERVICE STATION	MS	PROPOSED	
location		checked	ELEVATIONS	
	FURNISSDALE W.A.	1/P		date
				19.11.2019
		scale	1:100	
		(@ A1)		
		project no	125.19	design no
				PK 08
				SK 18

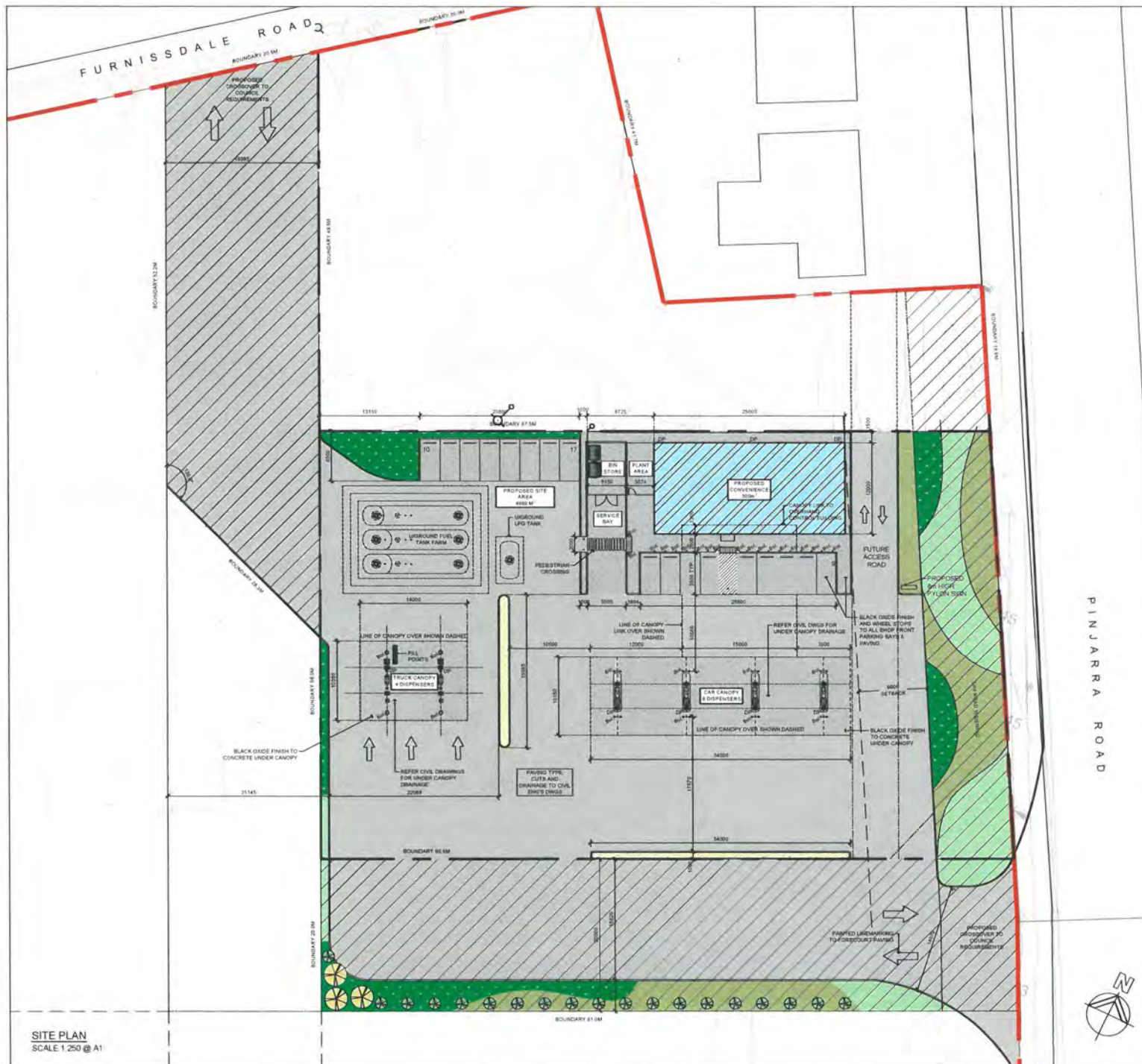


# COLOUR LEGEND

AC-1	AC - 1 CANOPY FASCIA ALUCOBOND UNITED BLUE
AC-2	AC - 2 STORE FASCIA ALUCOBOND UNITED RED
E16	E16 - ALUMINUM SLATS TALLER COLUMNING RED
P1	P1 - STEEL COLUMN ALUCOBOND UNITED VINYL CLADDING
P2	P2 - EXTERNAL WALLS PAINT SILVER - JACO WHITE
P3	P3 - DOORS & WINDOWS POWDERCOATED WHITE
P4	P4 - PRECAST CONCRETE DECO CLAD DECO WOOD ALUMINUM CLADDING HORIZONTAL, V GROOVE PROFILE COLOUR NATURAL TEAK
P5	P5 - EXTERNAL WALLS PAINT SILVER - UNITED RED

A	ISSUED FOR DEVELOPMENT APPROVAL	MS	GP	18.12.2019
PROJECT	PROPOSED UNITED SERVICE STATION FURNISSDALE, W.A.	DESIGN	PROPOSED ELEVATIONS	
CLIENT	Hodge Collard Preston	SCALE	1:100 @ A1	DATE 29.11.2019
DESIGNER	125.19	PROJECT NO	SK09	REV A





## **APPENDIX C**

## **TRAFFIC IMPACT ASSESSMENT**



An aerial photograph of the Furnissdale area. The image shows a network of roads including Husband Road at the top, Watson Drive on the right, Pinjarra Road running diagonally from the top right to the bottom right, and Furnissdale Road running diagonally from the bottom left to the top right. A large, irregularly shaped area in the center-right is highlighted in a solid orange color and labeled 'Subject Site'. The surrounding area is a mix of residential housing, trees, and some commercial buildings.

# Furnissdale Service Station

Pinjarra Road, Furnissdale  
Transport Impact Statement

Subject Site

Prepared by: GTA Consultants (WA) Pty Ltd for Yolk Property Group Pty Ltd

on 19/12/19

Reference: W177920

Issue #: Final-A



# Furnissdale Service Station

## Pinjarra Road, Furnissdale Transport Impact Statement


Client: Yolk Property Group Pty Ltd

on 19/12/19

Reference: W177920

Issue #: Final-A

### Quality Record

Issue	Date	Description	Prepared By	Checked By	Approved By	Signed
A-Dr	21/11/2019	Draft	AZ/RD	AZ/TM		
A-Final	19/12/2019	Final	RD	TM	TM	

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- A. Main Roads Western Australia Advice
- B. Development Plans
- C. Swept Path Assessment
- D. WAPC Guidelines Checklist

# 1. INTRODUCTION

## 1.1. Background

A Development Application is currently being sought for a proposed Service Station at 630 Pinjarra Road, Furnissdale. The proposed development incorporates a service station with:

- 300m<sup>2</sup> convenience store
- 4 x double fuel bowzers for cars providing 8 refuelling positions
- 4 x bowzers for trucks providing 3 refuelling positions
- 21 car parking bays.

GTA Consultants was commissioned by Yolk Property Group in September 2019 to prepare a transport impact statement for the proposed development.

## 1.2. Purpose of this Report

*Western Australian Planning Commission Transport Assessment Guidelines (WAPC Guidelines)* provide direction on the level of assessment which is necessary to be carried out with respect to the likely traffic impact of a development proposal. Typically, any development which is expected to have a 'high' traffic impact, that is, generating more than 100 trips in the peak hour is satisfied by a Transport Impact Assessment (TIA). Any development which is expected to generate less than 100 trips in the peak hour requires a Transport Impact Statement (TIS) to be undertaken. Both types of assessment consider the operation and layout of the site, but they differ in their assessment of external traffic impact.

In the context of this proposal, it is estimated there may be less than 100 trips generated in a given peak hour if applying 'typical' traffic generation rates, despite the WAPC guidelines indicating that service stations with more than 7 bowzers are expected to generate over 100 vehicle movements in the peak hour. This is due to the location and configuration of this particular service station, which is predominantly attracting traffic in one direction only (by virtue of the median in Pinjarra Road) and the rural location of the area. In this case, a TIS is appropriate.

This TIS briefly outlines the transport aspects surrounding the proposed amendment. The intent of a TIS, as per the WAPC Guidelines, is to provide the approving authority with sufficient transport information to confirm that the Applicant has adequately considered the transport aspects of the amendment and that it would not have an adverse transport impact on the surrounding area. Of particular relevance is the accessibility of the amendment by non-car modes, in accordance with Government's sustainable development objectives, and its integration with the surrounding area.

In accordance with the WAPC Guidelines, this TIS outlines:

- Existing transport conditions proximate to the site
- Suitability of the proposed parking provision within the site
- The adequacy of the proposed site layout
- The traffic generating characteristics of the proposed development
- The anticipated impact of the proposed development on the surrounding road network.

## 1.3. References

In preparing this report, reference has been made to the following:

- Shire of Murray Town Planning Scheme No. 4 (TPS 4)

## INTRODUCTION

- Shire of Murray Barragup Furnissdale Activity Centre Local Planning Policy
- WAPC Transport Assessment Guidelines for Development
- Australian Standard/ New Zealand Standard, Parking Facilities, Part 1: Off-Street Car Parking AS/NZS 2890.1:2004
- Australian Standard, Parking Facilities, Part 2: Off-Street Commercial Vehicle Facilities AS 2890.2:2002
- Australian Standard / New Zealand Standard, Parking Facilities, Part 6: Off-Street Parking for People with Disabilities AS/NZS 2890.6:2009
- plans for the proposed development prepared by Hodge Collard Preston Architects dated 18<sup>th</sup> December 2019
- various technical data as referenced in this report
- an inspection of the site and its surrounds
- other documents as nominated.



## 2. PROPOSED DEVELOPMENT

### 2.1. Subject Site

The subject site is located at 630 (Lot 130) Pinjarra Road, Furnissdale. The proposed site of 4,989m<sup>2</sup> sits within the larger 42,829m<sup>2</sup> parent lot which has frontages of 163m to Pinjarra Road and 190m to Furnissdale Road. The smaller subject site has a proposed 56m frontage on Pinjarra Road. The development proposes a service station with:

- 300m<sup>2</sup> convenience store
- 4 x double fuel bowzers for cars providing 8 refuelling positions
- 4 x bowzers for trucks providing 3 refuelling positions
- 21 car parking bays.

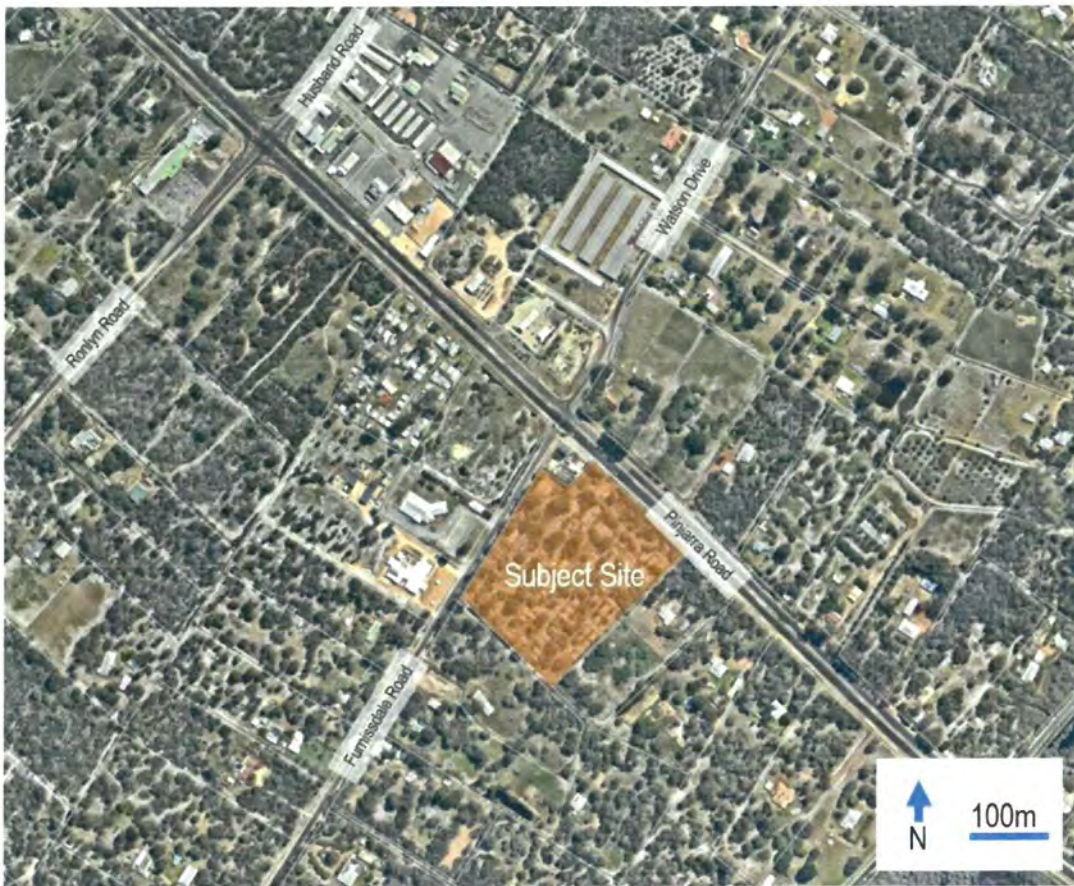
The subject site is zoned Urban under the Peel Regional Scheme (PRS) and Commercial and Service Commercial under TPS 4. The portion of the site that the development is proposed is zoned Commercial. The site is currently vacant, however was previously a caravan park. The subject site is also located within the Barragup Furnissdale Activity Centre, refer to Figure 2.1.

Figure 2.1: Barragup-Furnissdale Activity Centre Policy Plan



The surrounding properties include a mix of Rural and Service Commercial land uses, as well as caravan parks and service stations. The location of the subject site and the surrounding environs is shown in Figure 2.2, and the land zoning is shown in Figure 2.3.

Figure 2.2: Subject Site and its Environs



(PhotoMap courtesy of NearMap Pty Ltd)



Figure 2.3: Land Zoning Map



(Reproduced from Shire of Murray Intramaps)

## 2.2. Context with Surrounds

The development is consistent with other developments in the area, as there is also a service station on the northern side of Pinjarra Road servicing primarily southbound traffic, as well as the *Barragup Furnissdale Activity Centre Local Planning Policy* and TPS 4. The *Barragup Furnissdale Activity Centre Local Planning Policy* states land uses are to be in accordance with TPS 4. TPS 4 outlines that a Service Station / Petrol Filling Station is an "AA" land use in the Commercial Zone, which means it can be considered by Council at its discretion if it is satisfied such use would not be contrary to the orderly and proper planning of the area.

## 3. VEHICULAR ACCESS AND PARKING

### 3.1. Access Arrangement

The proposal includes the construction of a service station with supporting convenience store and parking. The development site has frontages to Pinjarra Road and to a future internal road network. Access to Furnissdale Road and Pinjarra Road are proposed from the internal road network with crossovers to both. Access to Pinjarra Road is limited to a left in / left out movement, however full movement is permitted along Furnissdale Road and then onto Pinjarra Road at its intersection with Furnissdale Road.

The proposed left in / left out onto Pinjarra Road is proposed to be approximately 155m from the intersection of Pinjarra Road/Furnissdale Road/Watson Place (this measured from road centre line to centre line). The proposed Furnissdale Road crossover is proposed to be approximately 115m south of the stop line at the same intersection.

Advice from Main Roads Western Australia provided in April 2018 (see attached at Appendix A) indicated that left-in access should be located as far as possible from Furnissdale Road with at least a 145m separation to allow for the provision of left turn pockets on the eastern approach to the intersection of Pinjarra Road/Furnissdale Road/Watson Place in the future upgrade of this intersection to a signalised four-way intersection. This has been provided for in the design.

Pinjarra Road will be widened in the future, with a 10m road widening reserve allowed for this.

A copy of the service station development plans are contained at Appendix B.

### 3.2. Parking

Parking for 21 vehicles are proposed as part of this development, which includes one ACROD bay and there is a separate service area loading bay for service vehicles on the southern side of the convenience store building. The layout of the development allows for connections to adjacent land and future developments.

Parking should be provided for a convenience store at a rate of 1 parking space per 20m<sup>2</sup>. Therefore, 15 parking spaces are required for the 300m<sup>2</sup> convenience store. The proposed 21 parking spaces exceeds this requirement and the amount of parking is adequate.



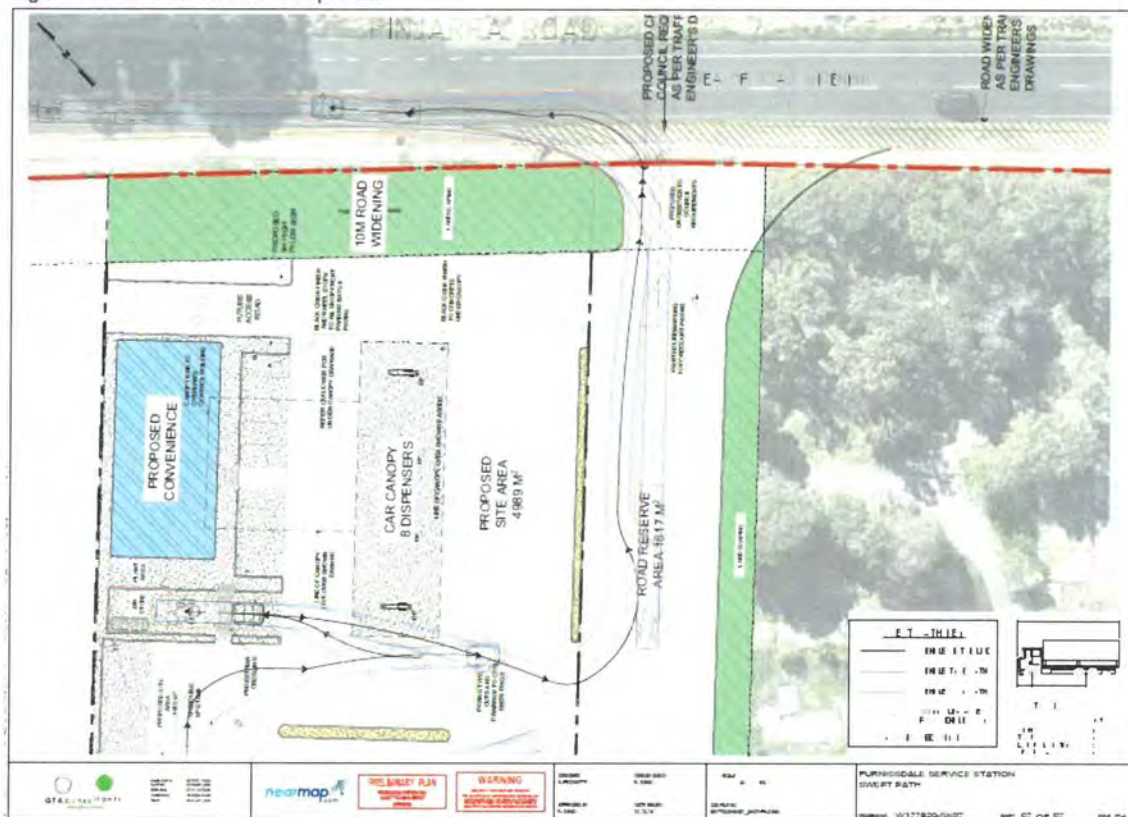
## 4. SERVICE VEHICLES

### 4.1. Rubbish Collection and Emergency Vehicle Access

A service area is provided adjacent to the southern side of the convenience store, which will allow for loading and unloading to occur. Swept path assessment of this loading area has shown that vehicles up to heavy rigid vehicle (HRV) size of 12.5m length can access and exit this loading area, as shown in Figure 4.1.

The bin store is proposed to be accessed from the loading service area with this to be confirmed in a separate waste management plan if required.

Figure 4.1: Service Vehicle Swept Path



## 5. TRAFFIC VOLUMES

### 5.1. Daily or Peak Hour Traffic Volumes

Traffic volumes on the adjacent road network of Pinjarra Road was assessed based on Main Roads Western Australia (MRWA) Traffic Map data.

Pinjarra Road, east of Furnissdale Road: Daily: 15,777 vehicles per day (vpd) with 8.6% heavy vehicles recorded in 2018/19

8,000 vpd eastbound & 7,777 vpd westbound

PM: 689 vph eastbound & 723 vph westbound

Since the opening of Forrest Highway, traffic flow on Pinjarra Road has increased at a rate of approximately 53 vpd per annum from approximately 2011 to 2018, based on observed traffic counts for Pinjarra Road east of Ronlyn Road. This represents a rate of increase of approximately 0.3% per annum.

Based on the calculated 0.3% / 53 vpd per annum growth in traffic flows, by 2020 the estimated time of the opening of the development, there is expected to be approximately 15,870 vpd on Pinjarra Road. By 2031 there is expected to be approximately 16,500 vpd on Pinjarra Rad, based on the same growth rate from 2020 to 2031.

The equivalent PM peak traffic flows on Pinjarra Road by 2031 are expected to be:

Pinjarra Road, east of Furnissdale Road: Daily: 16,500 vpd with 8.6% heavy vehicles

8,365 vpd eastbound & 8,135 vpd westbound

PM: 720 vph eastbound & 760 vph westbound

The proportion of heavy vehicles on Pinjarra Road for the various Austroads classes are:

- Class 1 (typical passenger vehicles) 91.4%
- Class 2-5 (vehicle towing trailers and rigid trucks) 8.0%
- Class 6-9 (articulated vehicles up to 19m length) 0.6%
- Class 10 (B-Doubles/RAV Network 2) 0.0%\*
- Class 11 (Road Trains/RAV Network 3/4) 0.0%\*
- Class 12 (Road Trains/RAV Network 3/4) 0.0%\*

Even though the proportion of Class 10 to 12 vehicles have been noted as 0.0% above, there is approximately 6 vehicles of this size recorded currently using Pinjarra Road each weekday (comprising 3 vehicles in each direction).

## 5.2. Types of Vehicles

The types of vehicles accessing the site will be mostly private motor vehicles and heavy vehicles (up to RAV Network 4 size) including the semi-trailer fuel delivery truck and rubbish collection truck.

### 5.3. Traffic Generation and Traffic Impact

In order to estimate the trip generation associated with the proposed development, reference has been made to trip rates within the *WAPC Guidelines* (which often refer to the *RTA Guidelines, NSW*) and the *Trip Generation 9th edition, 2012 - Institute of Transportation Engineers (ITE)*, Washington, USA. These trip rates are considered to accommodate the general vehicle activity at the site incorporating:

- Convenience Store with Petrol Pumps.



Table 5.1: Estimated Traffic Generation

Land Use	Peak Hour Rates (vph two-way)	2020 Peak Hour Trip Generation Estimates (vph) (PM peak for worst case)	2031 Peak Hour Trip Generation Estimates (vph) (PM peak for worst case)
Convenience Store with Petrol Pumps	0.04 / passing traffic	43	45

It is expected that 100% of the westbound carriageway traffic would be considered as passing traffic, but due to the median it has been conservatively assumed that up to 50% of the eastbound carriageway traffic may deviate to the proposed development.

Table 5.2: Estimated Traffic Generation - Total

Trip type	Trips IN	Trips OUT
PM Vehicle (2020)	21	22
PM Vehicle (2031)	22	23

Assumed in/out split is 50%/50% in the in the PM peak as per WAPC Guidelines.

Based on the above, the total traffic generation of the development site is expected to be in the order of 470 vehicular trips in a day in the short-term (at opening in say 2020), with 43 vehicle movements in a typical evening peak hour. As traffic flows increase in the longer term the traffic generated is expected to increase to approximately 490 trips per day, with 45 in the peak hour.

These trips are all expected to be deviated from the current passing trips and not attracted as new trips to the proposed development site.

With regards to the intersections, Table 2.4 from the Austroads publication, *Guide to Traffic Management Part 6 – Intersections, Interchanges and Crossings* (2007 version) provides general first parse advice as to intersection and crossover performance in peak flow conditions about possible further analysis. This is summarised in Table 5.3. If the calculated expected traffic flows for this development exceed those shown in Table 5.3 further assessment is typically required.

Table 5.3: Austroads Guidelines

Major Road Type	Major Road Flow (two-way, vph)	Minor Road Flow (two-way, vph)
Two-lane	400	250
	500	200
	650	100
Four-lane	1,000	100
	1,500	50
	2,000	25

Examining the expected traffic flows at the crossover and nearby affected intersections for the proposed development, Table 5.4 is derived.

Table 5.4: Comparison to Austroads Guidelines

Intersection	Major Road Flow (two-way, vph)	Minor Road Flow (two-way, vph)
Pinjarra Road Crossover (2031)	1,500	20
Furnissdale Road Crossover (2031)	90	30
Pinjarra Beach/Furnissdale Rd (2031)	1,500	80

Based on the above table, the intersection of Pinjarra Road/Furnissdale Road/Watson Drive required further assessment to be undertaken utilising such tools as *Sidra Intersection*. This is discussed in more detail in the next section.



## 5.4. Level of Service Concepts

The Level of Service (LoS) concept describes the quality of traffic service in terms of six levels, designated A to F, with LoS A representing the best operating condition (i.e. at or close to free flow), and LoS F being the poorest (i.e. forced flow). More specifically:

- **LoS A:** Primarily free flow operations at average travel speeds, usually about 90% of the FFS (free flow speed) for the given street class. Vehicles are completely unimpeded in their ability to manoeuvre within the traffic stream. Control delay at signalised intersections is less than 10 seconds. At non-signalised movements at intersections, the average control delay is less than 10 seconds;
- **LoS B:** Reasonably unimpeded operations at average travel speeds, usually about 70% of the FFS for the street class. The ability to manoeuvre within the traffic stream is only slightly restricted, and control delays at signalised intersections are between 10 and 20 seconds. At non-signalised movements at intersections the average control delay is between 10 and 15 seconds;
- **LoS C:** Stable operations; however, ability to manoeuvre and change lanes in mid-block locations may be more restricted than at LoS B, and longer queues, adverse signal coordination, or both may contribute to lower average travel speeds of about 50% of the FFS for the street class. Signalised intersection delays are between 20 and 35 seconds. At non-signalised movements at intersections the average control delay is between 15 and 25 seconds;
- **LoS D:** A range in which small increases in flow may cause substantial increases in delay and decreases in travel speed. LoS D may be due to adverse signal progression, inappropriate signal timing, high volumes, or a combination of these factors. Average travel speeds are about 40% of FFS. Signalised intersection delays are between 35 and 55 seconds. At non-signalised movements at intersections the average control delay is between 25 and 35 seconds;
- **LoS E:** Characterised by significant delays and average travel speeds of 33% of the FFS or less. Such operations are caused by a combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections (between 55 and 80 seconds), and inappropriate signal timing. At non-signalised movements at intersections the average control delay is between 35 and 50 seconds; and,
- **LoS F:** Characterised by urban street flow at extremely low speeds, typically 25% to 33% of the FFS. Intersection congestion is likely at critical signalised locations, with high delays (in excess of 80 seconds), high volumes, and extensive queuing. At non-signalised movements at intersections the average control delay is greater than 50 seconds.

In addition to the above:

- **Average Delay:** is the average of all travel time delays for vehicles through the intersection
- **Queue:** is the queue length below which 95% of all observed queue lengths fall
- **Degree of Saturation (DoS):** Ratio of the traffic flow to the capacity for that particular lane/movement.

The above has been summarised below in Table 5.5.

Table 5.5: SIDRA Intersection Degree of Saturation Definitions

LoS		Intersection Degree of Saturation (DoS, X)	
		Unsignalised Intersection	Signalised Intersection
A	Excellent	$\leq 0.50$	$\leq 0.60$
B	Very Good	0.50-0.70	0.60-0.75
C	Good	0.70-0.80	0.75-0.90
D	Acceptable	0.80-0.90	0.90-0.95
E	Poor	0.90-1.00	0.95-1.00
F	Very Poor	$\geq 1.0$	$\geq 1.0$

## 5.5. Pinjarra Road/Furnissdale Road/Watson Drive Intersection Performance

The Pinjarra Road/Furnissdale Road/Watson Drive intersection was assessed based on the current road geometry of the stop sign controlled intersection.

Table 5.6 and Table 5.7 are excerpts from the SIDRA Intersection output table for Movements, which show the expected performance of the intersection at 2031.

Table 5.6: Pinjarra Road/Furnissdale Road/Watson Drive – Current 2019 PM Peak Performance

Approach	Performance Criteria for Critical Movement		
	Lane	DoS	Non-Priority Av. Delay (s) Intersection LoS
Furnissdale Road (S)	Left	0.03	13
	Right/Through	0.02	26
Pinjarra Road (E)	Right	0.03	10
Watson Drive (N)	Left	0.04	13
	Right/Through	0.10	27
Pinjarra Road (W)	Right	0.01	11
Intersection	ALL	0.19	1s/A

From the above, it is apparent that the current intersection with the current traffic flows operates at a LoS A with minimal delays and low DoS for the critical movements of the intersection. The critical movements are the movements from the minor leg approaches of Furnissdale Road and Watson Drive and for the right turns from Pinjarra Road.

With the proposed development traffic flows added to this intersection and allowing an increase in traffic flow to 2031 the performance of this intersection is summarised below.

Table 5.7: Pinjarra Road/Furnissdale Road/Watson Drive - Expected 2031 PM Peak Performance with Development

Approach	Performance Criteria for Critical Movement		
	Lane	DoS	Non-Priority Av. Delay (s) Intersection LoS
Furnissdale Road (S)	Left	0.08	14
	Right/Through	0.04	33
Pinjarra Road (E)	Right	0.03	11
Watson Drive (N)	Left	0.05	13
	Right/Through	0.11	32
Pinjarra Road (W)	Right	0.03	11
Intersection	ALL	0.19	2s/A

Comparing the above table to Table 5.6 there is observed that there should be little difference in the operation of this intersection with the proposed development traffic added. Delays are expected to only marginally increase for vehicles turning right from Furnissdale Road with the DoS for the same movements being significantly less than a target level of 0.80 for unsignalised sign-controlled movements.



## 6. TRAFFIC MANAGEMENT ON FRONTAGE STREETS

### 6.1. Pinjarra Road

Pinjarra Road is a four-lane road under the care and control of Main Roads Western Australia. The road cross section consists of 7.2m wide traffic carriageways for each direction (consisting of 3.6m wide traffic lanes) either side of a 6.7m wide median. Pinjarra Road in this section of roadway is presently subject to a posted speed limit of 80km/h. The road is classified as a Primary Distributor under the functional road hierarchy and as a Primary Regional Road under the Peel Region Scheme. This section of road also carries multi-combination vehicles up to RAV Network 4 size, these typically being B-double and Road Trains up to 27.5m length. The current road reservation for Pinjarra Road is 40m and this is being widened to 60m to accommodate future road plans for Pinjarra Road to function as a key transport corridor between Mandurah and Pinjarra.

The section of the westbound carriageway of Pinjarra Road from Jannali Road to Furnissdale Road has had one recorded crash in the five-year period of 2014 to 2018. This crash was a side-swipe crash not being a killed or seriously injured (KSI) type accident. Based on the length of road and traffic flow for the westbound carriageway this works out to be 0.11 crashes per million vehicle-km travelled on this section of road. The wider network average for divided open roads is approximately 0.74 crashes per MVkm and as the assessed crash rate for this section is significantly less than this it can be surmised that this section of Pinjarra Road is very safe.

### 6.2. Furnissdale Road

Furnissdale Road is a 2-lane two-way road under the care and control of the Shire of Murray. It presently consists of a single 6m wide sealed un-kerbed roadway within a 20m road reserve and is classified as an Access Road under the Functional Road Hierarchy. From traffic counts conducted as part of this proposed development in September 2019 it is estimated that approximately 350 vpd currently use Furnissdale Road. Furnissdale Road is subject to a posted speed limit of 60km/h. It is presently a 20m wide road reservation, but is to be widened to 26m as development occurs along its length.

### 6.3. Intersection of Pinjarra Road/Furnissdale Road/Watson Drive

This intersection of the above two roads is a 4-way intersection controlled by Stop signs on the Furnissdale Road/Watson Drive approaches. The Pinjarra Road approaches have right turn lanes of approximately 100m length. The median width of approximately 6.75m allows for the median to be used as a two-stage right turn movement crossing from Furnissdale Road and Watson Drive into Pinjarra Road.

Examination of crash data for this intersection reveals there have been 5 recorded crashes at this intersection from 2014 to 2018. Of these, none were KSI crashes, however, 2 required medical treatment and 3 involved property damage only. The main crash type was right angle with 4 of these crashes recorded and all crashes occurred during daylight hours and under dry road conditions.

Based on the number of vehicles entering the intersection the crash rate is approximately 0.18 crashes per million vehicles entering (MVE). The average crash rate for rural type intersection is approximately 0.12 crashes per MVE and thus the current crash rate is slightly higher than the network average. However, allowing for the lower traffic flows, the critical crash rate (this allows for data variance and 95% confidence levels) above which the number of crashes would suggest an issue is approximately 0.45 crashes per MVE. That being the case, the current crash rate of 0.18 crashes per MVE is less than the critical crash rate of 0.45 crashes per MVE, the intersection is considered safe in its present format.

## 7. PUBLIC TRANSPORT, CYCLING AND PEDESTRIAN ACCESS

### 7.1. Public Transport

Whilst the area is within close proximity to a bus stop, with services 600 (Mandurah Station to Pinjarra), 604 (Mandurah Station to South Yunderup) and 605 (Mandurah Station to Pinjarra – Murray River Estate) stopping outside the subject site along Pinjarra Road, the nature of the land use is not expected to attract public transport usage. Notwithstanding, there is a path connecting the bus stop to the subject development.

### 7.2. Cycling Access/Facilities

There is currently no dedicated cycling access or facilities at the subject site. However, on April 27 2016, WA's laws were changed to allow cyclists of all ages to use footpaths, unless otherwise signed. The amendment to the *Road Traffic Code 2000* brought WA's bicycle laws into line with the rest of Australia, making it legal for parents to cycle alongside their children on footpaths, improving safety.

### 7.3. Pedestrian Access/Facilities

There is an existing minimum 2m wide path along the southern side of Pinjarra Road, which connects the subject site to the wider network.



## 8. SITE SPECIFIC ISSUES

### 8.1. Identified Issue – RAV Access

The proposed development lies on a Restricted Access Vehicle (RAV) Network road, being Pinjarra Road, and there is an expectation that RAVs could stop and refuel at this site. Given the current nature and layout of the site, there is also an expectation that vehicles travelling west along Pinjarra Road will want to access the site to refuel. To best provide for circulation through the site and to separate heavy vehicle movements from smaller vehicles as much as possible there should be a circulation flow regime so that standard and large vehicles are kept separate as much as possible within the site.

If RAVs are desired to utilise the proposed development, the section of Furnissdale Road south of Pinjarra Road to the exit of the proposed development **will be required to be classified on the RAV Network**. This will require the road geometry and intersection geometry to be designed accordingly for RAV access and then a formal application would then need to be made to the Shire of Murray to approve of such access with referral to Main Roads WA Heavy Vehicle Services for formal assessment.

#### 8.1.1. Adopted Measure – RAV Access

To address a potential circulation issue and to keep separate heavy vehicles and standard vehicles within the site, a direct access to the site from Pinjarra Road for westbound traffic and then an exit onto Furnissdale Road has been proposed. This will require the slight relocation of the adopted location of the access to this area as shown under the *Barragup-Furnissdale Activity Centre Local Planning Policy* by approximately 65m closer to the intersection of Pinjarra Road/Furnissdale Road/Watson Drive.

Figure 8.1: Previous & Proposed Pinjarra Road Access



As discussed in Section 8.1, the crossovers, Furnissdale Road and its intersection with Pinjarra Road will be required to be designed for RAV Network 4 vehicles and then a formal application for the use of Furnissdale Road made to the Shire of Murray for the use of the road for RAVs exiting the proposed development back onto Pinjarra Road via Furnissdale Road.



### 8.2. Identified Issue – Short Term & Long Term

As discussed in Section 6.1, Pinjarra Road is to be widened from the current 40m wide road reserve to a 60m wide road reserve with a widening of 10m either side of the current road reservation. As part of this proposed development, this 10m land take will occur on the frontage of the subject site on Pinjarra Road.

This proposed development proposes an access to/from Pinjarra Road in an interim format with a proposed Easement in Gross across the front of the development site to connect to a 20m section of private roadway east of the proposed development. This will thus provide direct access to the private roadway for the Easement in Gross approximately 20m south of the current westbound carriageway of Pinjarra Road.

With the development of the wider area on the south-east corner of the intersection of Pinjarra Road/Furnissdale Road/Watson Drive the proposed 20m private roadway to/from Pinjarra Road is expected to become a public road and will require truncations at the property boundary with the 60m wide Pinjarra Road reservation. It is expected that a typical 6x6m truncation would be required on the western side of the then public road whilst an atypical 10x13m truncation would be required on the eastern side, this to accommodate RAVs turning left from Pinjarra Road.

This 20m wide road reservation is expected to contain a 10m wide roadway, suitably sized to all the transit of larger vehicles to and from Pinjarra Road.

The provision of these truncations for the ultimate road reservation for Pinjarra Road due to the conversion of the private roadway to a public road will require an alternate access to continue to provide a legal right of access and thus maintenance of a legal Easement in Gross across this proposed development to future development west of this site, nearer to Furnissdale Road.

#### 8.2.1. Adopted Measure – Long Term Access

To allow the maintenance of long term Easement in Gross access across this proposed development, it is proposed that the Easement in Gross be provided in a format so that it connects with the private roadway and then future public road at a location approximately 60m south of the current westbound carriageway of Pinjarra Road.

## 9. SAFETY ISSUES

### 9.1. Identified Issues

As identified in Section 6.3, the current intersection has a number of right-angle crashes occurring at an average only slightly higher than the network average but less than the critical crash rate. The performance of the intersection with the addition of the expected traffic flows of the proposed development suggests the operation of the intersection will be almost identical as the current performance and as such, the number of crashes is not expected to change over time.

As part of the *Barragup-Furnissdale Activity Centre Local Planning Policy*, this intersection is proposed to be signalised at some point in the future. This will most likely have left turn deceleration lanes on the Pinjarra Road approaches to the intersection, similar to the signalised intersection to the west at the intersection of Pinjarra Road/Ronlyn Road/Husband Road.

The centreline of the proposed crossover location for the proposed development is located approximately 155m from the centreline of the intersection of Pinjarra Road/Furnissdale Road/Watson Road. This distance will allow the provision of a 125m long deceleration lane to a stopped condition (0km/hr) for an assumed 90km/h design approach speed.

The proposed left turn direct access from Pinjarra Road into the proposed development will also require a left turn deceleration lane. Based on a similar 90km/h design speed but a 20km/h exit speed at the entry to the proposed development at the end of the left turn lane, the lane would be required to be 120m in length.

Also, the proposed size of vehicles which might access the proposed development (up to RAV Network 4 vehicles) will require swept paths of vehicles to extend outside the current road pavement of Furnissdale Road near the Furnissdale Road driveway and at the intersection of Pinjarra Road/Furnissdale Road/Watson Drive as vehicles turn left from Furnissdale Road into Pinjarra Road to head west. A copy of the Swept Path Assessment is included at Appendix C.

### 9.2. Remedial Measures

Based on the above identified issues, the following measures are recommended:

- A 120m long left turn deceleration lane be provided on the eastern approach to the crossover entry to the proposed development
- Furnissdale Road be modified near the exit from the proposed development to cater for RAV Network 4 swept paths
- The SW corner of the intersection of Pinjarra Road/Furnissdale Road/Watson Drive be modified to cater for RAV Network.

# 10. CONCLUSION

Based on the analysis and discussions presented within this report, the following conclusions are made:

1. The proposed development generates a statutory parking requirement of 15 spaces, for the 300m<sup>2</sup> convenience store floor area. The proposed supply of 21 spaces is more than adequate with a surplus of 6 parking bays.
2. The proposed parking layout is consistent with the dimensional requirements as set out in the Australian/New Zealand Standards for Off Street Car Parking (AS/NZS2890.1:2004 and AS/NZS2890.6:2009).
3. The provision of loading areas is considered appropriate with vehicles able to enter and exit the loading bay area.
4. The site is expected to generate up to 45 and 490 vehicle movements in any peak hour and daily, respectively, in the longer term (2031) with traffic flow increases on Pinjarra Road.
5. There is adequate capacity in the surrounding road network to cater for the traffic generated by the proposed development.
6. Provision is made for all access arrangements to operate safely and efficiently into the future (at least 10 years after full development).
7. A 120m long left turn deceleration lane be provided on the eastern approach to the crossover entry to the proposed development
8. The exit of larger RAVs from the proposed development onto Furnissdale Road will require:
  - Widening of Furnissdale Road opposite the exit point from the proposed development to cater for RAV Network 4 swept paths
  - Widening of the south-west corner of the intersection of Pinjarra Road/Furnissdale Road/Watson Drive.
9. The access to the site by RAVs from Pinjarra Road and back onto Furnissdale Road will require Furnissdale Road from the exit of the proposed development to the intersection at Pinjarra Road/Furnissdale Road/Watson Drive to be added to the RAV Network 4.



# A. MAIN ROADS WESTERN AUSTRALIA ADVICE

Provided April 2018





**From:** NAUDE Daniel (RCPM) [<mailto:Daniel.Naude@mainroads.wa.gov.au>]

**Sent:** Friday, 6 April 2018 4:29 PM

**To:** Mohammad Rasouli

**Cc:** Rhys Bloxsidge; Leanne McGuirk; DAVIES Paul (Con)

**Subject:** Reply: Request for in-principle support for proposed access arrangements: Lot 137 ( 630 ) Pinjarra Rd, Furnissdale

Hi Mohammad

Further to your recent request I advise that Main Roads has concerns in regard to the proposed development and access arrangements to Pinjarra Road.

Lot 137 is 4.28ha in extent and zoned for commercial purposes, and it is anticipated that the overall property may be developed for further commercial purposes in the future, which will increase traffic demands within the site and on the adjacent road network. As you may be aware, Pinjarra Road has declared Control of Access with general restrictions on access. It is considered that a Local Development Plan (or similar) and a Structure Plan should be prepared for the overall property and adjoining corner Lot 24, as applicable, to coordinate/identify future access and development/subdivisional controls. Provision will need to be made through the detailed planning process for access/egress for Lot 24 to be taken internally from Lot 137.

Main Road has previously advised the Department of Planning, Lands and Heritage that it only supports one left-in access for the overall development from Pinjarra Road with primary access to be taken from Furnissdale Road. It is considered that the left-in access should be located as far as possible from the Furnissdale Road intersection with a minimum of 145 metres to the east of the Furnissdale Road intersection to avoid conflict with future provision of a left-turn lane at the Furnissdale Road intersection.

In the future, it is anticipated that the Furnissdale Road intersection will be upgraded, including traffic signals, and it is understood that the Shire of Murray will be preparing a developer contribution plan for contributions to upgrading the intersection. Also, in the longer term it is anticipated that Pinjarra Road will be upgraded to a six lane road/ highway with potential for a separate public transport route.

Main Roads does not support left-out access from the site to Pinjarra Road in view of the close location of the Furnissdale Road intersection and potential for traffic conflicts along Pinjarra Road. Also, the proposed development access to Furnissdale Road will need to be located further to the south to avoid potential conflict with future upgrading of Furnissdale Road and the Furnissdale Road intersection with Pinjarra Road.

It is noted that the proposed development plan indicates the required 10 metre road reserve widening for Pinjarra Road, however the development plan also indicates some minor encroachment of parking and access areas into the road widening area. The development plan will need to be modified to remove access / driveways and car parking areas from the road reserve widening area. It is anticipated that the proponent will be required to cede the 10 metre road reserve widening free of cost to the crown as a condition of any planning approval.

I trust the above is of assistance.

Regards,

**Daniel Naude**

Road Corridor Planning Manager  
Metropolitan and Southern Regions / South West  
p: 08 9724 5724 | m: 0418931078  
w: [www.mainroads.wa.gov.au](http://www.mainroads.wa.gov.au)



**mainroads**  
WESTERN AUSTRALIA



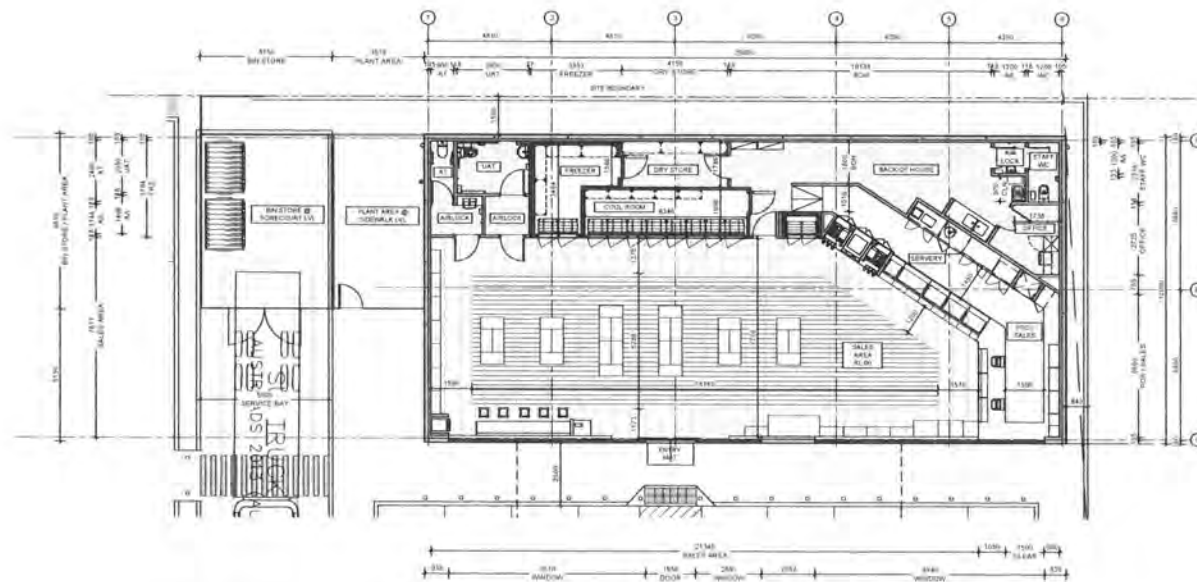
## B. DEVELOPMENT PLANS

B



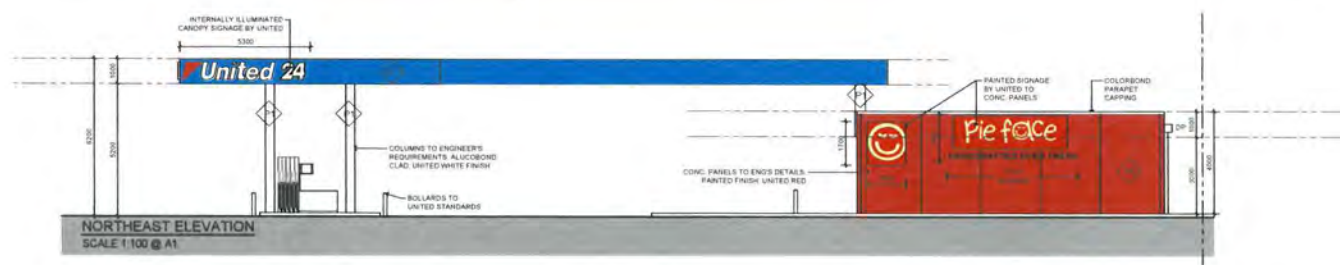
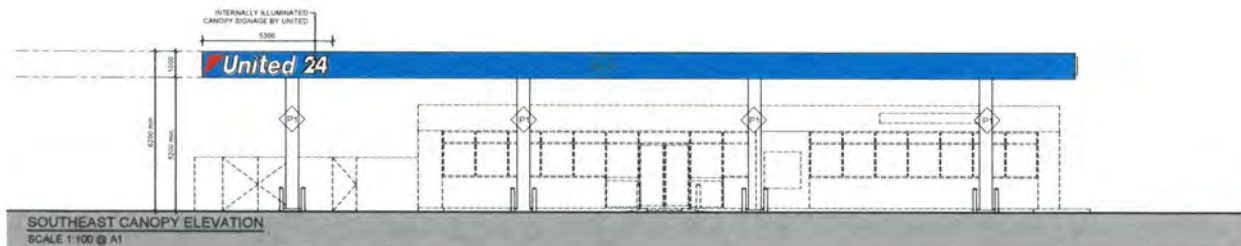
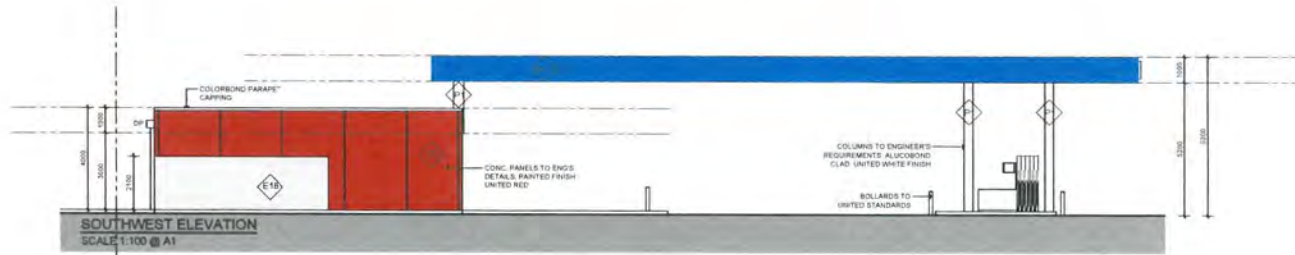
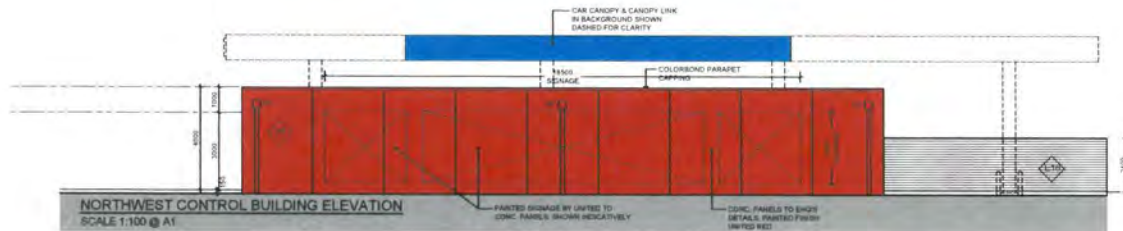






CONTROL BUILDING FLOOR PLAN  
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project		drawn	description	
PROPOSED UNITED SERVICE STATION		MS	PROPOSED	
location		checked	FLOOR PLAN	
FURNISSDALE, W.A.		HP		
Scale Plan, 30 Robinson Street, Bentley, WA 6102 P.O. Box 743, Bentley, WA 6102 Ph: (08) 9432 2144 Fax: (08) 9432 4740 Email: info@collardpreston.com		scale 1:100 @ A1	date 29.11.2019	proj no 125.19
Collard Preston				SK07
				rev A



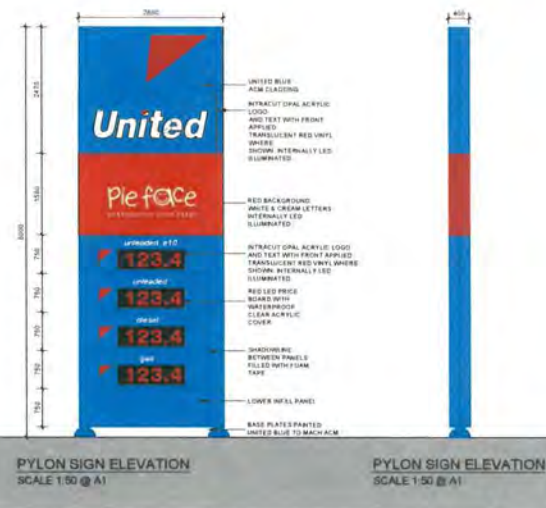
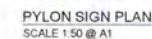
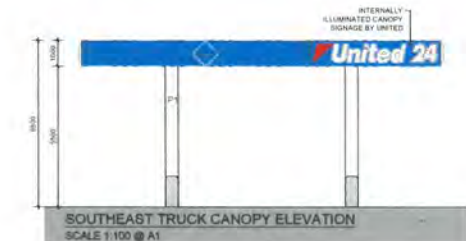
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AC-2	AC-2 STORE FASCIA ALUCOBOND-UNITED RED
E1X	E1X ALUMINUM SLATS DULUX COLORBOND RED
P1	P1 STEEL COLUMN ALUCOBOND-UNITED WHITE CLADDING
P2	P2 EXTERNAL WALLS PAINT DULUX - VIVID WHITE
P3	P3 DOORS & WINDOWS POWDERCOATED WHITE
F4	F4 PRECAST CONCRETE DECO CLAD REDWOOD ALUMINUM CLADDING HORIZONTAL V GROOVE PROFILE COLOUR NATURAL TEAK
P5	P5 EXTERNAL WALLS PAINT DULUX - UNITED RED

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revision	description	drawn	checked	date
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scale	1:100 @ A1	date	29.11.2019	
drawn	1:100 @ A1	project no	125.19	reg no SK08
date	29.11.2019	rev	B	

Hodge Collard Preston

Toll Free: 26 Waterhouse Street,  
West Perth, WA 6005  
PO Box 743, West Perth, WA 6005  
Ph: (08) 9222 3144  
Fax: (08) 9222 9740  
Email: info@hodgecollard.com

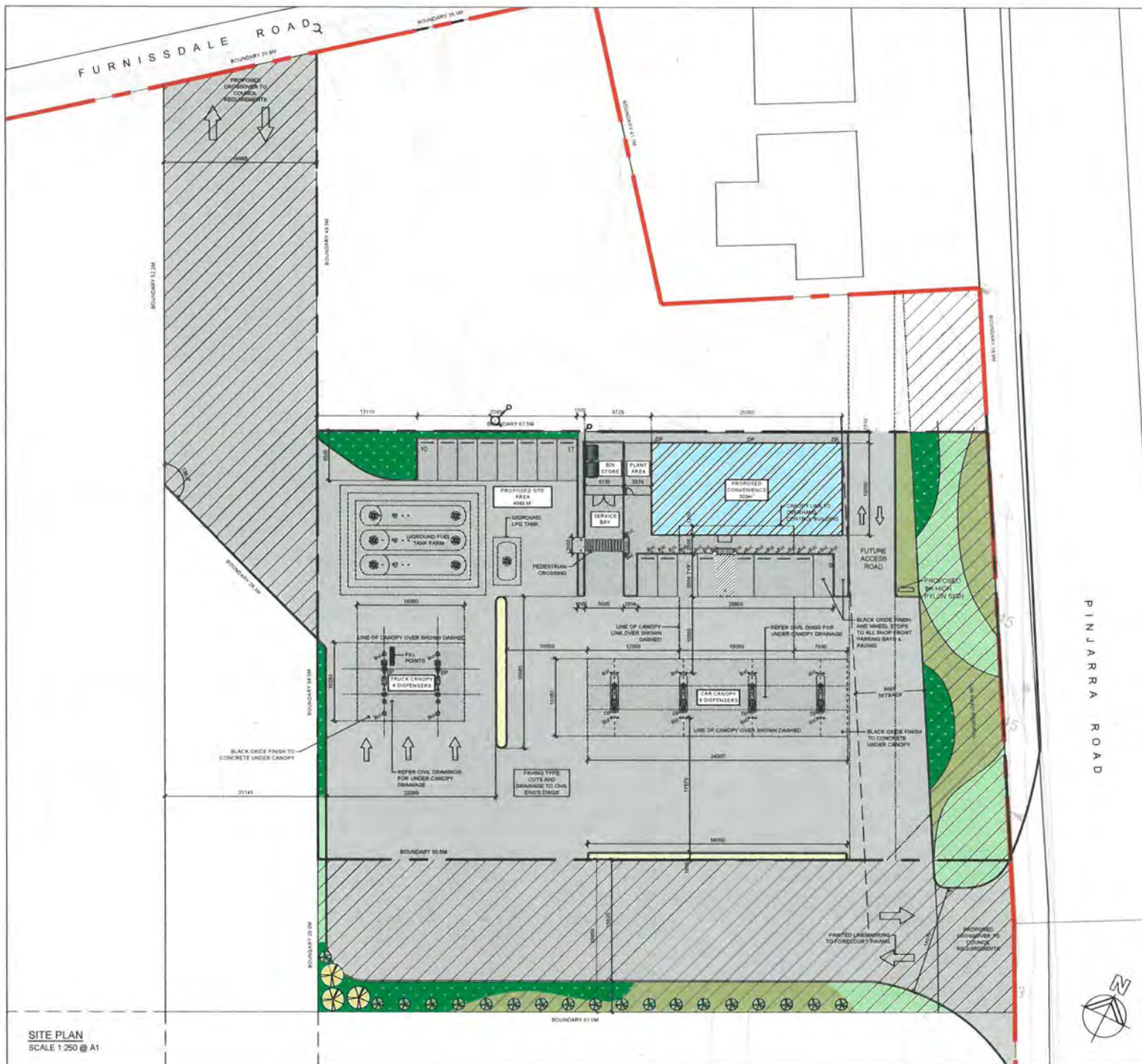


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AC-2	AC-2 STORE FASER ALUMINOUM UNITED FES
EH	EH- ALUMINUM SLEETS TISUAL COLORING RES.
PI	PI- STEEL COLUMNS ALUNT COLORED UNITED WHITE CLADDING
PV	PV- STEEL COLUMNS PAINT GULLAR UNITED WHITE
PD	PD- DOORS & WINDOWS POWDERCOATED WHITE
PA	PA- PRECAST CONCRETE DECOR GLAZ DECOR MOOD ALUMINUM CLADDING HORIZONTAL V. SHROOK PROFILE COLOR: NATURAL TAIN
PE	PE- EXTERNAL WALLS TISUAL UNITED RED

A component update provided	ISSUED FOR DEVELOPMENT APPROVAL description:	MFC drawn drawn MFC checked MFC	KAP checked DATE PROPOSED ELEVATIONS	16.12.2019 DATE
PROPOSED UNIT SERVICE STATION FURNISSDALE, W.A.		1:100 @ A1	29.11.2019 125.19	10/12/19 \$K91







LEGEND	
	SMALL SHADE TREE ACCA BELLWANA 'PINEAPPLE GUAVA' HEIGHT 2.5-3m SPREAD 2.5-3m
	SHRUB CRATOGOMYS CONOCEPHALA BLUEBUSH DASHY HEIGHT 1-1.5m SPREAD 1-2m
	LOW SHRUB CALLISTEMON CITRINUS WHITE ANZAC HEIGHT 0.5-1m SPREAD UP TO 3m PLANTED @ 3m CENTRES WITH 75MM MULCH COVER
	GROUND COVER CARPENTACUS ROSEI (NATIVE PIGFACE) SIZE 0.3m HIGH 2m SPREAD PLANTED @ 1.5m CENTRES WITH 75MM MULCH COVER
	LOW SHRUB EREMOPHILA WELDII PURPLE EMU BUSH SIZE 1.1m HIGH 1.5m SPREAD PLANTED @ 1.5m CENTRES WITH 75MM MULCH COVER
	PROPOSED FOOTPATH CONCRETE PAVING
	PROPOSED ASPHALT
	BLACK OXIDE FINISH CONCRETE

A		ISSUED FOR DEVELOPMENT APPROVAL	MS	NP	18.12.2019
revision/	description		drawn	checked	date
project	PROPOSED UNITED SERVICE STATION		drawn	checked	
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sheet	00A1	drawn	SK13	deg no	
Collard Preston		A			

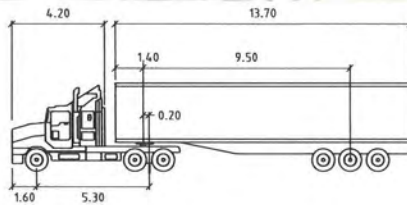
## C. SWEPT PATH ASSESSMENT

C



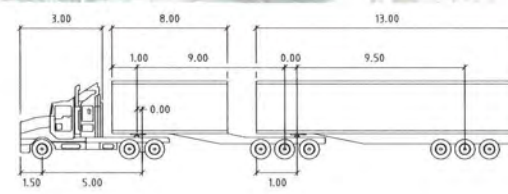
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- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 500mm CLEARANCE FROM VEHICLE BODY
- ASSUMED SPEED 5km/h



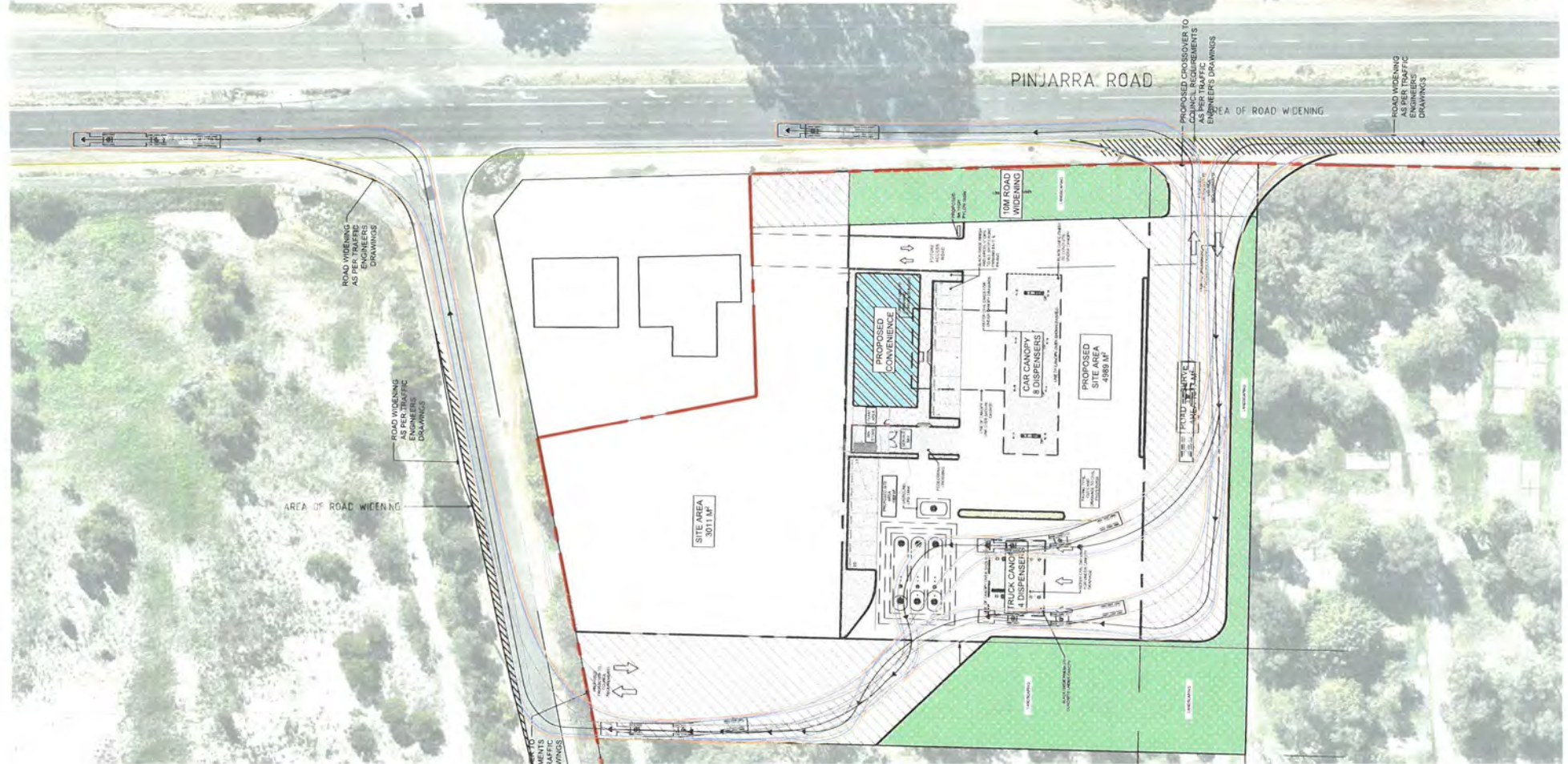
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TRAILER TRACK	: 2.50		



MRWA RAV Z(C) Rev 1

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TRAILER WIDTH	: 2.50	STEERING ANGLE	: 26.1
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 70.0
TRAILER TRACK	: 2.50		



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D: 02 9441 1800  
B: 02 3113 5000  
A: 08 8314 3000  
F: 08 8314 1000



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DESIGNED: S. PEDRETTI  
APPROVED BY: R. DING

DESIGN CHECK: R. DING  
DATE ISSUED: 12.12.19

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CAD FILE NO: W177920-SK01\_SK07-P4.DWG

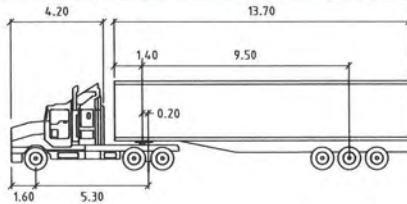
FURNISSDALE SERVICE STATION  
SWEEP PATH

DRAWING NO: W177920-SK01 SHEET 01 OF 07 ISSUE P4



# SWEPT PATH KEY

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- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 500mm CLEARANCE FROM VEHICLE BODY
- ASSUMED SPEED 5km/h

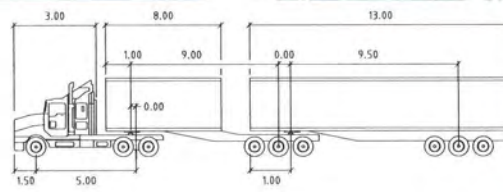


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: 2.50  
: 2.50  
: 2.50

LOCK TO LOCK TIME : 6.0  
STEERING ANGLE : 27.8  
ARTICULATING ANGLE : 70.0



MRWA RAV 2(C) Rev 1

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TRACTOR TRACK : 2.50  
TRAILER TRACK : 2.50

METERS

LOCK TO LOCK TIME : 6.0  
STEERING ANGLE : 26.1  
ARTICULATING ANGLE : 70.9

PINJARRA ROAD

PROPOSED CR  
COUNCIL REQ  
AS PER TRAFFI  
ENGINEER'S DF

AREA OF ROAD WIDENING

ROAD WIDENING  
AS PER TRAFFIC  
ENGINEERS  
DRAWINGS

10M ROAD  
WIDENING

LANDSCAPING

BLACK OXIDE FINISH  
AND WHEEL STOPS  
TO ALL SHOP FRONT  
PARKING BAYS &  
PAVING

R CIVIL DWGS FOR  
R CANOPY DRAINAGE

BLACK OXIDE FINISH  
TO CONCRETE  
UNDER CANOPY

SHED

PAINTED LINEMARKING  
TO FORECOURT PAVING

PROPOSED  
CROSSOVER TO  
COUNCIL  
REQUIREMENTS



Address: 55 9851 9800  
Sydney: 02 8448 5000  
Melbourne: 03 9514 5000  
Perth: 08 9347 1000



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DESIGNED  
S. PEDRETTI

APPROVED BY  
R. DING

DESIGN CHECK  
R. DING

DATE ISSUED  
12.12.19

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CAD FILE NO.  
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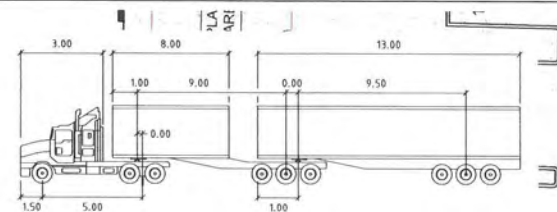
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SWEPT PATH

DRAWING NO. W177920-SK02

SHEET 02 OF 07

ISSUE P4

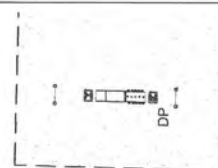




meters

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Trailer Width	: 2.50	Steering Angle	: 26.1
Tractor Track	: 2.50	Articulating Angle	: 70.0
Trailer Track	: 2.50		

LINE OF C/  
LINK OVER S  
D/



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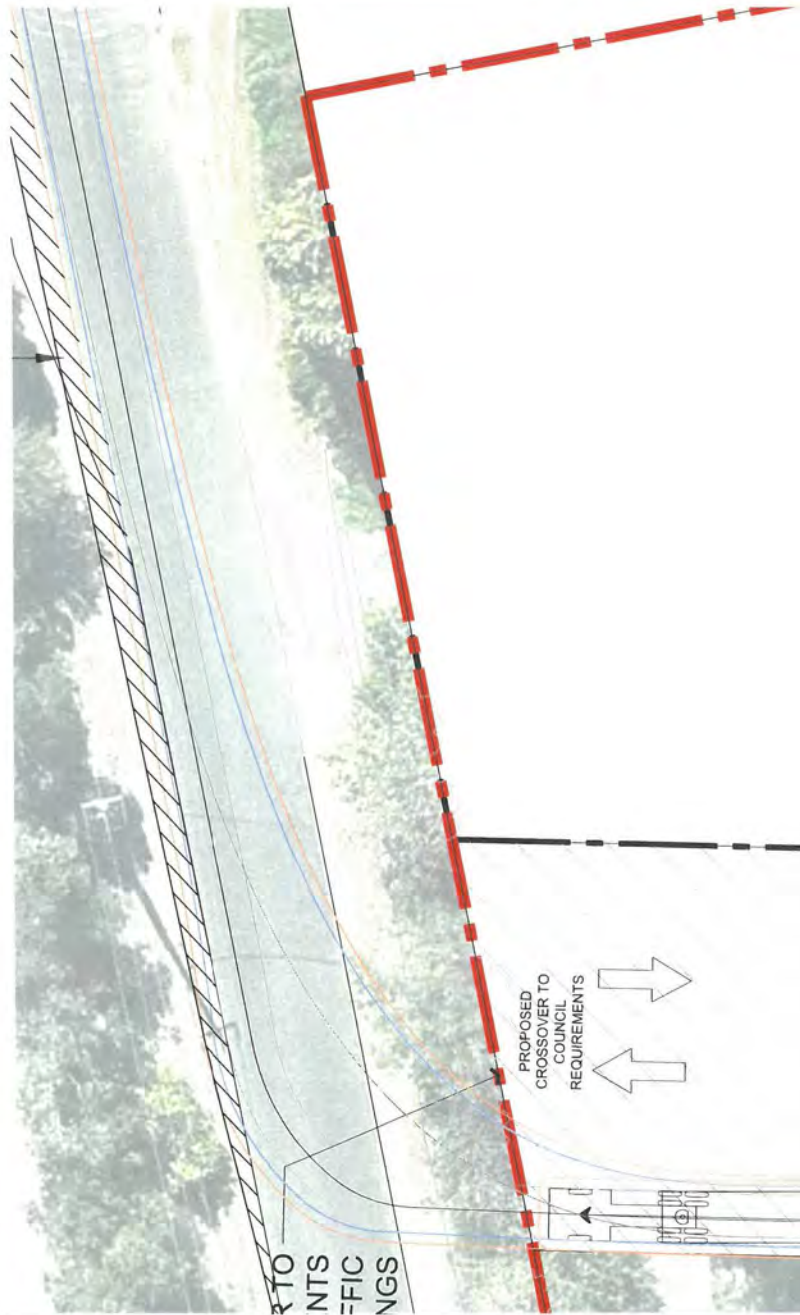


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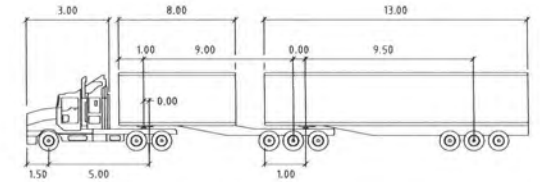
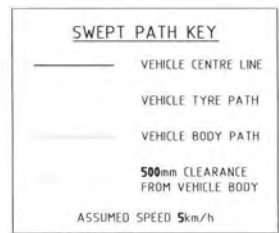
BLACK OXIDE FINISH TO  
CONCRETE UNDER CANOPY

## LANDSCAPING

LANDSCAPING

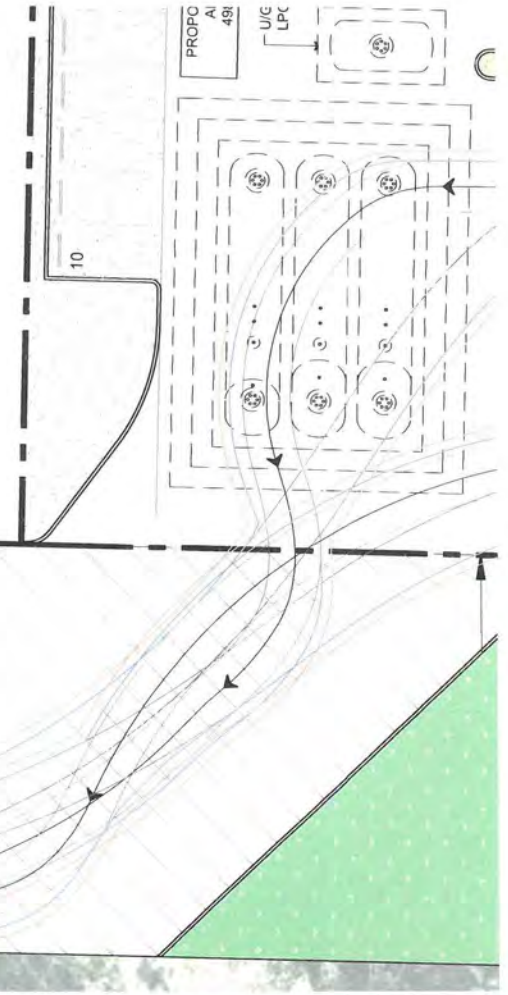


SITE AREA  
3011 M<sup>2</sup>



MRWA RAV 2(C) Rev 1

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Melbourne 03 9851 9800  
 Sydney 02 8448 1900  
 Brisbane 07 3113 5900  
 Adelaide 08 8314 1400  
 Perth 08 9340 1000



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DESIGNED  
S. PEDRETTI  
APPROVED BY  
R. DING

DESIGN CHECK  
R. DING  
DATE ISSUED  
12.12.19

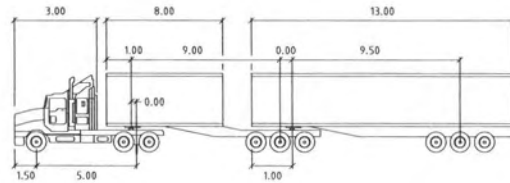
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# SWEPT PATH KEY

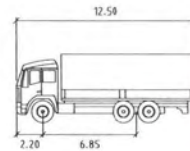
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- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 500mm CLEARANCE FROM VEHICLE BODY

ASSUMED SPEED 5km/h



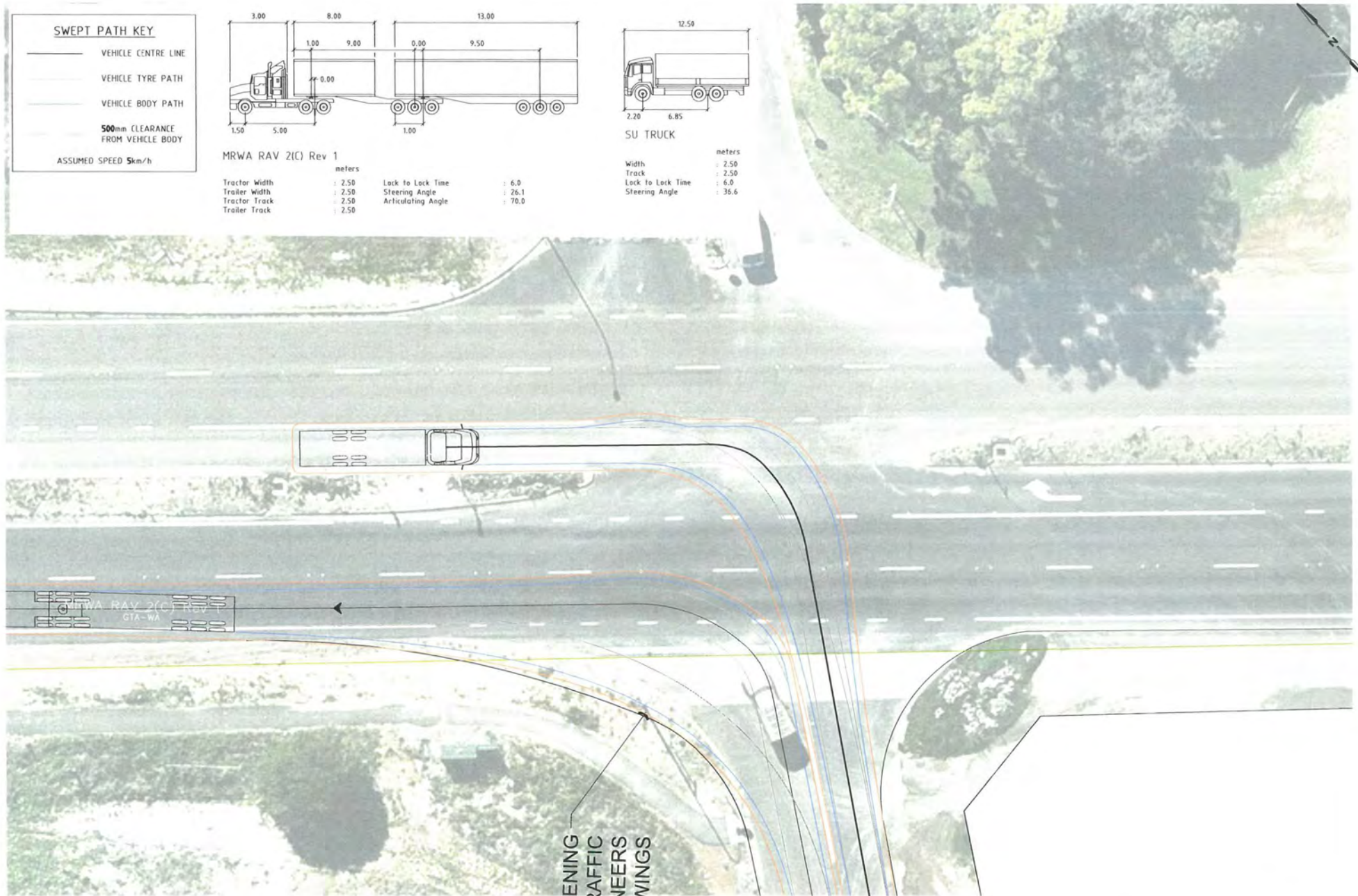
MRWA RAV 2(C) Rev 1

Tractor Width	2.50	Lock to Lock Time	6.0
Trailer Width	2.50	Steering Angle	26.1
Tractor Track	2.50	Articulating Angle	70.0
Trailer Track	2.50		



SU TRUCK

Width	2.50
Track	2.50
Lock to Lock Time	6.0
Steering Angle	36.6



ENDING  
TRAFFIC  
NEERS  
WINGS



McBarnes  
Sydney  
Belconnen  
Auckland  
Perth



PRELIMINARY PLAN  
FOR INFORMATION PURPOSES ONLY  
SUBJECT TO CHANGE WITHOUT  
NOTIFICATION

## WARNING

THE LOCATION OF THE PRELIMINARY PLAN IS NOT  
GUARANTEED. THE PRELIMINARY PLAN IS NOT  
TO BE USED FOR CONSTRUCTION OR ANY OTHER  
PURPOSE WITHOUT THE WRITTEN APPROVAL OF  
THE CONSULTANT.

DESIGNED  
S. PEDRETTI

APPROVED BY  
R. DING

DESIGN CHECK  
R. DING

DATE ISSUED  
12.12.19

SCALE  
A3 1:250 1:500 1:1000

CAD FILE NO.  
W177920-SK01\_SK07-P4.DWG

FURNISSDALE SERVICE STATION  
SWEPT PATH

DRAWING NO. W177920-SK05

SHEET 05 OF 07

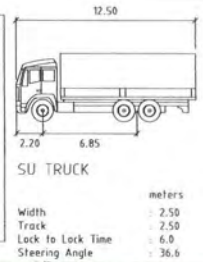
ISSUE P4





# SWEPT PATH KEY

- VEHICLE CENTRE LINE
- VEHICLE TYRE PATH
- VEHICLE BODY PATH
- 500mm CLEARANCE FROM VEHICLE BODY
- ASSUMED SPEED 5km/h



PROPOSED CROSSOVER TO  
CROSSING REQUIREMENTS  
AS PER TRAFFIC  
ENGINEERS DR

AREA OF ROAD WIDENING

ROAD WIDENING  
AS PER TRAFFIC  
ENGINEERS  
DRAWINGS

ROAD WIDENING  
AS PER TRAFFIC  
ENGINEERS  
DRAWINGS

ROAD WIDENING  
AS PER TRAFFIC  
ENGINEERS  
DRAWINGS

AREA OF ROAD WIDENING

SITE AREA  
3011 M<sup>2</sup>

PROPOSED  
CONVENIENCE

CAR CANOPY  
8 DISPENSERS

PROPOSED  
SITE AREA  
4989 M<sup>2</sup>

ROAD RESERVE  
AREA 1817 M<sup>2</sup>

TRUCK CANOPY  
4 DISPENSERS





## D. WAPC GUIDELINES CHECKLIST

D



## APPENDIX: WAPC GUIDELINES CHECKLIST

Item	Provided	Comments/Proposals
<b>Proposed Development</b>		
Existing Land Uses	Yes	
Proposed Land Use	Yes	
Context with Surrounds	Yes	
<b>Vehicular Access and Parking</b>		
Access Arrangements	Yes	
Public, Private, Disabled Parking Set Down/Pick Up	Yes	
<b>Service Vehicle (Non-Residential)</b>		
Access Arrangements	Yes	
On/Off-Site Loading Facilities	Yes	
<b>Service Vehicles (Residential)</b>		
Rubbish Collection and Emergency Vehicle Access	N/A	
<b>Hours of Operation (Non-Residential Only)</b>		
	Yes	
<b>Traffic Volumes</b>		
Daily or Peak Hour Traffic Volumes	Yes	
Type of Vehicles (E.G. Cars, Trucks)	Yes	
<b>Traffic Management on Frontage Streets</b>		
	Yes	
<b>Public Transport Access</b>		
Nearest Bus/Train Routes	Yes	
Nearest Bus Stops/Train Stations	Yes	
Pedestrian/Cycle Links to Bus Stops/Train Station	Yes	
<b>Pedestrian Access/Facilities</b>		
Existing Pedestrian Facilities Within the Development (If Any)	Yes	
Proposed Pedestrian Facilities Within Development	Yes	
Existing Pedestrian Facilities on Surrounding Roads	Yes	
Proposals to Improve Pedestrian Access	N/A	
<b>Cycle Access/Facilities</b>		
Existing Cycle Facilities Within the Development (If Any)	Yes	
Proposed Cycle Facilities Within Development	Yes	
Existing Cycle Facilities on Surrounding Roads	Yes	
Proposals to Improve Cycle Access	N/A	
<b>Site Specific Issues</b>		
	Yes	



## APPENDIX: WAPC GUIDELINES CHECKLIST

Item	Provided	Comments/Proposals
<b>Safety Issues</b>		
Identify Issues	Yes	
Remedial Measures	Yes	

**Proponent's Name:** Yolk Property Group

**Company:** Yolk Property Group

**Transport Assessor's Name:** Rodney Ding

**Company:** GTA Consultants

**Date:** 19 December 2019



**BRISBANE**

Level 7, 123 Albert Street  
Brisbane QLD 4000  
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**GOLD COAST**

45 Nerang Street,  
Southport QLD 4215  
Australia  
T +61 7 5600 4900

**MELBOURNE**

Level 12, 120 Collins Street  
Melbourne VIC 3000  
Australia  
T +61 3 8663 4888

**PERTH**

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1 William Street  
Perth WA 6000  
Australia  
T +61 8 9346 0500

**SYDNEY**

Tower 2, Level 23, Darling Park  
201 Sussex Street  
Sydney NSW 2000  
Australia  
T +61 2 8233 9900

**CISTRI – SINGAPORE**

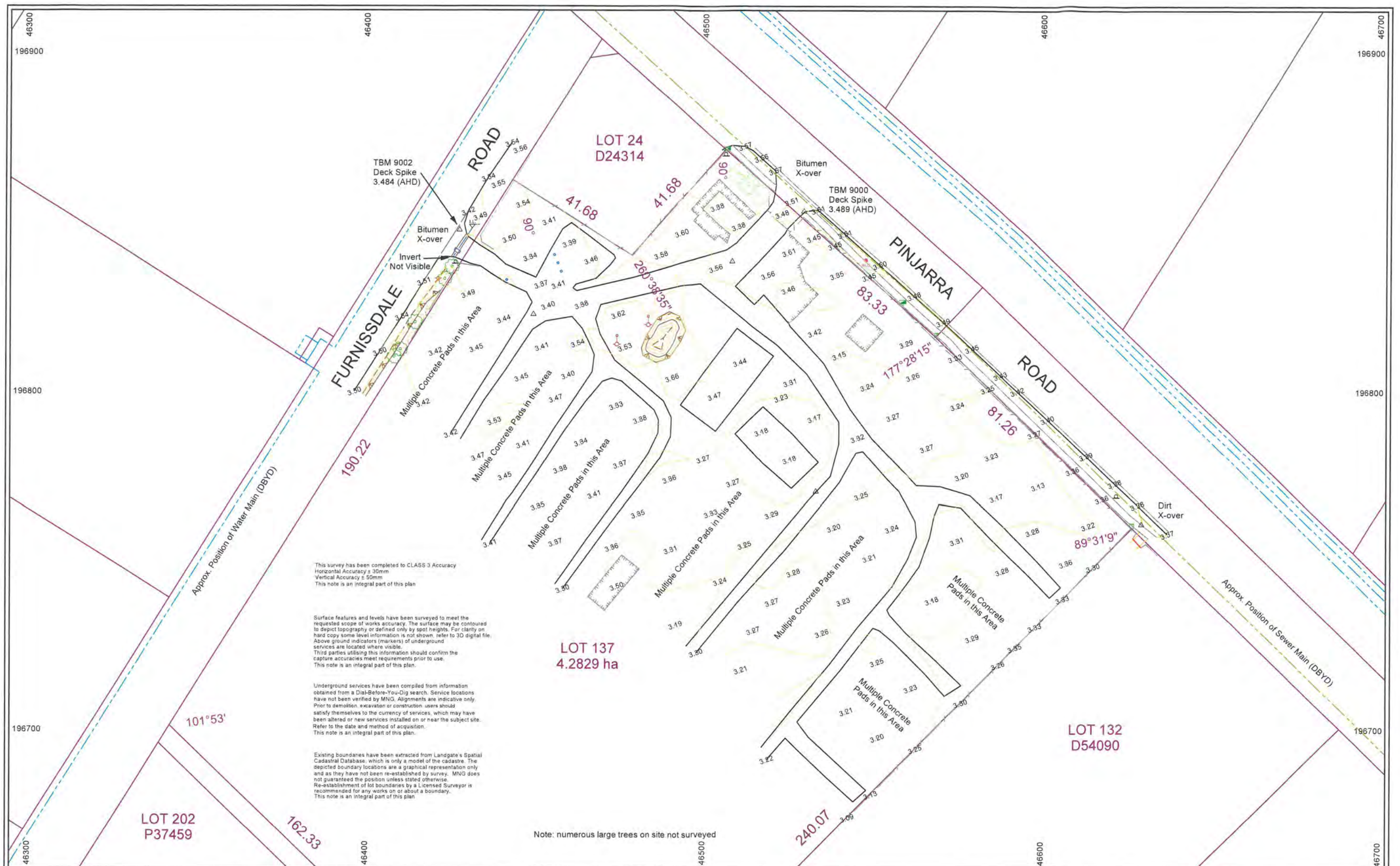
*An Urbis Australia company*

#12 Marina View  
21 Asia Square, Tower 2  
Singapore 018961  
T +65 6653 3424  
W [cistri.com](http://cistri.com)

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**URBIS.COM.AU**





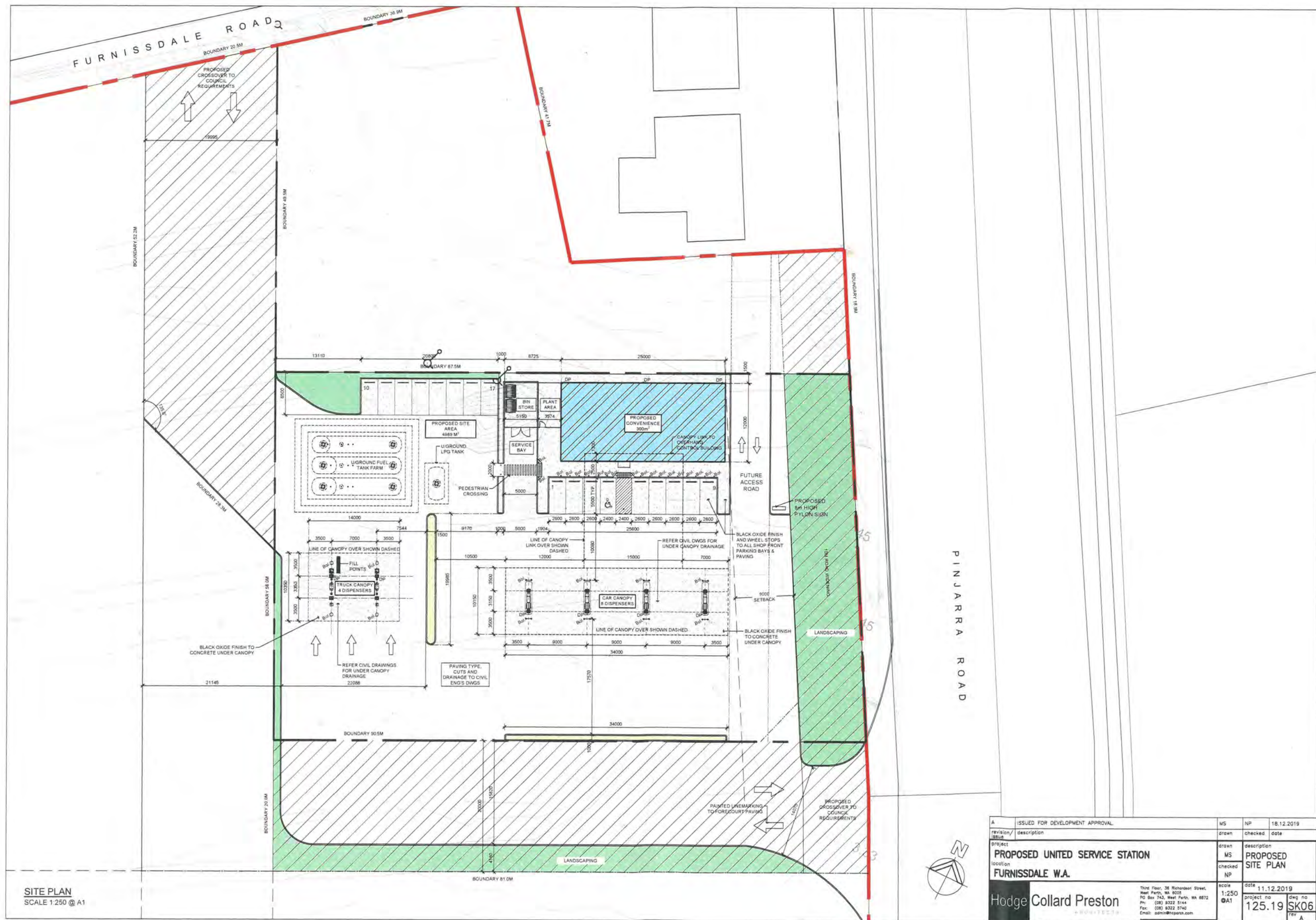
Rev.				Description				Drawn				Date				Checked			
A				Initial Issue				PLJ				18/09/2019				NS			

SCALE 1:1000 @ A3				ALL DISTANCES ARE IN METRES			
0 10 20 30 40 50				For a true to scale reproduction of this plan, plot it to A3 with the Paging Scaling set to None.			
The contents of this plan are current and correct as of the date stated within the reason panel. All consultants and persons wishing to utilise this data should satisfy themselves of this plan's currency by contacting the MCG Group.				Surveyor: PLJ Survey Date: 16/09/2019 Precal/Cad: SC08			
ISO 9001 Quality Management				AS/NZS 4801:2001 Environmental Management			
FS 565311				OSH 591267			

The boundaries shown on this plan were not re-established as part of this survey, therefore this plan does not guarantee their accuracy. Existing easements, encumbrance or interest are not depicted and a title search is recommended to obtain this information. Re-establishment of the cadastral boundaries is recommended for any proposed works on or near existing boundaries.				<b>MNG</b>			
MCMULLEN NOLAN GROUP Level 1, 2 Sabre Crescent Jandakot, W.A. 6164 PO Box 3536, Success W.A. 6964, Australia Offices in: Broome, Bunbury, Kununurra, Newman, Port Hedland				Tel: (08) 6436 1599 Fax: (08) 6436 1500 info@mngsurvey.com.au www.mngsurvey.com.au ABN 90 009 363 311			

PINJARRA ROAD, FURNISSDALE LOT 137 on D71194 / CT 1823-827 Feature and Contour Survey				CLIENT: YOLK PROPERTY GROUP			
Project Mgr: Nigel Simpson				Datum: PC094 / AHD			
102552 - DE - 001 - A				Job Number Type Plan Number Revision			





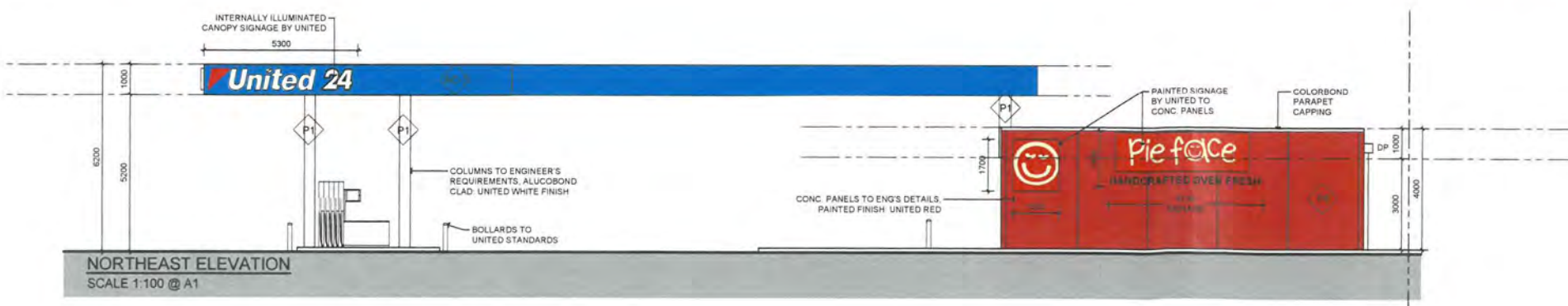
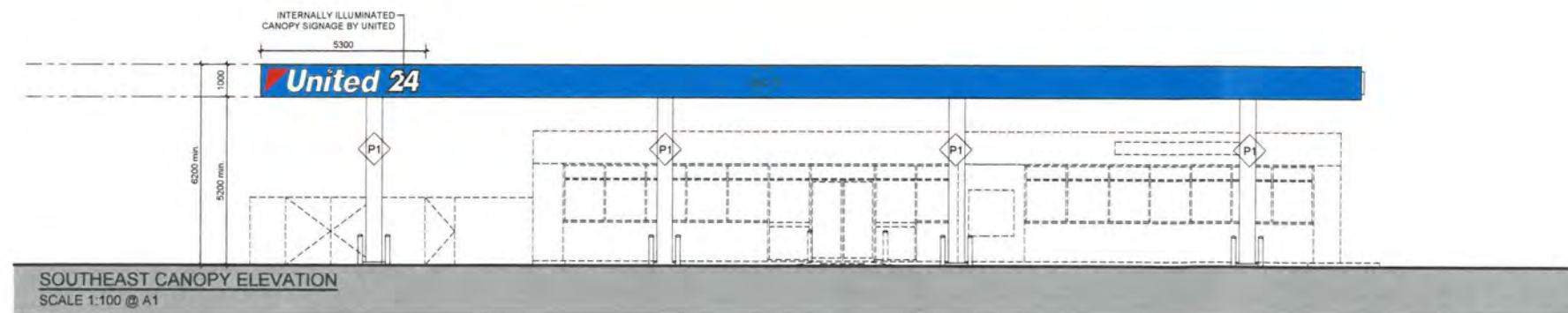
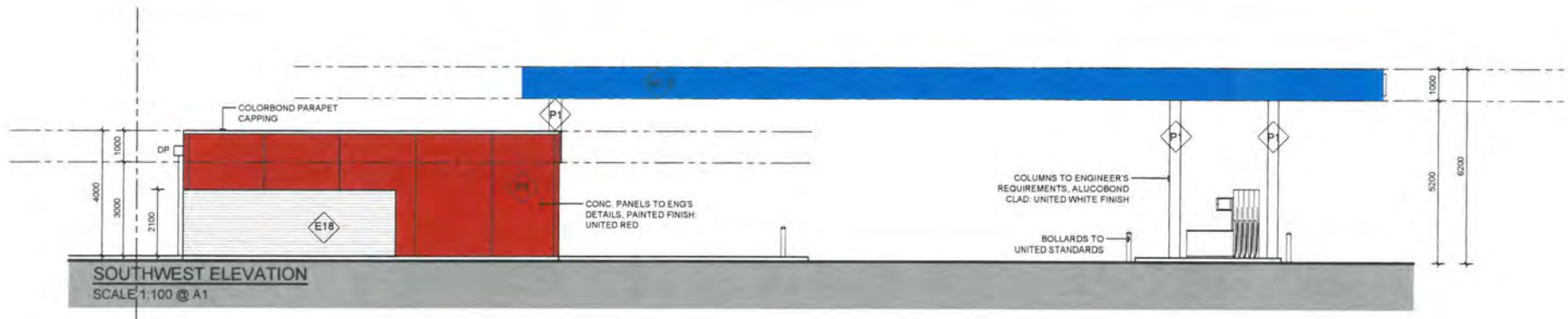
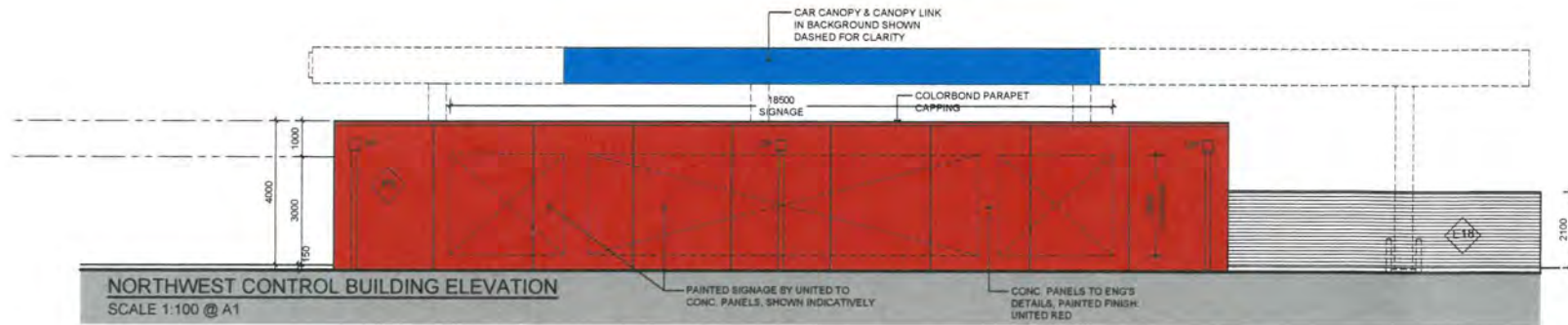
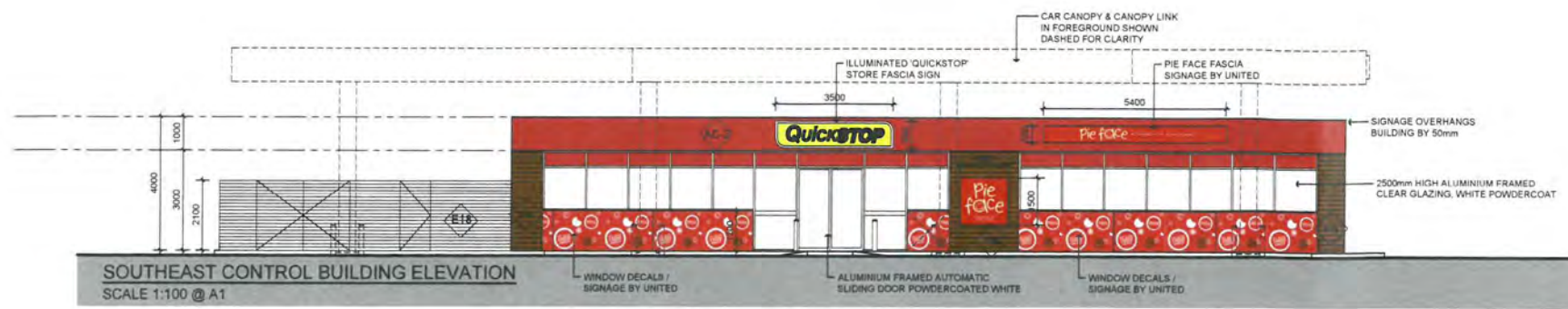
**SITE PLAN**  
SCALE 1:250 @ A1

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status					
project		PROPOSED UNITED SERVICE STATION	drawn	description	
location		FURNISSDALE W.A.	MS	PROPOSED	
			checked	SITE PLAN	
			NP		
scale	date	11.12.2019	scale	date	11.12.2019
1:250	project no	125.19	dwg no	SK06	
A1	rev	A			

Third Floor, 38 Richardson Street,  
West Perth, WA 6005  
PO Box 743, West Perth, WA 6872  
Ph: (08) 9322 5144  
Fax: (08) 9322 5740  
Email: admin@hodge.com.au

**Hodge Collard Preston**  
ARCHITECTS





#### COLOUR LEGEND

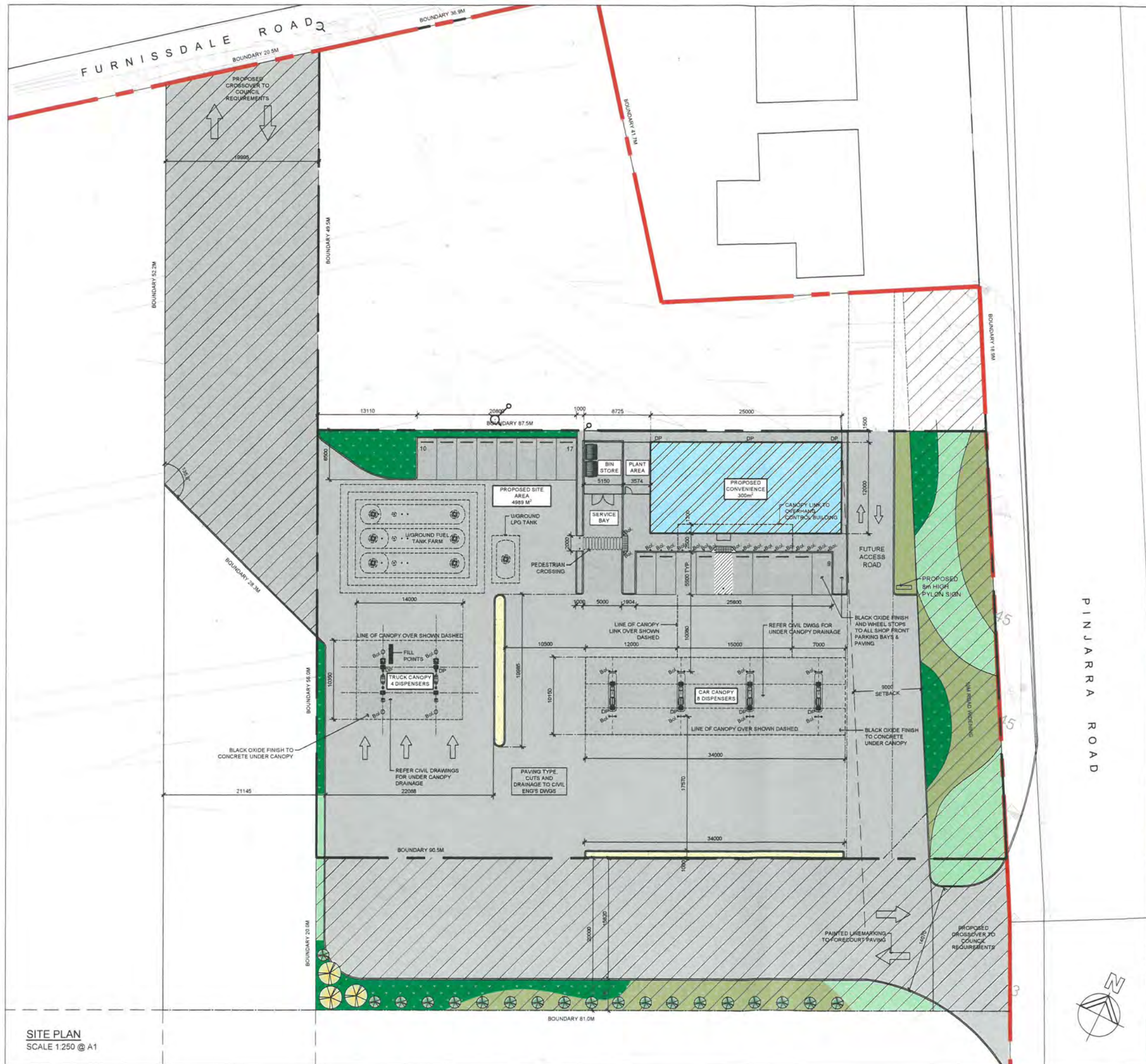
AC-1	AC-1 CANOPY FASCIA ALUCOBOND - UNITED BLUE
AC-2	AC-2 STORE FASCIA ALUCOBOND UNITED RED
E18	E18 - ALUMINUM SLATS DULUX COLORBOND RED
P1	P1 - STEEL COLUMN ALUCOBOND UNITED WHITE CLADDING
P2	P2 - EXTERNAL WALLS PAINT DULUX - VIVID WHITE
P3	P3 - DOORS & WINDOWS POWDERCOATED WHITE
P4	P4 - PRECAST CONCRETE DECO CLAD DECO WOOD ALUMINUM CLADDING HORIZONTAL V GROOVE PROFILE COLOUR NATURAL TEAK
P5	P5 - EXTERNAL WALLS PAINT DULUX - UNITED RED

B	REISSUED FOR DEVELOPMENT APPROVAL	MS	NP	18.12.2019
A	ISSUED FOR DEVELOPMENT APPROVAL	MS	NP	18.12.2019
revision/issue	description	drawn	checked	date
project	PROPOSED UNITED SERVICE STATION	MS	NP	PROPOSED ELEVATIONS
location	FURNISSDALE W.A.	checked	NP	
scale	1:100 @ A1	date	29.11.2019	
project no	125.19	draw no	SK08	
rev	B			

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LEGEND	
	SMALL SHADE TREE ACCA SELLOWIANA 'PINEAPPLE GUAVA' HEIGHT 2.5-3m SPREAD 2.5-3m
	SHRUB CRATYSTYLIS CONOCEPHALA 'BLUEBUSH DAISY' HEIGHT 1-1.8m SPREAD 1-2m
	LOW SHRUB CALLISTEMON CITRINUS 'WHITE ANZAC' HEIGHT 0.5-1m SPREAD UP TO 3m PLANTED @ 3m CENTRES WITH 75MM MULCH COVER
	GROUND COVER CARPOBROTUS ROSSII (NATIVE PIGFACE) SIZE: 0.3m HIGH 2m SPREAD PLANTED @ 1.5m CENTRES WITH 75MM MULCH COVER
	LOW SHRUB EREMOPHILA WELDII 'PURPLE EMU BUSH' SIZE: 1.3m HIGH 1.5m SPREAD PLANTED @ 1.5m CENTRES WITH 75MM MULCH COVER
	PROPOSED FOOTPATH CONCRETE PAVING
	PROPOSED ASPHALT
	BLACK OXIDE FINISH CONCRETE

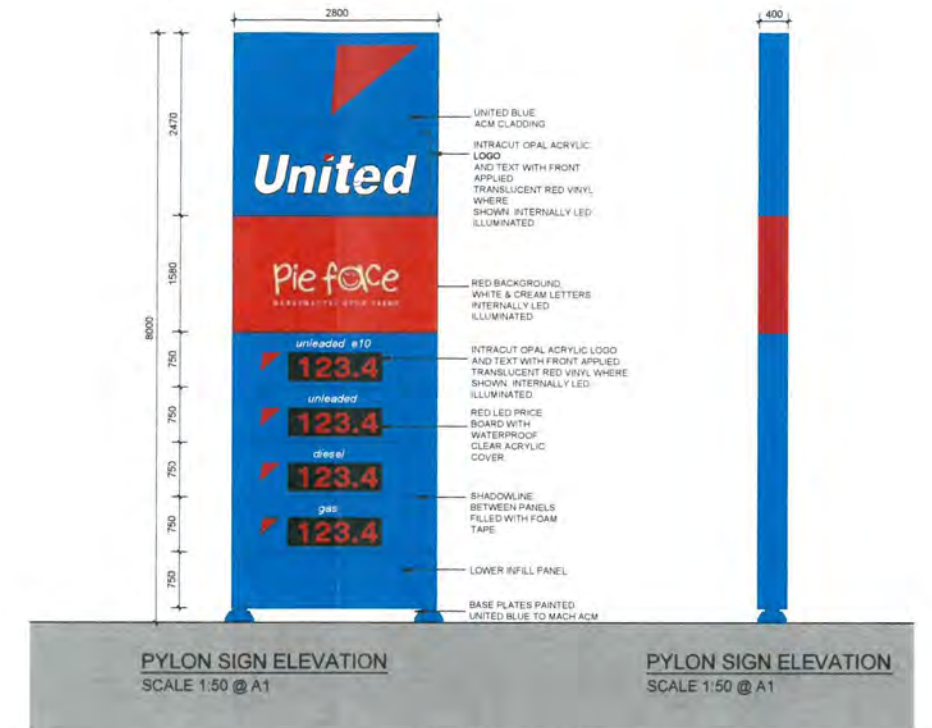
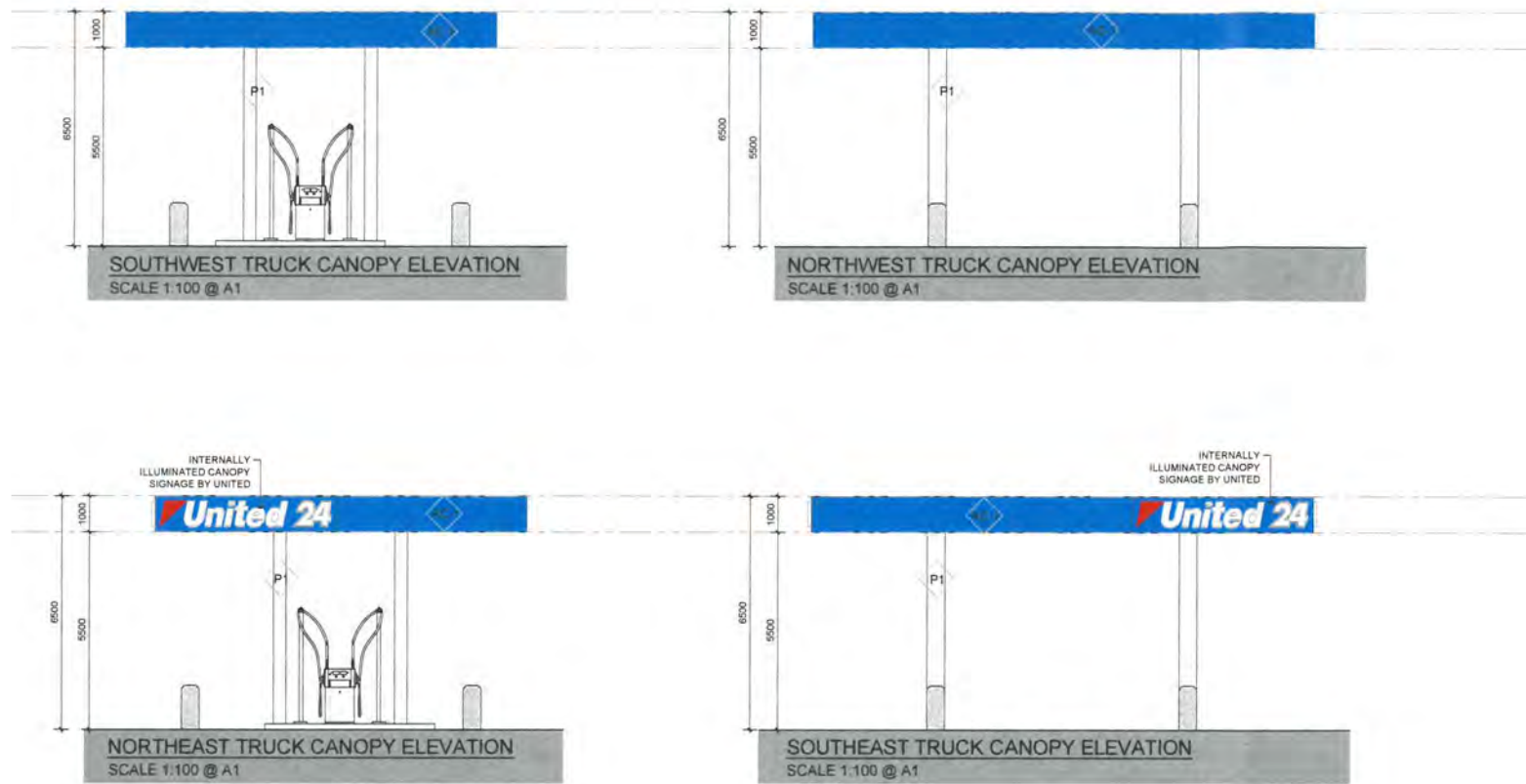
A	ISSUED FOR DEVELOPMENT APPROVAL	MS	NP	18.12.2019
revision/issue	description	drawn	checked	date
project	PROPOSED UNITED SERVICE STATION	drawn	description	
location	FURNISSDALE W.A.	MS	PROPOSED LANDSCAPING PLAN	
checked		NP		
date	11.12.2019	scale	1:250	project no
		A1		125.19
				SK13
				rev A

Hodge Collard Preston  
ARCHITECTS

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SITE PLAN  
SCALE 1:250 @ A1





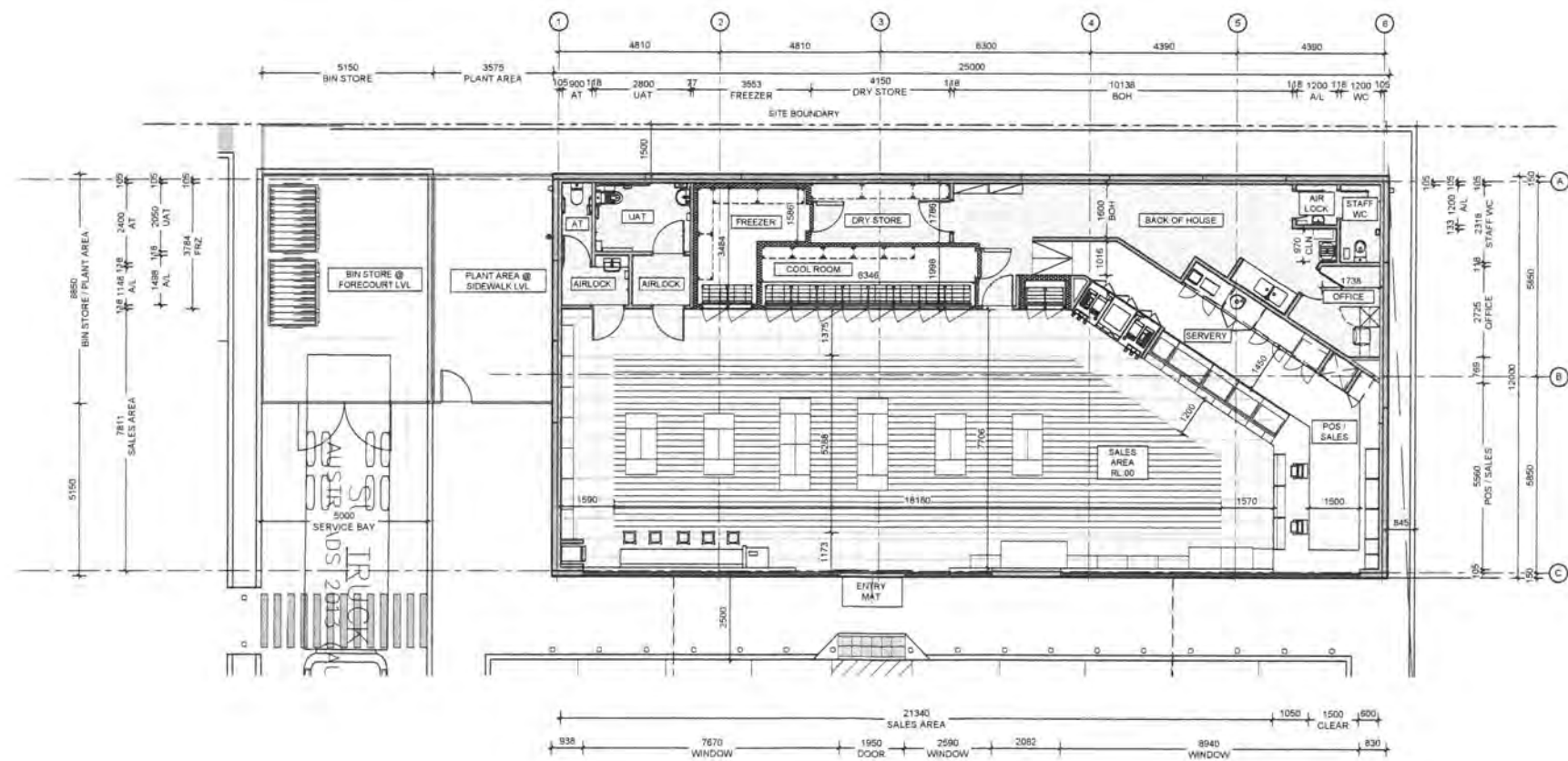
#### COLOUR LEGEND

AC-1	AC-1 CANOPY FASCIA ALUCOBOND - UNITED BLUE
AC-2	AC-2 STORE FASCIA ALUCOBOND UNITED RED
E18	E18 - ALUMINUM SLATS DULUX COLORBOND RED
P1	P1 - STEEL COLUMN ALUCOBOND UNITED WHITE CLADDING
P2	P2 - EXTERNAL WALLS PAINT DULUX - VIVID WHITE
P3	P3 - DOORS & WINDOWS POWDERCOATED WHITE
P4	P4 - PRECAST CONCRETE DECO CLAD DECO WOOD ALUMINUM CLADDING HORIZONTAL V GROOVE PROFILE COLOUR: NATURAL TEAK
P5	P5 - EXTERNAL WALLS PAINT DULUX - UNITED RED

A	ISSUED FOR DEVELOPMENT APPROVAL	MS	NP	18.12.2019
revision/issue	description	drawn	checked	date
project	PROPOSED UNITED SERVICE STATION	drawn	MS	description
location	FURNISSDALE, W.A.	checked	NP	PROPOSED ELEVATIONS
scale	1:100 @ A1	date	29.11.2019	
project no	125.19	dwg no	SK09	
rev	A			

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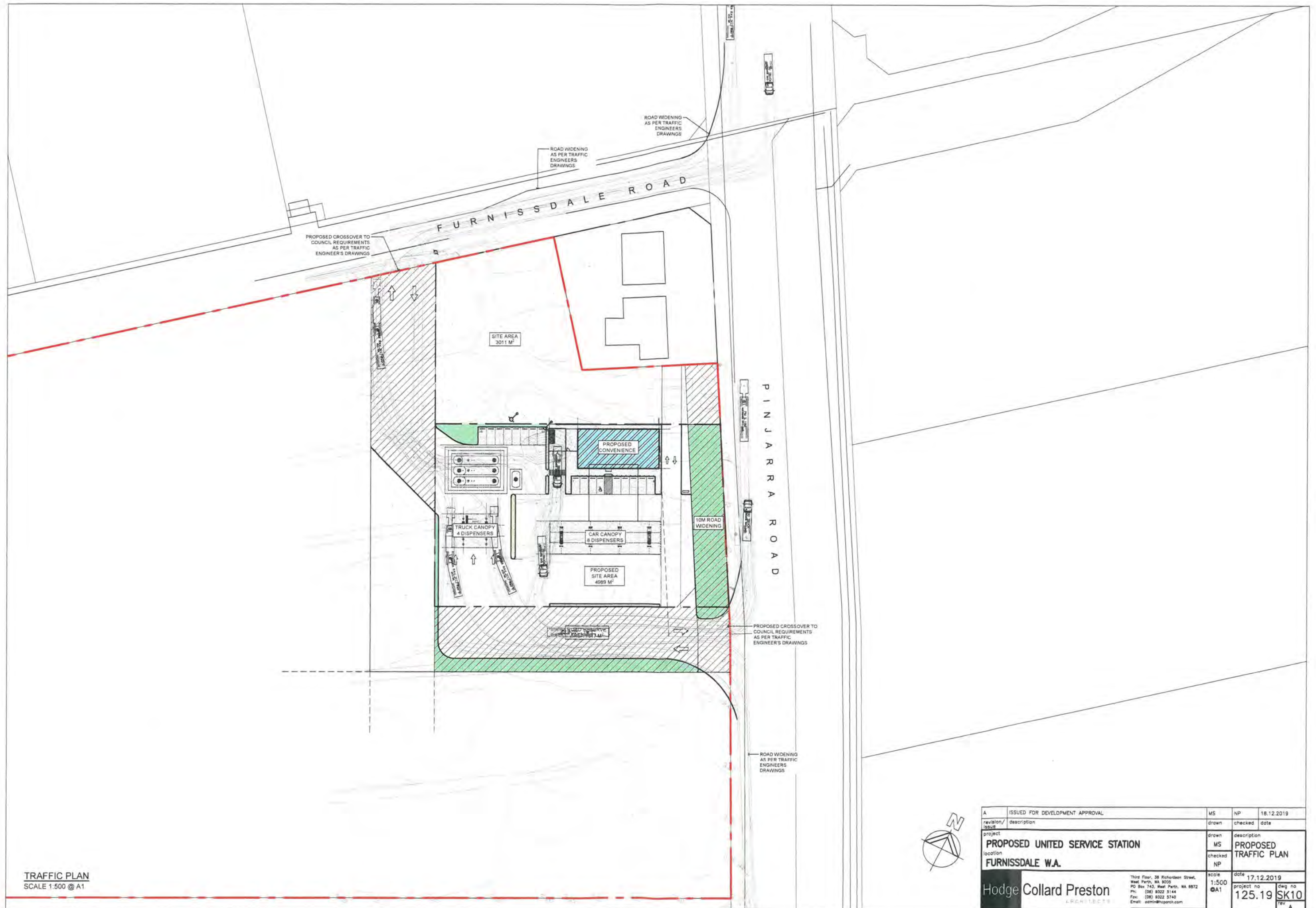


CONTROL BUILDING FLOOR PLAN  
SCALE 1:100 @ A1

A	ISSUED FOR DEVELOPMENT APPROVAL	MS	NP	18.12.2019
	revision/issue	drawn	checked	date
project	PROPOSED UNITED SERVICE STATION	drawn	description	
	location	checked	PROPOSED FLOOR PLAN	
FURNISSDALE, W.A.		NP	date	29.11.2019
		scale	project no	125.19
Hodge Collard Preston		1:100	dwg no	SK07
		A1	rev	A

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TRAFFIC PLAN  
SCALE 1:500 @ A1

A		ISSUED FOR DEVELOPMENT APPROVAL		MS	NP	18.12.2019
revision/	description	drawn	checked	date		
drawn	project	drawn	MS	description		
checked	location	checked	NP	PROPOSED TRAFFIC PLAN		
FURNISSDALE W.A.		scale	1:500	date	17.12.2019	
Hodge Collard Preston		project no	125.19	dwg no	SK10	
ARCHITECTS		rev	A			

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# TECHNICAL NOTE

Project Code: W177920      Project Name: Furnissdale Service Station

Dept: Transport Engineering

Date: 13 May 2020      Version No. A-Final

Author: Rodney Ding

Reviewer: Tanya Moran

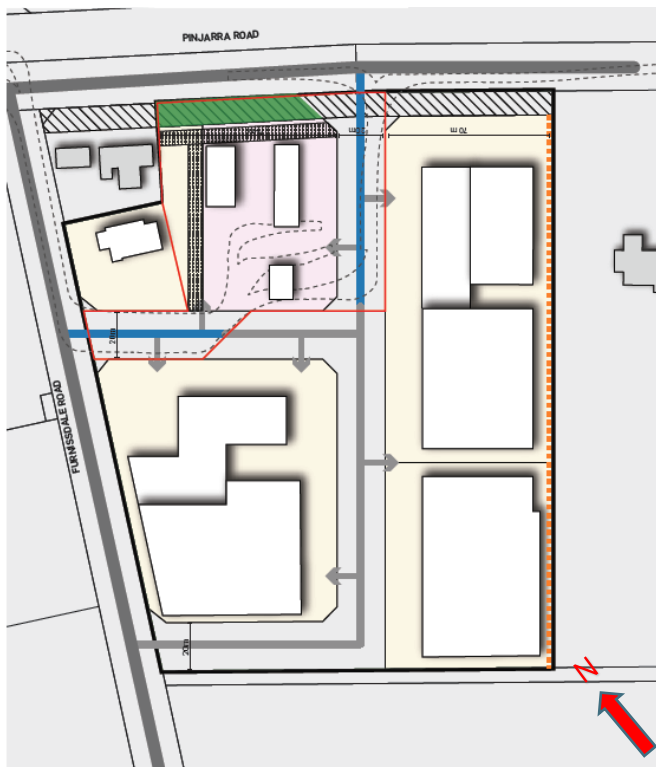
SUBJECT: Assessment of Key Pinjarra Road Intersections with Future Development

Page 1 of 7 (plus Attachments)

This technical note has been prepared by GTA Consultants (GTA) to determine the traffic impacts of a modified access arrangement for a proposed Service Station development of Lot 137 Furnissdale Road which forms part of the *Barragup Furnissdale Activity Centre Local Structure Plan (BFAC LSP)*.

The proposed layout of the development across Lot 137 (630) Pinjarra Road, Pinjarra, is shown in Figure 1. The service station development boundary is highlighted in red within the wider Lot 137.

Figure 1 Possible Lot 137 Concept Layout



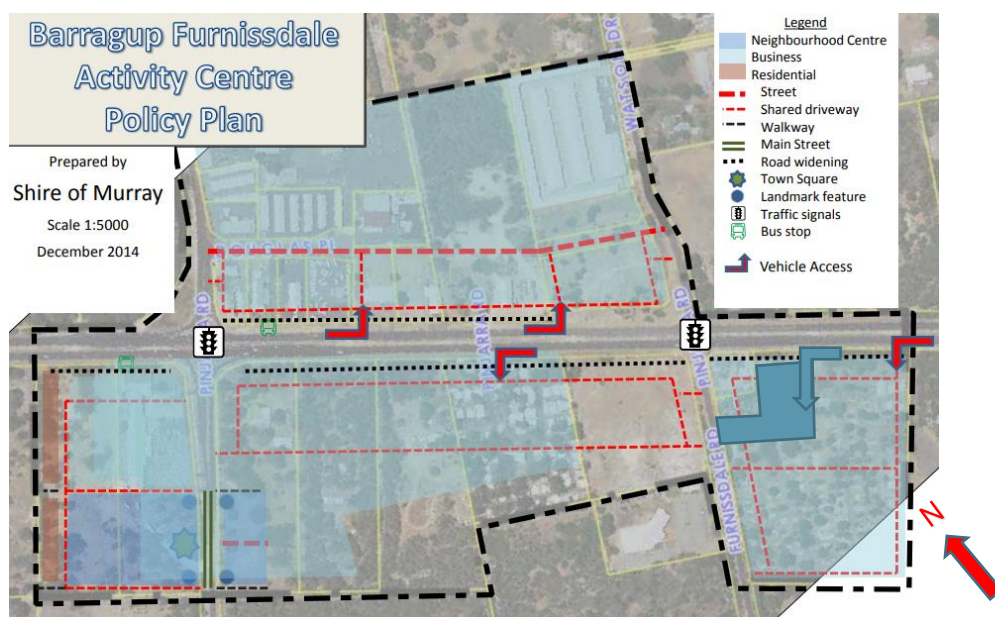


The proposed Service Station with Convenience Store development is proposed to include access and egress to/from both Furnissdale Road to the west and Pinjarra Road to the north.

The northern Pinjarra Road access is proposed to be left-in/left-out only. The western Furnissdale Road access is proposed to be all-movement at one of two possible crossover locations.

The approved BFAC LSP had included a left-in access from Pinjarra Road into the BFAC LSP, this being into Lot 137 (Refer Figure 2). This proposed Pinjarra Road left-in access is now proposed to be located further west to the eastern lot boundary of the service station site, rather than at the eastern boundary of Lot 137 as shown below in Figure 2 (blue arrow). This relocation has the benefit of removing any associated future traffic noise impacts away from Lot 132 (644) Pinjarra Road to the east of Lot 137. A further benefit is the addition of traffic carrying capacity to enable traffic flow to be diverted away from the intersection of Pinjarra Road/Furnissdale Road/Watson Place, this is discussed below.

Figure 2 Approved Barragup Furnissdale Activity Centre Policy Plan



Following the lodgement of the proposed Service Station development application to the *Western Australian Planning Commission* (WAPC), comment was raised by Main Roads WA regarding the need for a wider assessment of the traffic impacts of the development across the entire Lot 137 future development and also the surrounding development areas as part of the BFAC LSP.

In consultation with Main Roads WA, it was agreed that this traffic assessment could be undertaken utilising the methodology adopted in the Service Station development application traffic modelling for Pinjarra Road.

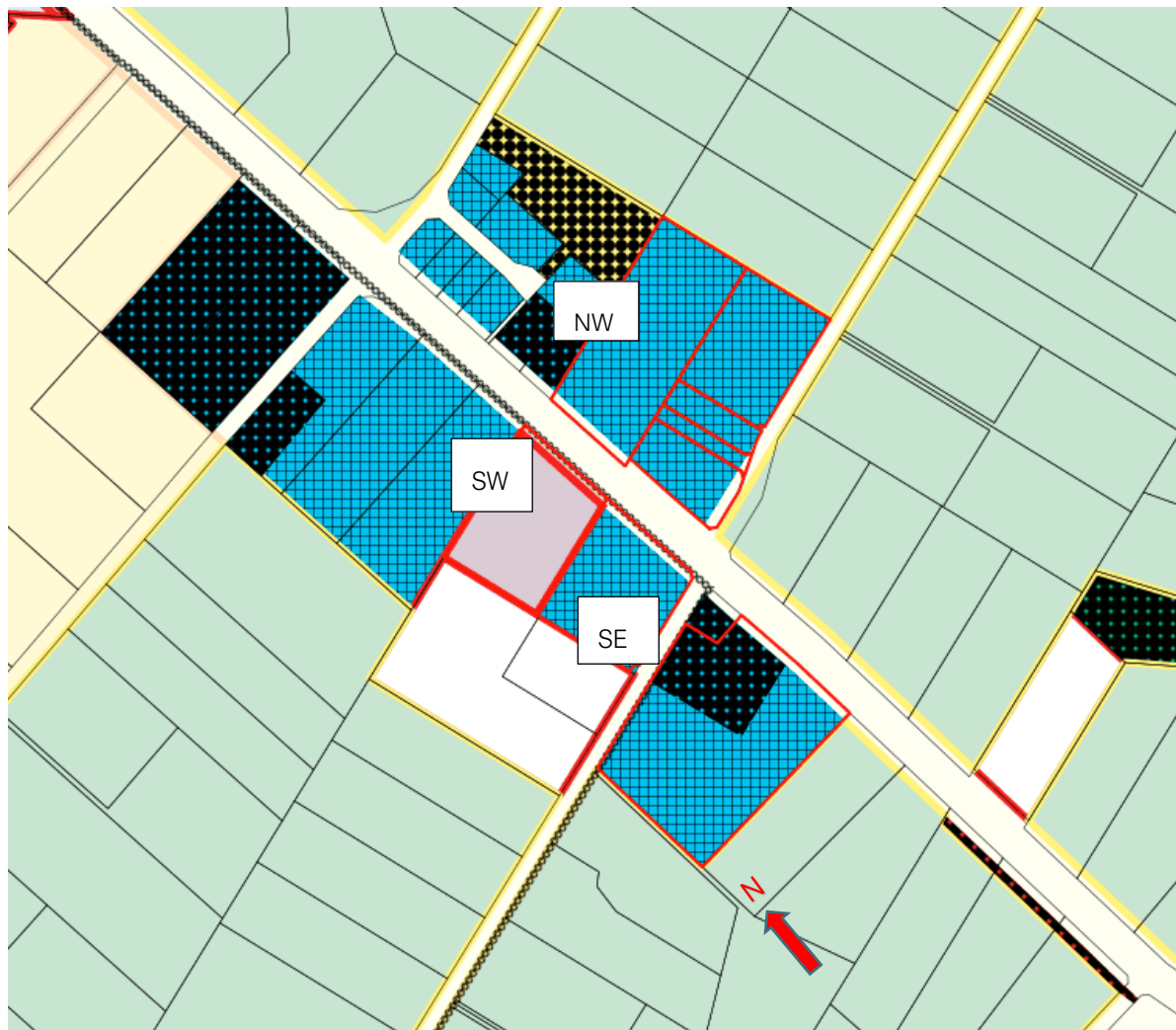
## Pinjarra Road Traffic Modelling

Forecast traffic flows for Pinjarra Road were based on ROM24 data sourced from Main Roads for both 2031 and 2041 years. As well as this forecast data, calibration plots were sourced for 2016 which enabled GTA to interrogate the 2031 and 2041 forecast data and convert these to calibrated expected traffic flows.

The traffic demands generated to/from the SE corner site (service station and wider Lot 137) of the Pinjarra Road/Furnissdale Road/Watson Drive intersection was based on future land use concept plans developed by Urbis. Development on the adjacent NW and SW corners of the Pinjarra Road/Furnissdale Road/Watson

Drive intersection was based on a Nett Leasable Area (NLA) with a 50% floor area coverage<sup>1</sup>. Refer to Figure 3 for the NW, SW and SE corner areas.

Figure 3 Developments Near Intersection



The 50% NLA assumption leads to total floor areas of approximately:

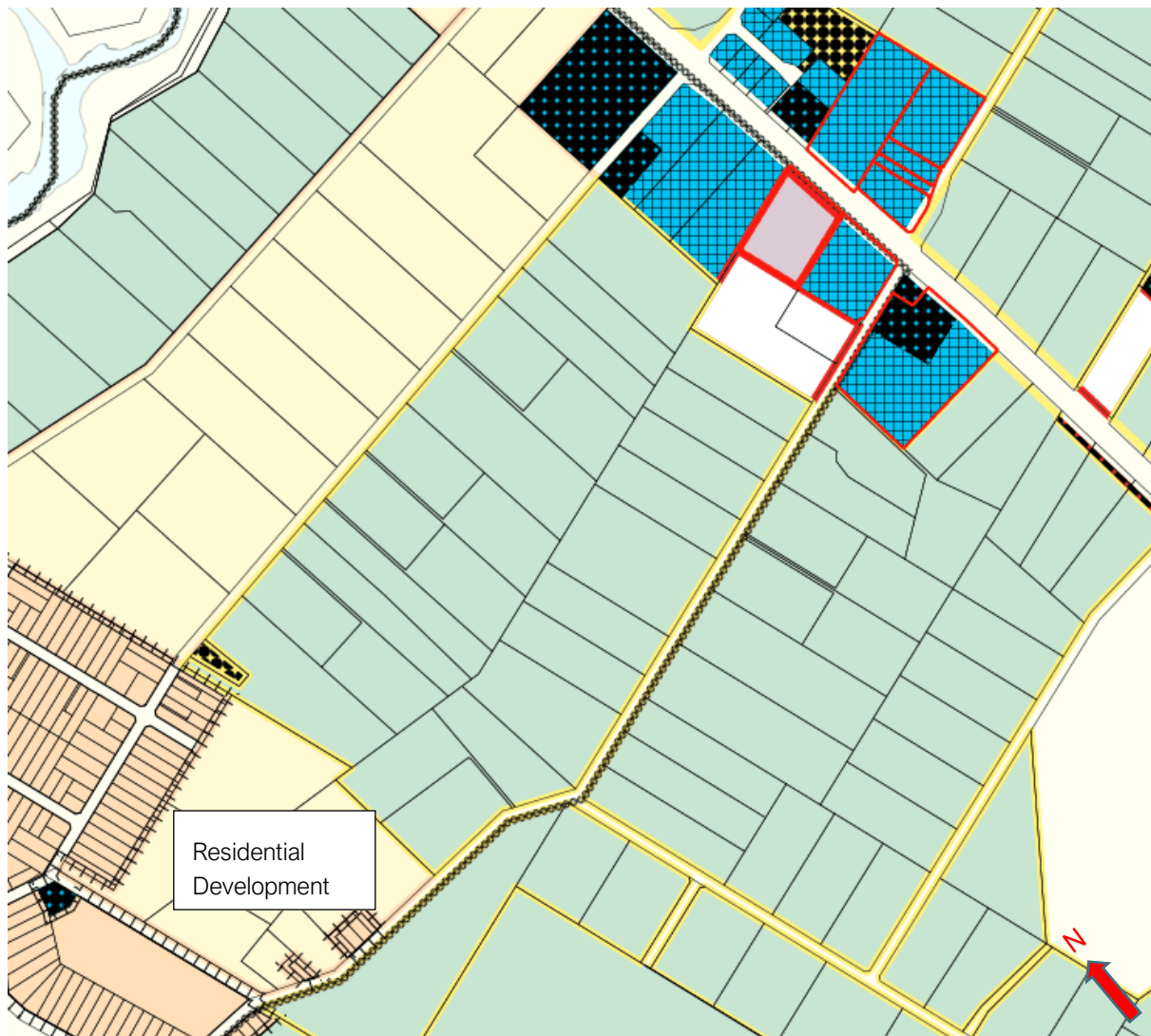
- SE 14,000m<sup>2</sup>
- NW 26,000m<sup>2</sup>
- SW 17,000m<sup>2</sup>.

The typical traffic generation rates for bulky goods type developments are in the order of 2.5 trips per 100m<sup>2</sup> in the PM peak period. Allowing for the likelihood of uses with more intense traffic generation (such as smaller areas of fast food) a traffic generation rate of **5.0 trips per 100m<sup>2</sup>** was adopted and applied to the NLA to allow a conservative (on the high side) traffic assessment.

In addition to the above bulky goods and retail, there are also the planned future residential developments further to the south along Furnissdale Road. This land area is approximately 7.5Ha and with a R20 zoning, results in approximately 160 to 170 dwellings expected on this site (Figure 4).

<sup>1</sup> Floor area is based on the total developable land area with a reduction for roadways/parking.

Figure 4 Future Residential Development further south on Furnissdale Road



Based on the above BFAC LSP floorspaces and the expected residential development area further south along Furnissdale Road, the future PM Peak hourly traffic flows generated to/from the Pinjarra Road / Furnissdale Road intersection are expected to be:

- SE 745vph
- NW 1,300vph
- SW 850vph
- Residential 140vph.

Current traffic flows on Furnissdale Road recorded in 2019 in the PM peak were:

- Furnissdale Road 35vph (two-way)
- Watson Drive 75vph (two-way).

Current traffic flows on Pinjarra Road are 16,015vpd (2019/20) and this has grown at a rate of approximately 0.23% per annum from the period of 2011/12 to 2019/20. This traffic flow consists of 1,191vph (466 eastbound & 725 westbound) in the AM peak and 1,396vph (688 eastbound & 708 westbound) in the PM peak.



Calibrated Main Roads ROM24 data derived has shown that forecast traffic flows on Pinjarra Road are expected to increase to approximately 33,000vpd west of Furnissdale Road and 30,200vpd east of Furnissdale Road by 2041. Thus, ROM24 suggests Pinjarra Road traffic flows are expected to increase by a factor of approximately two from 2019/20 to approximately 2041. This translates to a growth rate of approximately 3.2% per annum this being significantly **more** than the current historical traffic growth rate of approximately 0.23% per annum. However, the higher traffic flows from ROM and thus higher growth rates were used in the following assessment.

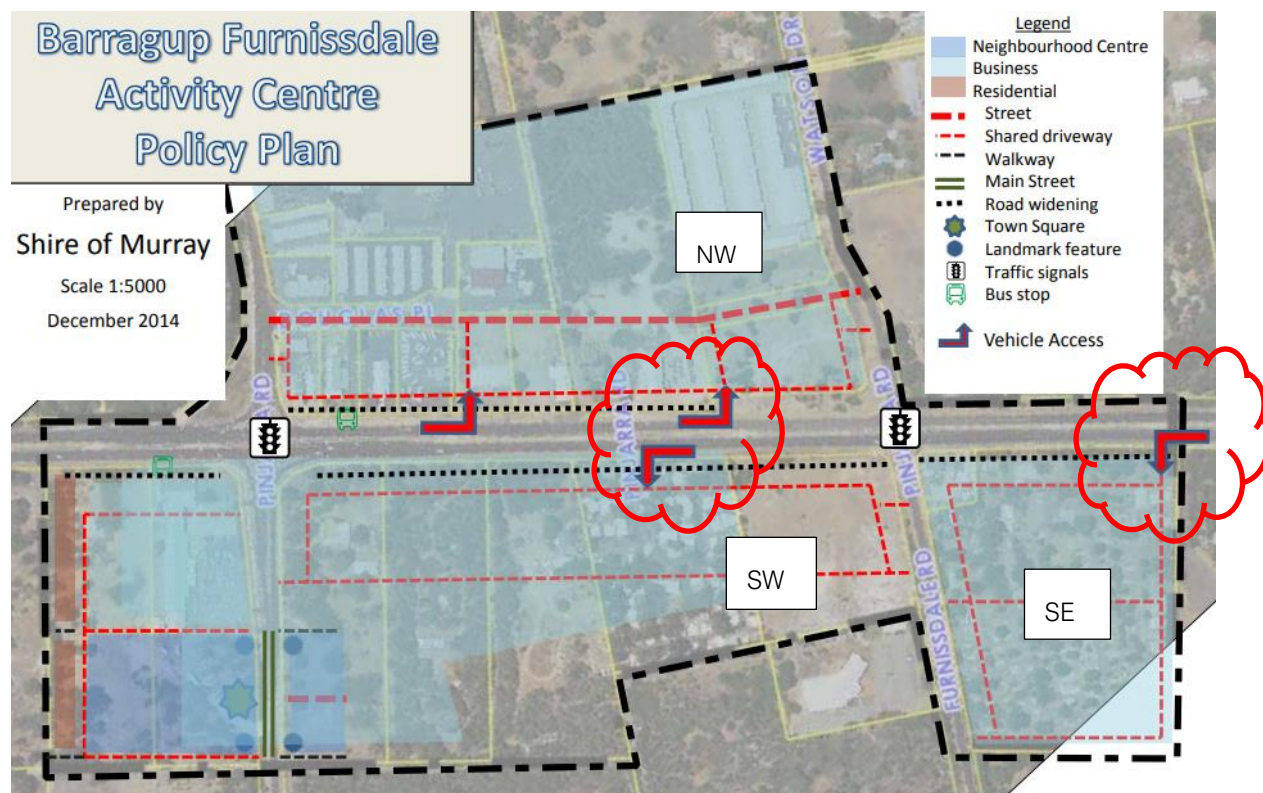
Based on the future traffic flows forecasts for Pinjarra Road, the current 2019 observed traffic flows in the AM and PM peak periods were increased by the same proportion (the conservatively higher 3.2% p.a.) from 2019 to 2041.

GTA assigned the expected traffic flows from the corner development areas and from the residential development area to the Pinjarra Road/Furnissdale Road/Watson Drive intersection. GTA applied deductions at the intersection to account for already approved left turn movements to/from Pinjarra Road which would reduce the intersection approach volumes, being:

- Left turn into the NW development area
- Left turn into the SW development area
- Left turn into the SE development area.

These left-turns are shown in red arrows in Figure 5, extracted from the approved BFAC LSP.

Figure 5 Barragup Furnissdale Activity Centre Policy Plan – Left Turn Access



The direction of traffic flows to and from the corner development areas are expected to be split 50/50 in each direction in the PM peak. This direction split to and from the developments are then with a further split with 65% of traffic flows to and from the west along Pinjarra Road, and 35% to and from the east along Pinjarra Road. These proportions are based on current traffic flow directions/proportions at this intersection.

## Expected Intersection Operation with No Left-turn onto Pinjarra Road from SE site

The intersection of Pinjarra Road/Furnissdale Road/Watson Drive which is expected to be signalised (similar to the intersection of Pinjarra Road/Ronlyn Road/Husband Road) was modelled iteratively, based on the following configurations for Pinjarra Road.

Initially Pinjarra Road is assumed to be a 4-lane divided road in 2041. However, Furnissdale Road / Watson Drive traffic demands will be so high that it will require Pinjarra Road to be a 6-lane divided road in the locality to allow this intersection to operate effectively on the Furnissdale Road and Watson Drive approaches.

In the above Pinjarra Road future format and expected traffic flows, the main findings of this assessment were:

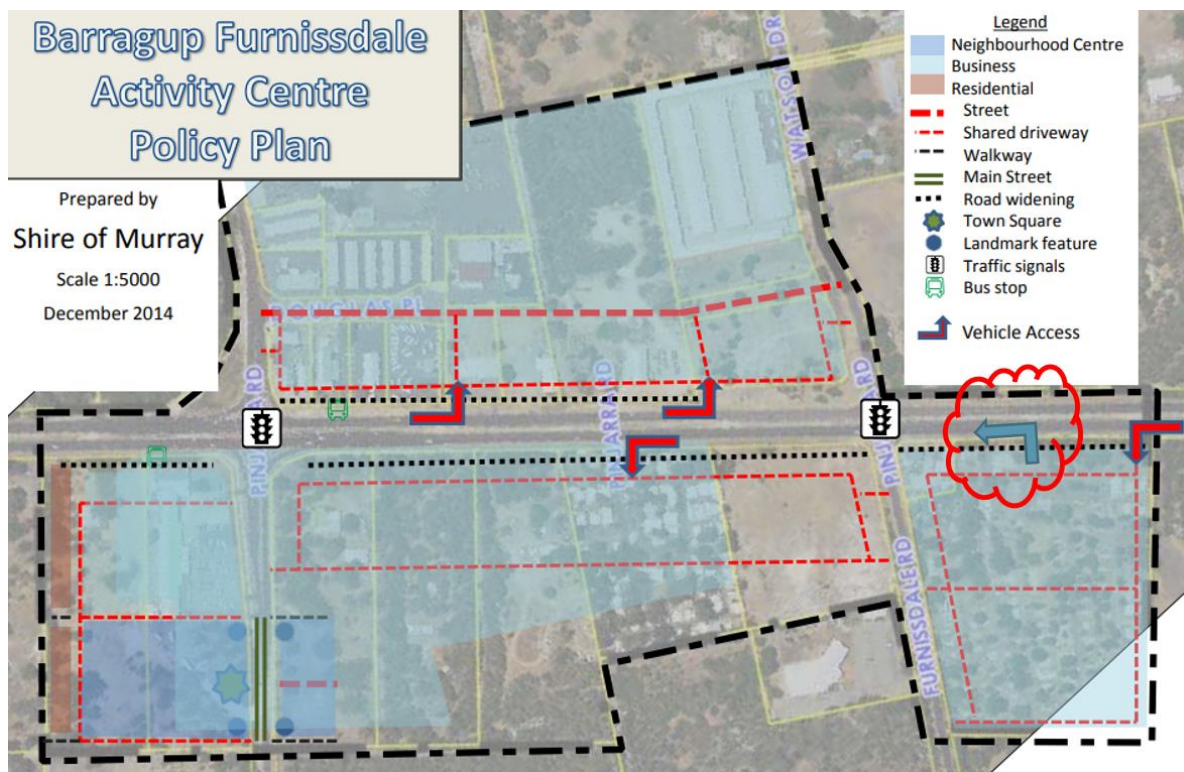
- There is expected to be queues south from Pinjarra Road along Furnissdale Road terminating approximately 55m south of the crossover to the SE (service station) site;
- This queue would block the planned crossover to the SW corner development;
- This queue would interfere with the ability of vehicles to turn right from Furnissdale Road into the SW corner of the development;
- The resultant impact of this is that there is expected to be approximately 50m traffic queues back north along Furnissdale and possibly into its intersection at Pinjarra Road.

**Attachment 1** provides copies of the SIDRA Intersection 8 Lane Summaries for the above assessed “No Left Turn” option.

## Expected Intersection Operation with a Left-turn onto Pinjarra Road from SE site

The provision of a left turn from the SE (service station initially then the wider Lot 137) site onto Pinjarra Road will have the effect of reducing traffic flows on Furnissdale Road by approximately 160vph. This traffic now exiting the SE site and turning left onto Pinjarra Road and then continuing west through the traffic signals.

Figure 6 Proposed Location of Left Turn onto Pinjarra Road



In the above Pinjarra Road future format with a left turn from the SE site onto Pinjarra Road, the main findings of this assessment were:

- This reduction in traffic flow on Furnissdale Road will have the effect of reducing queues to approximately 5m south of the crossover to the SE site.
- This then reduces the queue back from Pinjarra Road and thus the likelihood of blocking the agreed (as shown in the BFAC LSP) crossover for the SW site.
- This then reduces the expected maximum queues for the right turn into the SW site to approximately 25m. This significantly reduces the risk of queue back onto Pinjarra Road.

Refer to copies of the Lane Summaries from Sidra Intersection at **Attachment 2** for the "With Left Turn" option.

## Summary

The addition of the left turn onto Pinjarra Road from the SE site has significant impact on the capacity for traffic flow in the vicinity of the intersection of Pinjarra Road/Furnissdale Road/Watson Drive. This left turn feature might also be a consideration for other development along the Pinjarra Road section of the BFAC LSP to provide additional traffic carrying capacity. This additional capacity will benefit the intersection of Pinjarra Road/Furnissdale Road/Watson Drive. If not included this intersection would then be placed under operational pressure due to high traffic flows which would lead to longer delays and queues on both Pinjarra Road and the Furnissdale Road and Watson Drive approaches.

The allowance for left turns onto Pinjarra Road may also negate the need to increase the carriageway width of Pinjarra Road from 4-lanes to 6-lanes, to make the analysis of the intersection work under the expected traffic flows on Pinjarra Road.

Naturally, should there be any questions or if there is a requirement for any further information, please do not hesitate to contact me on (08) 6169 1008.

Regards

**GTA CONSULTANTS**



**Rodney Ding**  
Associate



## Attachment 1 – Expected Intersection Operation with No Left-turn onto Pinjarra Road from SE site

## (2041 PM) Intersection of Pinjarra Road/Furnissdale Road/Watson Drive

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg.	Lane	Average	Level of	95% Back of Queue		Lane	Lane	Cap.	Prob.
	Total	HV	Total	HV	veh/h	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h	%	veh/h	%		v/c	%	sec			m		m	%	%
South: Furnissdale Road															
Lane 1	591	8.6	591	8.6	601 <sup>1</sup>	0.983	100	100.6	LOS F	12.5 <sup>N4</sup>	97.9 <sup>N4</sup>	Short	58	0.0	NA
Lane 2	53	3.0	53	3.0	75	0.704	100	86.2	LOS F	4.3	31.1	Full	60	0.0	50.0 <sup>B</sup>
Lane 3	318	11.6	318	11.6	495 <sup>1</sup>	0.642	100	45.1	LOS D	12.2 <sup>N4</sup>	97.9 <sup>N4</sup>	Short	58	0.0	NA
Approach	961	9.3	961	9.3		0.983		81.4	LOS F	12.5	97.9				
East: Pinjarra Road															
Lane 1	124	3.0	124	3.0	1322	0.094	100	12.8	LOS B	2.5	18.3	Short	125	0.0	NA
Lane 2	477	8.6	477	8.6	511 <sup>1</sup>	0.932	100	77.7	LOS E	41.6	325.2	Full	1000	0.0	0.0
Lane 3	507	8.6	507	8.6	544	0.932	100	77.9	LOS E	44.8	350.5	Full	1000	0.0	0.0
Lane 4	518	8.6	518	8.6	556	0.932	100	77.4	LOS E	45.6	356.6	Full	1000	0.0	0.0
Lane 5	211	3.0	211	3.0	237	0.888	100	91.4	LOS F	17.6	128.4	Short	170	0.0	NA
Approach	1837	7.6	1837	7.6		0.932		74.9	LOS E	45.6	356.6				
North: Watson Drive															
Lane 1	214	3.0	214	3.0	697	0.307	100	21.7	LOS C	8.0	58.1	Short	75	0.0	NA
Lane 2	53	3.0	53	3.0	75	0.704	100	86.2	LOS F	4.3	31.1	Full	85	0.0	100.0 <sup>B</sup>
Lane 3	495	3.0	495	3.0	558 <sup>1</sup>	0.887	100	61.4	LOS E	36.2	263.5	Short	75	0.0	NA
Approach	761	3.0	761	3.0		0.887		52.0	LOS D	36.2	263.5				
West: Pinjarra Road															
Lane 1	437	3.0	437	3.0	1443	0.303	100	11.0	LOS B	7.9	57.8	Short	105	0.0	NA
Lane 2	443	8.6	443	8.6	632	0.700	100	40.6	LOS D	25.2	196.6	Full	475	0.0	0.0
Lane 3	462	8.6	462	8.6	660	0.700	100	41.2	LOS D	26.9	210.1	Full	475	0.0	0.0
Lane 4	472	8.6	472	8.6	674	0.700	100	41.2	LOS D	27.4	214.3	Full	475	0.0	0.0
Lane 5	307	8.6	307	8.6	331	0.928	100	95.0	LOS F	27.3	213.6	Short	185	0.0	NA
Lane 6	307	8.6	307	8.6	331	0.928	100	95.0	LOS F	27.3	213.6	Short	185	0.0	NA
Approach	2427	7.6	2427	7.6		0.928		49.3	LOS D	27.4	214.3				
Intersection	5986	7.3	5986	7.3		0.983		62.6	LOS E	45.6	356.6				

## (2041 PM) SW Access Driveway

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg.	Lane	Average	Level of	95% Back of Queue		Lane	Lane	Cap.	Prob.
	Total	HV	Total	HV	veh/h	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h	%	veh/h	%		v/c	%	sec			m		m	%	%
South: Furnissdale Road															
Lane 1	436	0.0	436	0.0	1948	0.224	100	0.1	LOS A	2.3 <sup>N5</sup>	16.3 <sup>N5</sup>	Full	10	0.0	50.0 <sup>N5</sup>
Approach	436	0.0	436	0.0		0.224		0.1	NA	2.3	16.3				
North: Furnissdale Road															
Lane 1	424	0.0	424	0.0	1950	0.218	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	415	0.0	415	0.0	449	0.925	100	19.8	LOS C	7.1	49.6	Full	60	-50.0 <sup>N2</sup>	0.0
Approach	839	0.0	839	0.0		0.925		9.8	NA	7.1	49.6				
West: Access Road															
Lane 1	458	0.0	458	0.0	519	0.882	100	13.4	LOS B	7.5	52.3	Full	50	-49.4 <sup>N3</sup>	6.3
Approach	458	0.0	458	0.0		0.882		13.4	LOS B	7.5	52.3				
Intersection	1733	0.0	1733	0.0		0.925		8.3	NA	7.5	52.3				

## (2041 PM) SE Access Driveway

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap.	Deg.	Lane	Average	Level of	95% Back of Queue		Lane	Lane	Cap.	Prob.
	Total	HV	Total	HV	veh/h	Satn	Util.	Delay	Service	Veh	Dist	Config	Length	Adj.	Block.
	veh/h	%	veh/h	%		v/c	%	sec			m		m	%	%
South: Furnissdale Road															
Lane 1	240	0.0	240	0.0	1893	0.127	100	0.4	LOS A	7.9	55.6	Full	500	0.0	0.0
Approach	240	0.0	240	0.0		0.127		0.4	NA	7.9	55.6				
East: Access Road															
Lane 1	218	9.5	218	9.5	433	0.503	100	3.3	LOS A	0.9	7.0	Full	50	-48.8 <sup>N7</sup>	0.0
Approach	218	9.5	218	9.5		0.503		3.3	LOS A	0.9	7.0				
North: Furnissdale Road															
Lane 1	414	3.9	414	3.9	1858	0.223	100	0.9	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	414	3.9	414	3.9		0.223		0.9	NA	0.0	0.0				
Intersection	872	4.3	872	4.3		0.503		1.4	NA	7.9	55.6				

## Attachment 2 – Expected Intersection Operation with a Left-turn onto Pinjarra Road from SE site



## (2041 PM) Intersection of Pinjarra Road/Furnissdale Road/Watson Drive

Lane Use and Performance															
	Demand Flows		Arrival Flows		Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue		Lane Config	Lane Length m	Cap. Adj. %	Prob. Block. %
	Total veh/h	HV %	Total veh/h	HV %						Veh	Dist m				
South: Furnissdale Road															
Lane 1	421	8.6	421	8.6	558	0.754	100	50.1	LOS D	12.5 <sup>N4</sup>	97.9 <sup>N4</sup>	Short	58	0.0	NA
Lane 2	53	3.0	53	3.0	75	0.704	100	86.2	LOS F	4.3	31.1	Full	60	0.0	50.0
Lane 3	318	11.6	318	11.6	466 <sup>1</sup>	0.681	100	47.7	LOS D	12.2 <sup>N4</sup>	97.9 <sup>N4</sup>	Short	58	0.0	NA
Approach	792	9.4	792	9.4		0.754		51.5	LOS D	12.5	97.9				
East: Pinjarra Road															
Lane 1	124	3.0	124	3.0	1325	0.094	100	12.8	LOS B	2.5	18.4	Short	125	0.0	NA
Lane 2	536	8.6	536	8.6	550 <sup>1</sup>	0.975	100	92.9	LOS F	51.7	404.4	Full	1000	0.0	0.0
Lane 3	576	8.6	576	8.6	591	0.975	100	93.1	LOS F	56.4	441.3	Full	1000	0.0	0.0
Lane 4	562	8.6	562	8.6	576 <sup>1</sup>	0.975	100	92.5	LOS F	54.3	424.9	Full	1000	0.0	0.0
Lane 5	211	3.0	211	3.0	237	0.888	100	91.4	LOS F	17.6	128.4	Short	170	0.0	NA
Approach	2008	7.7	2008	7.7		0.975		87.7	LOS F	56.4	441.3				
North: Watson Drive															
Lane 1	214	3.0	214	3.0	680	0.314	100	21.5	LOS C	8.0	58.1	Short	75	0.0	NA
Lane 2	53	3.0	53	3.0	75	0.704	100	86.2	LOS F	4.3	31.1	Full	85	0.0	100.0 <sup>N3</sup>
Lane 3	495	3.0	495	3.0	526 <sup>1</sup>	0.941	100	77.6	LOS E	41.2	299.6	Short	75	0.0	NA
Approach	761	3.0	761	3.0		0.941		62.4	LOS E	41.2	299.6				
West: Pinjarra Road															
Lane 1	437	3.0	437	3.0	1443	0.303	100	11.0	LOS B	7.9	57.8	Short	105	0.0	NA
Lane 2	401	8.6	401	8.6	576 <sup>1</sup>	0.695	100	36.2	LOS D	20.6	161.2	Full	475	0.0	0.0
Lane 3	483	8.6	483	8.6	695	0.695	100	38.5	LOS D	27.3	213.2	Full	475	0.0	0.0
Lane 4	493	8.6	493	8.6	709	0.695	100	38.5	LOS D	27.8	217.4	Full	475	0.0	0.0
Lane 5	307	8.6	307	8.6	320	0.960	100	106.2	LOS F	29.1	227.4	Short	185	0.0	NA
Lane 6	307	8.6	307	8.6	320	0.960	100	106.2	LOS F	29.1	227.4	Short	185	0.0	NA
Approach	2427	7.6	2427	7.6		0.960		50.3	LOS D	29.1	227.4				
Intersection	5988	7.3	5988	7.3		0.975		64.5	LOS E	56.4	441.3				

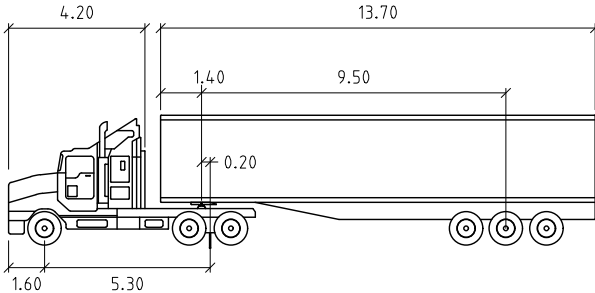
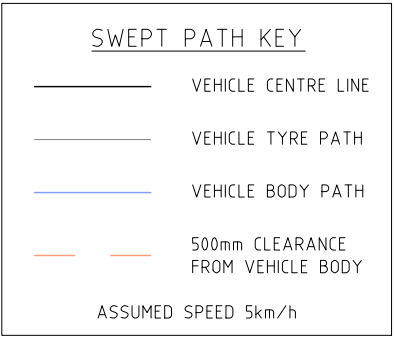
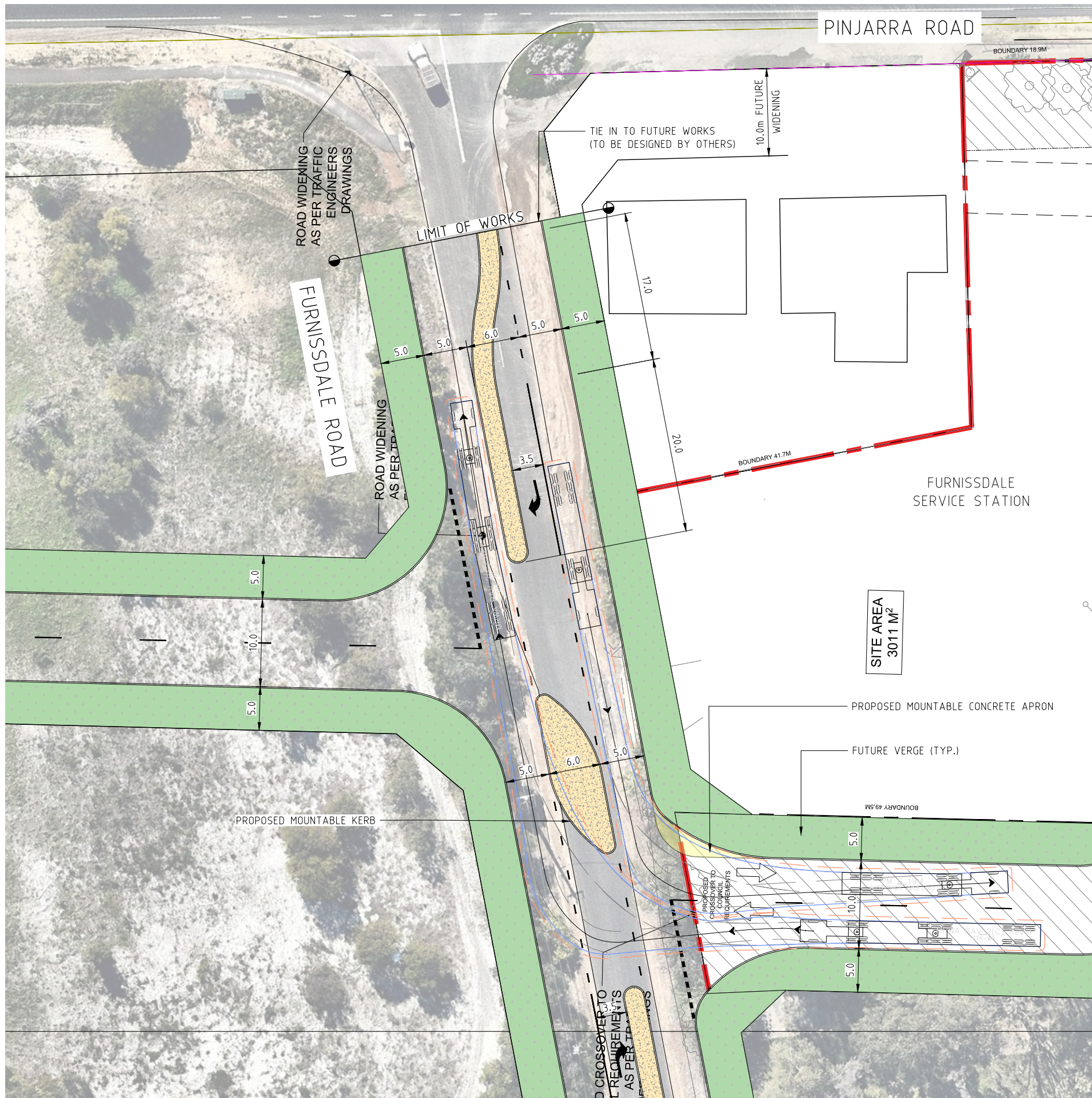
## (2041 PM) SW Access Driveway

Lane Use and Performance															
	Demand Total veh/h	Flows HV %	Arrival Flows Total veh/h	HV %	Cap. veh/h	Deg. Satn v/c	Lane Util. %	Average Delay sec	Level of Service	95% Back of Queue Veh	Queue Dist m	Lane Config	Lane Length m	Cap. Adj. %	Prob. Block %
South: Furnissdale Road															
Lane 1	265	0.0	265	0.0	1946	0.136	100	0.1	LOS A	2.3 <sup>N6</sup>	16.3 <sup>N6</sup>	Full	10	0.0	50.0 <sup>N6</sup>
Approach	265	0.0	265	0.0		0.136		0.1	NA	2.3	16.3				
North: Furnissdale Road															
Lane 1	424	0.0	424	0.0	1950	0.218	100	0.0	LOS A	0.0	0.0	Full	60	0.0	0.0
Lane 2	415	0.0	415	0.0	551	0.752	100	8.6	LOS A	3.4	23.7	Full	60	-50.0 <sup>N2</sup>	0.0
Approach	839	0.0	839	0.0		0.752		4.3	NA	3.4	23.7				
West: Access Road															
Lane 1	458	0.0	458	0.0	625	0.733	100	5.0	LOS A	4.3	30.3	Full	50	-49.4 <sup>N3</sup>	0.0
Approach	458	0.0	458	0.0		0.733		5.0	LOS A	4.3	30.3				
Intersection	1562	0.0	1562	0.0		0.752		3.8	NA	4.3	30.3				

## (2041 PM) SE Access Driveway

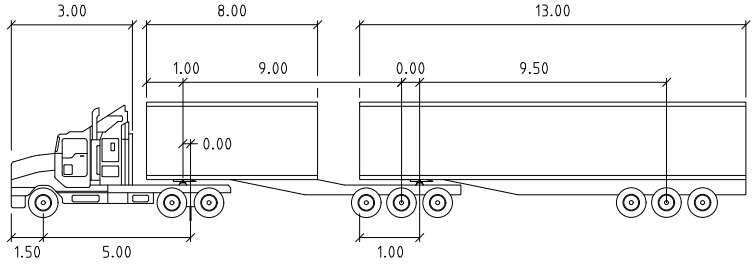
Lane Use and Performance															
	Demand	Flows	Arrival	HV	Cap.	Deg.	Lane	Average	Level of	95% Back of Queue	Dist	Lane	Lane	Cap.	Prob.
	Total	%	Total	%	veh/h	Satn	Util.	Delay	Service	Veh	m	Config	Length	Adj.	Block
	veh/h		veh/h			v/c	%	sec					m	%	%
South: Furnissdale Road															
Lane 1	240	0.0	240	0.0	1893	0.127	100	0.4	LOS A	0.9	6.1	Full	500	0.0	0.0
Approach	240	0.0	240	0.0		0.127		0.4	NA	0.9	6.1				
East: Access Road															
Lane 1	116	9.1	116	9.1	450	0.257	100	2.3	LOS A	0.4	2.7	Full	50	-47.6 <sup>N7</sup>	0.0
Approach	116	9.1	116	9.1		0.257		2.3	LOS A	0.4	2.7				
North: Furnissdale Road															
Lane 1	414	3.9	414	3.9	1858	0.223	100	0.9	LOS A	0.0	0.0	Full	10	0.0	0.0
Approach	414	3.9	414	3.9		0.223		0.9	NA	0.0	0.0				
Intersection	769	3.5	769	3.5		0.257		1.0	NA	0.9	6.1				





PM S 19M

TRACTOR WIDTH	: 2.50	LOCK TO LOCK TIME	: 6.0
TRAILER WIDTH	: 2.50	STEERING ANGLE	: 27.8
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 70.0
TRAILER TRACK	: 2.50		



MRWA RAV 2(C) Rev 1

TRACTOR WIDTH	: 2.50	LOCK TO LOCK TIME	: 6.0
TRAILER WIDTH	: 2.50	STEERING ANGLE	: 26.1
TRACTOR TRACK	: 2.50	ARTICULATING ANGLE	: 70.0
TRAILER TRACK	: 2.50		

T:\W17700-17799\W177920 FURNISSDALE SERVICE STATION, PINJARRA\W177920-01-P1.DWG PLOTTED BY SHEREE PANDAY ON 22/06/2020 AT 14:02



Melbourne 03 9851 9600  
Sydney 02 8446 1800  
Brisbane 07 3113 5000  
Adelaide 08 8334 3600  
Perth 08 6169 1000



**PRELIMINARY PLAN**  
FOR DISCUSSION PURPOSES ONLY  
SUBJECT TO CHANGE WITHOUT  
NOTIFICATION

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
THE LOCATIONS OF UNDERGROUND SERVICES ARE  
APPROXIMATE ONLY AND THEIR EXACT POSITION  
SHOULD BE PROVEN ON SITE. NO GUARANTEE IS  
GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DESIGNED  
S. PANDAY

DESIGN CHECK  
R. DING

APPROVED BY  
R. DING

DATE ISSUED  
22.06.2020

SCALE  
A3 0 2.5 5 10 1:500

CAD FILE NO.  
W177920-01-P1.DWG

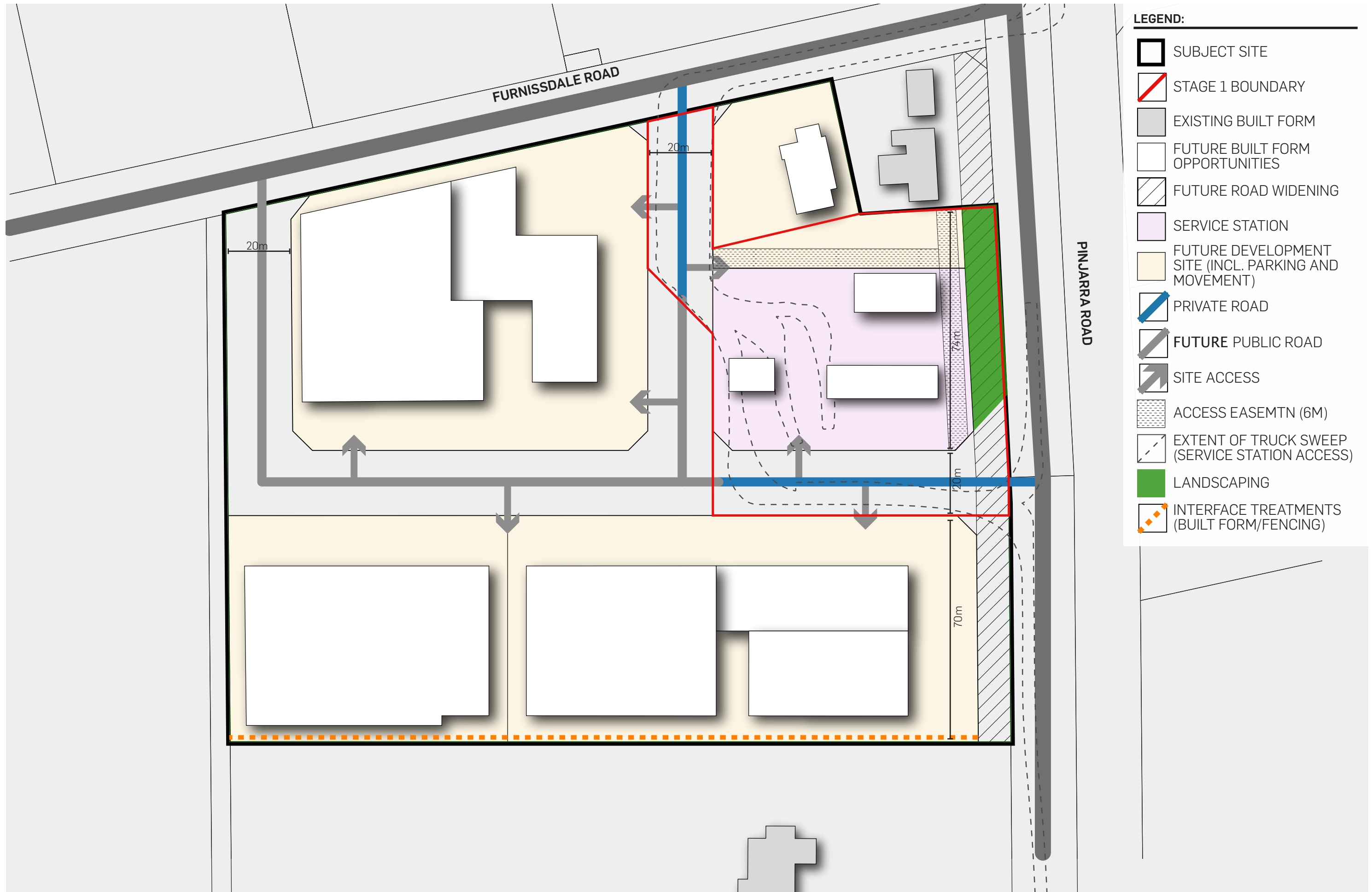
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CONCEPT PLAN**

DRAWING NO. W177920-01

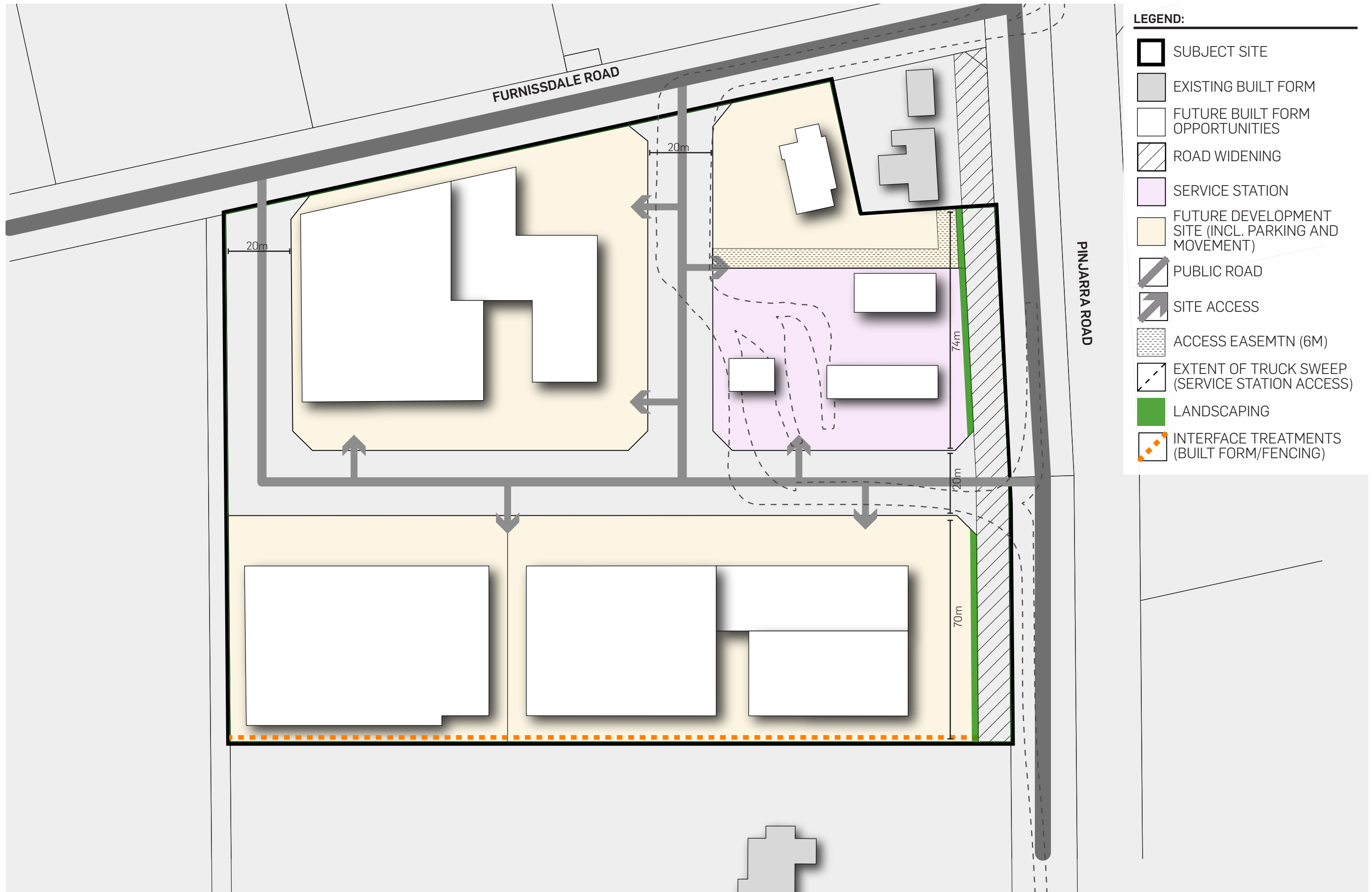
SHEET 01 OF 01

ISSUE P1









Yolk Property Group  
Bushfire Management Plan  
(Development Application)

Lot 137 (630) Pinjarra Road, Furnissdale

6 April 2020

58305/128,707 (Rev A)

JBS&G Australia Pty Ltd T/A Strategen-JBS&G

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## Appendices

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Appendix B	Vegetation plot photos and description
Appendix C	APZ standards (Schedule 1 of the Guidelines)
Appendix D	Vehicular access technical standards of the Guidelines
Appendix E	Water technical standards of the Guidelines
Appendix F	Shire of Murray annual firebreak notice

## 1. Proposal details

### 1.1 Background

Yolk Property Group is seeking to lodge a development application in relation to proposed development of a service station at Lot 137 (630), Pinjarra Road, Furnissdale (the project area), located in the Shire of Murray. The site plan (Figure 1) identifies that the proposed development will comprise the following elements:

- convenience building (habitable building)
- landscaping
- crossover to Pinjarra Road
- crossover to Furnissdale Road
- car parking bays
- entirely paved surface aside from peripheral landscaping
- underground fuel tank farm (3 tanks)
- underground LPG tank
- car canopy (8 fuel dispensers)
- truck canopy (4 fuel dispensers).

### 1.2 Site description

The project area is zoned 'Commercial', comprises approximately 0.81 ha within Lot 137 and is surrounded by (see Figure 2):

- Geoff's Hire Service, Pinjarra Road, Coles Express service station and other commercial land uses to the north
- 'Service Commercial' zoned portion of Lot 137 and special rural lots to the south
- Pinjarra Road and special rural lots to the east
- Furnissdale Road, vacant land Peel Caravan Park and special land uses (i.e. Masonic Centre Furnissdale) to the west.

The proposed development is designated as bushfire prone on the *Map of Bush Fire Prone Areas* (DFES 2019); see Plate 1).

### 1.3 Purpose

This Bushfire Management Plan (BMP) has been prepared to address requirements under Policy Measure 6.5 of *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015) and *Guidelines for Planning in Bushfire-Prone Areas* (the Guidelines; WAPC 2017), which are triggered through the proposed development of a 'Habitable building' (as defined in *Planning and Development (Local Planning Schemes) Regulations 2015* under the *Planning and Development Act 2005*) in a designated bushfire prone area.

The proposed development is considered to be a high-risk land use which triggers additional requirements under Policy Measure 6.6 of SPP 3.7. This BMP has been prepared in accordance with Sections 5.4 and 5.6 of *Guidelines for Planning in Bushfire Prone Areas* (the Guidelines; WAPC 2017), which require development applications for high-risk land uses be accompanied by a BMP that includes the results of a Bushfire Attack Level (BAL) or BAL Contour Map assessment and a Bushfire Risk Management Plan (BRMP).

#### 1.4 Other plans/reports

Strategen-JBS&G has prepared a BRMP (Strategen-JBS&G 2020) as a requirement of Policy Measure 6.6 of SPP 3.7. The BRMP should be read in conjunction within this BMP.

There are no other known bushfire or environmental reports or assessments that have been prepared previously for the project area.

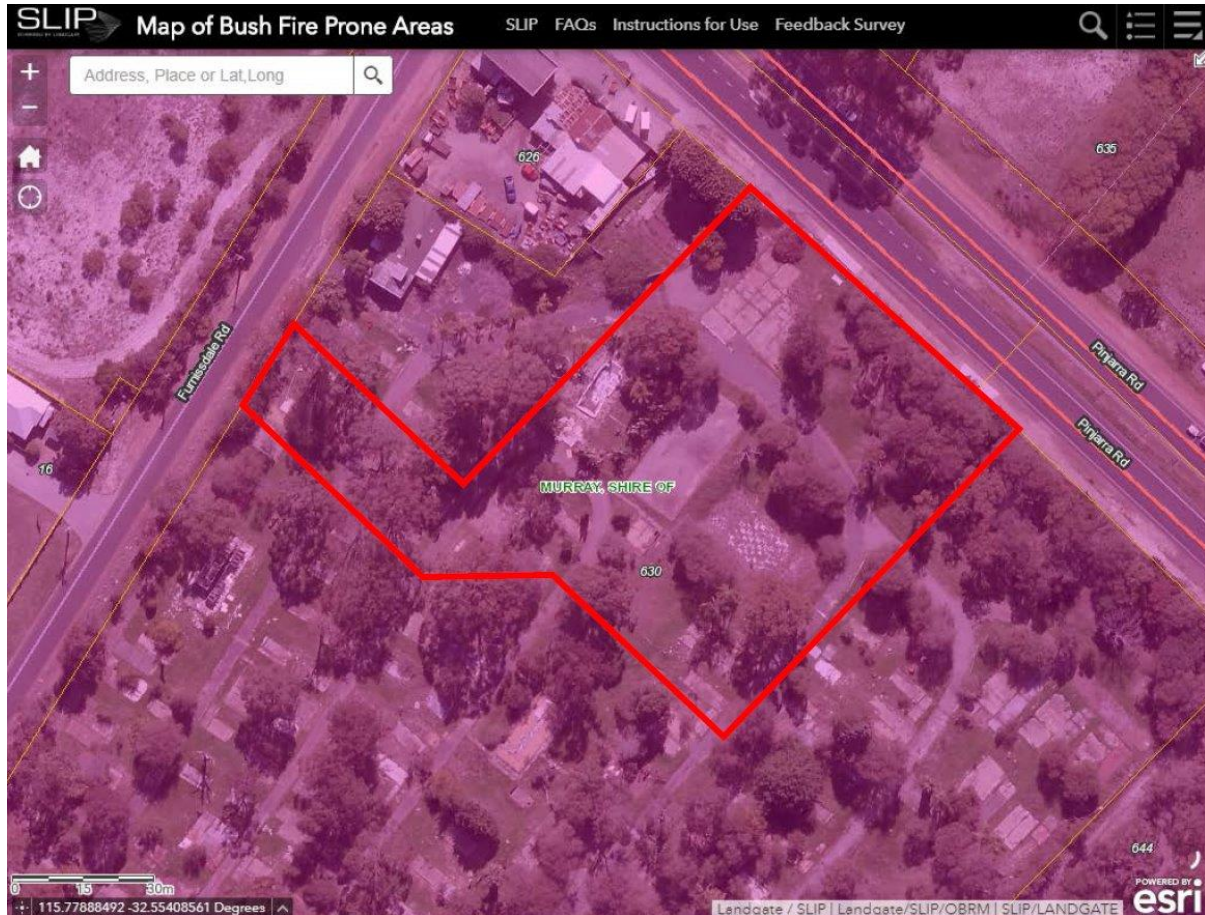
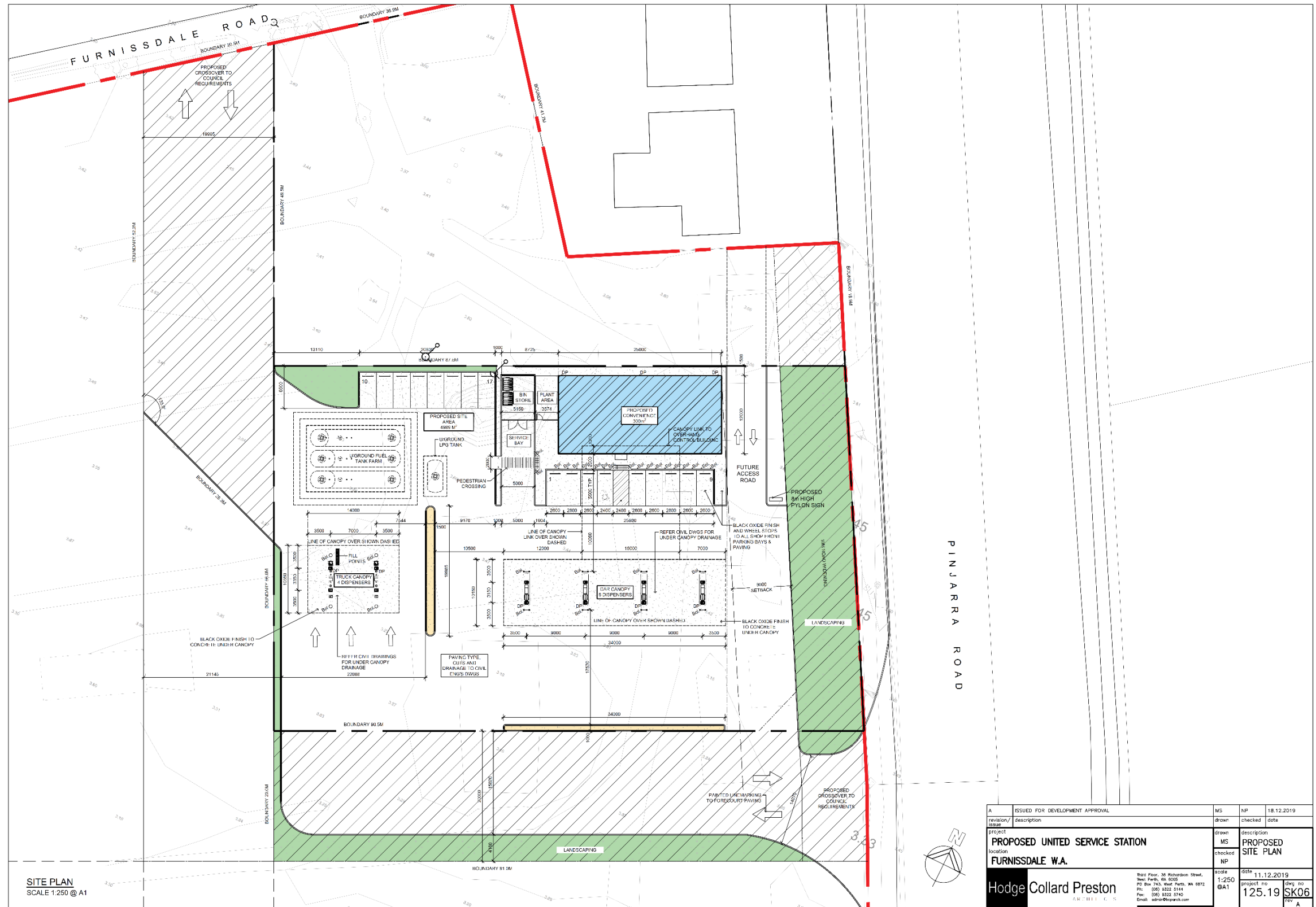


Plate 1: Map of Bush Fire Prone Areas (DFES 2020)

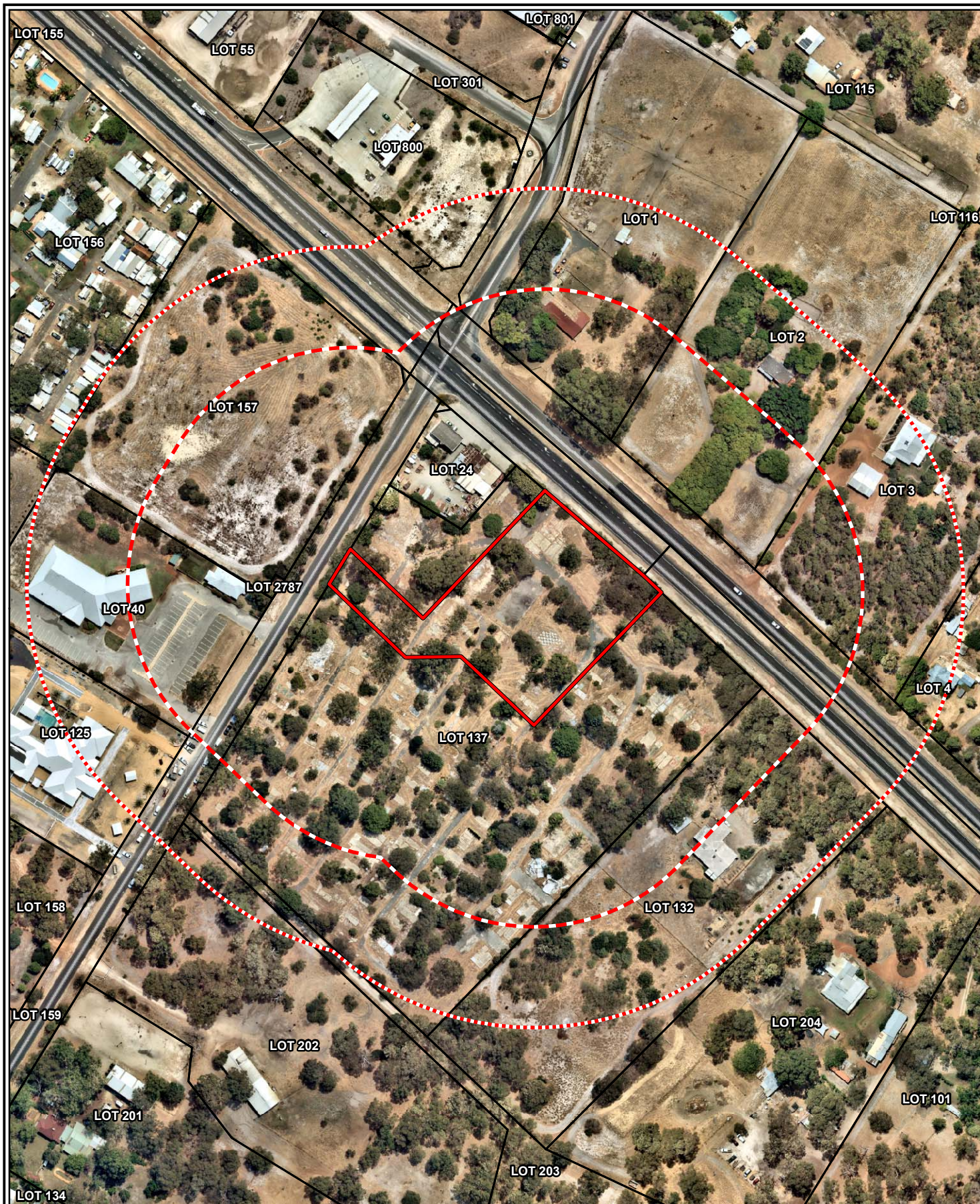




Source: Hodge Collard Preston Architects 2019

Figure 1: Site plan

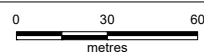




#### Legend:

- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Roads (MRWA)

Scale 1:2,500 at A4



Coord. Sys. GDA 1994 MGA Zone 50



Job No: 58305

Client: Yolk Property Group

Version: A

Date: 01-Apr-2020

Drawn By: hsullivan

Checked By: CT

Lot 137, Furnissdale, WA

SITE OVERVIEW

FIGURE 2





## 2. Environmental considerations

### 2.1 Native vegetation – modification and clearing

The project area and adjacent APZs will need to be cleared as part of the proposed development. Lot 137 was previously a caravan park, with remanence of the previous land use visible throughout the lot in the form of bitumen driveways and paved caravan hardstands. Lot 137 has previously been parkland cleared, and predominantly consists of sparsely retained trees, introduced shrubs and unmanaged grassland. On this basis, Strategen-JBS&G understands that clearing the project area and associated land within the APZ will have limited impact on conservation significant species. A search of publicly available environmental data relating to the project area has been undertaken and is summarised in Table 1.

**Table 1: Summary of environmental values**

Environmental value	Not mapped as occurring within or adjacent to the project area	Mapped as occurring within or adjacent to the project area		Description
		Within	Adjacent	
Environmentally Sensitive Area			✓	An Environmentally Sensitive Area is mapped as occurring 450 m to the south-east (Barragup Swamp Conservation Reserve).
Swan Bioplan Regionally Significant Natural Area			✓	Swan Bioplan areas are mapped as occurring 500 m to the south-east of the project area associated with Barragup Swamp, and 200 m to the south-west.
Ecological linkages	✓			N/A.
Wetlands			✓	A Conservation Category Wetland is mapped as occurring 450 m to the south-east associated with Barragup Swamp Conservation Reserve. No Ramsar sites are recorded.
Waterways	✓			N/A.
Threatened Ecological Communities listed under the EPBC Act		✓	✓	The project area and adjacent areas are mapped as containing Threatened Ecological Communities. Endangered Banksia Woodlands of the Swan Coastal Plain TEC mapped as being likely to occur within project area. No Tuart Woodlands are mapped.
Threatened and priority flora				Mapping layer not available.
Fauna habitat listed under the EPBC Act		✓	✓	Potential Quenda habitat is mapped as occurring in the northeast of the project area, and in adjacent areas. With respect to Carnaby's Black Cockatoo, the project area (and adjacent areas) is mapped as containing: <ul style="list-style-type: none"> <li>possible breeding areas</li> <li>confirmed roosting areas</li> <li>potential feeding areas.</li> </ul>
Threatened and priority fauna				Mapping layer not available.
Bush Forever Site	✓			N/A.
DBCA managed lands and waters (includes legislated lands)	✓			N/A.



Environmental value	Not mapped as occurring within or adjacent to the project area	Mapped as occurring within or adjacent to the project area		Description
		Within	Adjacent	
and waters and lands of interest)				
Conservation covenants	✓			N/A.

## 2.2 Revegetation / Landscape Plans

No revegetation is proposed as part of the proposal. Any landscaping proposed will consist of low threat and managed gardens in accordance with AS 3959—2018 Clause 2.2.3.2 (f) and Schedule 1 of the Guidelines (refer to Appendix C) as demonstrated in the landscaping plan (refer to Appendix A). The landscaping plan identifies planting of small shade trees, shrubs, low shrubs and groundcovers within narrow cells around the perimeter of the proposed development. Strategen-JBS&G considers the proposed landscaping to be low threat and excludable under Clause 2.2.3.2 (f) based on the following factors:

- proportion of low flammability groundcovers (i.e. native pigface)
- distance between shrubs
- completely mulched surface between shrubs
- ongoing management in low threat state including removal of dead plant material.

### 3. Bushfire assessment results

#### 3.1 Assessment inputs

##### 3.1.1 Vegetation classification

Strategen-JBS&G assessed classified vegetation and exclusions within the 150 m assessment area through on-ground verification on 26 February 2020 in accordance with AS 3959—2018 *Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2018) and the *Visual Guide for Bushfire Risk Assessment in Western Australia* (DoP 2016). Georeferenced site photos and a description of the vegetation classifications and exclusions are contained in Appendix B and depicted in Figure 3.

Regional vegetation surveys and mapping of the Swan Coastal Plain indicate that intact native vegetation east and southeast of the project area is contained within the Bassendean Complex – Central and South. This vegetation complex is described as:

- Vegetation ranges from woodland of jarrah (*Eucalyptus marginata*) – WA sheoak (*Allocasuarina fraseriana*) – banksia (*Banksia* spp.) to low woodland of paperbark (*Melaleuca* spp.) and sedgelands on the moister sites. This area includes the transition of jarrah (*Eucalyptus marginata*) to coastal blackbutt (*Eucalyptus todtiana*) in the vicinity of Perth.

Some indicator species identified in the Bassendean Complex – Central and South were identified within intact remnant vegetation and previously parkland cleared land during the site investigation. Classified vegetation identified within the project area and adjacent 150 m assessment area includes the following:

- Class A forest: forest vegetation to the southeast within Lot 132 is dominated by banksia and sheoak with a shrubby understorey and jarrah overstorey
- Class B woodland: woodland vegetation on-site and within Lot 202 which was previously parkland cleared
- Class D scrub: scrub vegetation to the east within Lot 3 is dominated by teatree thicket with sparse banksia, introduced scrub species within Lot 2 and acacia, banksia and sheoak within Lot 157/Furnissdale Road reserve.
- Class G grassland: unmanaged grassland vegetation on-site and managed grassland vegetation within surrounding special rural lots which is not required to be managed in perpetuity under the Shire's firebreak notice.

Exclusions identified within the project area and adjacent 150 m assessment area include the following:

- Clause 2.2.3.2 (e): non-vegetated areas (i.e. buildings, roads, mulched road verges, mineral earth firebreaks, driveways, carparks)
- Clause 2.2.3.2 (f): low threat vegetation (i.e. manicured lawns, managed gardens, slashed road verges).

Post-development vegetation classifications and exclusions depicted in Figure 3 will be achieved through clearing within the project area and APZs, which will modify on-site woodland vegetation to a low threat state (i.e. excluded under Clauses 2.2.3.2 (e) and (f)).

##### 3.1.2 Effective slope

Strategen-JBS&G assessed effective slope under classified vegetation within the 150 m assessment area through on-ground verification on 26 February 2020 in accordance with AS 3959. Results were cross-referenced with DPIRD 2 m contour data and are depicted in Figure 4.

Site observations indicate that land within the project area and adjacent 150 m assessment area is predominantly flat. All classified vegetation has therefore been assigned an effective slope of flat/upslope (see Table 2).

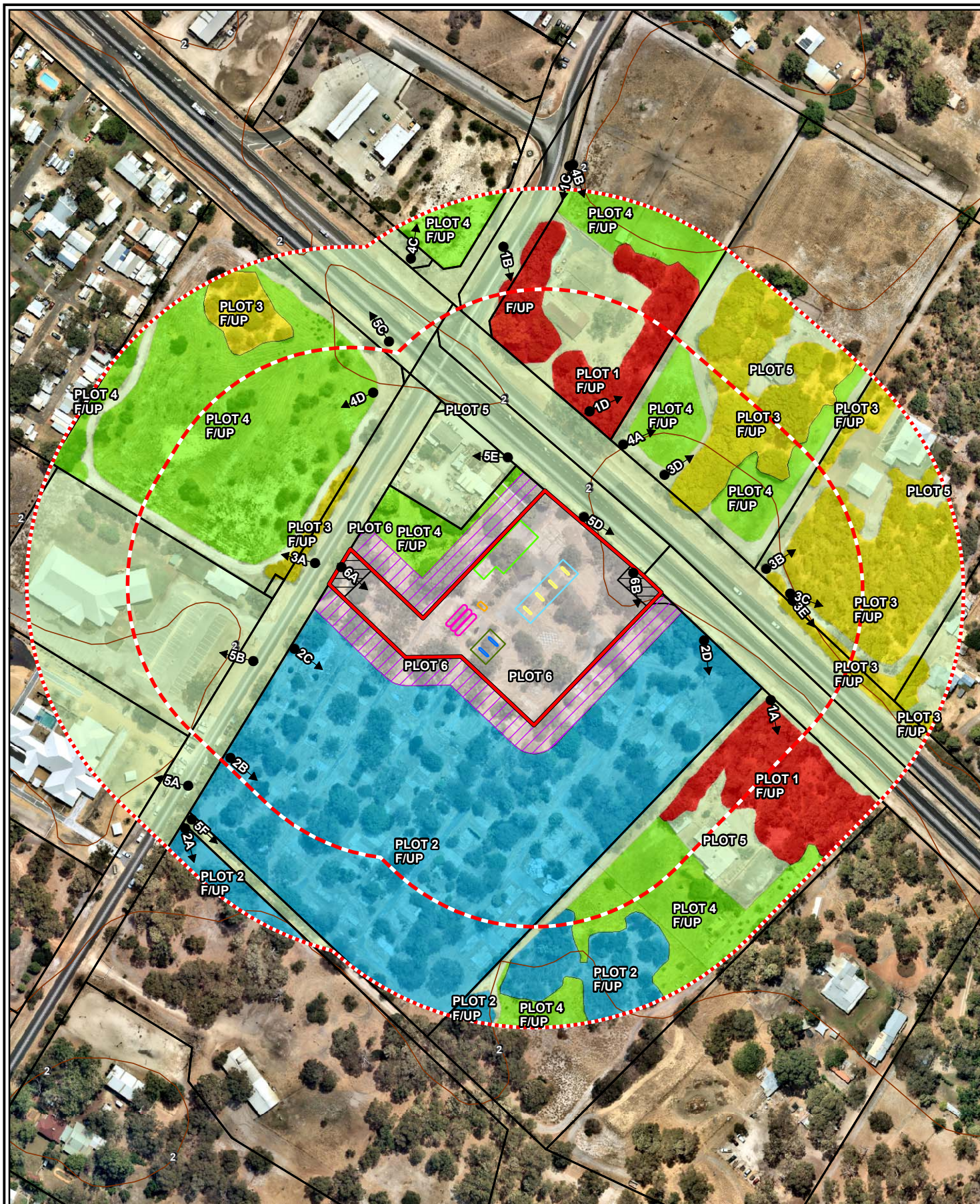
### 3.1.3 Summary of inputs

Figure 4 illustrates the anticipated post-development vegetation classifications and exclusions following completion of development works and associated clearing and implementation of low threat landscaping/APZs throughout the project area and adjacent 150 m. The post-development vegetation classifications/exclusions and effective slope are summarised in Table 2.

**Table 2: Summary of post-development vegetation classifications, exclusions and effective slope**

Vegetation plot	Vegetation classification	Effective slope	Comments
1	Class A forest	Flat/upslope (0°)	Forest vegetation dominated by banksia and sheoak with a multi-tiered fuel structure including a shrubby understorey, scrub mid-storey and jarrah overstorey.
2	Class B Woodland	Flat/upslope (0°)	Woodland vegetation dominated by sparse eucalypts with a grassy understorey and lacking a shrubby middle layer. Understorey regrowth on-site is limited given the remnant caravan park infrastructure (i.e. network of bitumen driveways and paved hardstands).
3	Class D Scrub	Flat/upslope (0°)	Scrub vegetation predominantly 2-6 m in height dominated in some areas by teatree thicket with sparse banksia, and by introduced scrub species and remnant acacia in other areas.
4	Class G Grassland	Flat/upslope (0°)	Unmanaged grassland vegetation on-site and managed grassland vegetation within surrounding special rural lots which is not required to be managed in perpetuity under the Shire's firebreak notice.
5	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	Non-vegetated areas (i.e. buildings, roads, mulched road verges, mineral earth firebreaks, driveways, carparks) and low threat vegetation (i.e. manicured lawns, managed gardens, slashed road verges).
6	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	Area to be modified to a low threat state.





<p><b>Legend</b></p> <p><span style="border: 2px solid red; padding: 2px;"> </span> Project area</p> <p><span style="border: 2px dashed red; padding: 2px;"> </span> 100m assessment area</p> <p><span style="border: 2px dotted red; padding: 2px;"> </span> 150m assessment area</p> <p><span style="border: 1px solid black; padding: 2px;"> </span> Cadastral boundary</p> <p><span style="border: 1px solid pink; padding: 2px;"> </span> 14m wide APZ</p> <p><b>Vegetation classification</b></p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: red; border: 1px solid black;"></span> Class A Forest</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: blue; border: 1px solid black;"></span> Class B Woodland</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; border: 1px solid black;"></span> Class D Scrub</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: green; border: 1px solid black;"></span> Class G Grassland</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: lightgreen; border: 1px solid black;"></span> Excluded under Clauses 2.2.3.2 (e) &amp; (f)</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: lightgrey; border: 1px solid black;"></span> Area to be modified to a low threat state</p>	<p><span style="display: inline-block; width: 15px; height: 15px; background-color: lightblue; border: 1px solid black;"></span> Car fuel canopy</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: white; border: 1px solid black;"></span> Crossover</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: white; border: 1px solid black;"></span> Indicative future access</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: yellow; border: 1px solid black;"></span> Proposed car dispensers</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: green; border: 1px solid black;"></span> Proposed convenience</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: blue; border: 1px solid black;"></span> Proposed truck dispensers</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: orange; border: 1px solid black;"></span> Proposed underground LPG tank</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: pink; border: 1px solid black;"></span> Proposed underground fuel tanks</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: white; border: 1px solid black;"></span> Truck fuel canopy</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: black; border: 1px solid black;"></span> Photo point and direction</p> <p><span style="display: inline-block; width: 15px; height: 15px; background-color: brown; border: 1px solid black;"></span> Topographic contours (mAHd)</p>	<p>Scale 1:2,500 at A4</p> <p>Coord. Sys. GDA 1994 MGA Zone 50</p> <p>Job No: 58305</p> <p>Client: Yolk Property Group</p> <p>Version: A</p> <p>Drawn By: cthatcher</p> <p>0 30 60 metres</p> <p></p> <p>Date: 06-Apr-2020</p> <p>Checked By: BM</p>	<p><b>Lot 137, Furnissdale, WA</b></p> <p><b>VEGETATION CLASSIFICATION AND EFFECTIVE SLOPE</b></p> <p><b>FIGURE 3</b></p> <p></p>
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## 3.2 Assessment outputs

### 3.2.1 Bushfire Attack Level (BAL) contour assessment

Strategen-JBS&G has undertaken a BAL contour assessment in accordance with Method 1 of AS 3959 for the project area (Figure 4). The Method 1 procedure incorporates the following factors:

- state-adopted FDI 80 rating
- vegetation classification
- effective slope
- distance maintained between proposed development areas and the classified vegetation.

The BAL rating gives an indication of the level of bushfire attack (i.e. the radiant heat flux) that may be received by proposed future development and subsequently informs the standard of building construction and/or setbacks required for proposed habitable development to potentially withstand such impacts.

The BAL contours are based on:

- the post-development vegetation classifications and effective slope observed at the time of inspection as well as consideration of the proposed on-site clearing extent, resultant vegetation exclusions and separation distances achieved in line with the site plan
- implementation and maintenance of the paved and low threat landscaped portions of the project area in accordance with the site plan (see Figure 4) and landscaping plan (see Appendix A) to achieve exclusion under Clauses 2.2.3.2 (e) and (f).
- implementation and maintenance of the proposed 14 m wide APZs in accordance with Schedule 1 of the Guidelines (see Appendix C) as depicted in Figure 4.

The external APZ is discussed further in Table 4 and Section 5.2. Should there be any changes in development design or classified vegetation extent that results in a modified BAL outcome, then the BAL contours will need to be reassessed.

Results of the BAL contour assessment are detailed in Table 3 and illustrated in Figure 4. The highest BAL initially applicable to the project area boundary is BAL-FZ. However, through implementation of APZs, the highest BAL to the project area boundary is BAL-29 and the highest BAL applicable to the proposed habitable building is BAL-19.

**Table 3: BAL contour assessment results**

Method 1 BAL determination				
Plot	Vegetation classification	Effective slope	BAL contour width	Highest BAL (to project area boundary)
1	Class A Forest	Flat/upslope (0°)	42-<100 m	BAL-12.5
2	Class B Woodland	Flat/upslope (0°)	14-<20 m	BAL-29
3	Class D Scrub	Flat/upslope (0°)	13-<19 m	BAL-29
4	Class G Grassland	Flat/upslope (0°)	12-<17 m	BAL-19
5	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	N/A	N/A
6	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	N/A	N/A

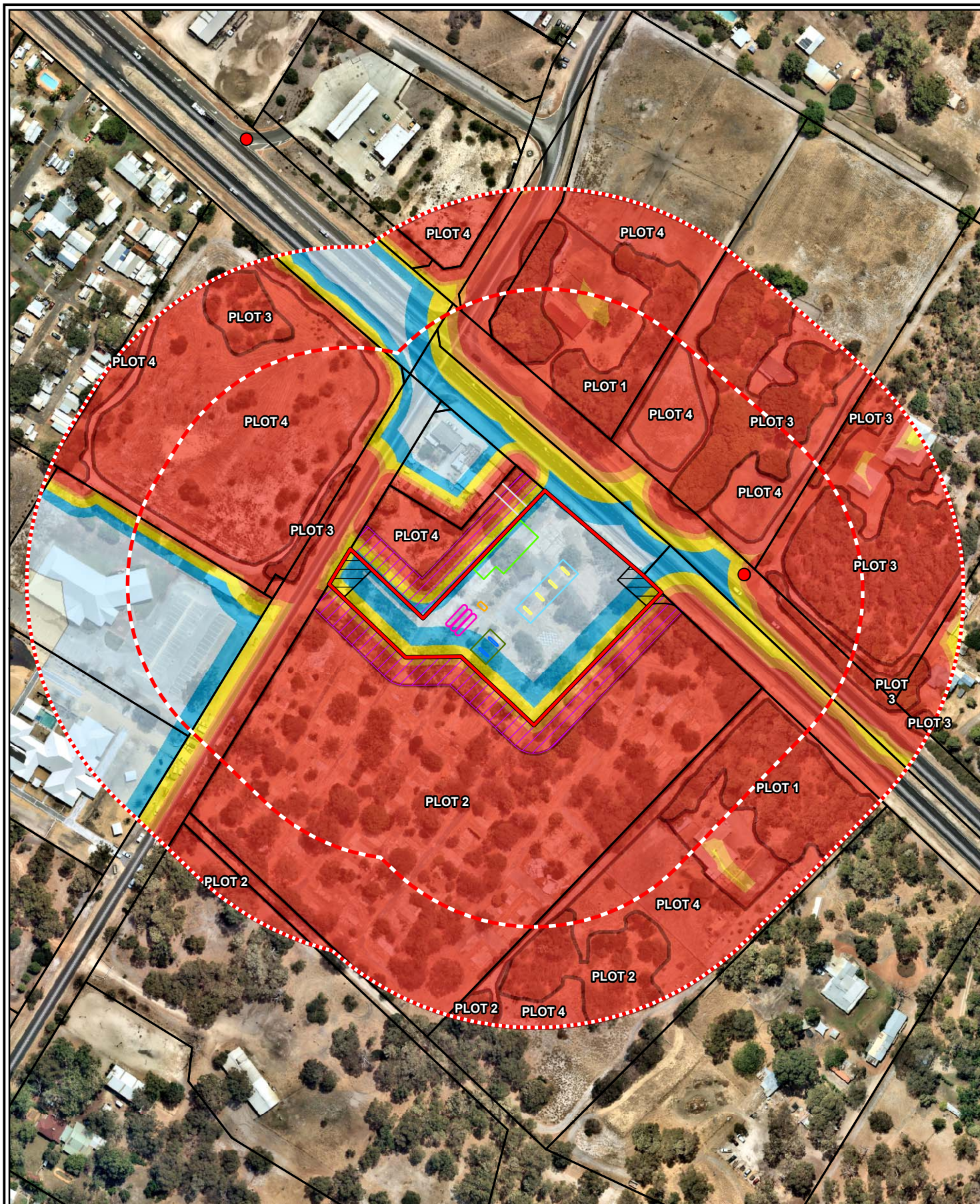
Table 4 lists the BAL applicable to each building or element within the proposed development.

**Table 4: BAL applicable to each building/element**

Building / element	Initial BAL	Proposed separation	Revised BAL
Convenience building (habitable building)	BAL-FZ	15.5 m to Class G grassland (14 m wide APZ and 1.5 m paved setback from project area boundary)	BAL-19

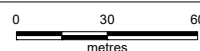
Building / element	Initial BAL	Proposed separation	Revised BAL
Underground fuel tank farm (3 tanks)	BAL-FZ	N/A – BAL assessment does not apply to underground infrastructure.	N/A
Underground LPG tank	BAL-FZ	N/A – BAL assessment does not apply to underground infrastructure.	N/A
Car canopy dispensers	BAL-FZ	53 m to Class B woodland (14 m wide APZ and 39 m paved setback from project area boundary)	BAL-12.5
Truck canopy and fuel dispensers	BAL-FZ	24 m to Class B woodland (14 m wide APZ and 10 m paved setback from project area boundary)	BAL-29





- Project area
- 100m assessment area
- 150m assessment area
- Cadastral boundary
- Classified vegetation
- BAL contours**
- BAL FZ
- BAL 40
- BAL 29
- BAL 19
- BAL 12.5
- BAL LOW
- 14m wide APZ
- Car fuel canopy
- Crossover
- Indicative future access
- Proposed car dispensers
- Proposed convenience
- Proposed truck dispensers
- Proposed underground LPG tank
- Proposed underground fuel tanks
- Truck fuel canopy
- Existing water hydrants
- Roads (MRWA)

Scale 1:2,500 at A4



Coord. Sys. GDA 1994 MGA Zone 50



Job No: 58305

Client: Yolk Property Group

Version: A

Date: 06-Apr-2020

Drawn By: cthatcher

Checked By: CT

Lot 137, Furnissdale, WA

BAL CONTOUR MAP

FIGURE 4





## **4. Identification of bushfire hazard issues**

### **4.1 Bushfire context**

The greatest threat to the proposed development is from on-site woodland vegetation, and forest vegetation retained within nearby special rural properties. Separation to the forest vegetation is provided by lower fuel / fragmented woodland vegetation within Lot 137 to the east and the low threat Pinjarra Road reserve to the north. Pinjarra Road forms a permanent and substantial buffer to the proposed development from forest vegetation north of Pinjarra Road. Impacts from forest vegetation within Lot 132 are limited as on-site fuel accumulation and regrowth are restricted by a network of bitumen private driveways / paved hardstands, which will not enable on-site woodland vegetation to mature into a forest fuel structure.

Separation to on-site woodland vegetation will be provided by 14 m wide APZs, which will be implemented within directly adjacent portions of the subject lot. Vegetation within the remainder of the 150 m assessment area, and throughout the surrounding Furnissdale landscape, comprises predominantly woodland and scrub vegetation interspersed between areas of managed and unmanaged grassland. This vegetation is linked with on-site woodland vegetation and has the potential to support fire runs of over 1 km. However, fire behaviour within the landscape has limited potential to escalate over the course of the fire run as there are a number of roads, firebreaks and well-maintained properties that fragment understorey fuels and will reduce the intensity of a bushfire. Notwithstanding, bushfire behaviour has the potential to impact project area with radiant heat and ember attack.

### **4.2 Bushfire hazard issues**

It is acknowledged that the bushfire risk to the proposed development posed by the hazards identified in Section 4.1 can be managed through standard application of acceptable solutions under the Guidelines and AS 3959, as well as through a direct bushfire suppression response if required. Bushfire mitigation strategies applicable to the proposed development are discussed below:

1. Initial BAL-40/FZ impacts within the project area are to be addressed through implementation of a paved surface and low threat landscaping over the project area and 14 m wide APZs within directly adjacent portions of Lot 137. This will achieve BAL-29 or lower for the entire project area, including the proposed habitable building.
2. The proposed development will be serviced by the existing public road network with proposed crossovers to Pinjarra Road and Furnissdale Road, which will provide future occupants with two access routes to two different destinations.
3. The proposed development will be serviced by an emergency water supply in the form of existing reticulated town main supply with street hydrants along Pinjarra Road (see Figure 4).

A compliance assessment against the bushfire protection criteria of the Guidelines is provided in Section 5.1 of this BMP to further demonstrate application of the above measures in accordance with Guideline acceptable solutions.

## 5. Assessment against the bushfire protection criteria

### 5.1 Compliance table

An acceptable solutions assessment against the bushfire protection criteria is provided in Table 5.

**Table 5: Compliance with the bushfire protection criteria of the Guidelines**

Bushfire protection criteria	Method of compliance Acceptable solutions	Proposed bushfire management strategies
Element 1: Location	A1.1 Development location	The BAL contour map (Figure 4) indicates that all proposed lots can achieve BAL-29 or lower.
Element 2: Siting and design	A2.1 Asset Protection Zone	On completion of development, the entire project area is to be paved, landscaped and maintained in a low threat state as an APZ in accordance with Schedule 1 of the Guidelines (refer to Appendix C) and Clause 2.2.3.2 (f) as per the landscaping plan (see Appendix A). In order to provide sufficient separation from unmanaged woodland vegetation within the remainder of Lot 137, 14 m wide APZs are proposed to extend north and south of the project area (see Figure 4). Implementation and maintenance of the 14 m wide APZs will be sufficient to ensure the entire project area is subject to BAL-29 or lower. The proposed APZs are to be implemented and maintained APZ in accordance with Schedule 1 of the Guidelines (refer to Appendix C).
Element 3: Vehicular access	A3.1 Two access routes	A combination of existing perimeter roads (i.e. Pinjarra Road and Furnissdale Road), two proposed crossovers to Pinjarra Road and Furnissdale Road and the proposed trafficable surface of the project area will provide all occupants with the option of travelling to more than two different destinations (see Figure 4). In this regard, the proposed development is provided with two access routes which meets the requirements of Acceptable Solution A3.1 (see Appendix D).
	A3.2 Public road	N/A – no public roads are proposed as part of the development.
	A3.3 Cul-de-sac (including a dead-end-road)	N/A – no cul-de-sacs are proposed as part of the development and the project area is not serviced by an existing cul-de-sac.
	A3.4 Battle-axe	N/A – no battle-axes are proposed as part of the development and the project area is not serviced by an existing battle-axe.
	A3.5 Private driveway longer than 50 m	N/A – the proposed habitable building (convenience building) will be located within 50 m of a public road (i.e. Pinjarra Road). The project area will be serviced by crossovers from Pinjarra Road and Furnissdale Road and a predominantly paved surface which enables fire appliances to safely turn around and exceeds the requirements of the Guidelines for private driveways (see Appendix D).
	A3.6 Emergency access way	N/A – the proposed development does not require Emergency Access Ways (EAWs) to provide through access to a public road.
	A3.7 Fire service access routes (perimeter roads)	N/A – the proposed development does not require fire service access routes (FSARs) to achieve access within and around the perimeter of the project area.
	A3.8 Firebreak width	Lot boundary firebreaks that are 3 m wide, with 4.5 m vertical clearance, are required to be installed and maintained within Lot 137 in accordance with the Shire of Murray annual firebreak notice as amended (see Appendix F). Gates sufficient in width to allow type 3.4 fire appliances to enter will need to be installed along the perimeter fencing of Lot 137 to ensure fire appliances can access the remainder of the subject lot.
Element 4: Water	A4.1 Reticulated areas	The proposed development will be connected to reticulated water supply via extension of existing services from adjacent development in accordance with Water Corporations Design Standard 63 requirements (refer to Appendix D). Figure 4 depicts the existing street hydrants along Pinjarra Road.



Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
	A4.2 Non-reticulated areas	N/A – the proposed development is located within an existing reticulated area.
	A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively)	N/A – the proposed development is located within an existing reticulated area.

## **5.2 Additional management strategies**

Strategen-JBS&G makes the following additional bushfire management recommendations to inform ongoing planning stages of the development and increase the level of bushfire risk mitigation across the site.

### **5.2.1 Road verge fuel management**

Existing and proposed road verges that have been excluded as low threat are to be managed to ensure the understorey and surface fuels remain in a low threat, minimal fuel condition in accordance with Clause 2.2.3.2 (f) of AS 3959. Ongoing road verge management is the responsibility of the Shire.

### **5.2.2 Building construction standards**

The proposed development does not include any Class 1, 2, or 3 residential buildings and associated Class 10a structures, and as such, there is no statutory requirement for proposed buildings to meet the construction requirements of AS 3959. It is recommended, however, that where practical, non-residential habitable buildings also adopt bushfire construction measures relevant to the assessed BAL rating.

### **5.2.3 High-risk land uses**

The proposed development constitutes a high-risk land use. On this basis, a Bushfire Risk Management Plan (BRMP) has been prepared to address the requirements of Policy Measure 6.6. The BRMP addresses bushfire risk management measures for flammable on-site hazards associated with the fuel storage component of the proposed development. The BRMP demonstrates that the risk associated with the proposed development is manageable.

### **5.2.4 Compliance with annual firebreak notice**

The developer/land manager and prospective land purchasers are to comply with the current Shire of Murray annual firebreak notice as amended (refer to Appendix F).

The project area is zoned 'Commercial' and the remainder of Lot 137 is zoned 'Service Commercial', which are required to meet the following requirements of the Shire's firebreak notice:

1. Where the area of land is more than 4001m<sup>2</sup> in size, a three (3) metre wide firebreak shall be installed and maintained immediately inside all external boundaries of the land and also immediately surrounding all buildings situated on the land.
2. A four (4) metre wide private driveway is to be installed and maintained.
3. An Asset Protection Zone is to be installed and maintained.

The Shire of Murray annual firebreak notice also requires that for properties subject to a BMP, compliance with all requirements of the BMP are required in addition to any further requirements of the firebreak notice.

## 6. Responsibilities for implementation and management of the bushfire measures

Implementation of the BMP applies to the developer, prospective landowners and the Shire to ensure bushfire management measures are adopted and implemented on an ongoing basis. A bushfire responsibilities table is provided in Table 6 to drive implementation of all bushfire management works associated with this BMP.

**Table 6: Responsibilities for implementation and management of the bushfire measures**

Implementation/management table	
Developer – prior to occupation of buildings	
No.	Implementation action
1	Establish low threat landscaping as per Clause 2.2.3.2 (f) across the project area in accordance with the landscaping plan.
2	Establish the APZs to the dimensions and standard stated in this BMP.
3	Construct the proposed paved extent within the project area and crossovers to Pinjarra Road and Furnissdale Road to the standards stated in this BMP.
4	Implement all management measures proposed within the Strategen-JBS&G (2020) BRMP.
5	Construct lot boundary firebreaks within Lot 137 as per the Shire of Murray annual firebreak notice.
Landowner/occupier – ongoing	
No.	Implementation action
1	Maintain landscaping in a low threat state as per Clause 2.2.3.2 (f) through spraying of weeds
2	Maintain the APZs to the dimensions and standards stated in the BMP.
3	Comply with all management measures proposed within the Strategen-JBS&G (2020) BRMP.
4	Comply with the Shire of Murray annual firebreak notice as amended.
Local government – ongoing management	
No.	Implementation action
1	Maintain verges excluded from classification in a low threat minimal fuel condition as per Clause 2.2.3.2 (f) of AS 3959.



## 7. References

Department of Fire and Emergency Services (DFES) 2019, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: <https://maps.slp.wa.gov.au/landgate/bushfireprone/> , [31/03/2020].

Department of Planning (DoP) 2016, *Visual guide for bushfire risk assessment in Western Australia*, Department of Planning, Perth.

Standards Australia (SA) 2018, *Australian Standard AS 3959–2018 Construction of Buildings in Bushfire-prone Areas*, Standards Australia, Sydney.

Strategen-JBS&G 2020, *Bushfire Risk Management Plan: Lot 137 (630) Pinjarra Road, Furnissdale*, Strategen-JBS&G, Bunbury/Perth.

Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire Prone Areas*, Western Australian Planning Commission, Perth.

Western Australian Planning Commission (WAPC) 2017, *Guidelines for Planning in Bushfire Prone Areas*, Version 1.3 August 2017, Western Australian Planning Commission, Perth.

## **8. Limitations**

### **Scope of services**

This report ("the report") has been prepared by Strategen-JBS&G in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen-JBS&G. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

### **Reliance on data**

In preparing the report, Strategen-JBS&G has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen-JBS&G has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen-JBS&G has also not attempted to determine whether any material matter has been omitted from the data. Strategen-JBS&G will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen-JBS&G. The making of any assumption does not imply that Strategen-JBS&G has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. Strategen-JBS&G disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

### **Environmental conclusions**

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

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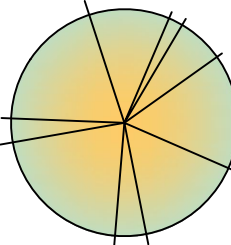
## Appendix A Landscaping plan



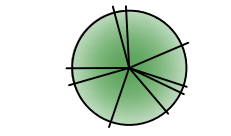


SITE PLAN  
SCALE 1:250 @ A1

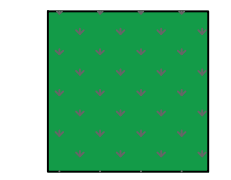
**LEGEND**



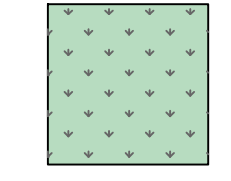
SMALL SHADE TREE  
ACCA SELLOWIANA  
'PINEAPPLE GUAVA'  
HEIGHT 2.5-3m  
SPREAD 2.5-3m




SHRUB  
CRATYSTYLIS CONOCEPHALA  
'BLUEBUSH DAISY'  
HEIGHT 1-1.8m  
SPREAD 1-2m



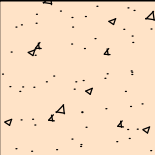
LOW SHRUB  
CALLISTEMON CITRINUS 'WHITE ANZAC'  
HEIGHT 0.5-1m  
SPREAD UP TO 3m  
PLANTED @ 3m CENTRES WITH 75MM MULCH COVER




GROUND COVER  
CARPOBROTUS ROSSII  
(NATIVE PIGFACE)  
SIZE: 0.3m HIGH 2m SPREAD  
PLANTED @ 1.5m CENTRES  
WITH 75MM MULCH COVER



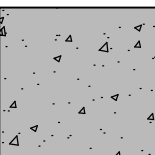
LOW SHRUB  
EREMOPHILA WELDII  
'PURPLE EMU BUSH'  
SIZE: 1.3m HIGH 1.5m SPREAD  
PLANTED @ 1.5m CENTRES  
WITH 75MM MULCH COVER



PROPOSED FOOTPATH  
CONCRETE PAVING



PROPOSED ASPHALT



BLACK OXIDE FINISH  
CONCRETE

A	ISSUED FOR DEVELOPMENT APPROVAL	MS	NP	18.12.2019
revision/ issue	description	drawn	checked	date
project	PROPOSED UNITED SERVICE STATION	drawn	description	
location	FURNISSDALE W.A.	MS	PROPOSED LANDSCAPING PLAN	
		checked	NP	
scale	1:250	date	11.12.2019	
dwg no	125.19	project no	SK13	
rev	A	dwg no		

Hodge Collard Preston

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## Appendix B Vegetation plot photos and description



Photo ID: 1a



Photo ID: 1c

Plot number

Vegetation classification

Pre-development

Post-development

Description / justification



Photo ID: 1b



Photo ID: 1d

Plot 1

Class A Forest

Class A Forest

Forest vegetation dominated by banksia and sheoak with a multi-tiered fuel structure including a shrubby understorey, scrub mid-storey and jarrah overstorey.





Photo ID: 2a



Photo ID: 2c

Plot number

Vegetation classification

Pre-development

Post-development

Description / justification



Photo ID: 2b



Photo ID: 2d

Plot 2

Class B Woodland

Class B Woodland

Woodland vegetation dominated by sparse eucalypts with a grassy understorey and lacking a shrubby middle layer. Understorey regrowth on-site is limited given the remnant caravan park infrastructure (i.e. network of bitumen driveways and paved hardstands).





Photo ID: 3a



Photo ID: 3b



Photo ID: 3c



Photo ID: 3d



Photo ID: 3e

Plot number	Plot 3	
Vegetation classification	Pre-development	Class D Scrub
	Post-development	Class D Scrub
Description / justification		Scrub vegetation predominantly 2-6 m in height dominated in some areas by teatree thicket with sparse banksia, and by introduced scrub species and remnant acacia in other areas.



Photo ID: 4a



Photo ID: 4b



Photo ID: 4c



Photo ID: 4d

Plot number	Plot 4	
Vegetation classification	Pre-development	Combination of Class G grassland and excluded – Low threat (Clause 2.2.3.2 [f])
	Post-development	Class G Grassland
Description / justification		Unmanaged grassland vegetation on-site and managed grassland vegetation within surrounding special rural lots which is not required to be managed in perpetuity under the Shire's firebreak notice.





Photo ID: 5a



Photo ID: 5b



Photo ID: 5c



Photo ID: 5d



Photo ID: 5e



Photo ID: 5f

Plot number		Plot 5
Vegetation classification	Pre-development	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])
	Post-development	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])
Description / justification		Non-vegetated areas (i.e. buildings, roads, mulched road verges, mineral earth firebreaks, driveways, carparks) and low threat vegetation (i.e. manicured lawns, managed gardens, slashed road verges).





Photo ID: 6a



Photo ID: 6b

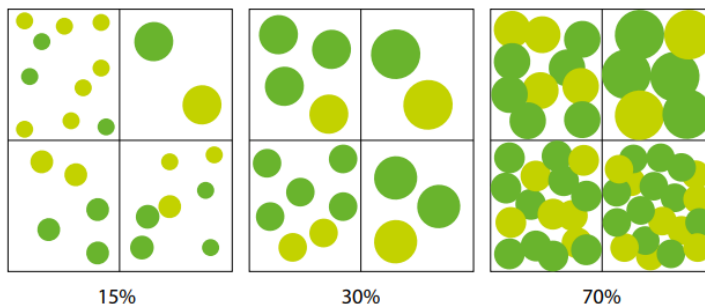
Plot number		Plot 6
Vegetation classification	Pre-development	Class B Woodland
	Post-development	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])
Description / justification		Area to be modified to a low threat state.

## **Appendix C APZ standards (Schedule 1 of the Guidelines)**



#### Schedule 1: Standards for Asset Protection Zones

- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

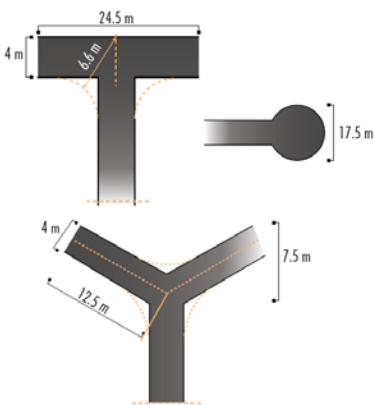


- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m<sup>2</sup> in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

## **Appendix D Vehicular access technical standards of the Guidelines**

Two access routes	
Acceptable solution A3.1	Two different vehicular access routes are provided, both of which connect to the public road network, provide safe access and egress to two different destinations and are available to all residents/the public at all times and under all weather conditions.
Explanatory note E3.1	<p>Two access routes:</p> <p>It is essential that residents and the community, as well as emergency services, have safe access and egress from both the subdivision and individual houses/development. It is the developer's responsibility, as part of the Bushfire Hazard Level assessment, to ensure that subdivision and development design allow for bushfire protection criteria to be met regarding driveways and turnaround areas at house sites.</p> <p>It is also necessary that the public have two safe access options leading to two different destinations that can withstand all weather conditions. This applies to access routes leading into a subdivision, as well as those within a subdivision. This acceptable solution allows for the situation if a vehicular access/egress route to a subdivision or lot becomes blocked during a fire then there is an alternative vehicular access/egress route which provides access to a different destination. Accordingly, road widening in lieu of providing two different access routes should not be supported. All access should be suitable to accommodate type 3.4 fire appliances (i.e. fire trucks with a four-wheel-drive 7-tonne chassis).</p> <p>Two-way access should be provided as a public road; however, where a public road cannot be provided, (this will need to be demonstrated by the proponent providing justification for why this cannot be achieved) an emergency access way may be considered</p>



Private driveway longer than 50 metres	
Acceptable solution A3.5	<p>A private driveway is to meet all of the following requirements:</p> <ul style="list-style-type: none"> <li>• Requirements in Table 1, Column 3</li> <li>• Required where a house site is more than 50 metres from a public road</li> <li>• Passing bays: every 200 metres with a minimum length of 20 metres and a minimum width of two metres (i.e. the combined width of the passing bay and constructed private driveway to be a minimum six metres)</li> <li>• Turn-around areas designed to accommodate type 3.4 fire appliances and to enable them to turn around safely every 500 metres (i.e. kerb to kerb 17.5 metres) and within 50 metres of a house</li> <li>• Any bridges or culverts are able to support a minimum weight capacity of 15 tonnes</li> <li>• All-weather surface (i.e. compacted gravel, limestone or sealed).</li> </ul>
Explanatory note E3.5	<p>For a driveway shorter than 50 metres, fire appliances typically operate from the street frontage however where the distance exceeds 50 metres, then fire appliances will need to gain access along the driveway in order to defend the property during a bushfire. Where house sites are more than 50 metres from a public road, access to individual houses and turnaround areas should be available for both conventional two-wheel drive vehicles of residents and type 3.4 fire appliances.</p> <p>Turn-around areas should be located within 50 metres of a house. Passing bays should be available where driveways are longer than 200 metres and turn-around areas in driveways that are longer than 500 metres. Circular and loop driveway designs may also be considered. These criteria should be addressed through subdivision design.</p> <p>Passing bays should be provided at 200 metre intervals along private driveways to allow two-way traffic. The passing bays should be a minimum length of 20 metres, with the combined width of the passing bay and the access being a minimum of six metres.</p> <p>Turn-around areas should allow type 3.4 fire appliances to turn around safely (i.e. kerb to kerb 17.5 metres) and should be available at the house sites and at 500 metre intervals along the driveway.</p> 

Technical requirement	1	2	3	4	5
	Public road	Cul-de-sac	Private driveway longer than 50 m	Emergency access way	Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal distance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 m	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius	8.5	8.5	8.5	8.5	8.5
* Refer to E3.2 Public roads: Trafficable surface					

## **Appendix E Water technical standards of the Guidelines**



Reticulated areas	
Acceptable solution A4.1	The subdivision, development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and Department of Fire and Emergency Services.
Explanatory note E4.1	Water supply authorities in Western Australia include the Water Corporation, Aqwest and the Busselton Water Board. The Water Corporation's 'No. 63 Water Reticulation Standard' is deemed to be the baseline criterion for developments and should be applied unless local water supply authorities' conditions apply.

## **Appendix F Shire of Murray annual firebreak notice**

# Firebreak Notice and Bushfire Information 2019 - 2020



**Report All Fires: Phone 000**



# Important Dates

## Restricted Burning Time One

### Permits Required

1 October – 30 November (inclusive)

**Permits:** Permit Issuing Officer—contact details page 5

## Fire Prevention Work Due

**Installed** on or before 30 November

**Maintained** up to and including 30 April

## Prohibited Burning Time

### Burning Prohibited

1 December – 31 March (inclusive)

## Restricted Burning Time Two

### Permits Required

1 April – 15 May (inclusive)

**Permits:** Permit Issuing Officer—contact details page 5

## Note

- Unseasonal weather conditions may necessitate a variation to the dates above.
- Burning is prohibited on days where the Fire Danger Rating is Very High or above and if either a Total Fire Ban/Harvest and Vehicle Movement Ban is declared.
- Prior to any burning, please advise the Department of Fire and Emergency Services' Communication Centre on 08 9395 9209 as well as a Permit Issuing Officer (page 5).
- Please monitor the Shire's website [murray.wa.gov.au](http://murray.wa.gov.au) or contact the Shire's Ranger and Emergency Services on 08 9531 7777.

# Camping/Cooking/ Garden Refuse

## Outdoor Cooking

### Gas and Electric Barbeques

Permitted at any time.

### Solid Fuel Barbecues, Spit Roasts, Webers, Pizza Ovens and Other Cooking Fires

#### Prohibited Burning Time:

- ✗ Prohibited at all times.

#### Restricted Burning Times:

- ✗ Prohibited when the Fire Danger Rating is Very High or above, or when a Total Fire Ban has been declared.
- ✓ Permitted at all other times, if constructed in a way which prevents the escape of sparks or burning material and is within a three (3) metre fuel free zone.
- ✓ Somebody must be in attendance at all times and a means of extinguishing the fire must be on hand.

## Burning of Garden Refuse or Rubbish

Includes incinerators and on the ground.

#### Prohibited Burning Time:

- ✗ Prohibited at all times.

#### Restricted Burning Times:

- ✗ Prohibited on land < 4000m<sup>2</sup>.
- ✗ Prohibited when the Fire Danger Rating is Very High or above or if a Total Fire Ban has been declared.
- ✓ Permitted at all other times on land ≥ 4000m<sup>2</sup>: One small heap (up to one (1) cubic metre) may be burnt on the ground, without a 'Permit to Set Fire to the Bush', between 6:00pm and 11:00pm but only if it is completely extinguished before midnight on the same day, a five (5) metre firebreak has been cleared and at least one able bodied person remains in attendance.

The Shire of Murray Health Local Law prohibits the burning of the following materials which cause the generation of smoke or odour in such quantities as to cause a nuisance to other persons:

- ✗ Plastic
- ✗ Rubber
- ✗ Food scraps
- ✗ Green garden materials



## Smoke Management

### Considerations prior to burning:

- Weather conditions—Always check with the Bureau of Meteorology for haze alerts and weather conditions in your area.
- Tell your neighbours—Give sufficient notice of your intention to burn to ensure adequate preparation time especially for relocating any persons with respiratory issues.
- Condition of refuse—Only burn dry dead material to minimise the amount of smoke produced.
- Control the load—Do not burn more than you can manage, commence with a smaller fire and gradually add more material.

Residents are encouraged to remove and dispose of potential flammable material—bush, garden rubbish or refuse, from their properties before the onset of summer.



Example of Dry Burn

## Permit to Burn

**During Restricted Burning Times, a Permit to Burn is required and is obtainable free of charge from:**

- Local Bush Fire Brigade Fire Control Officers
- Locality Permit Issuing Officer

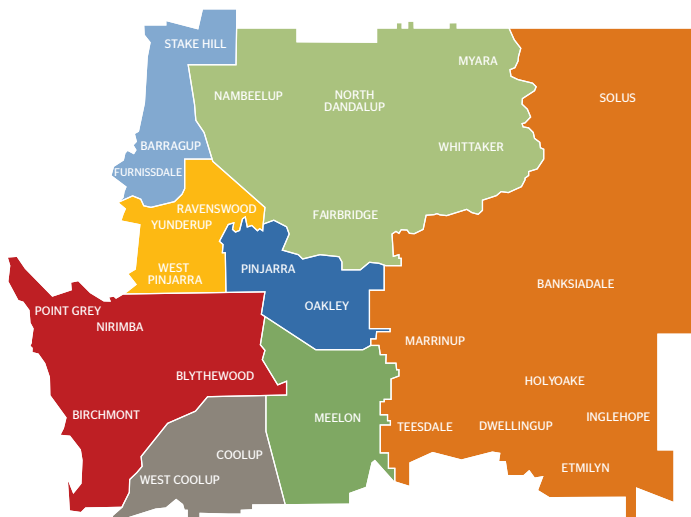
### Note:

- No permits are issued during the Prohibited Burning Time.
- Permits to Burn **will not** be issued in relation to properties < 4000m<sup>2</sup>.
- Permit holders are required to adhere to all conditions on the permit.
- Special conditions may apply.

Even when a Permit to Burn has been issued, **no fire is to be lit when the fire danger rating is Very High or above.**



# Permit Issuing Officer Contact Details



- Zone 1**    Jim Camplin | 0409 909 063  
                  Jamie McBride | 0409 114 641
  
- Zone 2**    Robert Wilson | 0417 916 468  
                  Christine Thompson | 0429 447 341  
                  Brian Bird | 0417 081 781
  
- Zone 3**    Peter Thurkle | 0427 882 201  
                  Michael Webster | 0439 920 882  
                  Brendan Webster | 0418 930 986  
                  Lorraine Webster | 0448 135 671
  
- Zone 4**    Kevin Jones | 0417 996 806
  
- Zone 5**    Ben Armstrong | 0429 777 500  
                  David Turner | 0427 775 914
  
- Zone 6**    Lance Pitter | 0438 246 500
  
- Zone 7**    Douglas McLarty | 0407 728 446
  
- Zone 8**    Chris Sattler | 0428 625 066

# Stay Informed



EmergencyWA

[emergency.wa.gov.au](https://emergency.wa.gov.au)

## Total Fire Bans

- Total Fire Ban Information Line 1800 709 355
- [dfes.wa.gov.au](https://dfes.wa.gov.au)
- [emergency.wa.gov.au](https://emergency.wa.gov.au)
- ABC720AM Local Radio



## Harvest and Vehicle Movement Bans

- Shire of Murray  
08 9531 7777
- ABC720AM Local Radio
- Local Fire Control Officer

## SMS Alerts

Broadcast of local Harvest and Vehicle Movement Bans, Total Fire Bans and other information:

**Email:** [mailbag@murray.wa.gov.au](mailto:mailbag@murray.wa.gov.au)

### Please note:

SMS alerts do not include alerts about fires or other emergencies.



# Fire Danger Ratings

It is important to keep abreast of an area's Fire Danger Rating (FDR), monitor local conditions and keep informed.

Understanding the FDR categories will help inform decisions about what to do if a bushfire starts.

## What is a Fire Danger Rating?

The FDR is based on the forecast weather conditions and offers advice about the level of bushfire threat on a particular day. When the rating is High, the threat of a bushfire increases.

If the FDR is Extreme or Catastrophic residents should leave the day or hours before a fire might threaten, as this is the best option for survival.

### Shire of Murray Fire Weather District

- Lower West Coast
- Lower West Inland

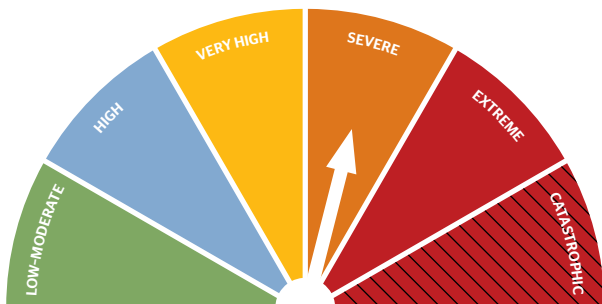


### Daily Fire Danger Rating (FDR)

- [dfes.wa.gov.au](https://dfes.wa.gov.au)
- [bom.gov.au/wa](https://bom.gov.au/wa)
- [emergency.wa.gov.au](https://emergency.wa.gov.au)



# Understanding Fire Danger Ratings



## **CATASTROPHIC**

**100+**

Total Fire Bans will be declared. Some fires will be unpredictable, difficult to control and fast moving. A well prepared, well constructed and actively defended home may not survive a fire.

## **EXTREME**

**75-99**

Total Fire Bans will be declared. Some fires will be unpredictable, difficult to control and fast moving. A well prepared, well constructed and actively defended home may not survive a fire.

## **SEVERE**

**50-74**

Total Fire Bans are likely. Some fires will be unpredictable, difficult to control and fast moving.

## **VERY HIGH**

**32-49**

Total Fire Bans are likely. Some fires will be unpredictable, difficult to control and may be fast moving.

## **HIGH**

**12-31**

Fires can be controlled but there is still a potential threat.

## **LOW-MODERATE**

**0-11**

Fires can be easily controlled and are slow moving.

# Bans



## Total Fire Ban

A Total Fire Ban (TFB) is declared by the Department of Fire and Emergency Services (DFES) following consultation with Local Governments because of extreme weather conditions or when widespread fires are seriously stretching firefighting resources.

During a TFB the lighting of any fires in the open air and any other activities that may start a fire, are prohibited, this includes:

- ✗ All open air fires for the purpose of cooking or camping i.e. wood fuel barbeques, candles and pizza ovens.
- ✗ Incinerators, welding, grinding, soldering or gas cutting, angle grinders and lawnmowers.

Penalty: Up to \$25,000 fine and/or a 12 month jail term.

Exemptions may be granted by DFES and must be requested in writing.



## Harvest and Vehicle Movement Ban

Harvest and Vehicle Movement Bans (HVMB) are imposed by Local Government under the *Bush Fires Regulations 1954* Section 38A, and/or Section 24C, when prevailing and/or anticipated weather conditions and/or when availability and/or response capacity of the local firefighting resources are reduced.

A HVMB may be imposed for any length of time but is generally imposed for 'heat of the day' periods and may be extended or revoked as weather conditions change.

During a HVMB the use of the following items is prohibited, in order to mitigate the associated risk of causing or contributing to the spread of a bushfire:

- ✗ Engines, vehicles, plant and machinery.

**! YOUR HOME IS  
IN A BUSHFIRE  
DANGER ZONE**

**YOU CAN'T OUTRUN  
IT, OR OUTLAST IT.  
SO TAKE 5 MINUTES  
TO OUTSMART IT.**

**5 MINUTE  
FIRE  
CHAT**



[firechat.wa.gov.au](https://firechat.wa.gov.au)



# Preparing Your Property

Preparing for fires is essential to living in our fire prone landscape. Having a **plan** is the primary step to ensuring the survivability of your property and the welfare of you and your family, including pets and livestock.

In a bushfire, every minute counts especially the next five. Visit [firechat.wa.gov.au](http://firechat.wa.gov.au) to prepare a plan, by having a five minute fire chat with your family.

It is also imperative that you prepare your property thoroughly, well before the fire season.

It will be too late to prepare when a serious fire is threatening. **Fuel loads** influence the bushfire intensity.

If the intensity of the fire is low, then there are more options available to firefighters to suppress the fire.

If you are planning to **build** or to undertake any **building work**, you are advised to comply with Australian Standard AS 3959 'Building in Bush Fire Prone Areas'.

Public utilities such as telephone, power and water supplies are often damaged during major bushfires and may not be available to you when you need them.

If you are well prepared, your property has a greater chance of surviving a bushfire.

## Don't Fuel Fires

- ✗ Don't have thick vegetation right up to the walls of your home.
- ✓ Clear all flammable material from around houses, sheds and fences.
- ✓ Store firewood, timber, petrol and kerosene well away from the house.
- ✗ Don't have flammable trees such as conifers near buildings.
- ✓ Clear all dead leaves out of gutters regularly.
- ✓ Remove dead trees and branches which, when burning, could drop on your roof.
- ✓ Remove rubbish regularly.
- ✓ Rake up leaves, twigs and dead material regularly.
- ✓ Burn off dry grass and vegetation at the approved times and in the approved manner or consult the alternatives to burning overleaf.

# Alternatives to Burning

There are a range of alternatives to burning waste which will not harm the environment or cause health problems for you or your neighbours.

- Grass can be slashed, grazed or reduced with herbicide to decrease fuel loads. This may be a practical alternative particularly if erosion is a concern or in areas which are difficult to access.
- Ratepayers and residents are encouraged to dispose of green waste and garden refuse via the two annual Green Waste Verge Collections.
- Shire of Murray ratepayers and residents are also able to dispose of their green waste and garden refuse at the Corio Road and Dwellingup Waste Transfer Stations.
- Garden refuse (particularly grass clippings, leaves and twigs) can also be used as a mulch or compost in the garden to improve soils and the growth of plants.

If you have large quantities of green waste (branches, tree trunks) you can arrange for mobile mulching services for the material on-site.

Mulching and composting at home avoids the need to burn off and is an environmentally friendly way to deal with green waste. For information regarding composting, please contact the Shire of Murray Environmental Services on 08 9531 7777.

Mulch piles should be no larger than five (5) cubic metres to reduce the risk of spontaneous combustion and piles should have a three (3) metre firebreak surrounding the pile.

## Advice is Available

Further advice on when and how to burn off is available from your local Fire Control Officer, the Shire of Murray Community Emergency Services Coordinator or Ranger Services on 08 9531 7777.

# Can We Access Your Property?

## Did You Know?

In order for fire appliances to access your property safely, firebreaks are required to be no less than three (3) metres wide and have no less than 4.5 metres vertical clearance. Fire appliances must be able to fit through gates on your property.

The average fire appliance is nine (9) metres in length.



Width 3 metres



# Firebreak Notice

## *Bush Fires Act 1954*

Notice is hereby given to all owners and/or occupiers of land within the Shire of Murray that pursuant to the powers conferred in Section 33 of the *Bush Fires Act 1954*, Council resolved on 26 May, 2016 to adopt the following requirements to prevent the outbreak, spread or extension of a bushfire within the district.

Pursuant to the powers contained in Section 33 of the *Bush Fires Act 1954*, you are hereby required to carry out fire prevention work in accordance with the requisitions of this notice on or before 30 November each calendar year or within fourteen days of the date of you becoming the owner or occupier of the land, should this be after 30 November. All work required by this notice is to be maintained up to and including 30 April the following calendar year. The work required by this notice is based on the land size and zoning.

### **Definitions**

For the purpose of this notice the following definitions apply:

**Authorised Officer** means an employee of the Shire of Murray appointed as a Bush Fire Control Officer.

**Asset Protection Zone** means the area within a distance of 20 metres from any external wall of any habitable building. The location is within the boundaries of the lot on which the habitable building is situated. The following work is required to be completed and maintained within an Asset Protection Zone. The fuel loading (flammable material) is to be reduced and maintained to a height of less than five (5) centimetres or less than two (2) tonnes per hectare. Tree crowns are to be a minimum of 10 metres apart. Low trees are to be pruned to a height of two (2) metres.

No tall shrub or trees are to be located within two (2) metres of a building (including windows). Fences within the Asset Protection Zone are to be constructed using non-combustible materials (e.g. colorbond iron, brick, limestone).

Sheds or other outbuildings within the Asset Protection Zone should not contain flammable materials. Tall shrubs within the Asset Protection Zone are not to be planted in clumps within three (3) metres of a habitable building. Tree crowns shall not overhang a dwelling and shrubs and trees within the zone are not to have dead material within the plant.

Where an Asset Protection Zone is required as part of an approved Bushfire Attack Level (BAL) assessment it must be maintained in accordance with the BAL report. (Shire of Murray Planning Approval is exempt for the purpose of implementing an Asset Protection Zone.)

**Building Protection Zone** has the same meaning as 'Asset Protection Zone'.

**Bushfire Management Plan** means a plan that has been developed and approved by the Shire to reduce and mitigate fire hazards within a particular subdivision, lot or other area of land anywhere in the district.

**Firebreak** means an area of ground, of a prescribed width, constructed to a trafficable surface that is kept and maintained totally clear of all flammable material and includes the pruning and removal of any living or dead trees, scrub or any other material encroaching into the vertical axis of the firebreak area.

**Fire Management Plan** has the same meaning as 'Bushfire Management Plan'.

**Fuel Depot/Storage Area** means an area of land, a building or structure where fuel i.e. petrol, diesel, kerosene, liquid gas or any other fossil fuel, is kept in any container or manner.

**Flammable Material** means any plant, tree, grass, vegetable, substance, object, thing or material (except living flora including live standing trees) that may or is likely to catch fire and burn or any other thing deemed by an Authorised Officer to be capable of combustion.

**Habitable Building** means a dwelling, work place, place of gathering or assembly and includes a building used for storage or display of goods or produce for sale by wholesale in accordance with classes 1-9 of the Building

Code of Australia. The term habitable building includes attached and adjacent structures like garages, carports, verandahs or similar roofed structure(s) that are attached to, or within six (6) metres of the dwelling or primary building.

**Haystack** means any collection of hay including fodder rolls, placed or stacked together that exceeds 100m<sup>3</sup> in size (eg. 5m x 5m x 4m).

**Hills Landscape Protection Land** means land zoned or defined in the Town Planning Scheme as Hills Landscape Protection Land.

**Plantations** means any area of planted pines, eucalypt, hardwood or softwood trees exceeding three (3) hectares in area.

**Private Driveway** means the point of access (driveway) to a habitable building that is accessible for both conventional two wheel drive vehicles and 3.4 firefighting appliances that is totally clear of all vegetation, trees, bushes, shrubs and other objects or things encroaching into the vertical axis of the point of access. If the point of access (driveway) to a habitable building is longer than 50 metres from a public road, a turn around area of 17.5 metres is to be available.

**Size** means the size of individual parcel or lot of land as recorded in the Shire of Murray property rates register or land database.

- 1 hectare = 10,000m<sup>2</sup> = 2.47 acres
- 1 acre = 4046.86m<sup>2</sup> = 0.4046 hectares

**Trafficable** means to be able to travel from one point to another in a four wheel drive fire appliance on a clear surface, unhindered without any obstruction that may endanger resources. A firebreak is not to terminate in a dead end without provision for egress to a safe place or a cleared turn around area of a 17.5 metre radius.

**Vertical Axis** means a continuous vertical uninterrupted line at a right angle to the horizontal line of the firebreak to a minimum height of 4.5 metres from the ground.

**Zoning** means the land zoning description as recorded in the Shire of Murray property rates register.



# Fire Prevention Requirements

## 1. Rural Zoned Land—10 Hectares or Greater

- a. A three (3) metre wide firebreak is to be constructed as close as practicable, but within 50 metres of the boundaries of the land, where the land abuts all made roads or railway reserves, Department of Biodiversity, Conservation and Attractions land or a Plantation.
- b. If the rural land abuts or adjoins “any other type of zoned land” a three (3) metre wide firebreak is to be constructed and maintained along that portion of the rural land that abuts the other zoned land and the firebreak/s is/are to be located immediately, where practical inside the boundary of the rural land where it abuts the above mentioned land.
- c. A three (3) metre wide firebreak is to be constructed and maintained immediately surrounding all outbuildings, sheds, haystacks, groups of buildings and fuel depots/storage areas situated on the land.
- d. A four (4) metre wide private driveway to be installed and maintained.
- e. An Asset Protection Zone to be installed and maintained.

## 2. Special Rural, Special Residential, All Special Use, Farmlet, Hills Landscape Protection Land, Rural Townsite and Rural Zoned Land less than 10 Hectares

- a. Where the area of land is 10,000m<sup>2</sup> or less in size, all flammable material on the entire property is to be reduced and maintained to a height of less than five (5) centimetres.
- b. Where the area of land is between 10,001m<sup>2</sup> and 25,000m<sup>2</sup> in size, all flammable material on the entire property is to be reduced and maintained to a height of less than five (5) centimetres.

Alternatively a firebreak is to be installed and maintained in accordance with clause 2(c). (A mixture of bushfire fuel reduction work (mowing or slashing) and the installation of firebreaks are not acceptable on this sized lot, unless a variation is approved pursuant to Clause 6.)

- c. Where the area of land is 25,000m<sup>2</sup> or more in size, a three (3) metre wide firebreak is to be installed and maintained immediately inside all external boundaries of the land and immediately around all outbuildings, sheds, haystacks, groups of buildings and fuel depots/storage areas situated on the land.

If the land adjoins any of the land described in Clause 3, all flammable material shall be reduced and maintained to a height of less than five (5) centimetres for a distance of 20 metres immediately inside the installed and maintained firebreak.

- d. All land within this category definition, irrespective of size requires;
  - i. A four (4) metre wide private driveway to be installed and maintained; and
  - ii. An Asset Protection Zone to be installed and maintained.

### **3. Residential, Residential Development, Special Development, Industry and all Other Zoned Land Not Specified**

- a. Where the area of land is 4000m<sup>2</sup> or less, all flammable material on the entire property shall be reduced and maintained to a height of less than five (5) centimetres.
- b. Where the area of land is more than 4001m<sup>2</sup> in size, a three (3) metre wide firebreak shall be installed and maintained immediately inside all external boundaries of the land and also immediately surrounding all buildings situated on the land.

- c. A four (4) metre wide private driveway to be installed and maintained.
- d. An Asset Protection Zone to be installed and maintained.

#### **4. Plantations**

- a. Boundary firebreaks—All property boundaries must have a 15 metre firebreak installed. The outer 10 metres will be cleared of all flammable material while the inner five (5) metres i.e. that portion closest to the trees, may be kept in a reduced fuel state i.e. by slashing or grazing grass to a height of less than five (5) centimetres. This includes the trimming back of all overhanging limbs, bushes, shrubs and any other object encroaching into the vertical axis above the outer 10 metres of the firebreak area.
- b. Internal firebreaks—Plantation area must be subdivided into areas not greater than 30 hectares, separated by six (6) metre wide firebreaks. This includes the trimming back of all overhanging limbs, bushes, shrubs and any other object encroaching into the vertical axis of the firebreak area.
- c. 'Special Risks'
  - i. Public Roads and Railway Reserves—Firebreaks 15 metres wide shall be maintained where the planted area adjoins public roads and railway reserves. The specification will be as for 'boundary firebreaks' on planted areas.
  - ii. Firebreaks shall be provided along power lines where they pass through or lie adjacent to planted areas. The specification of the width and the height of clearing shall be in accordance with Western Power specifications.
- d. Furthermore, all plantations shall comply with requirements contained in the Department of Fire and Emergency Services (DFES) guidelines or standards for Plantation Fire Protection.



## **5. Storage of Cut or Stockpiled Timber Products**

On all land in the district except, land specified as Industrial, non-rateable or reserve land, the owner or occupier of the land shall not keep or permit to be kept any cut, stockpiled or windrowed timber products (manufactured or natural) unless the material is in piles of less than 15 metres long, five (5) metres wide and three (3) metres high.

Every pile of cut, stockpiled or windrowed timber product larger than 12m<sup>3</sup> is to be completely surrounded by a 10 metre wide firebreak.

## **6. Variations**

If it is considered to be impractical for any reason to clear firebreaks or establish other arrangements as required by this notice, the owner or occupier of land in the district may apply for a variation by contacting the appropriate area Fire Control Officer prior to 14 November each calendar year to arrange for an onsite inspection to discuss the alternate methods of fire prevention. Variations may be approved by the Shire for a one, three or five year period, subject to the owner and/or occupier of the land remaining the same. If a request to vary this notice is not approved, the requirements of this notice apply.

## **7. Bushfire Management Plans**

Where a Bushfire Management Plan (BMP) exists for a specified area or property as required by the Town Planning Scheme or subdivision approval or for an individual or group of properties, compliance with all requirements of the Bushfire Management Plan are required in addition to any further requirements within this notice.

## **8. Special Works Order**

The requirements of this notice are considered to be the minimum requirement for fire prevention work not only to protect individual properties but the district generally.

A separate Special Works Order may be issued to individual landowners pursuant to Section 33 of the *Bush Fires Act 1954* to carry out further hazard removal and/or reduction work with respect to anything upon the land, where in the opinion of an Authorised Officer it is likely to be conducive to the outbreak and/or the extension of a bushfire.

## **9. Dates to Remember**

### **Restricted Burning Time:**

1 October to 30 November each year (inclusive) and 1 April to 15 May each year (inclusive, and as varied pursuant to Section 18 of the *Bush Fires Act 1954*).

### **Prohibited Burning Time:**

1 December to 31 March each year (inclusive, and as varied pursuant to Section 17 of the *Bush Fires Act 1954*).

These dates are subject to variation and any alterations will be published in a local newspaper circulating within the district.

## **10. Camp or Cooking Fires—s25 (1a) Bush Fires Act 1954**

The lighting of camp or cooking fires is prohibited on all land within the Shire of Murray during the Prohibited Burning Time. This prohibition does not apply to a gas appliance which does not consume solid fuel comprising of a fire, the flame of which is encapsulated by the appliance.

## **11. Burning of Garden Refuse and Rubbish (24G Bush Fires Act 1954)**

The burning of garden refuse or rubbish is prohibited on all land under 4000m<sup>2</sup> in size during the Limited Burning Time that would otherwise be permitted under Section 24F.

For the purposes of this Clause 'Limited Burning Time' means from 1 October each calendar year through until 15 May the following calendar year (inclusive, and as varied pursuant to Sections 17 and 18 of the *Bush Fires Act 1954*).

On land larger than 4001m<sup>2</sup> the burning of garden waste and rubbish that would otherwise be permitted under Section 24F is prohibited absolutely during the Prohibited Burning Time.

The effect of this clause is that the burning of garden refuse or rubbish in an incinerator or on the ground on land that is 4000m<sup>2</sup> or less in size is prohibited during the Limited Burning Time and the burning of garden refuse or rubbish in an incinerator or on the ground is prohibited on all land within the district during the Prohibited Burning Time.

In addition to the above restrictions, garden refuse burned on the ground is burned in accordance with this clause if—

- a. There is no flammable material (other than that being burned) within five (5) metres of the fire at any time while the fire is burning; and,
- b. The fire is lit between 6:00pm and 11:00pm and is completely extinguished before midnight on the same day; and,
- c. At least one person is present at the site of the fire at all times until it is completely extinguished; and,
- d. One pile (up to one (1) cubic metre in size), can only be burnt at a time; and,
- e. When the fire is no longer required, the person ensures that the fire is completely extinguished by the application of water or earth, but excluding any time when there is in force a fire danger forecast issued for that place by the Bureau of Meteorology in Perth of “Catastrophic”, “Extreme”, “Severe” or “Very High”.

## **12. Penalties**

The penalty for failing to comply with this notice is a fine not exceeding \$5,000. A person in default is also liable whether prosecuted or not to pay the costs of performing the work directed by this notice if it is not carried out by the owner and/or occupier by the date required by this notice.







## Shire of Murray

 /ShireofMurray

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### Report All Fires: Phone 000

[emergency.wa.gov.au](http://emergency.wa.gov.au)

#### Department of Fire and Emergency Services

General Enquiries

08 9395 9300

Emergency Information

133 337 (13DFES)

#### Department of Biodiversity, Conservation and Attractions

General Enquiries

08 9290 6100

#### Shire of Murray Ranger and Emergency Services

08 9531 7709

#### Chief Bush Fire Control Officer

Robert Wilson

0417 916 468

#### Deputy Chief Bush Fire Control Officer

Ben Armstrong

0429 777 500

#### Pinjarra Volunteer Fire and Rescue

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**Document Status**

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				Name	Date
Draft Report	Rev A	For client review	Brodie Mastrangelo (BPAD 45985, Level 1)	Linden Wears (BPAD 19809, Level 3)	6 April 2020





Yolk Property Group  
Bushfire Risk Management Plan (High-risk land use)

Lot 137 (630) Pinjarra Road, Furnissdale

2 April 2020 2 April 2020 2 April 2020 2 April 2020

58305/128,657 (Rev A)

JBS&G Australia Pty Ltd T/A Strategen-JBS&G

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## 1. Introduction

### 1.1 Background

Yolk Property Group is seeking to lodge a development application in relation to proposed development of a service station within a portion of Lot 137 (630), Pinjarra Road, Furnissdale (the project area), located in the Shire of Murray. The proposed development will comprise the following elements:

- convenience store (habitable building)
- landscaping
- crossover to Pinjarra Road
- crossover to Furnissdale Road
- car parking bays
- entirely paved surface aside from peripheral landscaping
- underground fuel tank farm (3 tanks)
- underground LPG tank
- car canopy (8 fuel dispensers)
- truck canopy (4 fuel dispensers).

The project area is designated as bushfire prone on the WA *Map of Bush Fire Prone Areas* (DFES 2020) due to native vegetation located within 100 m of the site, which triggers bushfire planning requirements under *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015). In accordance with SPP 3.7 Policy Measure 6.5, a Bushfire Management Plan (BMP) is required to accompany the development application to inform planning at that stage.

Additionally, SPP 3.7 Policy Measure 6.6 requires development applications for high-risk land uses (such as service stations) in areas between BAL-12.5 and BAL-29, to have a BMP which is accompanied by a bushfire risk management plan (BRMP). The BMP prepared for the development (Strategen-JBS&G 2020) identifies the project area as being located within an area of BAL-12.5 or greater, and as such, the development requires the preparation of a BRMP.

Under the *Dangerous Goods Safety (Storage and Handling of Non-Explosives) Regulations 2007*, the operator will also be required to complete a separate risk assessment that addresses risks other than bushfire for the proposed service station and the associated Dangerous Goods.

### 1.2 Aim and objectives

The aim of this BRMP is to guide the bushfire protection measures within the project area through mitigation responses developed on the basis of a comprehensive bushfire risk assessment.

Key objectives include:

1. Undertake a bushfire risk assessment of the potential bushfire scenarios that could affect the proposed development, as well as assets on adjoining land.
2. Undertake a bushfire risk assessment of the potential scenarios at the proposed development that could result in increased likelihood of bushfire.
3. Provide independent advice and recommendations on the location, method and timing of appropriate bushfire mitigation measures that promote protection of life and property as a priority.

## 2. Potential fire scenarios

The BMP (Strategen-JBS&G 2020) identifies and classifies the existing bushfire hazards within 150 m of the proposed development, based on separation from existing and future proposed vegetation and effective slope beneath the classified vegetation.

Within the 150 m assessment area, the proposed fuel station site is surrounded by rural-residential and commercial properties that support varying degrees of remnant native vegetation, comprising a combination of grassland, scrub, woodland and forest classifications.

On completion of the proposed development, built elements of the fuel station will be afforded separation from these hazards by the proposed 14 m wide APZ and the existing Furnissdale Road and Pinjarra Road road reserves, including managed verges. In this regard, the proposed development will be subject to a BAL rating of no more than BAL-29 which achieves compliance with Elements 1 and 2 of *Guidelines for Planning in bushfire Prone Areas* (WAPC 2017; the Guidelines).

At a broader scale, bushfire hazards occur within a patchy distribution throughout the surrounding properties in all directions, however, the patches remain contiguous enough to be capable of supporting bushfire spread between the patches, as well as from larger patches of remnant vegetation within reserves throughout the wider landscape. Vegetation within the wider landscape is anticipated to comprise predominantly Banksia/ Jarrah woodland with fuel loads varying depending on the level of degradation due to rural-residential, commercial and other land management practices.

The largest patches of remnant vegetation within the surrounding area occur approximately:

- 1 km to the south in association with the Serpentine River and Murray River mouths
- 1.3 km to the northwest adjacent to Serpentine River
- 1.1 km to the northeast in association with Black Lake and Geogrup Lake Nature Reserve
- 450 m to the east within Barragup Swamp Conservation Reserve.

Based on information regarding vegetation hazards within both immediate proximity and the wider area, Strategen-JBS&G has assessed the potential bushfire scenarios that could affect the project area. The potential bushfire scenarios have been used to inform a bushfire risk assessment (refer to Section 4) and assist in development of appropriate bushfire mitigation responses (refer to Section 5). The following bushfire scenarios were assessed:

1. Bushfire approaching the project area from the north.
2. Bushfire approaching the project area from the west, south and southeast.
3. Bushfire approaching the project area from the northeast.
4. Fire originating within the project area, igniting a bushfire.

A description of each potential bushfire scenario is provided in the following subsections.

### 2.1 Scenario 1: Bushfire approaching the project area from the north and northwest

Vegetation hazards immediately to the northwest and north of the project area are fairly restricted as the majority of lots are developed with commercial buildings and associated hard stand areas or cleared for rural-residential development with only small patches of scrub and forest vegetation or grassland remaining.

Although there is potential for a bushfire to occur within this vegetation, the convenience store and fuel canopies are sufficiently separated from these hazards by Furnissdale Road in the west and Pinjarra Road in the east and are expected to be impacted by moderate radiant heat impact (BAL-19 equivalent as a worst case scenario) and ember attack, based on the presence of this vegetation.



Additionally, the project area will comprise non-vegetated and low-threat elements only. In this regard, it is considered highly unlikely that a bushfire would spread to the project area.

The only classified vegetation within immediate proximity to the proposed development is a small area of grassland within Lot 24. The proposed 14 m APZ would ensure BAL impacts from this grassland on the convenience store and fuel canopies would not exceed BAL-19 as discussed previously.

The internal vehicular access route and surrounding public roads will provide opportunity for a direct fire suppression response by firefighters at all vegetation interfaces, if required.

On the basis of proximity and extent of vegetation to the north; separation provided by Furnissdale and Pinjarra Roads; the 14 m APZ; and lack of flammable vegetation within the development site itself, the potential impact from a bushfire approaching the project area from this direction is considered to be low.

The bushfire risk to the project area from the north and northwest is expected to be managed using the bushfire management measures proposed in the BMP (Strategen-JBS&G 2020). The entirety of the project area will be established as an Asset Protection Zone (APZ), along with an additional 14 m wide APZ around the external perimeter to ensure the proposed convenience store and fuel canopies are not exposed to conditions exceeding BAL-29.

## **2.2 Scenario 2: Bushfire approaching the project area from the west, south and southeast**

Unmanaged vegetation currently exists within the remainder of Lot 137, immediately south of the project area. This vegetation was assessed as predominantly Banksia woodland (Class B Woodland) and constitutes the primary bushfire hazard within immediate proximity of the project area.

At a broader scale, a bushfire has potential to approach the project area from the west, south and southeast through remnant vegetation fragments that would be capable of spreading a bushfire originating in larger remnant patches associated with Serpentine River, Murray River and Barragup Swamp Conservation Reserve as well as Black Lake, further to the east. A bushfire occurring through this vegetation may support potential fire runs of up to 2.1 km to the west, 2.7 km to the south and 3.5 km to the southeast.

As discussed, fragmentation of unmanaged vegetation occurs throughout the mosaic of rural-residential and other properties as well as the public road network which would reduce bushfire behaviour at a fine scale, however, significant vegetation exists in the wider area for fire runs to be relatively continuous.

The Banksia woodland vegetation immediately south of the development site has potential to be involved in a bushfire occurring within the wider area, however, as discussed previously, the BMP proposes a 14 m wide APZ around the entire project area, which will ensure the proposed convenience store and truck fuel canopies will achieve a maximum BAL rating of BAL-19 and BAL-29 respectively. The car canopy and dispensers would only be subject to BAL-12.5 meaning there would only be minor radiant heat impact and moderate ember attack on these elements.

On the basis of the more significant vegetation extents to the south and in consideration of low threat and non-vegetated landscaping within the project area and 14 m APZ, the potential impact from a bushfire approaching the project area from the south is considered to be moderate.

The proposed internal vehicular access route will provide direct access to vegetation to the south which will allow for a direct fire suppression response in this vegetation if required. The proposed 14 m APZ within the balance of the subject lot and landscaping/construction works within the project area will ensure fire spread to the service station is inhibited using non-vegetated elements and low threat vegetation. Vehicular egress and firefighter access to the site will be similar to Scenario 1.

### **2.3 Scenario 3: Bushfire approaching the project area from the northeast**

A bushfire approaching from the northeast during adverse bushfire conditions has potential to extend through remnant bush vegetation which is part of Geogrup Lake Nature Reserve and Black Lake. These large areas of vegetation would be capable of supporting long narrow fire runs of up to 3 km and significant bushfire behaviour.

Despite the potential for significant bushfire behaviour through this vegetation, the rural-residential properties to the northeast of the project area are predominantly cleared, with only patchy areas of remnant forest and woodland vegetation remaining, which reduces the bushfire risk to the project area (this is also discussed under Scenario 1, which considers a bushfire approaching from the north). There is potential for a bushfire to occur within this vegetation, however, the convenience store and fuel canopies are sufficiently separated from these hazards by Pinjarra Road and the project area will comprise non-vegetated and low-threat elements only. In this regard, it is considered unlikely that a bushfire would spread to the project area.

As discussed in Scenario 1, Pinjarra Road would provide a substantial buffer between the proposed service station and a bushfire occurring from the north and the proposed APZ and low threat landscaping would further act to reduce bushfire impacts over the site. On this basis, the potential impact from a bushfire approaching the project area from the northeast is considered to be low, with only minor radiant heat impact and ember attack expected.

### **2.4 Scenario 4: Fire originating within project area**

The previous scenarios have reviewed the likelihood of bushfire impacting on the proposed development. Scenario 4 reviews the potential risk of the proposed development to increase the likelihood of bushfire.

One potential risk is the likelihood of increased ignition sources at the proposed development by igniting nearby vegetation, flammable liquids or other combustible items to create a bushfire. Due to the nature of the proposed development, and the presence of Dangerous Goods within the site, the operators will be required to ensure there are strict controls on the potential ignition sources, such as hot works and electrical equipment, within any on-site hazardous areas.

The intent of these controls is primarily to ensure that life safety is maintained at an appropriate level, in addition to providing a level of property protection, rather than to specifically prevent bushfire ignition. However, the trickledown effect is that reducing the likelihood of fire ignition on the site also ensures the likelihood of bushfire ignition is not increased from that of other built environment land uses.

Should a fire ignite at the service station, the service station staff are able to use the following measures to control the emergency:

- press 'Stop Pump' button at the point of sale to stop individual fuel dispensers and turn off dispenser/s at switchboard to prevent accidental usage
- press 'Emergency Stop All Pumps' button at the point of sale to stop all fuel dispensers
- turn Mains Power off at switchboard
- warn customers using PA system to not start cars and clear 15m away from area
- if emergency escalates, evacuate all people and customers from the site and advise them to assemble at the Evacuation Assembly Area. Customers to remain at assembly area until site is declared safe by emergency services, at which time they may return to their cars
- use spill kit for small spills to absorb spill and prevent from entering the drain by blocking entrance to drain using kit

- if fire in store:
  - ensure everyone has evacuated
  - if safe to do so, fight fire with fire extinguisher ensuring egress route is maintained
  - do not let anyone enter store until it is declared safe by emergency services.

In the highly unlikely event that there was ignition of the fuel canopies, and a significant fire or explosion event did occur, the chance of igniting a bushfire is considered a relatively low likelihood given the closest classified vegetation (Class G Grassland and Class B woodland) would be at least 14 m from the proposed fuel pumps. It is also very unlikely that any future on-site vegetation would support steady state bushfire behaviour due to it comprising low-threat, managed vegetation as required by this BMP.

If a fire were to ignite at the site, it is expected that staff would immediately contact the fire brigade and that fire brigade would turnout quickly to attend a fire at the service station. Fire brigade notification would also be likely from customers and other nearby public should a fire breakout in the service station. Fire brigade access to the site is readily achievable via Anketell Road and Albina Avenue. Given the quick onsite turnout expected for a fire at the proposed development, it is anticipated that fire brigade will address any spot fires, including fire ignition in adjacent vegetation, whether classified or low threat.

## **2.5 Summary of potential bushfire scenarios**

Due to the presence of Class B Woodland vegetation within the subject lot, immediately south of the project area, Scenario 2 is considered the most high-risk bushfire event with the potential to impact life and property assets within the project area. Given the separation from this vegetation provided by the proposed 14 m APZ, Scenario 2 is only expected to produce moderately elevated radiant heat and ember attack.

Scenario 1 is considered to present a low bushfire hazard to the project area, given the closest vegetation is only a small area of Class G Grassland and the 14 m wide APZ will limit potential impacts to low to moderate radiant heat and minor ember attack.

Scenario 3 is considered a lower risk bushfire event given the separation provided by Pinjarra Road Avenue in addition to cleared lots currently under development.

All scenarios are considered manageable through standard bushfire protection measures and fire suppression operations. The 14 m wide APZ proposed around the project area will ensure that a rating of BAL-29 is not exceeded (elements are subjected to worst case BAL-19 impacts), with compliant vehicular access and water supply for bushfire fighting purposes provided.

The presence of Dangerous Goods on the site ensures that strict controls will be required to prevent ignition of the flammable liquids and other combustible items at the site. On this basis, and in addition to separation from bushfire prone vegetation, Scenario 4 is considered a relatively low risk of igniting a bushfire.



### 3. Bushfire risk assessment methodology

Australian Standard *AS ISO 31000:2018 Risk Management—Principles and Guidelines* (SA 2018) provides an internationally recognised approach to risk management. ISO 31000 has been adopted by the Department of Fire and Emergency Services (DFES) Office of Bushfire Risk Management (OBRM), as documented in the agency's *Guidelines for Preparing a Risk Management Plan* (DFES 2015) to formalise and communicate the approach of managing bushfire risk across the department in the aim of leading to improved coordination and effectiveness of bushfire risk management processes. These Guidelines have been designed for use by Local Governments as a framework to develop bushfire specific risk management plans for their local area.

Plate 1 provides a summary of the risk management process in accordance with the DFES Guidelines. Each of the steps in the process are further described in the following subsections.

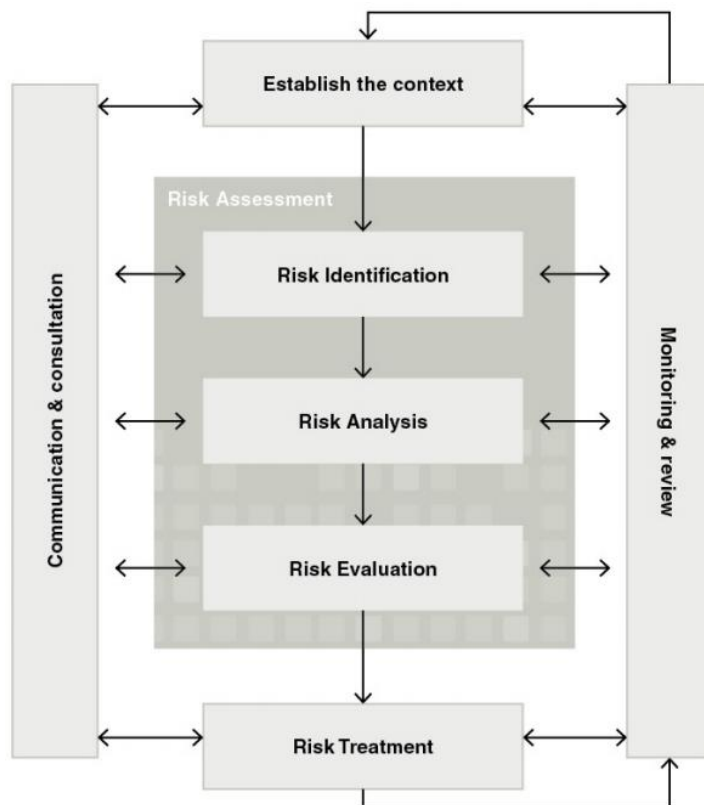


Plate 1: Risk management process as per ISO 2018 (Source: ISO, 2018)

Strategen-JBS&G has adopted the methodology described in the DFES Guidelines on the basis that this approach provides a bushfire specific assessment of risk. Some of the definitions for likelihood and consequence ratings have been modified to suit the scope of this BRMP which is at the facility level, rather than the community level which is relevant to Local Governments.

From a bushfire management perspective, this methodology can be useful in determining:

1. The *inherent* bushfire risk (i.e. the initial level of risk prior to risk treatment and mitigation).
2. The *residual* bushfire risk (i.e. the level of risk remaining following risk treatment and mitigation).

### 3.1 Assessing likelihood

Likelihood is defined as the chance of a bushfire igniting, spreading and reaching an asset.

**Table 3.1: Likelihood rating system**

Likelihood rating	Description
Almost certain (sure to happen)	<ul style="list-style-type: none"> <li>Expected to occur in most circumstances</li> <li>High level of recorded incidents and/or strong anecdotal evidence; and/or</li> <li>Strong likelihood that event will recur; and/or</li> <li>Great opportunity, reason or means to occur</li> <li>May occur more than once in five years.</li> </ul>
Likely (probable)	<ul style="list-style-type: none"> <li>Regular recorded incidents and strong anecdotal evidence and/or</li> <li>Considerable opportunity, reason or means to occur</li> <li>May occur at least once in five years.</li> </ul>
Possible (feasible but less than probable)	<ul style="list-style-type: none"> <li>Should occur at some stage; and/or</li> <li>Few, infrequent, random recorded incidents or little anecdotal evidence; and/or</li> <li>Some opportunity, reason or means to occur.</li> </ul>
Unlikely (improbable, not likely)	<ul style="list-style-type: none"> <li>Would only occur under exceptional circumstances.</li> </ul>

### 3.2 Assessing consequence

Consequence is defined as *the outcome or impact of a bushfire event on people, property and the environment, taking into consideration the degree and severity of potential bushfire scenarios, location of bushfire hazard areas, assets present in the area and the level of management and suppression response available.*

**Table 3.2: Consequence rating system**

Consequence rating	Description
Catastrophic	<ul style="list-style-type: none"> <li>Multiple cases of fatalities and extensive number of severe injuries.</li> <li>Large proportion of people requiring hospitalisation.</li> <li>Extensive displacement of persons for extended duration.</li> <li>Extensive resources required for personal support.</li> <li>Extensive damage to assets that will require significant ongoing recovery efforts and extensive external resources.</li> <li>Facility unable to function without significant support.</li> <li>Long-term failure of significant infrastructure and service delivery affecting all parts of the facility.</li> <li>Permanent damage to environmental or cultural assets.</li> </ul>
Major	<ul style="list-style-type: none"> <li>Isolated cases of fatalities.</li> <li>Multiple cases of serious injuries. Significant hospitalisation.</li> <li>Large number of persons displaced for more than 24 hours.</li> <li>Significant resources required for personal support.</li> <li>Significant damage to assets, ongoing recovery efforts and external resources required.</li> <li>Facility only partially functioning, widespread inconvenience with services unavailable.</li> <li>Mid-to long term failure of significant infrastructure and service delivery affecting large parts of the facility.</li> <li>Economic impacts for a significant period of time with significant financial assistance required.</li> <li>Significant damage to environmental or cultural assets that require major rehabilitation or recovery efforts.</li> </ul>
Moderate	<ul style="list-style-type: none"> <li>Isolated cases of injuries, but no fatalities. Some hospitalisations required.</li> <li>Isolated cases of displaced persons who return within 24 hours.</li> <li>Personal support satisfied through facility arrangements.</li> <li>Localised damage to assets rectified by routine arrangements.</li> <li>Facility functioning as normal with some inconvenience.</li> <li>Isolated cases of short to mid-term failure of infrastructure and disruption to service delivery.</li> <li>Economic impacts with additional financial support required to recover.</li> <li>Isolated cases of damage to environmental or cultural assets.</li> </ul>
Minor	<ul style="list-style-type: none"> <li>No fatalities.</li> </ul>

Consequence rating	Description
	<ul style="list-style-type: none"> <li>Near misses or minor injuries with first aid treatment possibly being required.</li> <li>No persons displaced.</li> <li>Little or no personal support required.</li> <li>Inconsequential or no damage to an asset, with little or no specific recovery effort required beyond the immediate clean-up.</li> <li>Inconsequential or no disruption to facility.</li> <li>Inconsequential short-term failure of infrastructure or service delivery.</li> <li>Inconsequential or no financial loss.</li> </ul>

### 3.3 Determining the risk rating

The five bushfire scenarios discussed in Section 2 have been subject to bushfire risk assessment through determination of likelihood and consequence in accordance with the rating tables outlined in Table 3.1 and Table 3.2.

This process determines the inherent bushfire risk of the event and informs the level of mitigation or management response required to reduce the risk to an acceptable level. The risk assessment matrix used to determine inherent and residual bushfire risk is outlined in Table 3.3.

**Table 3.3: Risk assessment matrix and treatment priorities**

		Consequence rating			
		Minor	Moderate	Major	Catastrophic
Likelihood rating	Almost certain	High (3D)	Very High (2C)	Extreme (1C)	Extreme (1A)
	Likely	Medium (4C)	High (3A)	Very High (2A)	Extreme (1B)
	Possible	Low (5A)	Medium (4A)	High (3B)	Very High (2B)
	Unlikely	Low (5C)	Low (5B)	Medium (4B)	High (3C)

The risk ratings also provide a treatment priority which determines the order, importance or urgency for allocation of resources to apply the treatment strategies. Treatment of assets with an extreme risk rating should be addressed before assets with lower risk ratings. A treatment priority of 1A is the highest priority and a treatment priority of 5C is the lowest priority.

### 3.4 Risk evaluation

The purpose of evaluating risk is to confirm that the risk ratings for each asset are appropriate, identify treatment priorities (as discussed previously) and identify which assets require treatment.

The acceptability of a risk level can be evaluated using the criteria listed in Table 3.4. Some risk ratings may be acceptable without any treatment (e.g. Low risk ratings) while the risk to others may be suitable with standard management controls (e.g. Medium and High risk ratings). Determining the acceptability of risk allows decisions to be made on whether treatment is required or whether routine controls are sufficient.



**Table 3.4: Risk acceptability**

Risk rating	Priority	Risk acceptability
Extreme	1A, 1B, 1C	Unacceptable risk – only acceptable with excellent controls. An urgent mitigation response is required to lower the risk level.
Very High	2A, 2B, 2C	Unacceptable risk – only acceptable with excellent controls. A mitigation response is required to lower the risk level.
High	3A, 3B, 3C, 3D	Potentially unacceptable risk - only acceptable with adequate controls. Development of a mitigation response may be required to lower the risk level.
Medium	4A, 4B, 4C	Potentially unacceptable risk - only acceptable with adequate controls. A mitigation response may not be required to lower the risk level but the risk must be monitored regularly.
Low	5A, 5B, 5B	Acceptable risk with routine controls. Application of standard management measures will ensure risk level remains low. Treatment action is not required, but the risk must be monitored.

### 3.4.1 Risk treatment

The purpose of risk treatment is to reduce the likelihood of a bushfire occurring and/or the potential impact of a bushfire on an asset or facility. This is achieved by implementing treatment strategies that modify the characteristics of the risk, the asset/facility or the environment.

Treatment strategies will depend on the level of risk to the asset and the type of asset being treated. Asset specific bushfire mitigation strategies are generally based on fuel management, ignition management, preparedness, planning and engagement of personnel.

### 3.4.2 Monitoring and review:

The effectiveness of each stage and effectiveness of risks and treatment strategies are monitored and any new risks are detected.

## **4. Bushfire risk assessment**

### **4.1 Risk context**

Risk is being assessed to inform bushfire mitigation for the project area for the protection of life and property within and adjacent to the site. The risk assessment adopts a broad area and supports a tenure blind approach to ensure wider risk impacts and adjoining lands are captured to suitably address potential risk.

### **4.2 Risk identification**

Bushfire risk is identified in the potential bushfire scenarios outlined in Section 2, which indicate the potential bushfire events that could impact life and property within the project area and adjacent land. These scenarios are considered to cover the majority of bushfire events that could occur in order to develop suitable mitigation and manage as much of the bushfire risk as possible.

### **4.3 Risk analysis and evaluation**

Risk analysis and evaluation for each of the potential bushfire scenarios is provided in Table 4.1, which specifies the likelihood and consequence of each scenario with and without management measures to determine inherent and residual risks.

Due to the storage and handling of flammable materials within the project area, the potential consequence of a bushfire entering the site would be greater than if flammable materials were not present.

Strategen-JBS&G is of the view that following implementation of management measures, the risk of ignition will not be reduced due to the ongoing level of staff and visitor occupancy and presence of off-site bushfire prone vegetation and on-site flammable goods. Therefore, bushfire risk management measures are likely to reduce the level of consequence resulting from the bushfire event, rather than the likelihood of the event occurring. For example, an evacuation plan will reduce the potential impacts on life; thus reducing the level of consequence received from the bushfire event, but the likelihood of the event occurring will not be reduced.

### **4.4 Risk treatment**

Risk treatment is discussed in Section 5, which outlines the management measures that will be implemented.

As with all bushfire management work, protection of life and property is afforded the highest priority.

**Table 4.1: Bushfire risk assessment**

Bushfire scenario	Comments	Likelihood	Consequence	Inherent risk level	Mitigation/management	Likelihood	Consequence	Residual risk level
Scenario 1 Bushfire approaching the project area from the north	See Section 2.1	Possible	Moderate	Medium (4A)	Implementation of management measures identified in Section 5	Possible	Minor	Low (5A)
Scenario 2 Bushfire approaching the project area from the west, south and southeast	See Section 2.2	Possible	Major	High (3b)	Implementation of management measures identified in Section 5	Possible	Minor	Low (5A)
Scenario 3 Bushfire approaching the project area from the northeast	See Section 2.3	Possible	Moderate	Medium (4A)	Implementation of management measures identified in Section 5	Possible	Minor	Low (5A)
Scenario 4 Fire originating within project area	See Section 2.4	Unlikely	Major	Medium (4A)	Implementation of management measures identified in Section 5	Unlikely	Moderate	Low (5B)

## **5. Bushfire management measures**

Implementation of the management measures provided in the following subsections prioritises protection of life and property and will mitigate inherent bushfire risk within the project area.

### **5.1 Asset Protection Zone**

As detailed in the BMP, a 14 m wide APZ will be established and maintained around the external perimeter of the entire project area. This will ensure all areas within the service station site will be subject to BAL-29 or lower. The proposed convenience store and truck canopy and dispensers will be subject to BAL-19 and BAL-29 respectively, while the car canopy and dispensers and their underground tanks will be subject to BAL-12.5.

In addition to the 14 m wide APZ, the entirety of the project area will be maintained in a low threat or non-vegetated state. This includes all landscaping to be established in low threat state in accordance with Schedule 1 of the Guidelines and as documented in the Landscaping Plan for the (Appendix A of the BMP).

### **5.2 Fuel control measures**

Should a fire ignite at the service station, trained staff are able to use the following measures to control the flow of fuel to the dispensers:

- press 'Stop Pump' button at the point of sale to stop individual fuel dispensers and turn off dispenser/s at switchboard to prevent accidental usage
- press 'Emergency Stop All Pumps' button at the point of sale to stop all fuel dispensers
- turn Mains Power off at switchboard.

### **5.3 Fire protection and suppression equipment**

Fire extinguishers are to be located within the project area, in accordance with the National Construction Code and AS 2444. Only personnel trained in the use of extinguishers should be utilising this equipment and only if safe to do so.

Spill Response Kits are to be maintained at the proposed development and are to be utilised by onsite staff for minor and major spills, where safe to do so.

Fire services are to be called in the event of a spill is too large to control and cannot be cleaned with a spill kit at site or it is not considered safe to do so.

### **5.4 Emergency evacuation**

It is expected that trained staff will be able manage the evacuation of the site in an onsite fire emergency including the following:

- warn customers using PA system to not start cars and clear 15 m away from area.
- if emergency escalates, evacuate all people and customers from the site. Customers are to remain offsite until the service station is declared safe by emergency services, at which time they may return to their cars.
- if the fire is within the proposed building:
  - ensure everyone has evacuated
  - if safe to do so, fight fire with fire extinguisher ensuring egress route is maintained
  - do not let anyone enter store until it is declared safe by emergency services.



The facility emergency management plan shall also include a plan for evacuation of the site in a bushfire emergency. Once staff become aware of bushfire that may impact the site, the emergency management procedure should, as a minimum, include the fuel and power control measures in Section 5.1 and the evacuation of occupants from the site. It is noted that the evacuation assembly area nominated for bushfire emergencies may be different to that for onsite fire emergencies, and should be sufficiently far from the service station and the bushfire risk. Any evacuation plan for bushfire should ensure that staff advise occupants to evacuate north to Furnissdale Road or east to Pinjarra Road and either northwest toward Mandurah, or southeast toward Kwinana Freeway in a direction away from the bushfire threat.

## **5.5 Personnel training**

All occupants working at the project area must be trained in responding to and managing all emergency incidents in accordance with the facility emergency management plan for the site. A record of training must be kept up to date and debrief sessions held after all training exercises.

## **5.6 Bushfire suppression**

The Metropolitan Career Fire and Rescue is stationed at Mandurah, approximately 10 km northwest of the site (12 minutes travel time under normal conditions).

The West Murray Volunteer Fire and Rescue station) is located approximately 850 m southeast of the site on Pinjarra Road (1 minute travel time under normal conditions).

The brigades are expected to provide a best-case emergency suppression response time of less than 20 minutes should a bushfire threaten lives or buildings within or adjacent to the project area.

## **5.7 Additional measures**

### **5.7.1.1 Manifest**

Dangerous goods sites must maintain a current manifest and a dangerous goods site plan, to allow an appropriate response by DFES in the event of an emergency, such as a fire.

Information retained onsite should include the Emergency Plan, Dangerous Goods Manifest, Register of Dangerous Goods and Hazardous Materials, Safety Data Sheets for bulk products kept on site and dangerous goods site layout plan.

### **5.7.1.2 Ignition sources**

Operators of dangerous goods sites are required to manage potential ignition sources, such as hot works and electrical equipment, within any on-site hazardous areas.

### **5.7.1.3 Placard and marking**

A placard, readily visual for DFES personnel and providing visual warnings of the hazards associated with storage of diesel, will be required at the proposed tank site in accordance with DMP Storage and handling of dangerous materials Code of Practice (DMP 2010) and National Code of Practice for the Storage and Handling of Workplace Dangerous Goods [NOHSC: 2017 (2001)].

Signage and notices will also be required in accordance with AS 1940-2004.

### **5.7.1.4 Emergency information for neighbours**

Neighbours adjacent to the proposed development shall be provided with a document detailing the project area emergency response actions and contact numbers.

### **5.7.1.5 Building Construction Recommendation**

The BAL contour assessment over the project area indicates that the proposed convenience store and fuel dispensers are partially affected by BAL-19 and BAL-12.5 ratings which is compliant with the Acceptable Solution A1.1 and A1.2 of the Guidelines.

Bushfire construction provisions of the National Construction Code require that buildings comply with the AS 3959 construction requirements, in accordance with the assessed BAL under AS 3959, provided the building is a Class 1, 2 or 3 building, or a Class 10a building associated with a Class 1, 2 or 3 building.

The proposed building will likely be Class 6 in accordance with the National Construction Code, and as such, there is no statutory requirement for proposed building to meet the construction requirements of AS 3959. Notwithstanding, given the high-risk nature of the proposed use, and like all buildings, there is potential vulnerability to ember attack, and as such Strategen-JBS&G recommend that compliance with the AS 3959 construction requirements is achieved wherever practicable. Strategen-JBS&G recommend that as a minimum, the requirements of BAL-12.5 are strongly considered for implementation as the construction requirements associated with this rating are primarily related to ember protection.

#### **5.8 Document review**

This BRMP will be reviewed and updated after five years following endorsement, or after major fire events or changes to site conditions such as the type and amount of stored flammable goods.

#### **5.9 Residual bushfire risk**

Strategen-JBS&G expects that through implementation of the management measures outlined in this BRMP, inherent bushfire risk to life and property within and surrounding the project area can be mitigated to suitable levels.

## 6. Limitations

### Scope of services

This report ("the report") has been prepared by Strategen-JBS&G in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen-JBS&G. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

### Reliance on data

In preparing the report, Strategen-JBS&G has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen-JBS&G has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen-JBS&G has also not attempted to determine whether any material matter has been omitted from the data. Strategen-JBS&G will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen-JBS&G. The making of any assumption does not imply that Strategen-JBS&G has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. Strategen-JBS&G disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

### Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

Strategen-JBS&G accepts no liability for use or interpretation by any person or body other than the client who commissioned the works. This report should not be reproduced without prior approval by the client, or amended in any way without prior approval by Strategen-JBS&G, and should not be relied upon by other parties, who should make their own enquiries.

## 7. References

- Department of Mines and Petroleum (DMP) 2014, *Dangerous Goods Safety Guidance Note, Manifest and site plan requirements for dangerous goods sites*, Resources Safety, Department of Mines and Petroleum, Western Australia.
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- Department of Fire and Emergency Services (DFES) 2020, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from:  
<https://maps.slip.wa.gov.au/landgate/bushfireprone/> [Accessed: 02/07/2020].
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- Strategen-JBS&G 2020, *Bushfire Management Plan: Lot 137 (630) Pinjarra Road, Furnissdale*. Strategen-JBS&G, Perth.
- Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire Prone Areas*, Western Australian Planning Commission, Perth.
- Western Australian Planning Commission, Department of Planning and Fire and Emergency Services Authority (WAPC et al.) 2017, *Guidelines for Planning in Bushfire Prone Areas*, Western Australian Planning Commission and Fire and Emergency Services Authority, Perth.



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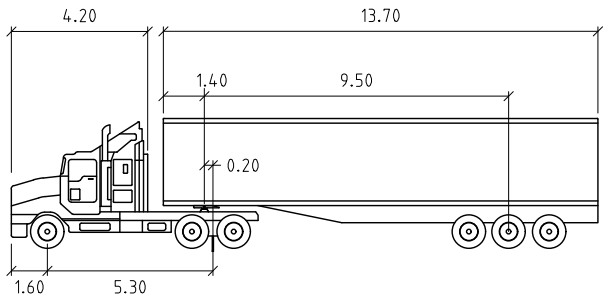
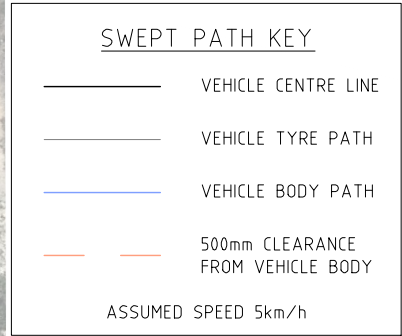
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**Document Status**

Report version	Rev No.	Purpose	Author	Reviewed and Approved for Issue	
				Name	Date
Draft Report	Rev A	For client review	Louisa Robertson (BPAD 36748, Level 1)	Linden Wears (BPAD 19809, Level 3)	2 April 2020
Final Report	Rev 0		Choose an item.	Choose an item.	Click or tap to enter a date.



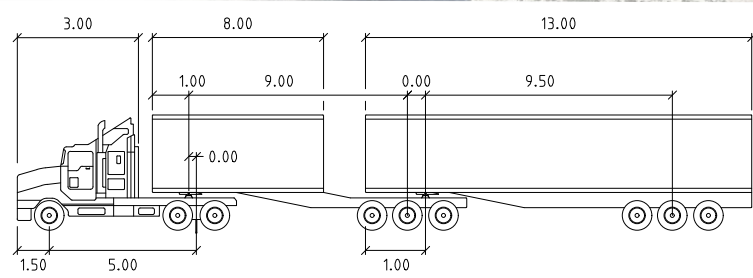




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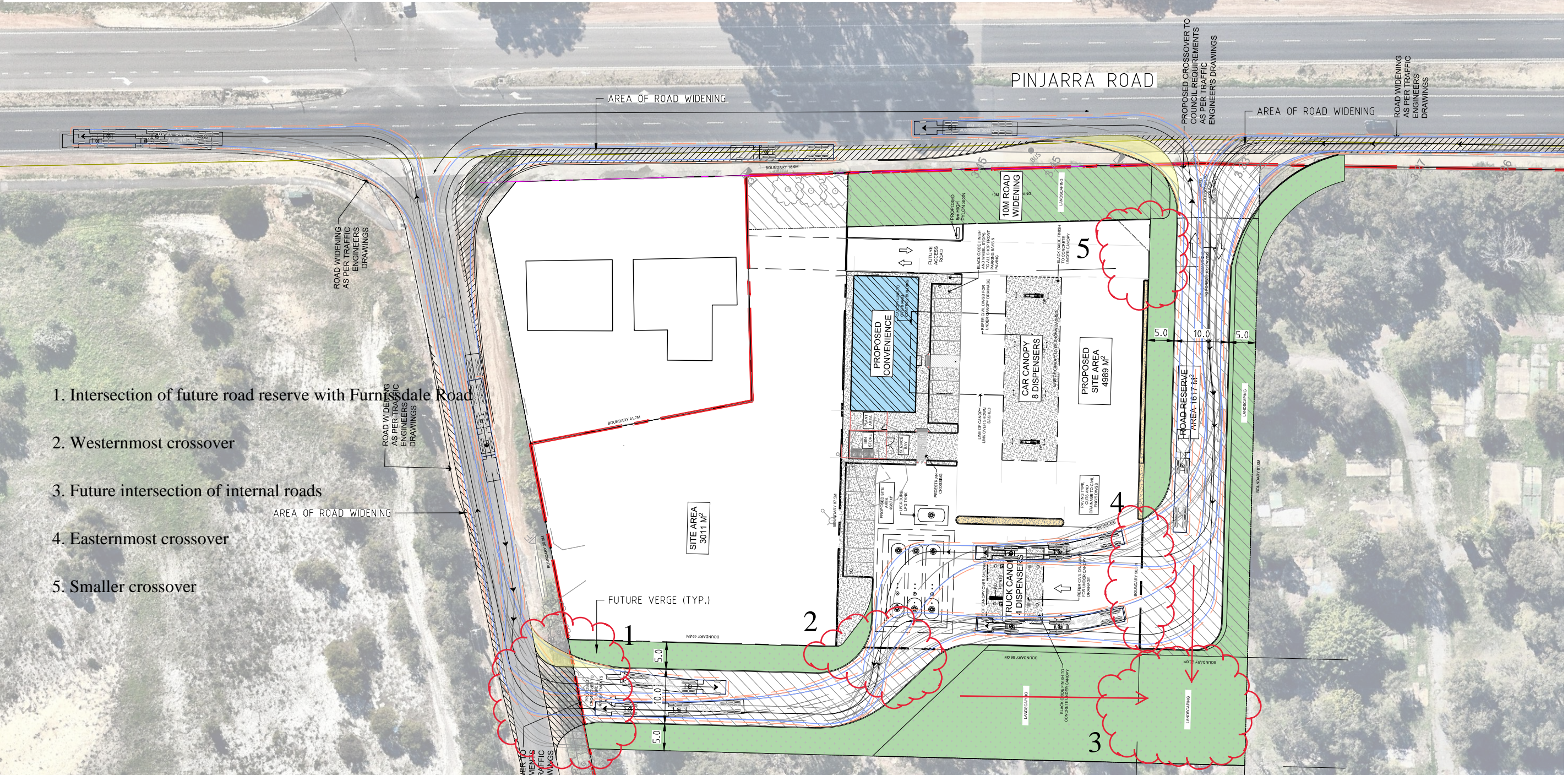
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STEERING ANGLE	: 27.8
ARTICULATING ANGLE	: 70.0



MRWA RAV 2(C) Rev 1

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TRAILER TRACK	: 2.50

LOCK TO LOCK TIME	: 6.0
STEERING ANGLE	: 26.1
ARTICULATING ANGLE	: 70.0



T:\W17700-17799\W17920 FURNISSDALE SERVICE STATION, PINJARRA\W17920-SK01\_SK07-P6.DWG PLOTTED BY SHEREE PANDAY ON 22/06/2020 AT 11:01



Melbourne 03 9851 9600  
Sydney 02 8448 1800  
Brisbane 07 3113 5000  
Adelaide 08 8334 3600  
Perth 08 6169 1000



**PRELIMINARY PLAN**  
FOR DISCUSSION PURPOSES ONLY  
SUBJECT TO CHANGE WITHOUT  
NOTIFICATION

**WARNING**  
BEWARE OF UNDERGROUND SERVICES  
THE LOCATIONS OF UNDERGROUND SERVICES ARE  
APPROXIMATE ONLY AND THEIR EXACT POSITION  
SHOULD BE PROVEN ON SITE. NO GUARANTEE IS  
GIVEN THAT ALL EXISTING SERVICES ARE SHOWN.

DESIGNED  
S.PEDRETTI

DESIGN CHECK  
R. DING

APPROVED BY  
R. DING

DATE ISSUED  
27.02.2020

SCALE  
A3 - N/A

CAD FILE NO.  
W177920-SK01\_SK07-P6.DWG

FURNISSDALE SERVICE STATION  
SWEPT PATH

DRAWING NO. W177920-SK01

SHEET 01 OF 07

ISSUE P6



Craig Matthews  
644 Pinjarra Road  
Furnissdale WA, 6209  
0427 774 605

Shire of Murray Reference: P230/2019 PI03/137

Mr Rhys Bloxsidge  
Coordinator Statutory Planning  
Shire of Murray

Dear Sir;

RE: Application for Planning Approval for a Service Station  
Lot 137 (630) Pinjarra Road, Furnissdale

In response to your letter requesting your interest in my comments, I have the following concerns for your consideration;

- The residence next door to the proposed site (644 Pinjarra Road) belongs to myself and the occupants include my wife, 2 teenage daughters (18 and 16), our son (24) who has a severe mental disability and myself.
- Considering the proposed plan has the service station footprint running approximately 90.5m along the boundary of my property approximately 30 metres in from the boundary, my house is only 60m from the 24/7 trafficable areas of the station, with full visibility from the service station and with the current fencing arrangement there will be no privacy, noise barrier or light blockage to reduce its impacts to my property.
- Our dependent son has a severe disability (smith's magenis syndrome) and responds in an aggressive manner to light and noise during the hours of darkness. This causes him to wake up or stay awake and he is non-verbal and highly aggressive and distractions lead to violent outbursts which have impacted me and my family in physically altercations.
- The United 24, is a 24 hour service operation enabling trucks and vehicles to access fuel and commodities 24/7 which will make the area both illuminated heavily and at times very noisy during all hours and outside of normal residential working hours.
- Lot 137 has visits from police multiple times per week who deal with drug users on that property. This was the reason the dwellings and sheds were demolished however it has not stopped the antisocial behaviour. We have had the police attend our property from people jumping the fence to our property and this property for some time is a security issue which has resulted in us having dogs on the property to prevent anti-social people jumping the fence. Consideration needs to be given to reducing the ability for this behaviour to continue on that area.
- The coles service station directly across the road (corner of Watson Dr and Pinjarra Rd in Barragup) has been broken into multiple times and having this service station close to our premise is a security threat to our dwelling. We do not want to allow potential organised or drug fuelled crime access to our residence
- I work adhoc FIFO (away from the premise) approximately 1 week every month and my wife works alternating shifts on weekends
- Although risks of environmental catastrophes relating to petrochemical hydrocarbons (explosion, spillage ect) are managed and reduced, a risk remains with the potential for incidents to occur, and with the potential in close proximity to our residence is a cause for concern.

We would like the following considerations implemented to support our approval for this;

1. Installed along the fuel stations boundary fence (between the fuel station and our residence) and at a minimum of 10 m into their rear boundary, and at the cost of the proposing company that a masonry type wall (ie; limestone or brick) to a minimum of 2 metres (there is a 6 foot diamond mesh fence there currently) to prevent;
  - a. Noise from hours of operation outside of residential working hours
  - b. Lighting from all lighting outside of residential working hours
  - c. Maintain a level of security preventing anti-social people and potential criminals onto or around our property considering at times I work away and there are young females alone inside.
  - d. Maintain a level of privacy also considering at time I work away and young ladies are in our residence
  - e. Reduce impact from incidents relating to risks associated with petrochemical hydrocarbons (explosion, spillage ect)
2. Should the proposal be awarded and the construction go ahead, we would also request due being a residence that construction and any necessary demolition activities only be done during residential working hours.



Craig Matthews  
644 Pinjarra Road  
Furnissdale WA, 6209  
0427 774 605

Yours Sincerely,

A handwritten signature in black ink, appearing to be 'CM' or similar initials, written in a cursive style.

Craig Matthews

# Local Planning Policy

## Barragup Furnissdale Activity Centre

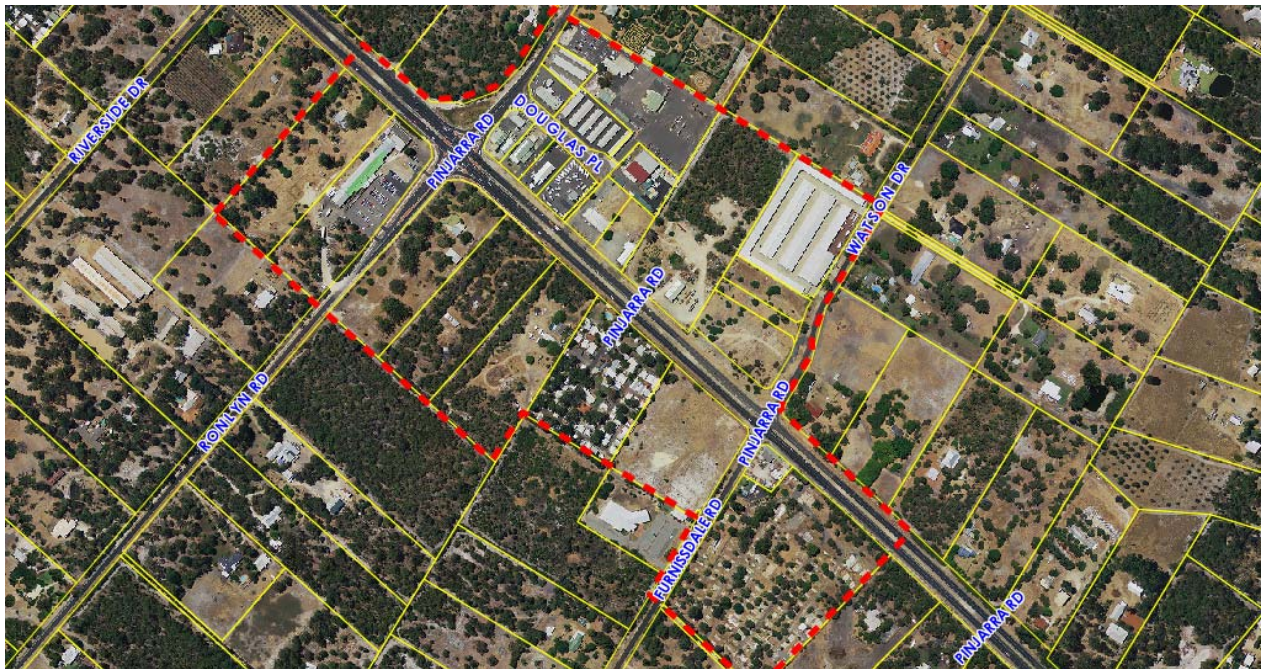
Prepared by Planning and Sustainability Services  
May 2018

# Local Planning Policy

## Barragup Furnissdale Activity Centre

### Background

This Policy applies to all development within the Barragup Furnissdale Activity Centre, as outlined in the plan below.



### Planning Approval Requirements

All proposals for development within the centre require the Planning Approval of the Shire prior to the commencement of works, unless specifically exempt by the Shire's Town Planning Scheme.

Applications will need to clearly demonstrate that the proposal meets the objectives and requirements of this policy. Applications must also meet any other requirement of the Shire's planning framework that may be applicable for a particular property under the Scheme or any applicable Outline Development Plan, Structure Plan, Local Planning Policy or Detailed Area Plan.

### Objectives

1. To provide for a high quality, comprehensively planned activity centre that provides an attractive and functional western gateway to the Shire.
2. To provide for safe, functional and coordinated vehicular and pedestrian access to and within the centre.
3. To provide for a vibrant and diverse main street based neighbourhood centre to serve the daily and weekly needs of the Barragup and Furnissdale communities.
4. To provide an appropriate interface to protect the character and amenity of land adjacent to the centre.

## Requirements

### Vehicular and pedestrian access

The vehicular and pedestrian access layout is to be as set out below and depicted on the plan attached to this policy. The key components of this are:

1. Traffic signals at the intersections of Pinjarra Road with both Furnissdale Road/Watson Drive and Ronlyn Road/Husband Road. This will include channelisation of traffic lanes and associated localised road widening.
2. Four well distributed left turn in only vehicular access points to Pinjarra Road with associated 120 metre long left-turn deceleration lanes. An additional restricted movement vehicular access point to Lot 151 may be considered if this can be appropriately justified to Main Roads Western Australia and Shire satisfaction by a traffic assessment.
3. The closure of the existing Pinjarra Road median opening approximately midway between Ronlyn and Furnissdale Roads.
4. Access points from the side streets at Ronlyn Road, Husband Road, Furnissdale Road and Watson Drive to be no closer to the ultimate Pinjarra Road boundary, identified by the Primary Regional Road reservation under the Peel Region Scheme, than 30 metres for a left-in left-out access and 60 metres for a full movement access.
5. East-west access through the centre is to be provided for by integrated shared driveways protected by easements in gross or public roads, including the extension of Douglas Place eastwards to Watson Drive as shown on the plan attached to this policy.
6. The widening and upgrade of Furnissdale Road to a 26 metre wide two lane boulevard road, with 5 metre wide verges, 5 metre wide traffic lane incorporating a cycle lane and a 6 metre wide central median.
7. The redesign of Ronlyn Road to a main street standard with on-street car parking and fully paved verges, street trees and street furniture.
8. Dual use paths along both sides of Pinjarra Road, Furnissdale Road, Douglas Place and along the eastern side of Husband Road and the western side of Watson Drive with clear pedestrian pathways connecting key development entries to these paths.
9. Pedestrian paths with a minimum width of 2 metres along the front of buildings and providing convenient pedestrian connections to adjacent buildings.
10. Provision for bus embayments within Pinjarra Road adjacent to Ronlyn Road.

It is noted that these access arrangements are ultimate and that a practical application of this policy will be required over time to ensure all lots retain access to the road network

## Precincts

The centre contains three distinct precincts with separate provisions for each precinct designed to provide a different purpose and character. The extent of each precinct is shown on the plan attached to this policy.

### **Neighbourhood Centre Precinct**

#### Character statement

The neighbourhood centre precinct will provide a focal point for the Barragup and Furnissdale community. The precinct will focus on providing for the daily and weekly needs of the nearby population. A diverse range of uses will ensure that the precinct remains active both during the day and evening. There will be a strong focus on the pedestrian within the precinct with emphasis on the provision of a safe, comfortable and accessible public realm. The main street design will encourage low vehicle speeds and the ability for safe



pedestrian movement across Ronlyn Road. The built form will be relatively intense, continuous and be constructed up to the street. The human scale and design elements of buildings offer high pedestrian amenity and create a sense of enclosure providing for an active, safe and comfortable street environment. A centrally located public square will be the key focus of activity within the precinct. The building design, materials and colour treatment as well as landscape themes reinforce a distinct local identity.

### Preferred uses

Land use permissibility for the precinct is guided by Town Planning Scheme No 4.

A diverse mix of land uses is encouraged within this precinct with preferred uses being those which provide for the daily or weekly household shopping and community needs of the nearby population. At street level this should include retail, office, medical, personal services, day care, places of worship, leisure and entertainment uses including licenced premises, restaurants and cafés. Above street level offices and residential accommodation are encouraged.

Other uses that would be more appropriate to other activity centre types and in particular those uses that would serve greater than a neighbourhood catchment such as bulky goods retailing or drive through facilities are not considered suitable for this precinct.

The extent of retail floor space will be based on a retail needs assessment based upon the existing and future population projections for Barragup and Furnissdale.

### Design Guidelines

#### ***Height:***

Development is to present a minimum two-storey façade to Ronlyn Road and no more than three storeys.

Landmark buildings are required at the northern and southern entrances to the precinct as shown on the plan attached to this policy. These buildings are required to be developed with high quality architectural elements that bring focus and prominence to the location, including emphasised building scale and architectural features that draw attention to corners and building entrances.

#### ***Setbacks***

Buildings shall be constructed to the Ronlyn Road street boundary.

#### ***Building form and character***

Development is to be arranged and designed in a manner that will maximise pedestrian activity along Ronlyn Road. This should include strategically locating customer entrances to key land uses and car parking areas.

A public square measuring approximately 25 metres by 25 metres is to be incorporated into the built form on the western side of Ronlyn Road in a central location as shown on the attached to this policy.

Development is to provide for a permanent built frontage to Ronlyn Road and the public square, with the exception of pedestrian and vehicle access ways as shown on the attached to this policy.

All development must provide the primary customer entrance/s to Ronlyn Road and the public square with finished floor levels at grade with the adjoining pathways.

Architectural form and character must avoid large unrelieved expanses of wall or roof, where they can be seen from the public realm. The mass of the building façades is to be visually broken down by use of architectural treatments, building structure, cladding, glazing and colours.

Building frontages to Ronlyn Road and the public square are to be predominantly glazed with no more than 30% of the façade comprising solid walls. Ground floor windows are to have unobscured glass where facing Ronlyn Road. The use of reflective, heavily tinted, obscure glass, painting out or otherwise obscuring windows to Ronlyn Road is not permitted.

Building colours, materials and architectural themes should generally be sympathetic and complementary with the surrounding rural/natural environment.

Verandahs or awnings shall be used on the entire length of all buildings located along the Ronlyn Road and public square frontages to provide weather protection to the street space and building entrances. The minimum dimensions are 2.5 metres in depth and 3 metres in height above the footpath.

### ***Signage***

A high standard of signage is required as an integral part of achieving a high quality urban form in the precinct.

Signage shall be integrated into the design of the building, relate to the architectural design of the building and not obscure architectural features.

Signage shall be considered as part of building design and is to be restrained. Repetitive advertising is not permitted.

Windows are to be free of advertising in the zone between 1 and 2 metres above the pavement to allow unhindered visual exchange between the interior and exterior of the buildings.

Planning applications for any buildings within the activity centre are to include signage strategies.

### ***Car parking***

Car parking shall be provided at the rate provided for in Town Planning Scheme No 4.

All parking (excluding on-street parking) and all service access is to be at the rear of buildings.

Car parking areas shall have large, canopy trees at close intervals for shade and visual amenity and lighting for safety. These trees shall be maintained on an ongoing basis.

### ***Bicycles***

Provision shall be made for secure bike parking for employees and the public and 'end of trip facilities' for employees.

Public bike parking facilities are to be located so they do not disrupt pedestrian movements within the precinct.

### ***Servicing***

Servicing shall be considered as part of building design. In order to ensure active street fronts and public spaces, all rubbish collection, loading areas, trolley storage areas and service zones shall be integrated into buildings, located at the side or rear of buildings. Service areas are to be screened and designed to minimise noise impacts on surrounding areas. Service zones should not be located on the street front or disrupt key pedestrian movement routes.

All services including air conditioning plant located on the roof should not be visible from the surrounds, noting that adjoining buildings may be developed with a number of levels. Services that must be located within and/or abutting the street must be integrated into the design of the building. These services shall be designed and coloured to blend into building façades and the street.

## **Business Precinct**

### **Character statement**

The business precinct will provide for a range of uses that require relatively large sites for retailing of bulky goods, highway focussed commercial and service activities. The precinct will successfully integrate into the surrounding 'rural' landscape setting with site planning, building and landscape design reinforcing this landscape and providing a distinctively local identity. Pedestrian and vehicular traffic has been comprehensively planned to provide safe, convenient and easy movement to and within the precinct. Well designed building frontages with restrained and coordinated signage provides an inviting streetscape to this important gateway into the Shire.

### **Preferred uses**

Land use permissibility for the precinct is guided by Town Planning Scheme No 4.

A wide range of land uses is encouraged within this precinct with preferred uses being those which provide for the retailing of bulky goods, highway focussed commercial and service activities. Those sites with frontage to Pinjarra Road are preferred for showrooms, retail warehouses, open air display and uses focussed on servicing of vehicle traffic such as service stations and drive through take away food outlets. Preferred uses for those sites with less exposure to passing traffic are motor vehicle servicing and associated businesses, storage facilities and other service industries.

Uses with a focus on manufacturing or external storage of goods that would impact on visual or other amenity such as factories, landscape supplies, building yards or motor vehicle wrecking or are not considered suitable for this precinct. In addition, pedestrian based uses that would complement or reinforce activity within the neighbourhood centre precinct are not considered suitable for this precinct. The exception to this is the Western Power depot located on Lot 13. This use is considered acceptable on Lot 13 given its relatively obscured location.

### Design guidelines

#### ***Height***

Development is to present a minimum two storey façade (or equivalent) and no more than three storeys (or equivalent).

#### ***Setbacks***

East of Ronlyn Road, buildings are to be setback a minimum of 15.5 metres and a maximum of 21 metres to the ultimate alignment of Pinjarra Road, being the boundary of the Primary Regional Road reservation identified under the Peel Region Scheme, and secondary streets with adjacent shared driveways as shown on the plan attached to this policy.

West of Ronlyn Road building setbacks to the ultimate alignment of Pinjarra Road is to be a minimum of three metres.

#### ***Building form and character***

The elevation of buildings facing public streets is to be designed to address the street.

Building elevations on corner lots must address both street frontages with a high standard of architectural design.

Architectural form and character must avoid large unrelieved expanses of wall or roof, where they face the public realm.

Where more than one building is planned for a site, the design must result in the creation of a group of integrated buildings presenting a harmonious image.

The main entrance to each building is to be on the front elevation or close to the front of the building, clearly visible from the street.

Entrance points to buildings are to be designed as focus points and must provide protection for pedestrians by means of substantial integrated building elements such as a verandah, canopy or colonnade.

#### ***Materials and colours***

Proposals which exhibit broad façades of a uniform finish will not be acceptable. The aim should be to divide up the façades into contrasting smaller areas by introducing differing colours, materials and forms.

Simple building structures need not be bland and unattractive; consideration should be given to 'breaking up' the façade to create interest using:

- Different materials such as concrete panels, profiled metal cladding, fibre cement cladding, face brickwork, stone panels separately or in combination.
- Different materials to express changes in the form of the building.

- Feature elements such as the louvre vents and screens, exposed steel columns and bracing, careful placement of roller shutters.
- Vertical, horizontal and/or angled grids to break up unrelieved wall surfaces. These could be expressed feature joints in pre-cast concrete panels, fibre cement panel joints, brick banding or rendered panels.
- Division of the façade into top, middle and bottom elements using differing materials, grading of colours, horizontal lines such as dado line or parapet cappings.
- Projecting features such as canopies, sun shading, overhanging roof etc to create shadows on the façades.

Where a single development comprises multiple units occupied by multiple independent tenancies, the use of colours, finishes and materials for each unit should be complementary, whilst allowing each tenancy to be easily distinguishable and identifiable.

Building colours should generally be sympathetic and complementary with the surrounding rural/natural environment and to site landscaping.

Large areas of one material should be treated with muted colours and tones avoiding strong hues. Large expanses of zincalume metal finished cladding will not be accepted.

Small and important building elements such as a feature wall, canopies, steel bracing and columns, sunscreens, ventilation louvres etc should be treated with strong highlight colours to provide visual interest and relief on the building façades.

### ***Landscaping***

A minimum 8% of the site is to be set aside for landscaping, including the first 2 metres of a site adjoining all public roads. Landscape areas should be designed and located to complement the building design.

Existing significant trees should be maintained and incorporated in car parking areas and landscape areas where this is reasonably practical.

Car parking areas shall be provided with native trees at the rate of 1 per 4 car bays for shade and visual amenity. These trees shall be maintained on an ongoing basis.

Landowners are to landscape all adjacent road verges and be responsible for verge maintenance.

A landscape plan is to be prepared for each development site by a qualified landscape architect or designer as a condition of approval, with landscaping implemented in accordance with the approved plan prior to the development first being occupied.

### ***Car parking and access***

Car parking shall be provided at the rate provided for in Town Planning Scheme No 4.

Car parking areas are to include the areas set aside for this purpose on the street side of service roads as shown on the plan attached to this policy.

Car parking areas are to be designed as far as practical to integrate with adjoining sites.

Clear pedestrian paths are to be provided from the street pedestrian paths through the site to the main building entry.

Parking areas and access driveways must be paved or sealed with asphalt.

### ***Bicycles***

Provision shall be made for secure bike parking for employees and the public and 'end of trip facilities' for employees.

Public bike parking facilities are to be located so they do not disrupt pedestrian movements within the precinct.

### ***Servicing and storage***



All plant and equipment areas should be screened or located away from public areas, particularly from the street. The exception to this may be where stacks or ductwork that are necessary for the building function are designed to be a feature design element of the building.

No open storage of goods, unserviceable vehicles or machinery shall be carried out on within the front boundary setback area (forward of the building line), which shall be used only for landscaping and drainage, car parking, servicing, loading and unloading, or where appropriate and subject to the approval of the Council, for trade display.

All open storage areas shall be screened from the street and adjoining properties by landscaping, fencing and/or other means approved by the Shire. Service areas to be located and designed to minimise noise impacts on surrounding areas.

Roof space shall be designed to conceal any plant, equipment, lift motor rooms etc.

### ***Fencing***

No fencing is to be constructed within the street setback area.

The minimum fencing standard in the precinct where fencing is visible from the street is an 1800mm high metal tube framed vertical pale and horizontal rail fence with powder coat finish. All vertical pale fencing must feature a minimum nominal open area of 80%.

### ***Signage***

A high standard of signage is required as an integral part of achieving a high quality urban form in the precinct.

Signage shall be integrated into the design of the building, relate to the architectural design of the building and not obscure architectural features.

Signage shall be considered as part of building design and is to be restrained. Repetitive or portable freestanding advertising such as banners, A-Frames or flags are not permitted.

Planning applications for any buildings within the precinct are to include signage strategies.

### ***Western Power Depot (Lot 13)***

Given the specialised use of Lot 13 as a Western Power Depot and its relatively obscured location, development of Lot 13 is not subject to the design guidelines set out above. Development on this lot is to be considered on its merit having regard to the potential impacts on the character and amenity of the adjoining properties and the general area.

## **Residential Precinct**

### **Character statement**

The residential precinct will provide part of a transition from the neighbourhood centre precinct to the predominantly single residential character beyond the centre. Higher residential densities are encouraged to maximise the population within walking distance of the centre and in order to provide for community needs, allow for lifestyle choice, promote affordability and encourage access to services.

The precinct will provide for a mixture of dwelling types which will offer variety of housing forms. Dwellings will front the west with vehicular access from the shared driveways within the centre not only provide for improved streetscape but also acoustic protection for residents from the centre activity. Tree lined walkways through the precinct provide safe and convenient pedestrian links between the neighbourhood centre and residential area beyond.

The close proximity to the services and transport links of the Centre makes this precinct well suited to accommodate home based and other low scale businesses and also ancillary dwellings, in the form of a laneway fronting studios. These uses front the adjoining centre shared driveway in order to promote improved surveillance of adjacent areas.

### **Preferred uses**

Land use permissibility for the precinct is guided by Town Planning Scheme No 4.

A wide range of dwelling types including attached and detached terraces, townhouses and small scale multiple dwellings are preferred within this precinct.

Ancillary dwellings, home based and other small scale businesses are encouraged to front the shared driveway to the east of the precinct.

Non-residential uses except as specifically provided for in this precinct are discouraged.

#### Design Guidelines

Residential density and design is to be in accordance with the R60 requirements of the Residential Design Codes or any Residential Design policy adopted by the Shire, except as otherwise set out below.

All dwellings are to be oriented toward and are to address the proposed primary street frontage which is proposed to be provided with the subdivision of the adjoining Lot 150. In addition all dwellings adjoining the pedestrian walkways shown on the plan attached to the policy and Pinjarra Road are to address and orientate toward these areas.

Vehicular access is to be obtained from the adjacent shared driveway shown on the plan attached to the policy.

Design of all development is to minimise the impact of noise from activity associated with the adjoining development and traffic from Pinjarra Road.

All residential dwellings shall incorporate large windows, balconies, outdoor living spaces and/or terraces that overlook the primary street and, where applicable, Pinjarra Road and pedestrian walkways.

Signage associated with any businesses is to be of a high standard, be integrated into the design of the building, relate to the architectural design of the building and not obscure architectural features. Signage shall be considered as part of building design and is to be restrained. Repetitive or portable freestanding advertising such as banners, A-Frames or flags are not permitted.

#### **General Provisions**

All development within the centre is to be connected to reticulated sewer and water.

All development is to be designed and located to protect the character and amenity of the adjoining Special Rural, tourism based and residential lots. Applications are to address the means of achieving this objective which may include reference to development setbacks, screen landscaping, fencing, landscape and sensitive placement and treatment of service areas, mechanical plant and lighting.

Development is not to encroach within the 10 metre road widening to Pinjarra Road as reserved in the Peel Region Scheme as Primary Regional Road.

Shared driveways as shown on the plan attached to this policy are to be protected by an easement in gross in favour of the public at large. The shared driveways and walkways shown along the southern side of Lots 151 and 403, between the Neighbourhood Centre/Business precincts and the Residential Precincts as well as the walkways shown on Lot 151 are to be created as rights of way/pedestrian access ways as relevant and are to be constructed with the land being ceded free of cost to the Crown and without payment of compensation at the time of subdivision or development of Lots 151 and 403.

Stormwater drainage is to be treated using water sensitive urban design techniques. An Urban Water Management Plan consistent with the Shire's Water Sensitive Urban Design Policy and the requirements of the Department of Water is to be provided as part of the application for planning approval.

An Acid Sulphate Soils Management plan may need to be prepared and implemented as part of development works.

A Mosquito Management Plan may need to be prepared and implemented as part of the development works.

## Administration

Directorate		Officer Title	
Planning and Sustainability		Director Planning and Sustainability	
Version	Decision to Advertise	Decision to Adopt/Amend	Current Status
1	OCM14/019 – 27/2/2014	OCM14/164 – 18/12/2014	Adopted

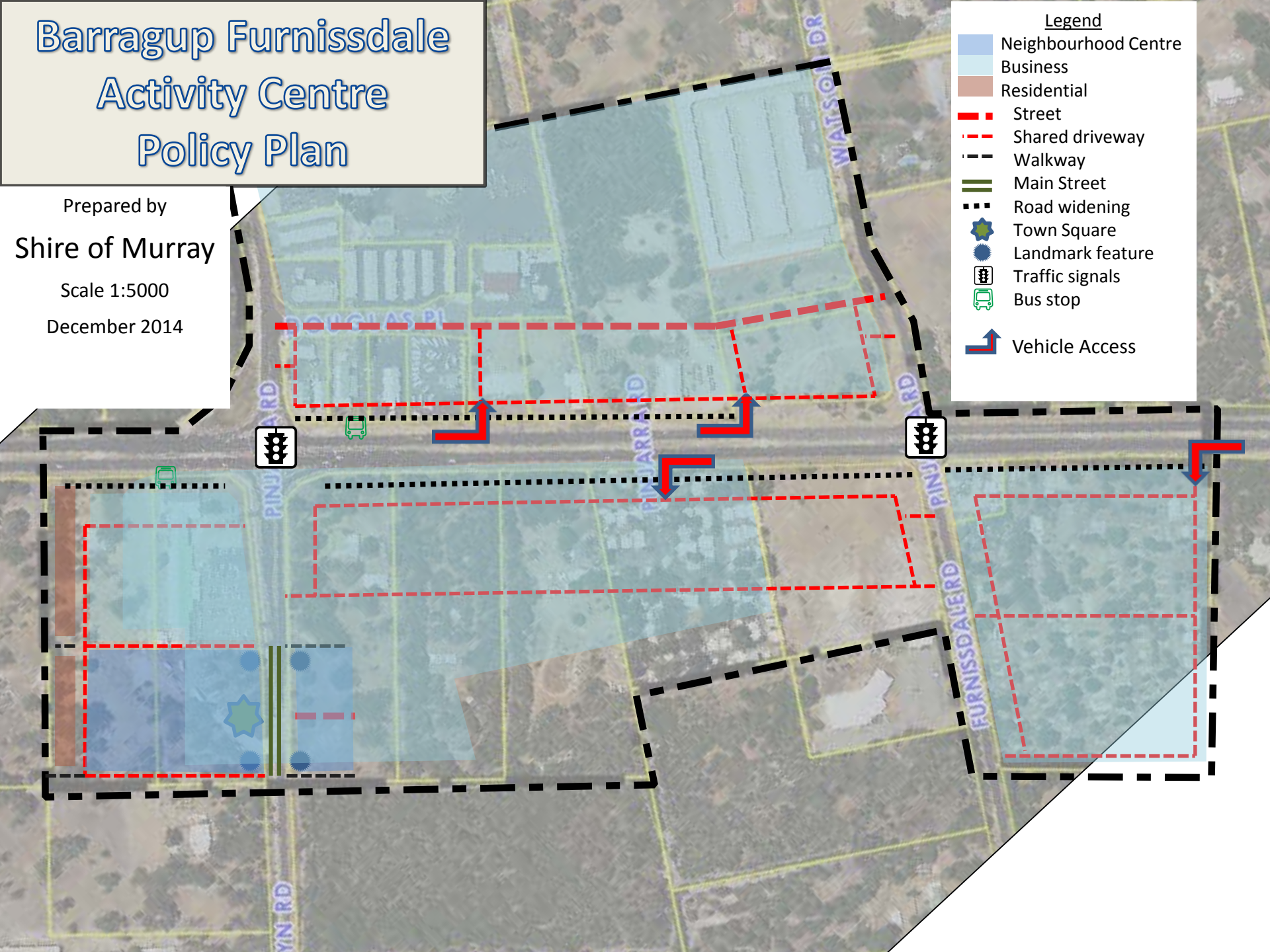
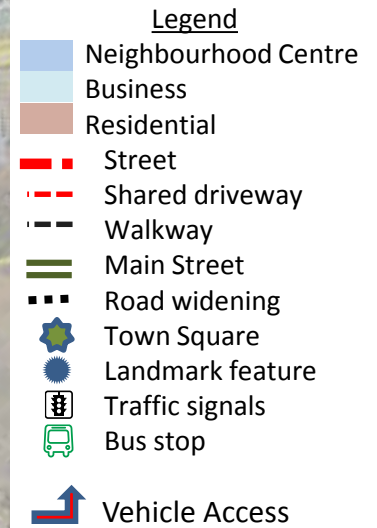
# Barragup Furnissdale Activity Centre Policy Plan

Prepared by

Shire of Murray

Scale 1:5000



December 2014





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## Form 1 – Responsible Authority Report (Regulation 12)

<b>Property Location:</b>	Lot 137 Pinjarra Road (with frontage also to Furnissdale Road), Furnissdale
<b>Development Description:</b>	Petrol Station and Convenience Store
<b>DAP Name:</b>	Metro Outer Joint Development Assessment Panel
<b>Applicant:</b>	Yolk Property Group c/- Urbis
<b>Owner:</b>	Mandurah Spotlight Property 2 Pty Ltd
<b>Value of Development:</b>	\$2,800,000
<b>WAPC Reference:</b>	DAP/20/01742
<b>Responsible Authority:</b>	Western Australian Planning Commission
<b>Authorising Officer:</b>	Planning Director Metropolitan South & Peel
<b>DAP File No:</b>	DAP/20/01742
<b>Report Due Date:</b>	3 July 2020
<b>Application Received Date:</b>	13 January 2020
<b>Application Process Days:</b>	172
<b>Attachment(s):</b>	Attachment 1 - Peel Region Scheme Locality Plan Attachment 2 - Proposed Development Attachment 3 - Aerial Photograph Attachment 4 - Activity Centre LPP Attachment 5 - Approved Site Plan Attachment 6 - Potential Furnissdale Road Roundabout

### Officer Recommendation:

That the Metro Outer Joint Development Assessment Panel resolves to:

1. **Refuse** DAP Application reference DAP/20/01742 and accompanying plans pursuant to clause 35 of the Peel Region Scheme, for the following reasons:

### Refusal Reasons

1. The proposed dual vehicular access at Pinjarra Road with left-in and left-out manoeuvrability is inconsistent with:
  - (a) The *Barragup Furnissdale Activity Centre Local Planning Policy*, which only permits vehicular access from Pinjarra Road via a left turn in with an associated 120 metre-long left-turn deceleration lane and does not propose this point of access be the primary entry/exit for the subject land;
  - (b) Main Roads Western Australia does not support the proposed left-in left-out access and the applicant has not demonstrated, through the provision of a detailed concept plan, that a left-in access from Pinjarra Road can be provided in accordance with Main Roads Western Australia specifications, including:

- i. the provision of a suitable separation distance between the proposed left-in access and a future required left-turn auxiliary lane at the intersection;
    - ii. confirmation that the adjoining landowner to the east supports the left-turn lane into the proposed development, as this fronts their property and will require the closure of an existing vehicle access point and the potential relocation of another vehicle access point;
    - iii. if additional road widening is required to relocate the existing footpath and utility services within the road reserve for Pinjarra Road, and the provision of drainage infrastructure associated with the left-turn lane; and
    - iv. whether the affected landowner agrees to the acquisition of such land areas.
  - (c) Pinjarra Road has declared Control of Access under the *Main Roads Act 1930* and new access or modifications to existing access can only be approved if supported by the Commissioner of Main Roads. Roads with Control of Access have a general restriction on new access unless access has been agreed to and is provided in accordance with an approved strategy, such as the *Barragup Furnissdale Activity Centre Local Planning Policy*; and
  - (d) Western Australian Planning Commission *Development Control Policy 5.1: Regional Roads (Vehicular Access)* which states that where access is permitted, conditions may be imposed prescribing the location and width of the driveway to ensure adequate visibility and provide for the safe and convenient movement of vehicles, both entering and leaving the traffic stream. In determining such design requirements, the Western Australian Planning Commission has regard to Main Roads Western Australia standards and this is considered to include the *Barragup Furnissdale Activity Centre Local Planning Policy*.
2. The applicant has not adequately demonstrated that the proposed access arrangements, in respect to Furnissdale Road and a future access road running parallel to Pinjarra Road, are consistent with and/or will not adversely affect or prejudice the planned movement network set out in the approved *Barragup Furnissdale Activity Centre Local Planning Policy*.

## Advice

1. The Western Australian Planning Commission and Main Roads Western Australia recommend that future accessibility options within the *Barragup Furnissdale Activity Centre Local Planning Policy* be reviewed by the landowner/applicant in conjunction with Main Roads Western Australia in view of findings resulting in the assessment of the application to improve accessibility. Furthermore, the formation of a local development plan should be considered a suitable statutory mechanism to direct such access (roads and easements), road widening requirements, building footprint and/or development setbacks.

## Details: outline of development application

Peel Region Scheme zoning:	Urban and a Primary Regional Road reservation
Lot Size:	4.2829 hectares
Existing Land Use:	Vacant (formerly a caravan park)

Urbis, on behalf of Yolk Property Group, proposes to construct a petrol station and convenience retail building (proposed development) on Lot 137 (No. 630) Pinjarra Road, Furnissdale (the subject land) within the Shire of Murray (Shire). The proposed development consists of:

- a 300m<sup>2</sup> fuel sale and convenience retail building;
- eight fuel bowsters for small private vehicles with a covering canopy of 345m<sup>2</sup>;
- four fuel bowsters for trucks with a covering canopy of 145m<sup>2</sup>;
- a pylon sign;
- a total of 21 parking bays, consisting of four parking bays abutting the proposed fuel bowsters and another 17 car parking bays;
- a servicing bay;
- internal trafficable surfaces;
- external trafficable access points; and
- landscaping (**Attachment 1** - Locality Plan **Attachment 2** - Development Plans).

The subject land is located approximately 67 kilometres south of the Perth Central Area.

## Instrument of Delegation:

On 23 December 2011, the Western Australian Planning Commission (WAPC) published an instrument of delegation to local governments in the Western Australian Government Gazette.

In this respect, the instrument of delegation gives a local government the authority to determine an application (under the Peel Region Scheme) to develop land within or abutting the Primary Regional Roads reservation, where that application has been referred to Main Roads Western Australia (Main Roads WA) and the decision is consistent with the advice of Main Roads WA. Where there is disagreement between Main Roads WA and the local government, Schedule 3, clause 6 of the instrument of delegation requires the application be referred to the WAPC for determination.

The WAPC is also a responsible authority in this instance because the Shire supports dual access to Pinjarra Road, which conflicts with the recommendation of Main Roads WA.

## Background:

### *The Subject Land*

The subject land, with an area of 4.2829 hectares, is currently vacant. A caravan park previously operated on the subject land (**Attachment 3** - Aerial Photograph).



### *Barragup Furnissdale Activity Centre Local Planning Policy*

On 18 December 2014, the Shire adopted the Barragup Furnissdale Activity Centre Local Planning Policy (Activity Centre LPP). The Activity Centre LPP plans for, inter alia, the provision of safe, functional and coordinated vehicular and pedestrian access, and has been agreed to by Main Roads WA in respect of Pinjarra Road (**Attachment 4 - Activity Centre LPP**). Of particular relevance to the application, the Activity Centre LPP requires:

1. traffic signals at the intersection of Pinjarra Road with Furnissdale Road and Watson Drive, including the channelisation of traffic lanes and associated localised road widening;
2. the provision of one well distributed left turn-in only vehicular access point from Pinjarra Road into the subject land with an associated 120 metre-long left-turn deceleration lane;
5. east-west access through the centre be provided for by integrated shared driveways protected by easements in gross or public roads, including the extension of Douglas Place eastwards to Watson Drive as depicted in **Attachment 4**;
6. the widening of Furnissdale Road to a 26 metre wide two lane boulevard road, with 5 metre-wide verges, 5 metre-wide traffic lanes and incorporating a cycle lane and a 6 metre-wide central median;
8. dual use paths, inter alia, along both sides of Pinjarra and Furnissdale Roads; and
9. pedestrian paths at least 2 metres-wide along the front of buildings and providing convenient pedestrian connections to adjacent buildings.

The Activity Centre LPP constitutes the ultimate road reserve capacity required to be implemented to achieve safe and effective vehicular manoeuvrability over time to ensure all lots retain access to the road network.

### *JDAP Conditionally Approved Mixed Use Development*

On 29 August 2018, the former Metro South West Joint Development Assessment Panel conditionally approved a Mixed Use Commercial Development on Lots 401, 154 and 155 Pinjarra Road with an overall area of 6.2179 hectares and frontage of 237 metres to Pinjarra Road (DAP/17/01349 **Attachment 5 - Approved Site Plan**). That conditional approval complies with the Activity Centre LPP and includes a centralised east-west access road and left-in left-out manoeuvrability accessing Pinjarra Road, separate to required design dimensions to facilitate a slip lane to Ronlyn Road.

### *Pinjarra Road Widening*

The road reserve for Pinjarra Road is currently 40 metres-wide. However, the Primary Regional Roads reservation extends approximately 10 metres into the lots on either side of the existing road reserve, facilitating an ultimate road reserve width of 60 metres. Accordingly, the subject land is affected by a 10 metre-wide road widening requirement.

### *Lot 24 Pinjarra Road*

On the corner of Pinjarra and Furnissdale Roads, abutting the subject land along two property boundaries, is Lot 24 Pinjarra Road (Lot 24) with an area of 2,025m<sup>2</sup> (**Attachment 3**). A small machinery hire business operates from Lot 24 with no existing slip lane along Pinjarra Road, nor room to accommodate the future road widening.

## **Legislation and Policy:**

### Legislation

*Peel Region Scheme.*

*Planning and Development Act 2005.*

*Shire of Murray (with MRWA agreement) Barragup Furnissdale Activity Centre Local Planning Policy.*

### State Government Policies

*Development Control 5.1: Regional Roads (Vehicular Access).*

## **Consultation:**

### Main Roads Western Australia

The Shire referred the application and the associated Transport Impact Assessment (TIA) to Main Roads WA for comment on 15 January 2020, as required by the current instrument of delegation.

Main Roads WA advised that it opposes the proposed development on 12 February 2020 and again on 18 June 2020. The latter response followed a teleconference on 19 March 2020 to discuss access arrangements and requirements on Pinjarra Road, including the need for access to be informed by longer term modelling for the intersection and its future signalisation. In response, the applicant prepared an addendum to its initial TIA. The matters raised in both Main Roads WA responses have been combined below, inclusive of sub-headings to combine similar issues.

### *Pinjarra Road Vehicular Access Comprising Left-In and Left-Out*

1. The proposed left-in left-out vehicular access onto Pinjarra Road is not supported (only left-in is supported with design modifications required), as it is inconsistent with:
  - The Activity Centre LPP which only plans for Pinjarra Road to accommodate left-in vehicular access and does not propose it be used as the primary entry/exit for the subject land. In its original response dated 12 February 2020, Main Roads WA requested the applicant prepare a detailed design concept for a left-in access only and an associated left-turn slip lane to Main Roads WA specifications to ensure adequate separation can be provided (with the left-out access required to be deleted);
  - Declared Control of Access fronting Pinjarra Road under the *Main Roads Act 1930*, which has a general restriction on new access arrangements where alternative access exists (such as from Furnissdale Road) and/or where access has been agreed to in accordance with a strategy (the Activity Centre LPP);
  - Western Australian Planning Commission (WAPC) *Development Control Policy 5.1: Regional Roads (Vehicular Access)* as there is a general presumption on traffic and safety grounds against the creation of new driveways. Where alternative access is or could be made available from side streets, no access shall be permitted unless special circumstances apply (such circumstances

would apply for major shopping, recreation or community centres, unlike the proposed development with both left-in and left-out manoeuvrability). Where access is permitted (left-in only), the WAPC has regard to standards recommended by Main Roads WA;

- The internal access from the left-in access/crossover to the proposed development forecourt, as depicted on the site plan, requires redesigning to Main Roads WA specifications to restrict vehicle movements into a future access road running parallel to Pinjarra Road to minimise potential vehicle conflicts occurring;
- The required left turn lane into the proposed development will also conflict with driveways to adjacent properties to the east. As previously advised, Main Roads WA has requested a concept design for the left-in on Pinjarra Road be prepared for review, however, this has not occurred. The applicant will need to seek the landowner's agreement to the closure of the western driveway and the possible relocation of the eastern driveway to create a future access road;
- The existing Pinjarra Road reserve/road verge is also very narrow and it may be necessary to widen the road reserve to accommodate the left-turn lane, noting that this will need to accommodate a new path, drainage and the relocation of services; and
- The proposed development does not intend to cede any of the Peel Region Scheme reservation applying to Pinjarra Road for road widening.

#### *Clarity on Access/Easement Location*

2. The applicant must clarify whether the main access is from Pinjarra or Furnissdale Road as restricted access is required to Pinjarra Road (only left-in access is permitted with a future access road running parallel to Pinjarra Road);
3. Adjoining Lot 24 Pinjarra Road cannot retain independent vehicular access to Pinjarra Road in the longer-term due to conflicting requirements for a left-turn auxiliary lane at the intersection, and for vehicular access to be obtained via the subject land. Further clarity is required to establish where a proposed easement would be located on the adjoining corner of Lot 24 Pinjarra Road and how this lot would be accessed in practice.

#### *Furnissdale Road Complications*

4. Longer term traffic forecasts submitted by the applicant suggests the 'through lane' queues on Pinjarra Road will be very long. As a result, the length of the future left-turn auxiliary lane into Furnissdale Road cannot be shortened from the previously estimated 145 to 125 metres (dependent on the method of measurement). Accordingly, the location of the proposed access from Pinjarra Road can only accommodate a left-in connection (with no left-out connection as currently proposed).
5. A significant commercial development received DAP approval at Lots 401, 154 and 155 Pinjarra Road, Furnissdale, also within the Activity Centre LPP. This approval involved a centralised east-west access way in accordance with the adopted movement network set out in the Activity Centre LPP. The proposed development access arrangements onto Furnissdale Road should be configured to coordinate with and should not prejudice or compromise future planned access arrangements for the overall Activity Centre LPP area.
6. The adopted access location onto Furnissdale Road associated with the southern precinct movement network for the Activity Centre LPP depicts that queuing on Furnissdale Road would extend beyond the identified access points

(when combining traffic from numerous lots fronting onto Furnissdale Road, opposite the subject land). This will potentially block access locations and the potential for this to cause traffic on Furnissdale Road to back up into Pinjarra Road. The creation of a single roundabout to cater for access to developments on both sides of Furnissdale Road would address this safety issue and also potential queuing issues (**Attachment 6** - Potential Furnissdale Road Roundabout).

7. Should the use of a roundabout to address the Furnissdale Road access arrangements not be supported, any offset distance between confirmed access points and proposed intersections under the adopted movement network of the Activity Centre LPP should be reviewed to ensure that they meet relevant engineering standards.
8. The Pinjarra Road/Furnissdale Road intersection will need to be upgraded to Main Roads WA specifications to provide for traffic demands at the intersection.

#### *Miscellaneous Design Problems*

9. The local road network will also require upgrading to satisfy Restricted Access Vehicle (RAV) 4 access requirements with the necessary RAV approvals to be obtained prior to occupation of the development, noting that vehicle swept path detail will require widening to undertake a left turn from Furnissdale Road to Pinjarra Road with the potential relocation of existing service infrastructure.
10. The submitted site plan is only a basic conceptual design, depicting potential access, car parking and building footprints (with more detail required to be submitted).
11. Main Roads WA recommends an appropriate statutory mechanism, such as a local development plan, be used to confirm all access elements for the proposed development adjoining Lot 24 and coordinate access with the planning precinct to the west. A local development plan would ensure suitable controls are established to direct access at the development/subdivision stage. This will facilitate more detailed planning and consultation with the owner of Lot 24 to determine shared access arrangements.
12. The submitted development plans also need to be changed to remove annotations indicating that crossover detail to Pinjarra Road is to be developed to Shire specifications as this is a Main Roads WA responsibility.

#### Main Roads WA Recommendations

The applicant should enter into negotiations to reach agreement with the adjoining landowner to the east and the landowner for the significant commercial development at Lots 401, 155 and 154 Pinjarra Road to formulate a local development plan. This should facilitate formalising the required access arrangements to facilitate the safe manoeuvrability of traffic in conjunction with that already approved under the Activity Centre LPP.

#### Public Transport Authority

The Public Transport Authority advised that the existing bus stop along Pinjarra Road will need to be relocated (reiterated by Main Roads WA) as it will be affected by the proposed deceleration/slip lane.



## **Planning Assessment:**

### Future Pinjarra Road Traffic

The traffic impact assessment prepared in support of the application (dated December 2019) assumes traffic volumes on Pinjarra Road will grow at the rate of 0.3 per cent, anticipating 15,870 to 16,500 vehicles per day for 2020 and 2031 respectively. However, within the March 2018 Perth and Peel@3.5Million South Metropolitan Peel sub-regional Planning Framework, infill development in the region will generate about 26,500 vehicles per day by 2031 and in 2049, more than 49,000 vehicles per day.

The land reserved for Primary Regional Roads abutting Pinjarra Road in the Peel Region Scheme is required to accommodate road widening necessary to support the traffic volumes forecast for 2031 and 2049.

### Development Control Policy 5.1 Regional Roads (Vehicular Access)

The objectives of WAPC *Development Control Policy 5.1: Regional Roads (Vehicular Access)* (DC 5.1) include improving traffic flow and safety on all regional roads by minimising the number of junctions or driveways, conforming with sound town planning principles. Clause 3.1.3 states that with the continued growth of traffic in regions subject to regional planning schemes, (such as the Peel Region Scheme), it is clear that the provision of dual access is not compatible with the requirements of vehicular movement for the following reasons:

- turning traffic (both leaving and entering the road) causes conflict and is, therefore, a contributing cause of accidents. Research demonstrates that the majority of accidents happen adjacent to junctions and driveways where the most turning movements occur. Accident rates are consistently higher on roads where access is permitted than on roads with partial access control. The accident rate increases as the number of access points along the road increases; and
- junctions and driveways contribute to delays and congestion, as turning vehicles both slow and interrupt the free flow of traffic. Where commercial development abuts the road, these effects are greater because commercial development generates more turning traffic than residential developments.

Accordingly, clauses 3.3.1 and 3.3.2 of DC 5.1 seek to minimise the creation of new driveways on regional roads such as Pinjarra Road with a general presumption on traffic and safety grounds against the creation of new driveways. Where alternative access is or could be made available from side or rear streets, no access shall be permitted to the regional road unless special circumstances apply. Such circumstances include large traffic generators such as major shopping centres and recreation or community centres. Therefore, the proposed development does not constitute a special circumstance with only a petrol station and convenience store proposed.

Clause 3.3.6 of DC 5.1 further elaborates that where access is permitted, conditions may be imposed (such as the Activity Centre LPP) prescribing the location and width of the junction or driveway. Such conditions ensure adequate visibility and provide for the safe and convenient movement of vehicles both entering and leaving the traffic stream with regard to standards recommended by Main Roads WA.

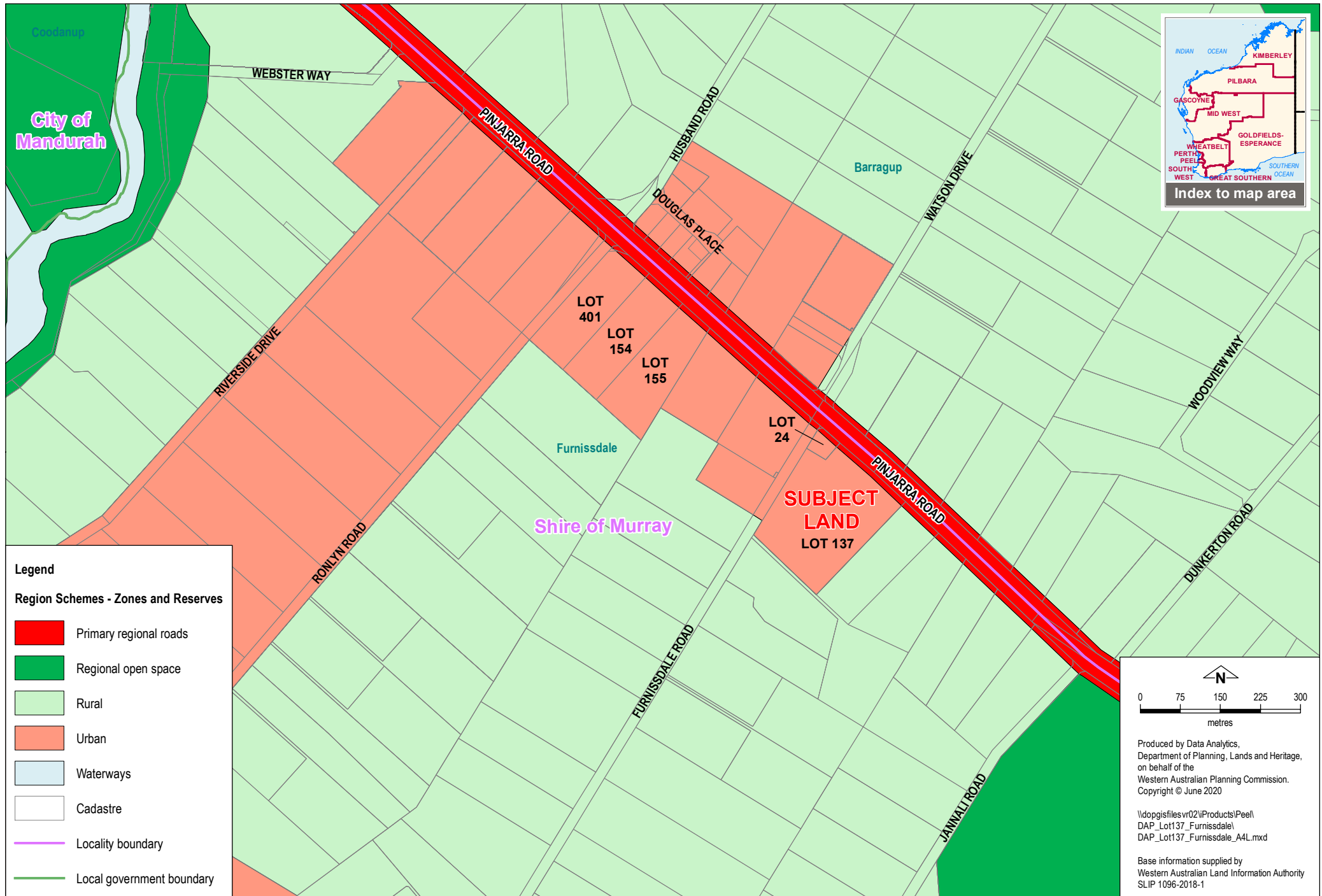
**WAPC Recommendation:**

The proposed development is recommended for refusal as:

- (a) it is inconsistent with WAPC *Development Control Policy 5.1: Regional Roads (Vehicular Access)* which aims to facilitate the safe and convenient movement of vehicles;
- (b) it is inconsistent with the Mains Roads WA and Shire agreed Activity Centre LPP;
- (c) the adjoining landowner to the east has not been consulted regarding potential changes to existing vehicular access arrangements.

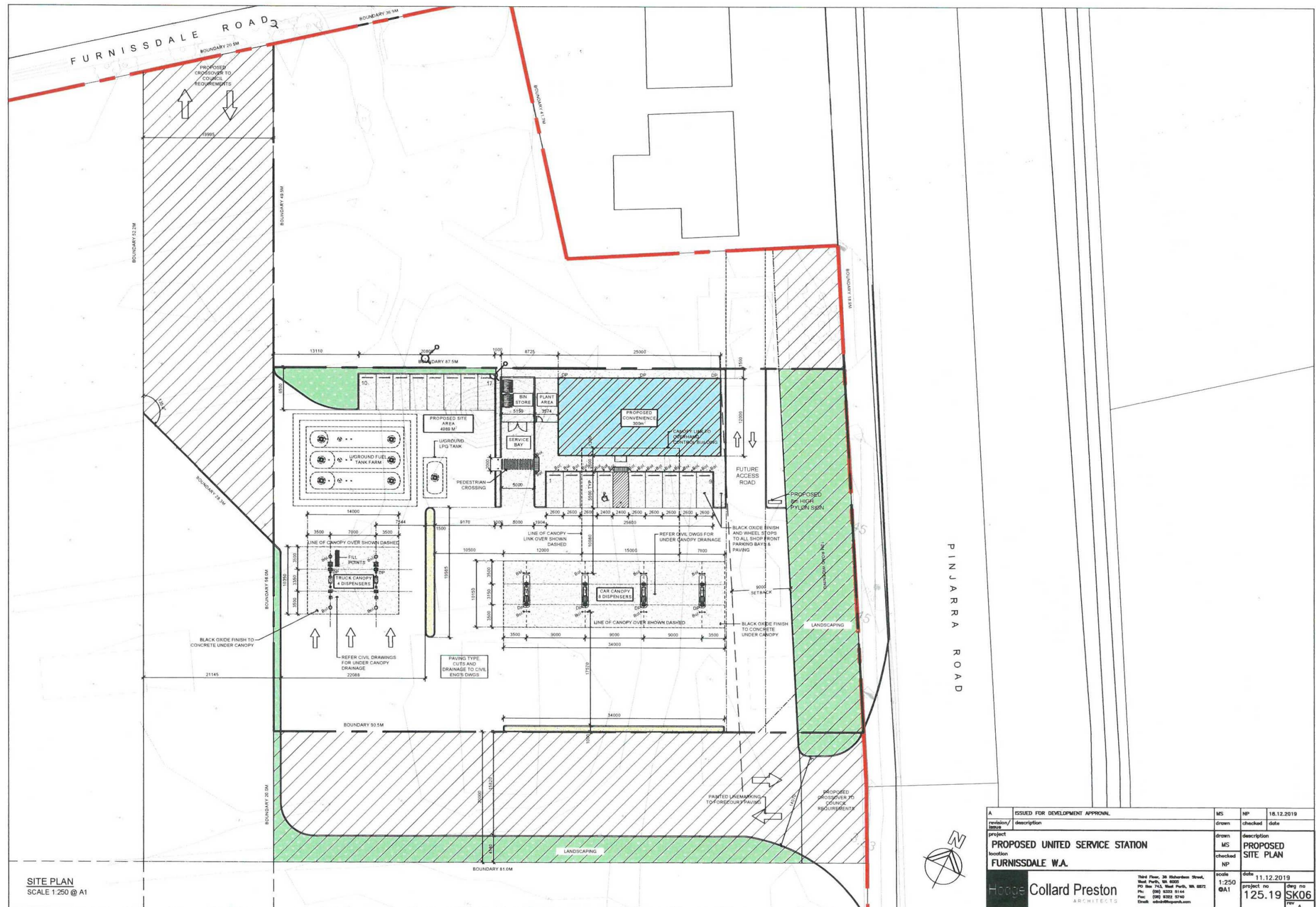
**Conclusion:**

Refusal is recommended.









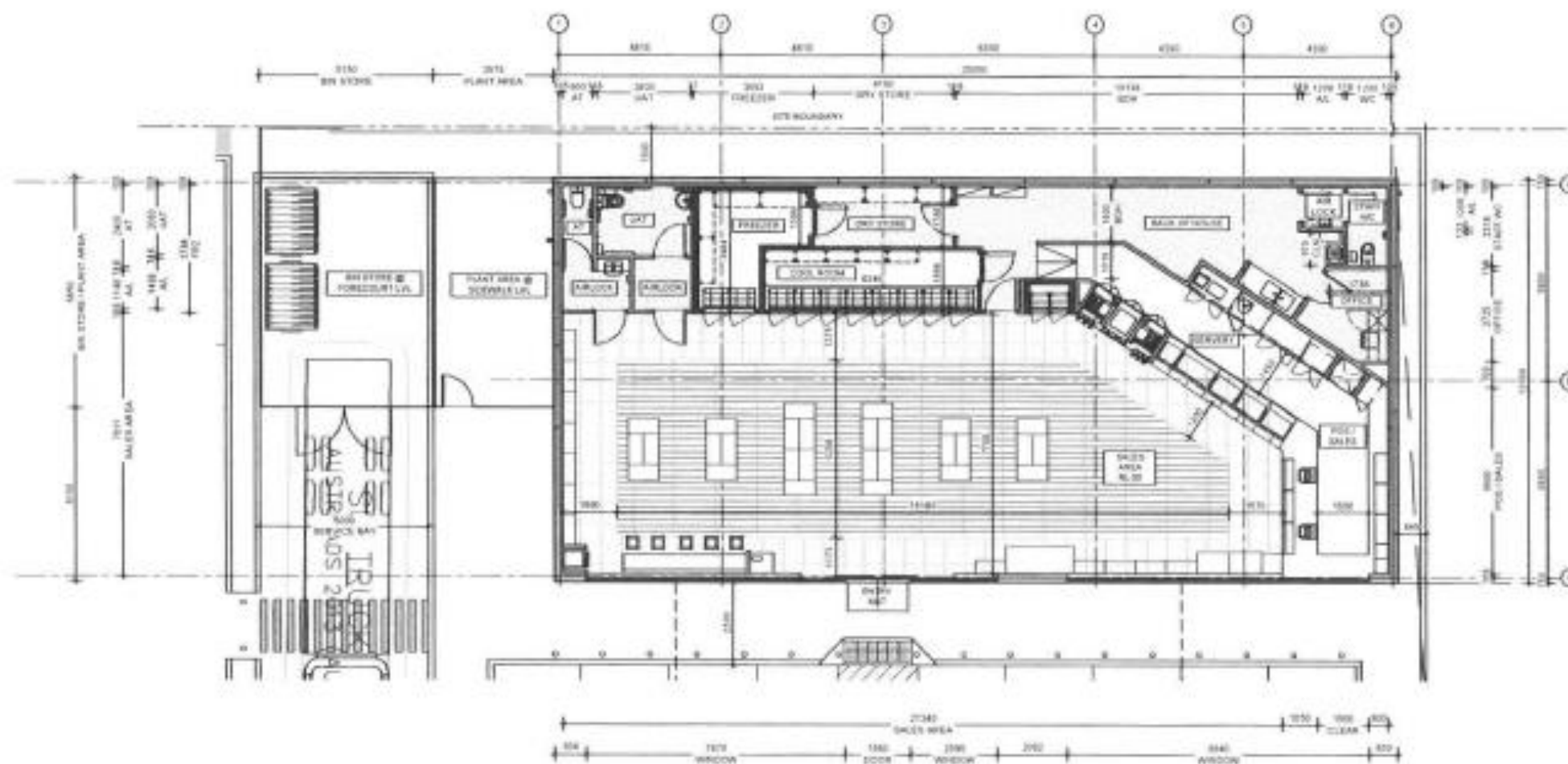
SITE PLAN  
SCALE 1:250 @ A1

ISSUED FOR DEVELOPMENT APPROVAL		MS	NP	18.12.2019
revision/issue	description	drawn	checked	date
project	PROPOSED UNITED SERVICE STATION	drawn	description	
location	FURNISSDALE W.A.	MS	PROPOSED	
		checked	SITE PLAN	
		NP		
scale	1:250	date	11.12.2019	
project no	125.19	dwg no	SK06	
rev	A			


Hodge Collard Preston

ARCHITECTS

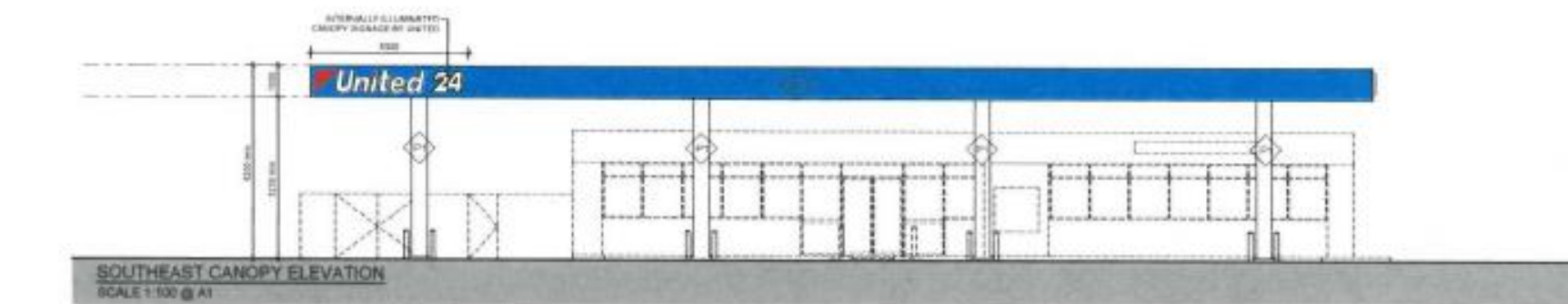
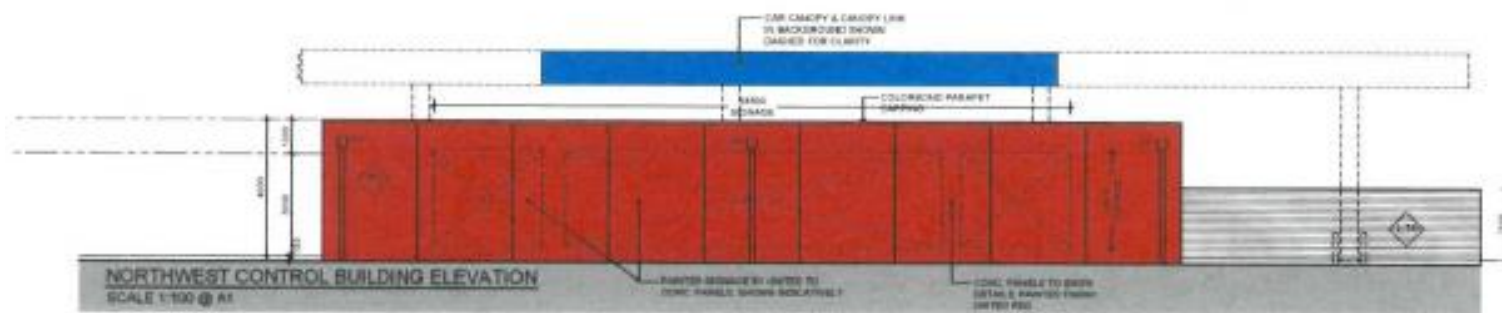
Third Floor, 38 Richardson Street,  
West Perth, WA 6005  
PO Box 743, West Perth, WA 6872  
Ph: (08) 9222 8144  
Fax: (08) 9222 5740  
Email: admin@hodge.com.au



CONTROL BUILDING FLOOR PLAN  
SCALE 1:100 @ A1

A	COUNCIL FOR DEVELOPMENT APPROVAL		MS	NP	18.12.2019
revision/ notes	description		drawn	checked	date
project			drawn	description	
PROPOSED UNITED SERVICE STATION			MS	PROPOSED FLOOR PLAN	
location			checked	NP	
FURNISSDALE, W.A.					
 Hooge Collard Preston ARCHITECTS			scale	date	
			1:100	29.11.2019	
			AT	project no	dep no
				125.19	SK07
				A	

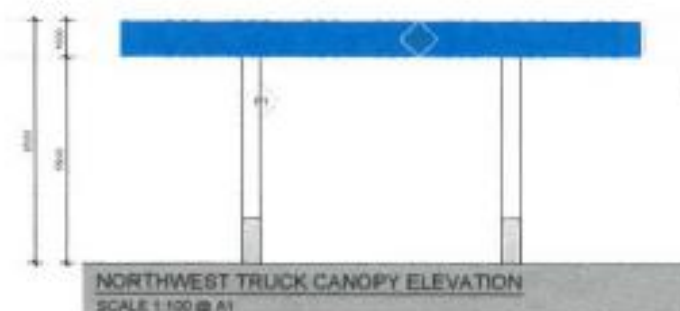




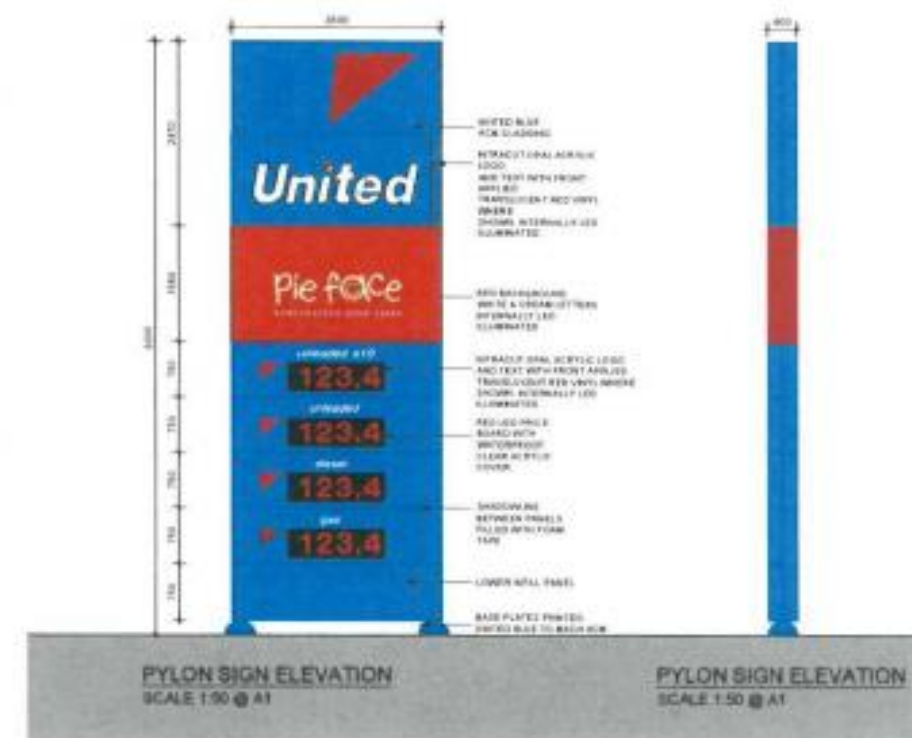
#### COLOUR LEGEND

- AC-1 AC-1 CANOPY FASCIA ALUMINUM - UNITED BLUE
- AC-2 AC-2 STORE FASCIA ALUMINUM - UNITED RED
- ST-1 ST-1 ALUMINUM CLATE ISOLATED COLOURED RED
- P1 P1 STEEL COLUMN ALUMINUM FINISH WHITE GLASSING
- P2 P2 EXTERNAL WALLS PAINT COLOUR - UNITED WHITE
- P3 P3 DOORS & WINDOWS POWDERCOATED WHITE
- P4 P4 PRECAST CONCRETE GROUND FLOOR DECKING ALUMINUM FINISHING HORIZONTAL & VERTICAL FINISH COLOUR - NATURAL FLAK
- P5 P5 EXTERNAL WALLS PAINT COLOUR - UNITED RED

REVISION	REVISION	REVISION	REVISION	REVISION	REVISION
1	2	3	4	5	6
PROPOSED UNITED SERVICE STATION	PROPOSED UNITED SERVICE STATION	PROPOSED UNITED SERVICE STATION	PROPOSED UNITED SERVICE STATION	PROPOSED UNITED SERVICE STATION	PROPOSED UNITED SERVICE STATION
FURNISSDALE W.A.	FURNISSDALE W.A.	FURNISSDALE W.A.	FURNISSDALE W.A.	FURNISSDALE W.A.	FURNISSDALE W.A.
1:100	1:100	1:100	1:100	1:100	1:100
125.19	125.19	125.19	125.19	125.19	125.19
SK08	SK08	SK08	SK08	SK08	SK08



PYLON SIGN PLAN  
SCALE 1:50 @ A1



COLOUR LEGEND

- [illegible]

#	ISSUED FOR DEVELOPMENT APPROVAL	NO	NP	18.12.2019
CONTRACT NUMBER	DESCRIPTION	REMARKS	STATUS	DATE
PROJECT	PROPOSED UNITED SERVICE STATION	REMARKS	DESCRIPTION	
LOCATION	FURNISSDALE, W.A.	NO	PROPOSED ELEVATIONS	
		CONTRACT NO.	DATE	
		10-10	29.11.2019	
		REMARKS	PROJECT NO.	SK0000
			125.19	





## Legend

Cadastre (View 1)



InQuiry Map

**DPLH BUSINESS USE ONLY**

Internal Spatial Viewer



0 0.11 0.2 Kilometres

1: 4,514  
at A4

Projection: WGS 1984 Web Mercator Auxiliary Sphere

## Notes:

The data that appears on the map may be out of date, not intended to be used at the scale displayed, or subject to license agreements. The map should only be used in matters related to Department of Planning, Lands and Heritage business.

Map was produced using DPLH's InQuiry.

Date produced:

30-Jun-2020



## Barragup Furnissdale Activity Centre Policy Plan

Prepared by  
Shire of Murray  
Scale 1:5000  
December 2014

### Legend

- Neighbourhood Centre
- Business
- Residential
- Street
- Shared driveway
- Walkway
- Main Street
- Road widening
- Town Square
- Landmark feature
- Traffic signals
- Bus stop
- Vehicle Access

