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Ferraro planning and development consultancy

PROPOSED AMENDMENT

COCKBURN CENTRAL NORTH (MURIEL COURT)

LOCAL STRUCTURE PLAN

LOTS 11 AND 12 MURIEL COURT,

COCKBURN CENTRAL

19 August 2024

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Endorsement Page

IT IS CERTIFIED THAT AMENDMENT NO. 11 TO COCKBURN CENTRAL NORTH (MURIEL COURT) LOCAL STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

20 JULY 2026

Signed for and on behalf of the Western Australian Planning Commission



an officer of the Commission duly authorised by the Commission pursuant to section 24 of the *Planning and Development Act 2005* for that purpose.

EXPIRY DATE: 19 OCTOBER 2035

List of structure plan amendments

Amendment No.	City of Cockburn reference	WAPC reference	Cadastral reference
1A	SM/M/009	NA	Lots 1, 2, 12, 13, 20, 21, 100, 101, 102 and 15 Muriel Court
1B		NA	Lots 41 and 42 Semple Court
2	110/007	NA	Various
3	110/094	NA	Lots 16 and 17 Tea Tree Close and Lot 411 Kentucky Court
4	110/103	NA	Lots 43 and 44 Semple Court
5	110/105	NA	Lot 15 Muriel Court and Lot 47 Semple Court
6	110/182	SPN/0801M-4	Lots 2, 7, 30 and 31 Muriel Court
7	110/165	SPN/0801M-3	Lots 30, 31, 32 and 33 Verna Court
8	110/181	SPN/0801M-6	Lots 52, 55 North Lake Road
9	110/184	SPN/0801M-5	Lots 49, 50, 51 and 52 Muriel Court
10	110/190	SPN/0801M-7	Lots 2, 7, 30 and 31
11	110/244	SPN/0801M-8	Lots 121 and 12 Muriel Court

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1 INTRODUCTION

The Ferraro Planning and Development Consultancy has been appointed to represent SJS Wealth Solutions, the prospective purchasers of Lots 11 and 12 Muriel Court, Cockburn Central. This report has been prepared in support of an amendment to the *Cockburn Central North (Muriel Court) Local Structure Plan - Lots 11 and 12* (the *Structure Plan*). The proposed modification seeks to modify the road layout of the structure plan as it relates to Lots 11 and 12.

This report includes a description of the following matters:

- Location of the site;
- Description of the existing land use;
- Overview of the relevant town planning and urban design issues; and
- Justification for the proposed structure plan amendment.

SITE DESCRIPTION

Lots 11 and 12 Muriel Court are located approximately 200m west of the Kwinana Freeway and 900m northwest of the Cockburn Central station, within the City of Cockburn.

The two lots can be described as:

- 132 Muriel Court being Lot 11 on Plan 224 on Certificate of Title Vol 1288 Folio 121
- 148 Muriel Court being Lot 12 on Plan 2247 on Certificate of Title Vol 183 Folio 85A

Both lots are approximately 40.4m in width and are each 9,265m^2 in size.

2 EXISTING COCKBURN CENTRAL NORTH (MURIEL COURT) LOCAL STRUCTURE PLAN

The *Structure Plan* identifies both lots for future residential development with a Residential Design Coding of R80. The *Structure Plan* as depicted on Figure 1 requires that Lot 11 provide 50% of the land required for both a future north-south road and an east-west road along the western and southern boundaries respectively. Lot 12 is required to provide the total land required for a 6.0m wide laneway along the majority of its eastern boundary and 50% of the land required a future east-west road along its southern boundary. Both lots are also required to provide the entire land requirements for a future east-west laneway, running parallel to Muriel Court.

As a consequence of the *Structure Plan* Road layout, when combined Lots 11 and 12 have two separate developable cells. The northern R80 cell is approximately 32m deep and 2,788m^2 in size and bounded by Muriel Court a future road on the eastern boundary of Lot 11 and a future laneway running parallel with Muriel Court. The southern R80 cell encompasses both Lots 11 and 12, is 1.1035ha in area and is bounded by a future 18m wide road on the western boundary of Lot 11; a future 18m wide road on the southern boundary of Lots 11 and 12; and a future 6m wide laneway on the eastern boundary of Lot 12.

The structure plan does not identify any constraints that will affect the development potential of lot yield on either Lot 11 or Lot 12.

REF. NO	AREA	PROVISIONS
DA 19	MURIEL COURT (DEVELOPMENT ZONE)	1 An approved Structure Plan together with all approved amendments shall be given due regard in the assessment of applications for subdivision, land use and development in accordance with clause 27(1) of the Deemed Provisions. 2 To provide for residential development and mixed business development where appropriate. 3 Landowners within DA 19 who front North Lake Road/Tea Tree Close between Semple and Kentucky Courts shall comply with the access requirements set out in the North Lake Road Vehicle Access Policy Plan adopted by the local government or such other arrangements as considered acceptable to the local government. 4 The North Lake Road Vehicle Access Policy Plan sets out criteria relating to: • Control over the location, design and number of crossovers. • A requirement, as a condition of development approval or subdivision, for easements in gross in the form of a public access easement on land titles. • Ensuring that, on land adjacent to North Lake Road, all traffic enters and leaves in a forward direction and is suitable for heavy rigid vehicles. 5 Notwithstanding 4 above, Council may make satisfactory arrangements for temporary access to North Lake Road where designated crossover and linking right-of-carriageways have not been created. 6 Where temporary access to North Lake Road is agreed to the terms and conditions of such access are to be set out in a legal agreement prepared at the landowners cost. 7 All development within the Muriel Court Development Area shall be in accordance with Design Guidelines adopted by the local government. 8 Each subdivision and development application in the DA area shall achieve at least 75% of the potential number of dwellings achievable under the R-Code designated for the application area on the adopted Structure Plan.

Table 1: City of Cockburn Town Planning Scheme No 3 - extract Development Area requirements for the Muriel Court Development zone

3 CITY OF COCKBURN TOWN PLANNING SCHEME NO 3

Clause 5.2 of the City of Cockburn Town Planning Scheme No 3 (TPS 3) provides detail on specific purposes and requirements that applies to designated Development Areas. Table 9 Development Areas of TPS 3 identifies Land affected by the *Structure Plan* is also included within Development Area 19 – Muriel Court (Development Zone).

Provision No. 8 requires that each subdivision and development application in the area shall achieve at least 75% of the potential number of dwellings achievable under the designated *Structure Plan* R-Code. Applying the 75% minimum density requirement ensures a gross residential density average of 31.8 dwellings per hectare can be achieved over the entire *Structure Plan* area and a gross residential density of 77.8 dwellings per hectare within the 800m walkable catchment of the Cockburn Central station.

Both Lots 11 and 12 are included with the R80 code which provides a 120m^2 average lot size. Based on this 120m^2 average, Lots 11 and 12 have a combined potential of 115 dwellings. Under the requirements of DA 19, a total of 86 dwellings are required for Lots 11 and 12 to meet the 75% dwelling target.

It is noted that at the time the Structure Plan was prepared and adopted the 2002 Residential Planning Codes applied, which would have anticipated a lot yield of only 56 dwellings in total for Lots 11 and 12.

4 PROPOSED STRUCTURE PLAN AMENDMENT

The proposed amendment to the *Structure Plan* seeks to amend the subdivision layout as follows;

- Replace the proposed north-south 6m laneway on the eastern boundary of Lot 12 with a 15m wide road;
- Replace the east-west 6m wide laneway with a new east-west 10m wide road;
- Introduce two additional 10m wide east-west roads; and
- Decrease the width of the proposed north-south road adjacent to Lot 10 from 18m to 15m, which requires a 7.5m wide road reserve to be taken from Lot 10.

The current *Structure Plan* layout has been examined by the landowners and was found to be inefficient in its ability to provide a desirable and efficient housing form. The *Structure Plan* provides that the eastern 6m wide north-south laneway be located approximately 62.4m east of north-south road adjacent to Lots 10 and 11. As such the *Structure Plan* provided no opportunity for single residential lots to be developed on either Lot 11 or Lot 12. The only possible development outcome would be for a small number of larger grouped or multiple dwelling lots.

Upon detailed examination of Lots 11 and 12, an alternative urban form has been formulated that achieves the housing targets set out in the TPS 3 while providing for a wider range of housing types than anticipated in the *Structure Plan.* The amendment seeks to modify the road and lot layout to create 4 separate development cells, which are serviced by a 6m wide central laneway and three 10m wide east-west roads. Through this design a total of 70 single residential lots are possible, ranging in size from 120m^2 to 212m^2 with an average lot size of 148m^2 (Refer Appendix 3 - Subdivision Concept).

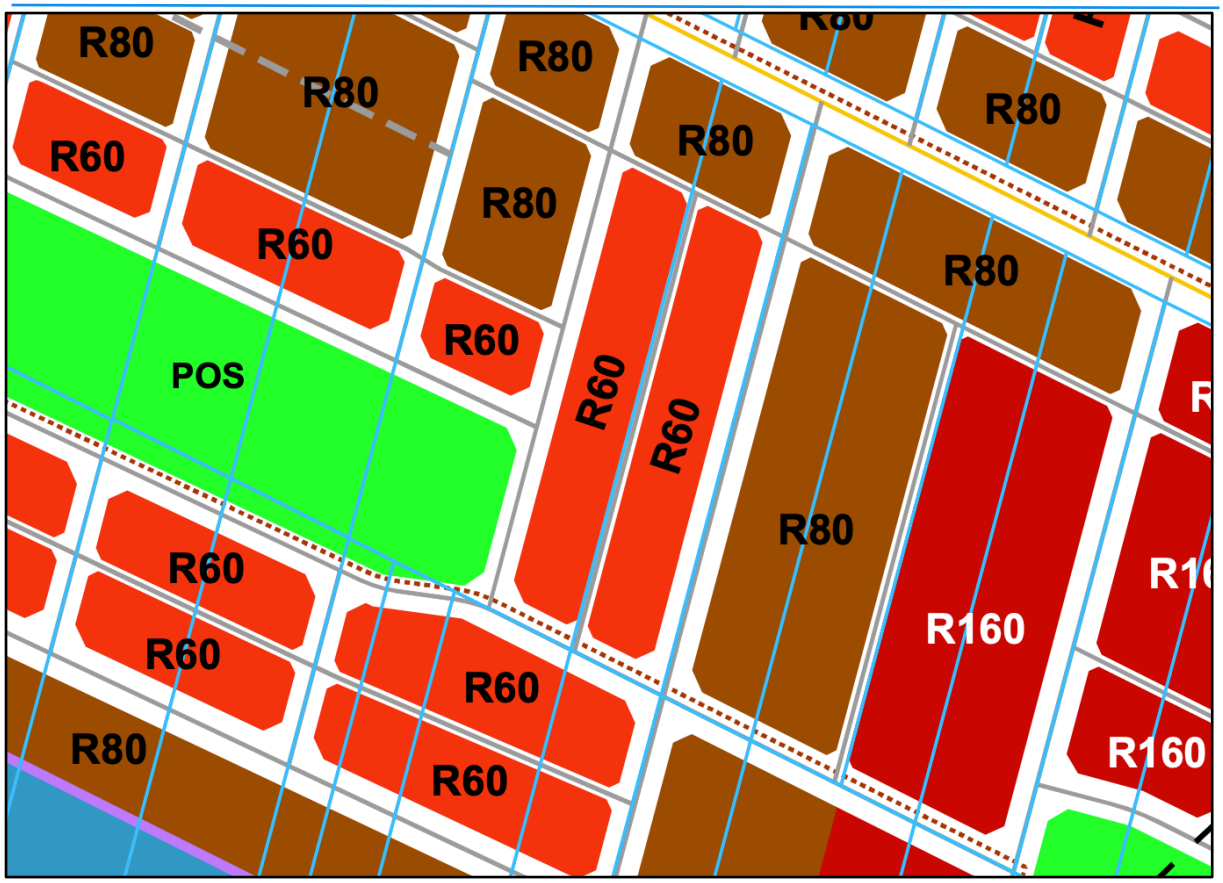


figure 1 - Current Cockburn Central North (Muriel Court) Structure Plan

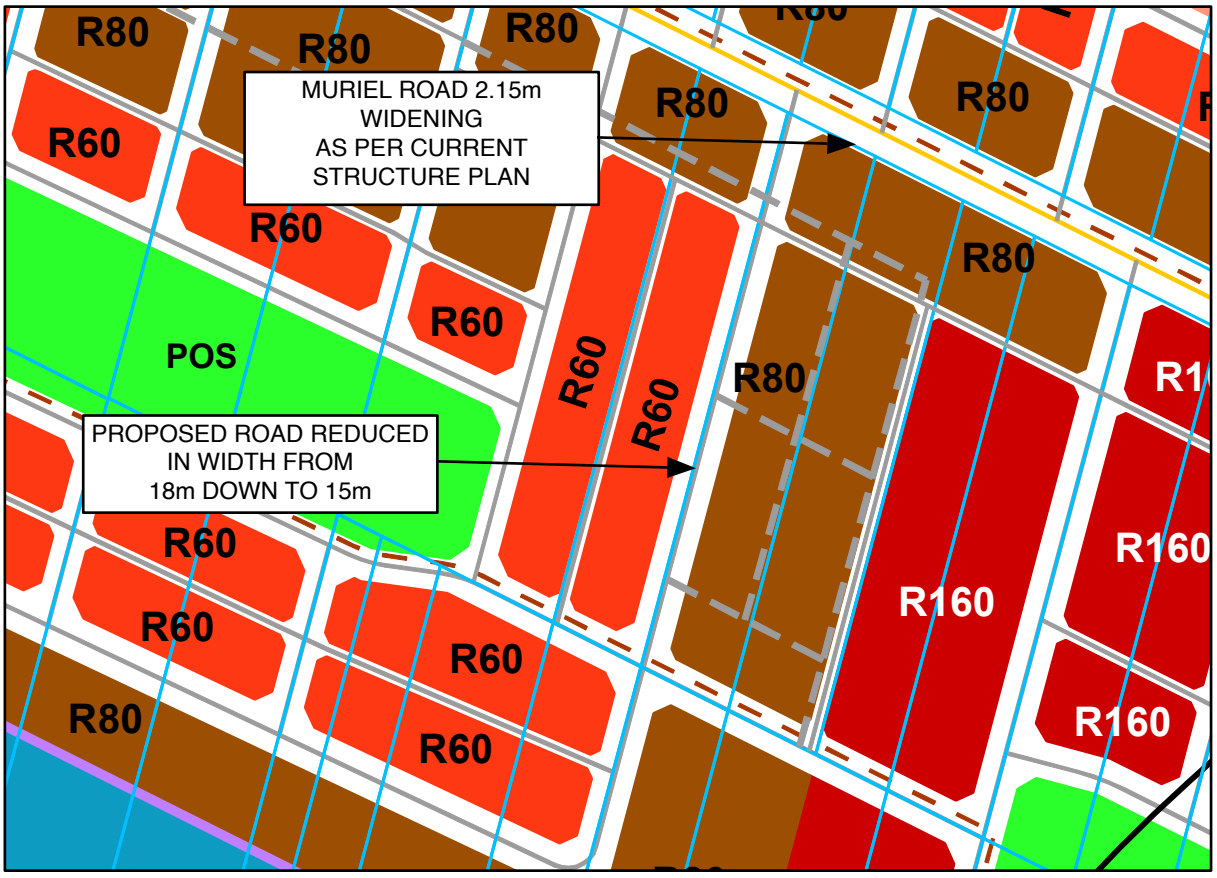


figure 2 - Proposed Amendment Cockburn Central North (Muriel Court) Structure Plan (extract)

4.1 Road Layout

The proposed amendment seeks to delete a north-south 6m wide laneway and replace this with a 15m wide road. This new road will provide frontage to a central core of laneway lots, serviced by a 6m laneway. The proposed central 6m laneway will be connected by three 10m wide east-west roads. The outcome will provide for an interconnected street network that will work to distribute traffic more evenly throughout the estate than was previously possible. The 10m wide east-west roads will:

- Improve the interconnectedness of the street network;
- Provide improved passive surveillance;
- Reduce laneway length; and
- Provide opportunity to increase lot yields through the creation of 120m^2 'squat lots.'

The proposal to reduce the width of the north-south road from 18m to 15m will ensure that the outcome results in an 'inner urban" rather than a 'suburban' outcome; commensurate with the objectives of the Structure Plan. A 7.5m wide road reserve will be required from both Lots 10 and 11. The WAPC has recently approved the subdivision of Lot 10, which includes the 7.5m wide road allocation.

4.2 Lot layout

The amendment will enable Lots 11 and 12 to be subdivided in a logical and orderly manner, which includes a central core of laneway lots and two outer cells of residential lots serviced by 10m wide roads. The central core will provide 50 east-west orientated lots ranging in size between 120m^2 and 156m^2.

The northern and southern cells each propose 10 lots ranging in size from 123m^2 to 212m^2. These lots will be rear-loaded and serviced by the proposed 10m wide east-west roads.

The central east-west road will form the extension of an east-west laneway running from the west through Lots 8, 9 and 10. The east-west road is favoured over the extension of the laneway as it will provide the opportunity to improve passive surveillance by creating opportunities for small 'squat lots'.

4.3 Local Development Plan

The City may recommend as a condition of subdivision, that a Local Development Plan be prepared for proposed squat lots to address vehicle access, passive surveillance and the location of major openings.

4.4 Lot Yield

Prior to 2010, the minimum and average lot size under the R80 Code was 160m^2 and 180m^2 respectively. At the time the Structure Plan was prepared and adopted Lots 11 and 12 had a potential yield of only 56 dwellings. With a potential yield of 70 residential lots, the outcomes of this amendment will significantly exceed the 56 dwellings target the *Structure Plan* was initially formulated upon.

Since the gazettal of the 2010 Residential Design Codes, the minimum and average lot size requirements under the R80 Code were reduced to 100m^2 and 120m^2 respectively. As the lot yield calculations remained unchanged in the *Structure Plan*, the minimum required dwelling yield for Lots 11 and 12 increased from 56 to 86. It is also noted that the DCA liability for Lots 11 and will remain at 110 dwellings, which is unchanged by this amendment.

The proposed design for 70 dwellings represents an acceptable outcome between the dwelling targets originally envisaged and those now possible. The outcome will result in a dense inner urban environment, consistent with the objectives of the *Structure Plan* and provide for an orderly transition between the medium-density development to the west and higher-density multiple dwellings to the east.

4.5 Development Contributions

In accordance with Table 10 of TPS 3, development contributions for land in the DCA 11 area are to be calculated on the potential number of dwellings that can be constructed on each lot, based on an average of 125m^2 dwelling to both Lots 11 and 12. This average differs from the Residential Design Codes adopted since 2010, which provide for an average of 120m^2 per dwelling. The development contribution liability is determined by Table 10, regardless of the future subdivision outcome in that the liability remains for 110 dwellings, even if a lesser dwelling outcome is approved under future proposal(s).

A comparison of the current and proposed S*tructure Plan* layout is summarised as follows:

LOT	CURRENT STRUCTURE PLAN LAYOUT – DCA CONTRIBUTION	PROPOSED STRUCTURE PLAN LAYOUT -DCA CONTRIBUTION
LOT 11	Total potential lots 50 (6,305m^2 @ 125m^2)	Developable area 10,336m^2 @125m^2 total lots 82
LOT 12	Total potential lots 60 (7,508m^2 @ 125m^2)	
TOTAL POTENTIAL	110 lots	

As the proposed spatial layout results in a decrease of 3,477m2 in the development area, this has the potential to adversely impact the cost calculation as applied over the entire DCA 11 area. Consistent with previously approved amendments to this Structure Plan, the proposed additional roads and laneways will be shown as linework that sits atop the current developable land boundaries. In this way, DCA 11 contributions as they relate to Lots 11 and 12 will remain unchanged.

4.6 Traffic Impact Statement

A traffic impact statement (Appendix 4) has been undertaken by Urbii, which did not identify any site-specific issues that could adversely impact on the traffic safety on these sites. The analysis confirmed that the site features a high level of connectivity through the existing and planned road, cycling and pedestrian networks. Furthermore, the analysis confirms that the traffic anticipated to be generated by this amendment will be minimal and will not adversely impact the surrounding road network.

In accordance with Appendix G Traffic and Transport Study (2008) and the LSP map, Muriel Court is to be widened to achieve a total future width of 24.4m. This requires a 2.15m widening on either side of Muriel Court and is to be shown on any future plan of subdivision.

4.7 Bushfire Management Plan

Lots 11 and 12 Muriel Court are designated as bushfire prone and it is the responsibility of the landowner/ applicant to demonstrate compliance with *State Planning Policy 3.7:* Planning *in Bushfire Prone Areas* and associated *Guidelines for Planning in Bushfire Prone Areas* at each stage of subdivision. In accordance with the requirements of *this policy*, a bushfire management plan has been prepared for these properties (Appendix 5). The plan confirms that on completion of the subdivision, a BAL rating of BAL 29 of less is possible for all proposed lots and that there will be no APZ's required for future dwellings once these lots are developed. The bushfire management plan does not achieve the compliance requirements of the Guidelines with respect to Element 3 - Access. Whilst unable to implement the required secondary access for compliance with the Access element of SPP 3.7, the modifications provide for improved safety within a bushfire context via the removal of a 6m laneway and replacement with a 15m wide road.

5 Adjoining Landowner Consultation

An outcome of the proposed amendment will result in the interface between Lots 12 and the adjoining Lot 13 Muriel Court changing from a 6m wide laneway to a 15m wide road. The owner of Lot 13 has advised in writing that he has no objections to the proposed amendment.

6 CONCLUSION

This amendment seeks to make a minor modification to the street network, as it affects Lots 10, 11 and 12 Muriel Court. The changes will result in an improved street network and provide better development opportunities than currently afforded.

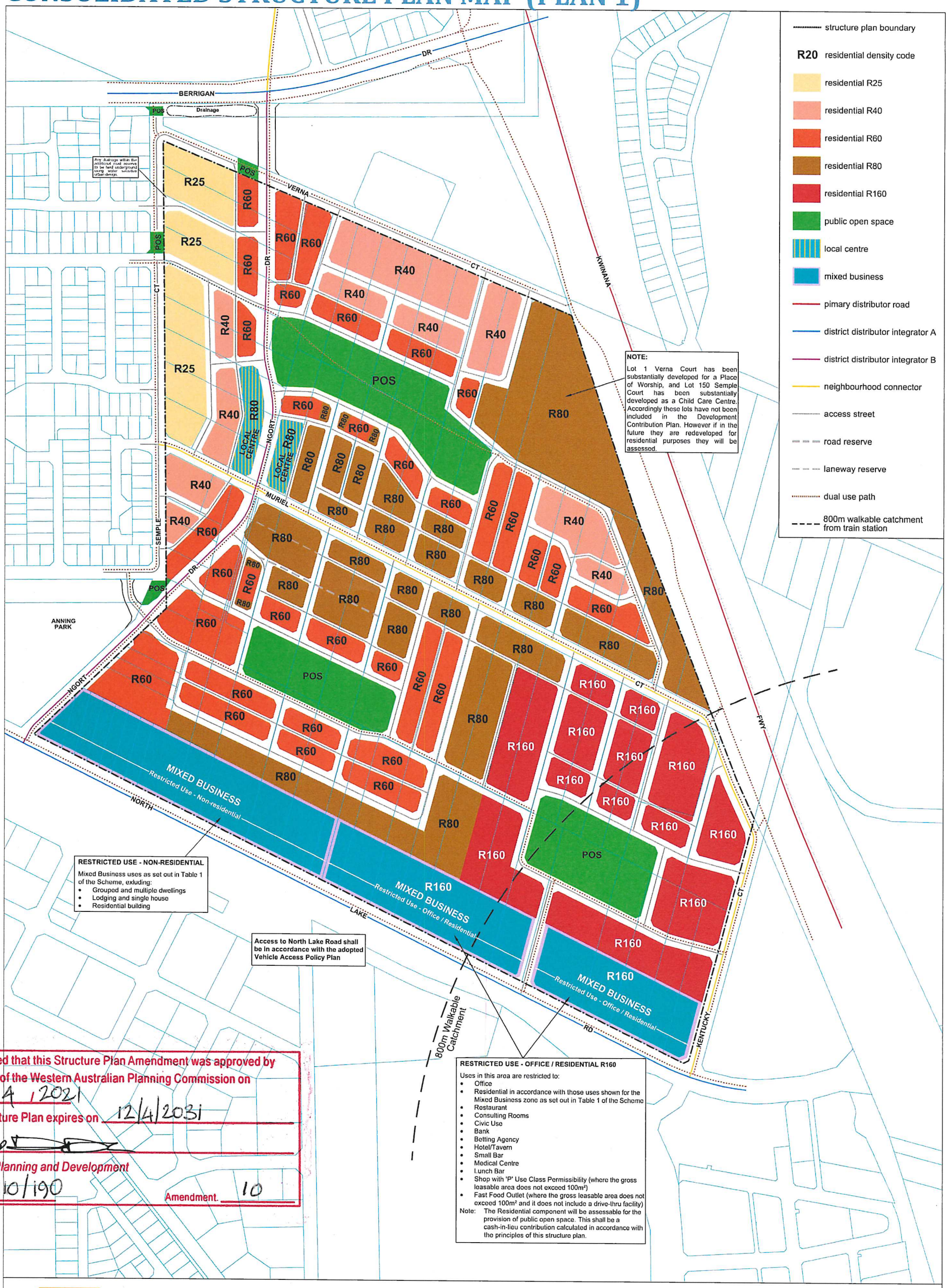
Although the removal of a long narrow laneway and replacing this with a conventional 15m wide road, results in an overall reduction in the developable area of the structure plan, this is offset by improved pedestrian and vehicular circulation and by the greater level of development design flexibility.

The outcome of this amendment will ensure that the development of the *Cockburn Central North (Muriel Court) Local Structure Plan - Lots 11 and 12* can continue in an orderly manner, without adversely impacting the development objectives of the structure plan.

APPENDIX 1

EXISTING COCKBURN CENTRAL NORTH (MURIEL COURT) LOCAL STRUCTURE PLAN

CONSOLIDATED STRUCTURE PLAN MAP (PLAN 1)



APPENDIX 2

PROPOSED AMENDMENT COCKBURN CENTRAL NORTH (MURIEL COURT) LOCAL STRUCTURE PLAN - LOTS 11 & 12

PROPOSED COCKBURN CENTRAL NORTH (MURIEL COURT) STRUCTURE PLAN

BERRIGAN
Drainage
POS
Any drainage within the additional road reserve to be held underground using water sensitive urban design.
VERNA CT
KWINANA FWY
MURIEL
SEMPLE DR
NGORT
LOCAL CENTRE
ANNING PARK
LAKE NORTH RD
800m Walkable Catchment
KENTUCKY

R25 R40 R60 R80 R160 POS

NOTE:
Lot 1 Verna Court has been substantially developed for a Place of Worship, and Lot 150 Semple Court has been substantially developed as a Child Care Centre. Accordingly these lots have not been included in the Development Contribution Plan. However if in the future they are redeveloped for residential purposes they will be assessed.

MIXED BUSINESS
Restricted Use - Non-residential

MIXED BUSINESS
Restricted Use - Office / Residential

RESTRICTED USE - NON-RESIDENTIAL
Mixed Business uses as set out in Table 1 of the Scheme, exluding:
- Grouped and multiple dwellings
- Lodging and single house
- Residential building

Access to North Lake Road shall be in accordance with the adopted Vehicle Access Policy Plan

RESTRICTED USE - OFFICE / RESIDENTIAL R160
Uses in this area are restricted to:
- Office
- Residential in accordance with those uses shown for the Mixed Business zone as set out in Table 1 of the Scheme
- Restaurant
- Consulting Rooms
- Civic Use
- Bank
- Betting Agency
- Hotel/Tavern
- Small Bar
- Medical Centre
- Lunch Bar
- Shop with 'P' Use Class Permissibility (where the gross leasable area does not exceed 100m²)
- Fast Food Outlet (where the gross leasable area does not exceed 100m² and it does not include a drive-thru facility)

Note: The Residential component will be assessable for the provision of public open space. This shall be a cash-in-lieu contribution calculated in accordance with the principles of this structure plan.

- structure plan boundary
- R20 residential density code
- residential R25
- residential R40
- residential R60
- residential R80
- residential R160
- public open space
- local centre
- mixed business
- pimary distributor road
- district distributor integrator A
- district distributor integrator B
- neighbourhood connector
- access street
- road reserve
- laneway reserve
- dual use path
- 800m walkable catchment from train station

City of Cockburn
wetlands to waves

GNA
Apr 2021
0 100m
Scale

Muriel Court
Local Structure Plan
Muriel Court, Verna Court & Semple Court, Cockburn Central

APPENDIX 3

PROPOSED PLAN OF SUBDIVISION - LOTS 11 & 12



LOT SIZE SUMMARY	
120m² - 159m²	61
160m² - 179m²	7
180m² - 234m²	2

SUMMARY	
ORIGINAL NUMBER OF LOTS	2
PROPOSED NUMBER OF LOTS	70
ORIGINAL LOT 11 SIZE	0.9273ha
ORIGINAL LOT 12 SIZE	0.9273ha
AVERAGE LOT SIZE	148m²
MINIMUM LOT SIZE	120m²

LEGEND

- SUBJECT SITE
- WATER MAINS (UNDER CONSTRUCTION)
- SEWER MAINS (UNDER CONSTRUCTION)

NOTE: ALL EXISTING BUILDINGS ON LOTS 11 & 12 TO BE DEMOLISHED

ALL AREAS AND DIMENSIONS SUBJECT TO SURVEY

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DATE DRAWN	30 JUNE 2022
SCALE	1:1,000@A3
VERSION	05 JUNE 2024
DRAWN BY	EF
LG	COCKBURN
CLIENT	SJS WEALTH SOLUTIONS PTY LTD

PLAN OF SUBDIVISION LOTS 11 & 12 MURIEL COURT, COCKBURN CENTRAL

APPENDIX 4

TRAFFIC IMPACT STATEMENT

urbii

Sustainable Transport. Safe Solutions

Lots 11 & 12 Muriel Court, Cockburn Central
Structure Plan Amendment

TRANSPORT IMPACT STATEMENT



Prepared for:
SJS Solutions Corp

June 2024

Lots 11 & 12 Muriel Court, Cockburn Central

Prepared for: SJS Solutions Corp
Prepared by: Paul Ghantous
Date: 18 June 2024
Project number: U23.029

Version control

Version No.	Date	Prepared by	Revision description	Issued to
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1 Introduction

This Transport Impact Statement has been prepared by Urbii on behalf of SJS Solutions Corp with regards to the proposed Muriel Court Local Structure Plan (LSP) amendments.

The Muriel Court Structure Plan is situated between Verna Court, Semple Court, North Lake Road and Kwinana Freeway, as shown in Figure 1.

The LSP has been subject to multiple amendments since 2008. The latest traffic reporting was undertaken by the City of Cockburn in 2018, to account for the accumulated effect of multiple amendments.

The subject site includes Lots 11 & 12 Muriel Court, Cockburn Central, which are located within the LSP. Lots 11 and 12 Muriel Court are located approximately 200m west of the Kwinana Freeway and 900m northwest of the Cockburn Central station, within the City of Cockburn.

The proposed amendment seeks to modify the road layout of the structure plan as it relates to Lots 11 and 12 (also referred to as 'the subdivision' in this report).

The key issues that will be addressed in this report include the net change in traffic generation due to the proposed amendments.



Figure 1: Muriel Court Local Structure Plan and subject site

2 Proposed LSP amendment

The proposed amendment to the Structure Plan seeks to amend the subdivision layout as follows:

- Replace the proposed north-south 6m laneway on the eastern boundary of the site with a 15m wide road;
- Replace the east-west 6m wide laneway with a 10m wide road;
- Introduce two new east-west 10m wide roads; and
- Introduce a new 6m wide laneway midway between the eastern and western north-south roads.

Figure 2 shows the existing configuration of the subject site. The size of the street blocks in relation to the development land area constrained the type of housing stock which could be provided. As a result, the R80 land was split into smaller R80 street blocks, with additional roads running in between.

The road changes are local in scope. No changes to the wider road network are proposed. Under the requirements of the LPS 3, Lots 11 and 12 are required to achieve a yield of 81 residential dwellings.

The amended subdivision plan in Appendix A indicates a potential total yield of up to 70 dwellings.

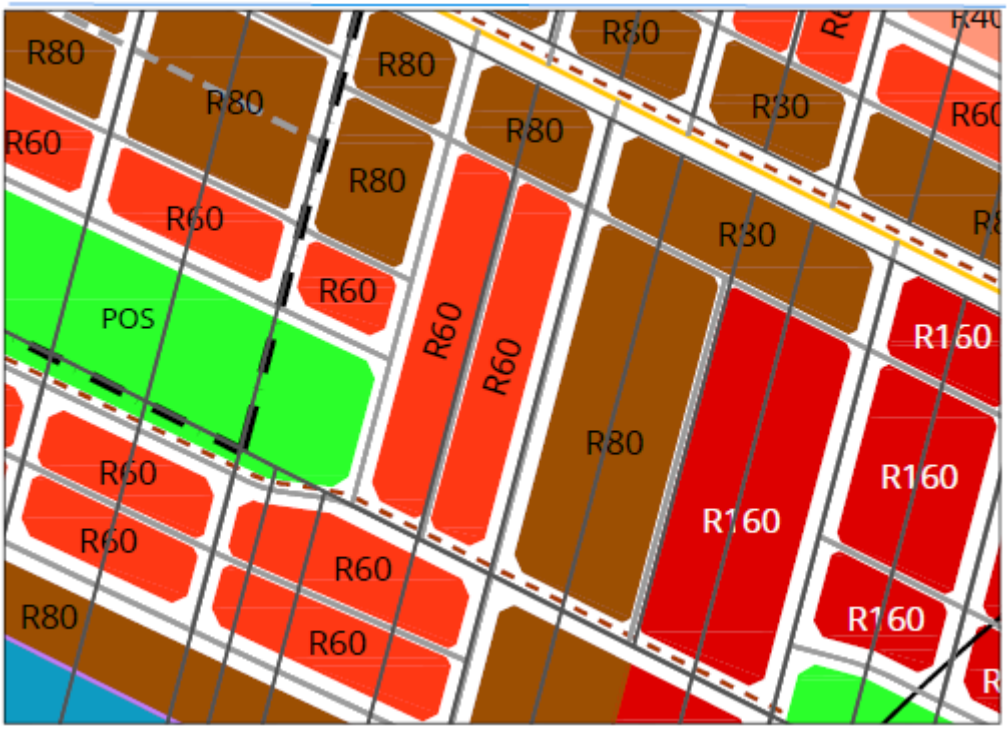


Figure 2: Existing site configuration within the LSP

3 Vehicle access and parking

The proposed road reservation layout is conceptually shown in Figure 4. Streets in the subdivision are proposed to be provided in 10-15m wide road reservations. Laneways are provided in 6m wide reservations. The internal road network provides connectivity to the wider LSP road network.

As detailed in Figure 3 there are four key external intersections at each quadrant of the subject site area. Internally, some road links will be widened to 10-15m reserves. An additional laneway and road reserve link are proposed internally within the subject site area. The proposed road modifications have no impact on the broader LSP transport network.

It is recommended that speed mitigation and traffic calming devices be employed on the links depicted in green in Figure 3, to prevent rat running traffic. More detail is provided in Section 7 of this report.

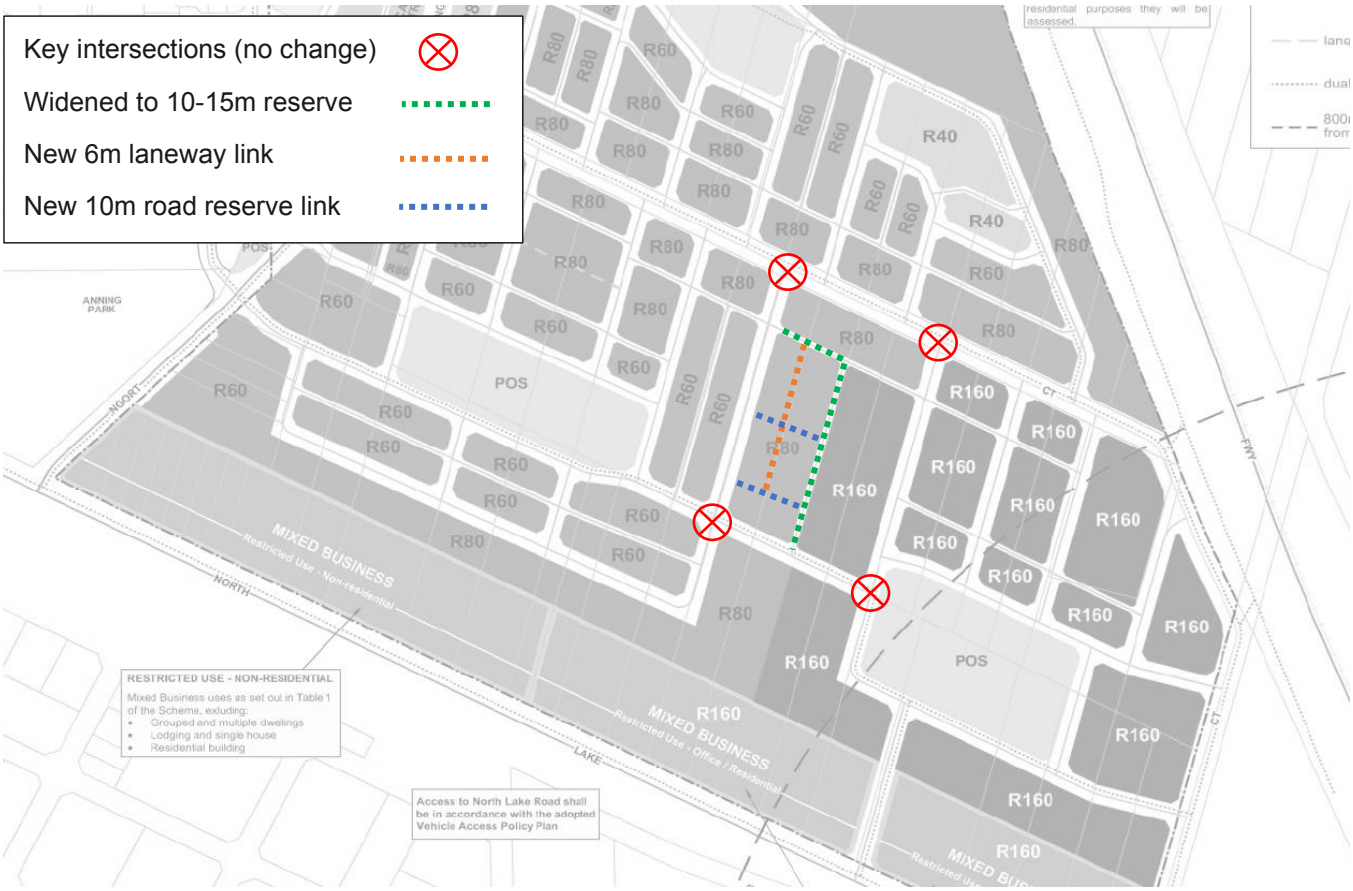


Figure 3: Proposed local road network changes



Figure 4: Proposed internal transport network

3.1 Road geometry

The detailed civil design for the subdivision is still under development. However, proposed road cross sections have been provided to Urbii and are presented in Figures 5 & 6.

The City of Cockburn LPP4.2 provides the following design guidelines for 15m road reserves within the Muriel Court Structure Plan:

15-metre-wide roads

- These roads are for lower density residential areas and some on-street parking (on the carriageway), which provide speed control;
- 4.5m verges and 6m pavement;
- Street trees are to be provided in the road reserve;
- 1.5m wide footpaths on both sides of the road which are adjacent to property boundary (0.3m offset); and
- 2.1m side on-street car parking bays.

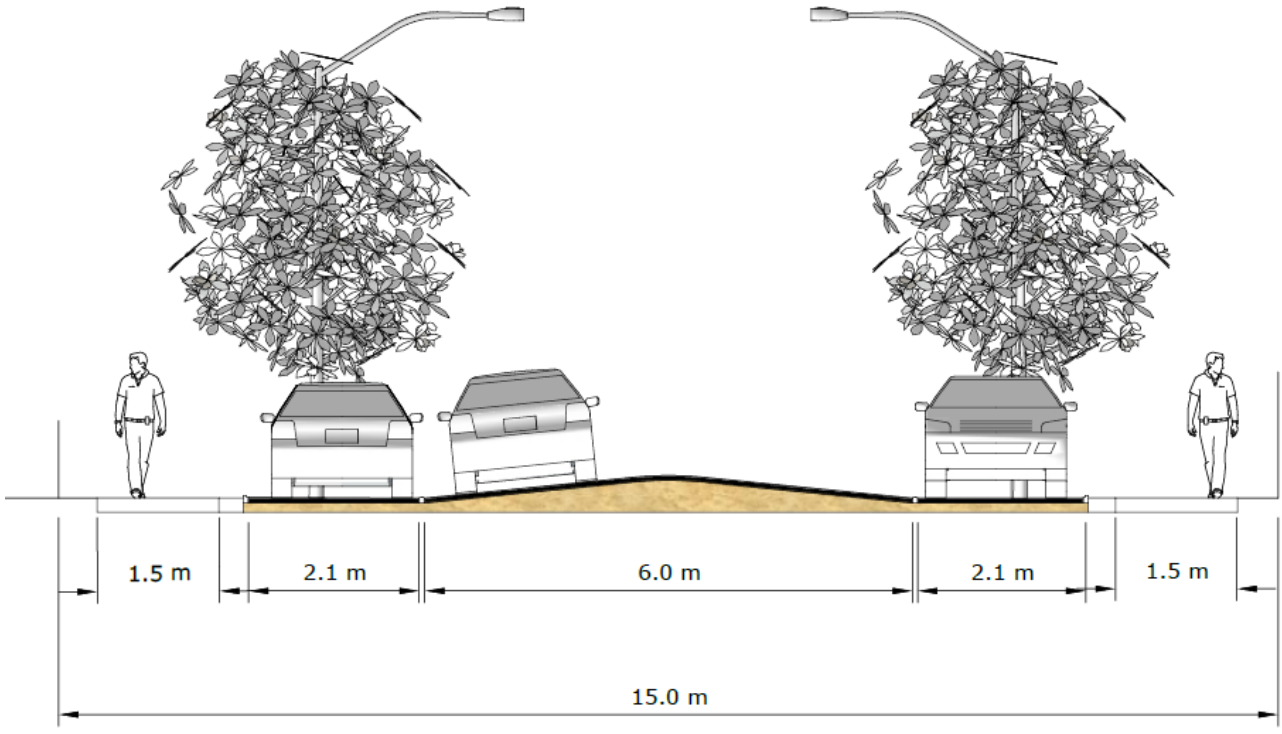


Figure 5: Proposed road cross section (15m wide reserves)

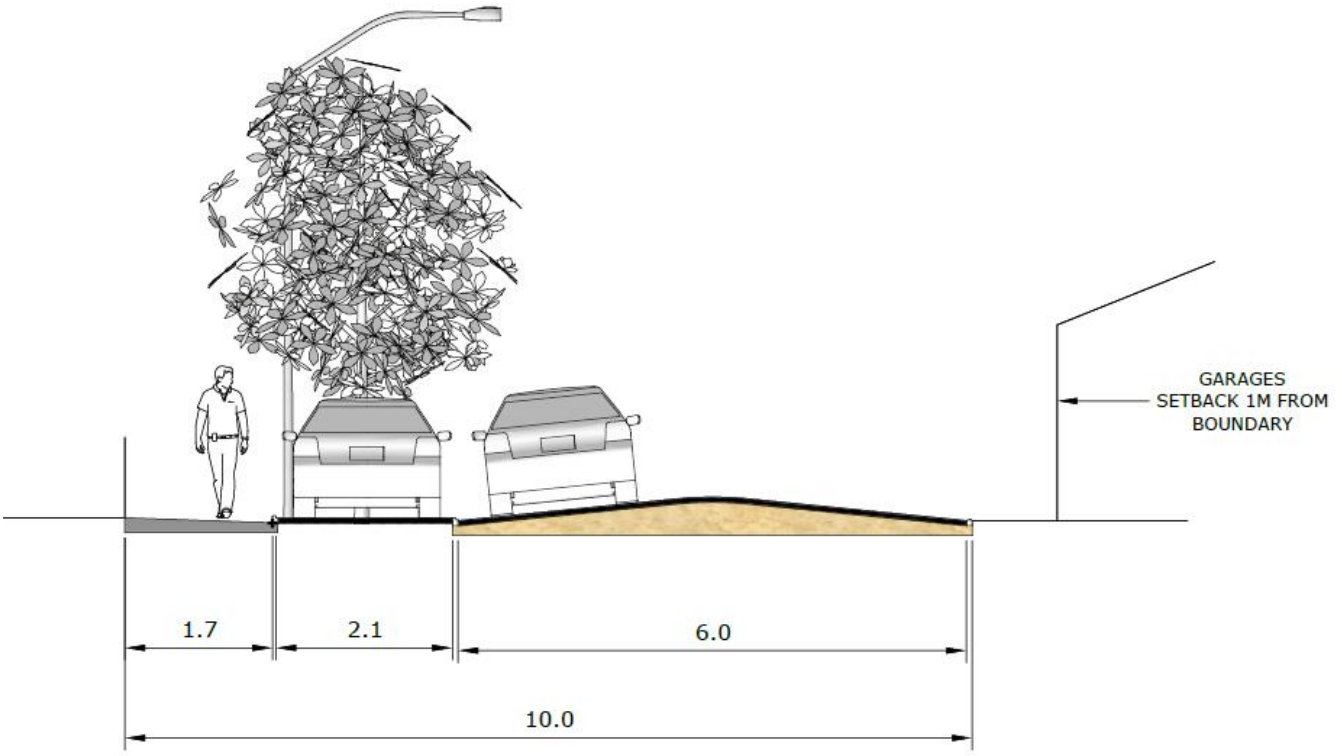


Figure 6: Proposed road cross section (10m wide reserves)

3.2 Muriel Court widening

Muriel Court is required to be widened to 24.4m and therefore 2.15m is required from Lots 11 and 12 at subdivision stage.

3.3 Vehicle access to squat lots

Where feasible, access from the lower order roads is preferable for the irregular shaped lots at the corners of subdivision roads. The location of vehicle access points should consider maximising the potential for embayed parking to be provided within the subdivision.

3.4 Intersections

The subdivision transport network is designed to minimise the formation of 4-way intersections internally. T-intersections are used internally and traffic will need to give-way at the end of terminating roads in accordance with road traffic regulations.

Reference was made to Australian Standard AS1742.2 - *Manual of uniform traffic control devices Part 2: Traffic control devices for general use*, for guidance on appropriate intersection controls:

2.5 CONTROL BY GIVE WAY AND STOP SIGNS

2.5.1 General

GIVE WAY signs and STOP signs are used to control traffic at intersections other than those controlled by means of roundabouts or traffic signals, by allocating priority to traffic on one of the intersecting roads.

These signs are provided as follows:

(a) GIVE WAY signs shall be provided at all intersections with four or more legs.

(b) GIVE WAY signs shall be provided at any three-way intersection where the layout is such that it is not clear how or whether the T-intersection rule would operate, for example, at a Y-intersection.

(c) GIVE WAY signs should be used for road safety reasons at unsignalized T-intersections where the continuing road (i.e. the bar of the T) is an arterial or sub-arterial road, urban or rural.

(d) STOP signs shall be provided instead of GIVE WAY signs on any controlled approach where intersection sight distance is substandard as determined in accordance with Clause 2.5.4. STOP signs shall not be used where intersection sight distance is adequate for GIVE WAY signs.

In all other cases, GIVE WAY signs are not required if the T-intersection rule operates satisfactorily and there is no requirement for STOP signs due to reduced intersection sight distance.

Figure 7: Intersection control by give way and stop signs

Source: Extracted from AS1742.2

All intersections with give way or stop signs must also be provided with give way or stop intersection line marking to indicate the safe position for a vehicle to be held at the intersection sign.

Give way or stop line marking may also be used to indicate the safe position for a vehicle to be held at a T-intersection or in any other location where a driver is legally required to give way to an intersecting or conflicting traffic stream.

At detailed civil design stage, all intersection sight distances need to be checked. At locations where sight distance is compromised, stop signs and line marking is required. At any locations where there is significant reduction in sight distance, raised intersection platforms with suitable warning signs and line marking should be considered to slow traffic through the intersection.

Based on the alignment of the road reserves, sight distances are expected to be sufficient. However, sight distance will be calculated formally as part of the civil engineering design.

3.5 Parking supply and demand

All vehicle parking will be contained within individual properties. Residential streets typically permit car parking on the street for visitors and service vehicles.

4 Provision for service vehicles

The proposed subdivision is residential in nature and will not generate significant delivery and other service vehicle traffic. Bins will be presented on the internal streets for waste collection. No cul-de-sacs are proposed in the subdivision.

5 Hours of operation

For most residential subdivisions, the peak traffic hours typically coincide with the weekday AM and PM peak hours on the surrounding road network.

Traffic data obtained from Main Roads WA for the nearby North Lake Road indicates that the weekday AM peak hour occurs between 8am to 9am and the weekday PM peak hour occurs between 4pm to 5pm. The peak hours for the proposed subdivision are anticipated to coincide at around these times.

6 Daily traffic volumes and vehicle types

6.1 Trip generation rates

Residential traffic generation is typically estimated using the following trip generation sources:

- RTA NSW Guide to traffic generating developments;
- RTA NSW Technical direction TDT 2013/4A; and,
- WAPC *Transport Impact Assessment* Guidelines.

The trip generation rates adopted are detailed in Table 1.

Table 1: Adopted trip rates for traffic generation

Trip rate source	Daily rate	AM rate	PM rate	AM-in	AM-out	PM-in	PM-out
WAPC Guidelines (Residential dwellings)	8	0.8	0.8	25%	75%	65%	35%

6.2 Traffic generation

The estimated traffic generation of the proposed amended subdivision is detailed in Table 2. The proposed subdivision is estimated to generate a total of 560 vehicles per day (vpd), with 56 vehicles per hour (vph) generated during the AM and PM peak hours, respectively.

These trips include both inbound and outbound vehicle movements. It is anticipated that most of the vehicle types would be passenger cars and SUVs.

The net change in traffic generation as a result of the amended is expected to be minimal, as detailed in Table 2.

Table 2: Traffic generation – Weekday AM and PM peak hours

Land use	Yield	Daily Trips	AM Trips	PM Trips	AM Peak Trips		PM Peak Trips	
					IN	OUT	IN	OUT
Current Site	81	648	65	65	16	49	42	23
Amended Site	70	560	56	56	14	42	36	20
Difference	**-11**	**-88**	**-9**	**-9**	**-2**	**-7**	**-6**	**-3**

6.3 Impact on surrounding roads

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provides the following guidance on the assessment of traffic impacts:

"As a general guide, an increase in traffic of less than 10 percent of capacity would not normally be likely to have a material impact on any particular section of road but increases over 10 percent may. All sections of road with an increase greater than 10 percent of capacity should therefore be included in the analysis. For ease of assessment, an increase of 100 vehicles per hour for any lane can be considered as equating to around 10 percent of capacity. Therefore, any section of road where development traffic would increase flows by more than 100 vehicles per hour for any lane should be included in the analysis."

The proposed subdivision amendments will not increase traffic flows on any roads adjacent to the site by the quoted WAPC threshold of +100vph to warrant further analysis. Therefore, the impact on the surrounding LSP road network is minor.

7 Traffic management on the frontage roads

As some of the subdivision roads are proposed to be widened from the 6m laneway reserve to a 10-15m wide reserve, there is potential for other LSP traffic to reroute through these roads. The extent of traffic diversion will be minimal and on a local scale, as the primary intersection quadrants to the broader LSP network are not being changed (refer to Figure 3).

To reduce the local diversion of traffic and rat running along the widened road reservations, consideration can be given to the installation of Local Area Traffic Management (LATM) devices.

According to the *Austroads Guide to Traffic Management Part 8: Local Street Management* (GTMP8), LATM "*involves the use of physical devices, streetscaping treatments and other measures (including regulations and other non-physical measures) to influence vehicle operation, in order to create safer and more pleasant streets in local areas".*

Some treatments which may be considered are detailed as follows.

7.1.1 Gateway treatment

Gateway treatments are measures that help reduce speeds when road users transition between different road environments, such as residential and commercial areas or local and main roads. They often include:

- entry signage;
- coloured/textured pavements;
- pavement markings;
- lane narrowing; and/or
- raised entries.

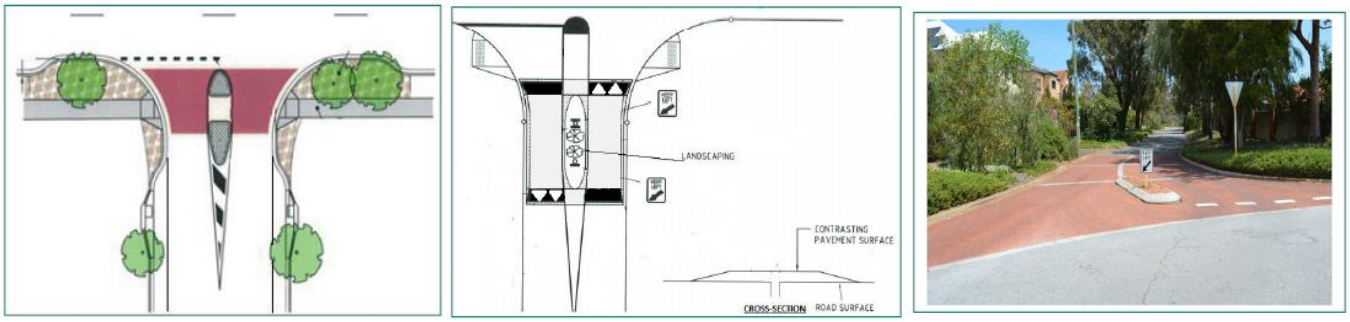


Figure 8: Gateway treatment examples

Source: *Main Roads WA Strategy and Implementation Framework Low Cost Urban Road Safety Program*

7.1.2 Mid-block treatments

Mid-block treatments take many forms, but the common goal is to slow down vehicles and discourage non-local through traffic while improving amenity. Mid-block treatments necessitate sufficient sight distance along a roadway to allow time for drivers to change their behaviour, such as slowing down on approach.

Mid-block treatments work best when used in groups, as the repetition along a road corridor reinforces their traffic-calming effect.

These treatments may include pedestrian crossings or refuges, and careful design and signage is required to ensure that road users understand who has priority in each situation.

A variety of mid-block treatments is presented in Figure 9. Consider providing mid-block treatments at a spacing of 50m to 80m along the 10-15m road reservation through the subject subdivision.

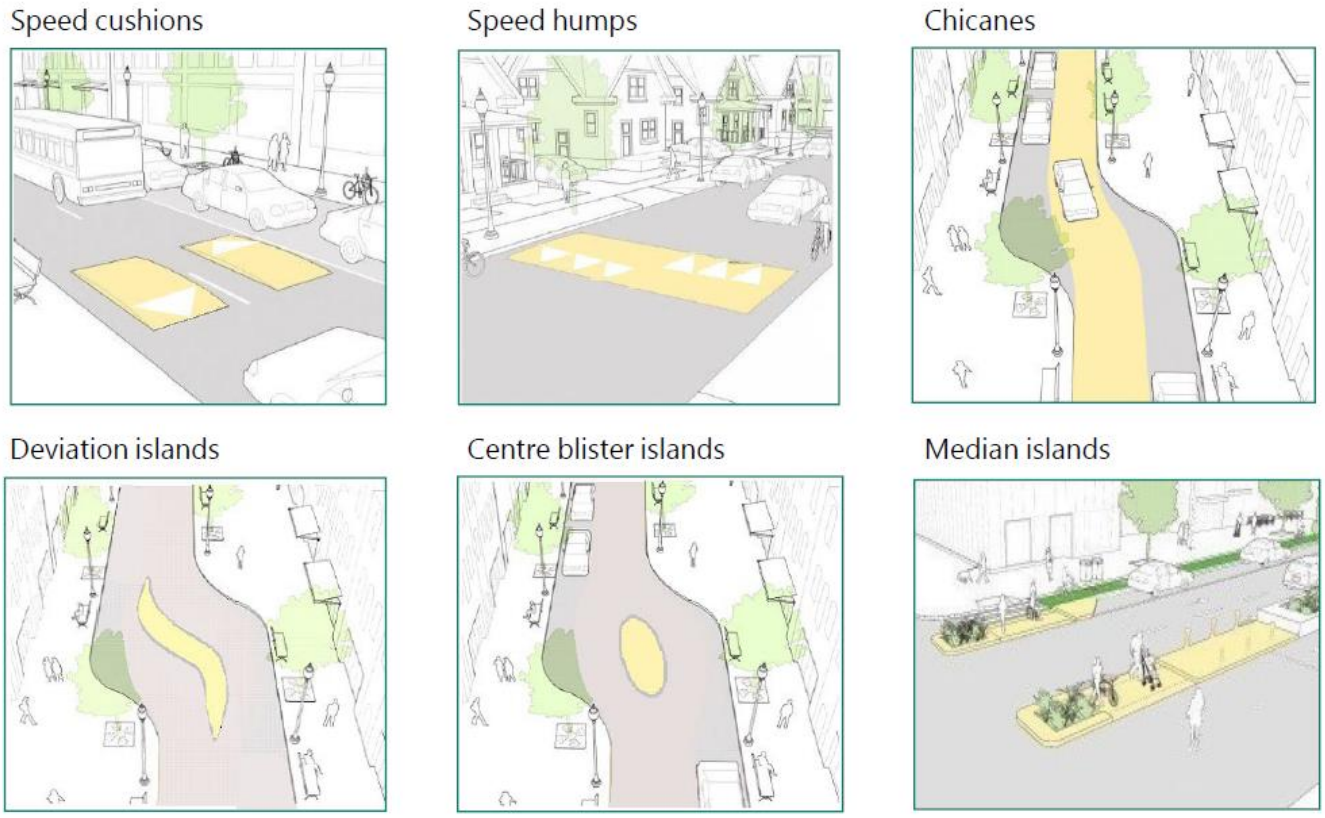


Figure 9: Example mid-block treatments

Source: *NACTO Global Street Design Guide*

7.1.3 Treatments for walking

Walking treatments are installed where there is a high volume of people walking on streets and where a managed speed environment can be maintained by delivering multiple treatments along a road.

If it takes more than three minutes for a person to walk to a crossing, they are more likely to cross at a direct, but dangerous, point. As a result, distances of more than 150m between crossings should be avoided, and crossings should be delivered at regular intervals to improve people's ability to cross roads safely.

It is essential that walking crossings are properly built, marked, and signed, as confusion about driving and walking priority can lead to collisions.

Some walk crossing examples are presented in Figure 10.



Figure 10: Example walk crossings

Source: *NACTO Global Street Design Guide*

8 Public transport access

The following information is provided in the Muriel Court Structure Plan report regarding public transport planning:

"Current bus services are located along Semple Court and portion of North Lake Road. Given the connectivity of Muriel Court to the Cockburn Central Town Centre via the proposed connection through Kentucky Court, the Perth Transit Authority are evaluating the possibility of re-routing the bus service along the realigned Semple Court and then Muriel Court and Kentucky Court to link to the Cockburn Central Town Centre. This results in the bus route being located along the 'spine' of the structure plan area, traversing the higher density area and therefore maximizing the number of residents within walking distance of the bus route. This is represented in the Public Transport map."

The public transport plan is presented in Figure 11. The subject subdivision is located within the 400m walking catchment of the public transport routes. Access to the rail network is available through connectivity to Cockburn Central Train Station.

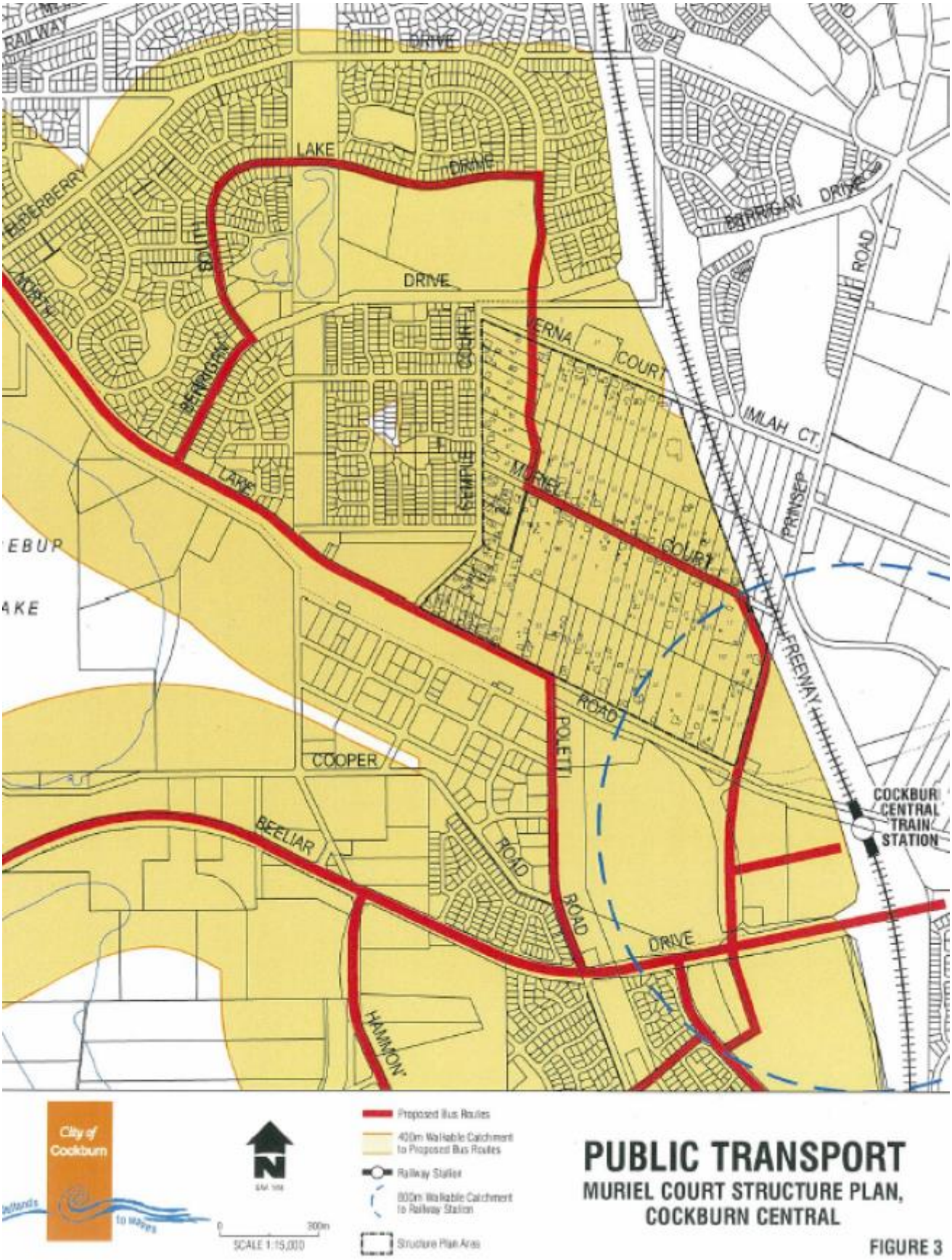


Figure 11: Muriel Court LSP public transport plan

9 Pedestrian access

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provide warrants for installing pedestrian priority crossing facilities. This is based on the volume of traffic as the key factor determining if pedestrians can safely cross a road. The guidelines recommend pedestrian priority crossing facilities be considered once the peak hour traffic exceeds the volumes detailed in Table 3.

The traffic volumes in this table are based on a maximum delay of 45 seconds for pedestrians, equivalent to Level of Service E. Traffic volumes on the internal subdivision road network are below the threshold for safe pedestrian crossing. Therefore, pedestrian crossing level of service is satisfactory on the internal subdivision roads.

Table 3: Traffic volume thresholds for pedestrian crossings

Road cross-section	Maximum traffic volumes providing safe pedestrian gap
2-lane undivided	1,100 vehicles per hour
2-lane divided (with refuge)	2,800 vehicles per hour
4-lane undivided*	700 vehicles per hour
4-lane divided (with refuge)*	1,600 vehicles per hour

All streets in the subdivision will have a minimum 1.5m footpath on at least one side of the road. Kerb ramps should be provided at all crossing locations.

10 Bicycle access

The planned bicycle network for the Muriel Court LSP is shown in Figure 12. A local shared path is planned along the southern boundary of the subdivision and along Muriel Court to the north.



Figure 12: Muriel Court LSP walking and cycling network plan

The Cycling Aspects of Austroads Guides 2017 provides guidance on the separation of cyclists and motorists. Traffic volumes on the internal subdivision roads are typically low enough so that roads can be shared for driving and cycling (Figure 13).

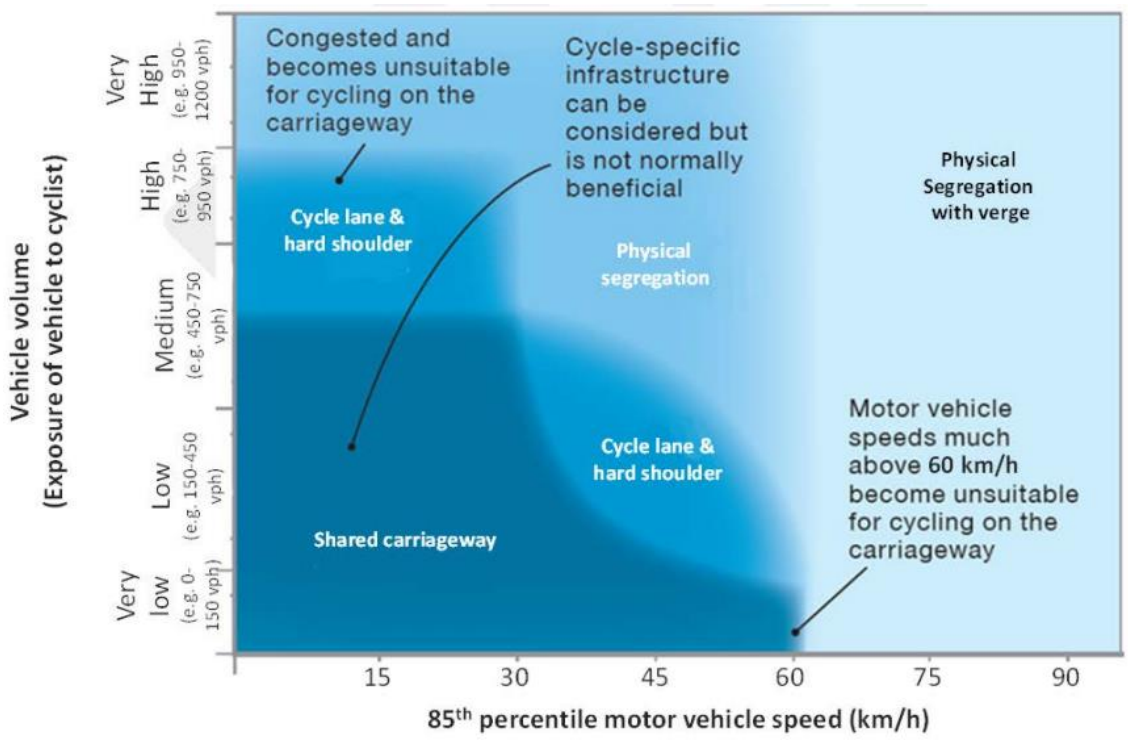


Figure 13: Guidance on the separation of cyclists and motor vehicles

Source: Cycling Aspects of Austroads Guides, June 2017

The Strava cycling heatmap tool shows that North Lake Road and the Kwinana Freeway PSP are popular cycling routes in the area (Figure 14).

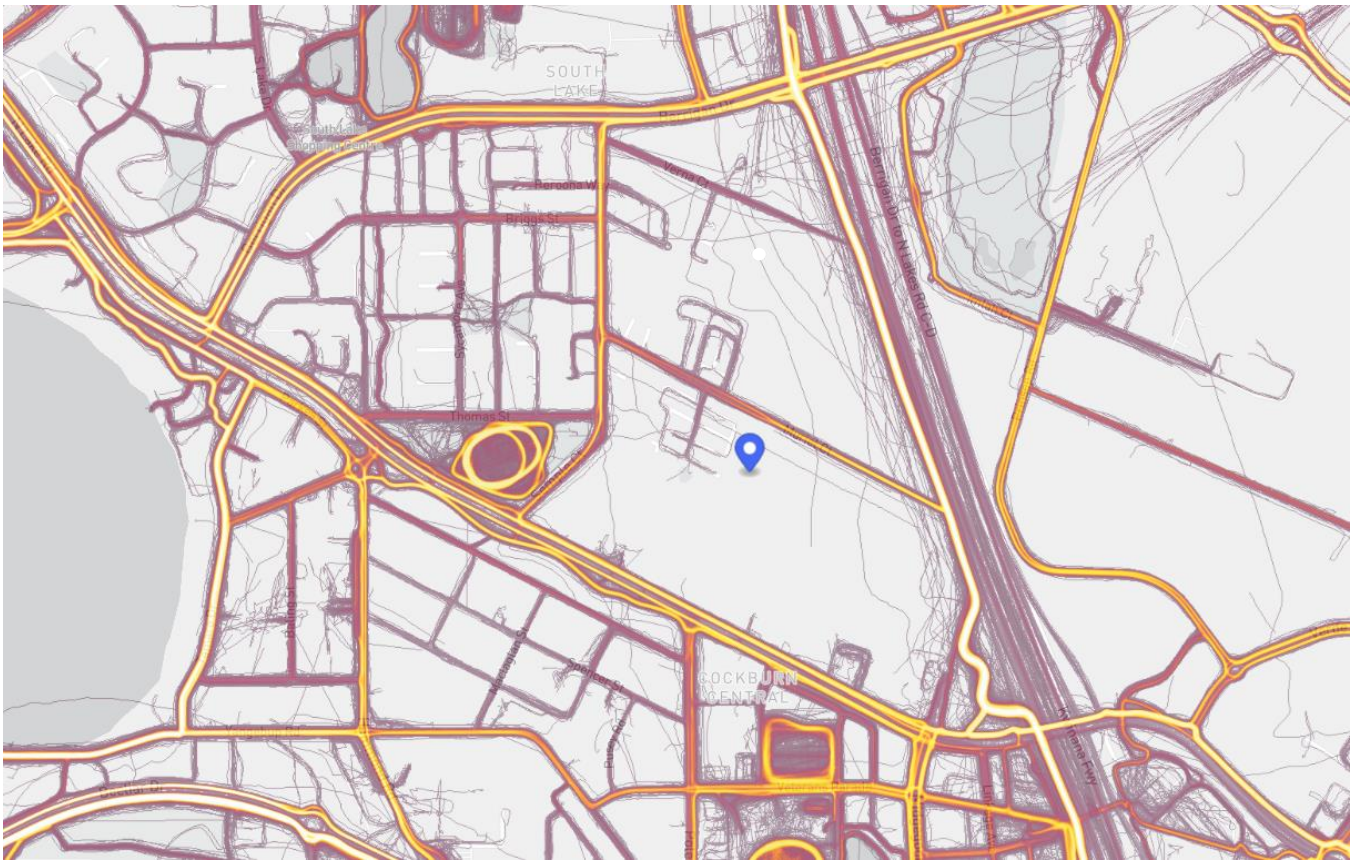


Figure 14: Strava cycling heatmap

11 Site specific issues

No additional site-specific issues were identified within the scope of this assessment.

12 Conclusion

This Transport Impact Statement has been prepared by Urbii on behalf of SJS Solutions Corp with regards to the proposed Muriel Court Local Structure Plan (LSP) amendments.

The Muriel Court LSP has been subject to multiple amendments since 2008. The latest traffic reporting was undertaken by the City of Cockburn in 2018, to account for the accumulated effect of multiple amendments.

The subject site includes Lots 11 & 12 Muriel Court, Cockburn Central, which are located within the LSP. Lots 11 and 12 Muriel Court are located approximately 200m west of the Kwinana Freeway and 900m northwest of the Cockburn Central station, within the City of Cockburn.

The proposed amendment seeks to modify the road layout of the structure plan as it relates to Lots 11 and 12.

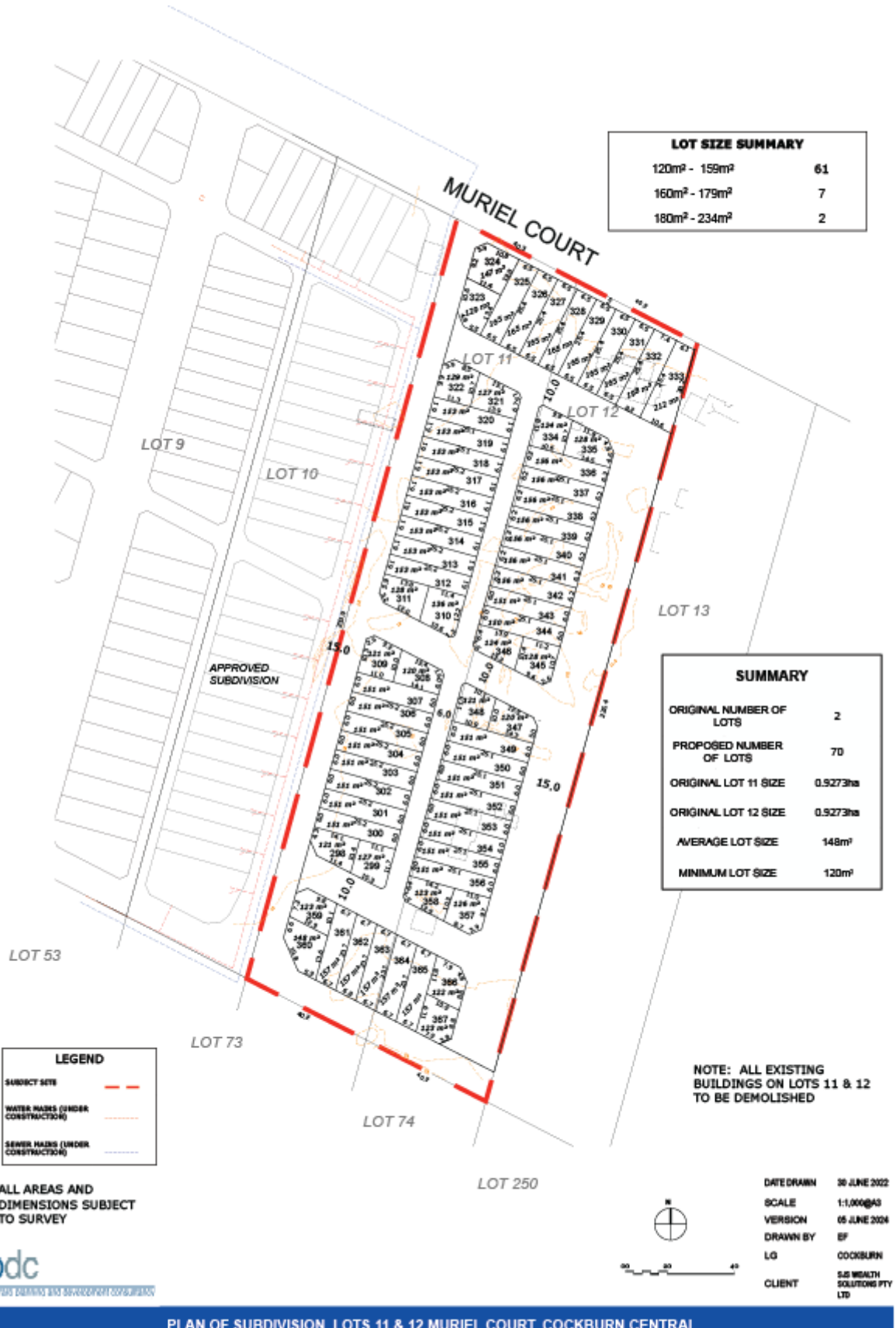
The site features good connectivity with the existing and planned road, cycling and walking network. There is good public transport coverage through existing and planned nearby bus services.

The traffic analysis undertaken in this report shows that the traffic generation of the proposed subdivision/LSP amendments is minimal and as such would have a negligible impact on the surrounding LSP road network.

It is concluded that the findings of this Transport Impact Statement are supportive of the proposed subdivision/LSP amendments.

Appendices

Appendix A: Proposed subdivision plan



PLAN OF SUBDIVISION LOTS 11 & 12 MURIEL COURT, COCKBURN CENTRAL

APPENDIX 5

BUSHFIRE MANAGEMENT PLAN



BUSHFIRE MANAGEMENT PLAN

Lot 11 & 12 Muriel Court, Cockburn Central

City of Cockburn

BPAD Bushfire Planning & Design Accredited Practitioner Level 2

Prepared by Ralph Smith
SMITH BUSHFIRE CONSULTANTS Pty Ltd
BPAD 27541
smith.consulting@bigpond.com
0458 292 280

Site visited 24 February & 26 April 2023; Report completed 6 August 2024

Bushfire management plan/Statement addressing the Bushfire Protection Criteria coversheet

Site address: Lots 11 & 12 Muriel Court, Cockburn Central

Site visit: Yes ☑ No ☐

Date of site visit (if applicable): Day 26 Month April Year 2023

Report author: Ralph Smith

WA BPAD accreditation level (please circle):

Not accredited ☐ Level 1 BAL assessor ☐ Level 2 practitioner ☑ Level 3 practitioner ☐

If accredited please provide the following.

BPAD accreditation number: 27541 Accreditation expiry: Month August Year 2024

Bushfire management plan version number: 1.3

Bushfire management plan date: Day 6 Month August Year 2024

Client/business name: SJS Solutions Corporation Pty Ltd

	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?		✓
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the bushfire protection criteria elements)?		✓

Is the proposal any of the following (see SPP 3.7 for definitions)?	Yes	No
Unavoidable development (in BAL-40 or BAL-FZ)		✓
Strategic planning proposal (including rezoning applications)		✓
Minor development (in BAL-40 or BAL-FZ)		✓
High risk land-use		✓
Vulnerable land-use		✓

None of the above ☐

Note: Only if one (or more) of the above answers in the tables is yes should the decision maker (e.g. local government or the WAPC) refer the proposal to DFES for comment.

Why has it been given one of the above listed classifications (E.g. Considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?

The information provided within this bushfire management plan to the best of my knowledge is true and correct:

Signature of report author  Date 6/8/2024

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Full Content Detail

Document control

Report Version	Purpose	Author/reviewer and accreditation details	Date Submitted
1	Support the subdivision application	Ralph Smith	13 March 2023
1.1	Revised maps and text	Ralph Smith	1 May 2023
1.2	Revised text	Ralph Smith	20 October 2023
1.3	Revised text and maps following WAPC	Ralph Smith	6 August 2024

DISCLAIMER

This Bushfire Management Plan has been prepared in good faith. It is derived from sources believed to be reliable and accurate at the time of publication. Nevertheless, this plan is distributed on the terms and understanding that the author is not responsible for results of any actions taken based on information in this publication or for any error or omission from this publication.

Smith Bushfire Consultants Pty Ltd has exercised due and customary care in the preparation of this Bushfire Management Plan and has not, unless specifically stated, independently verified information provided by others.

Any recommendations, opinions or findings stated in this report are based on circumstances and facts as they existed at the time Smith Bushfire Consultants Pty Ltd performed the work. Any changes in such circumstances and facts upon which this document is based may adversely affect any recommendations, opinions or findings contained in this plan.

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Section 1: Proposal Details

The proposal is to subdivide the current two lots into multiple smaller lots.

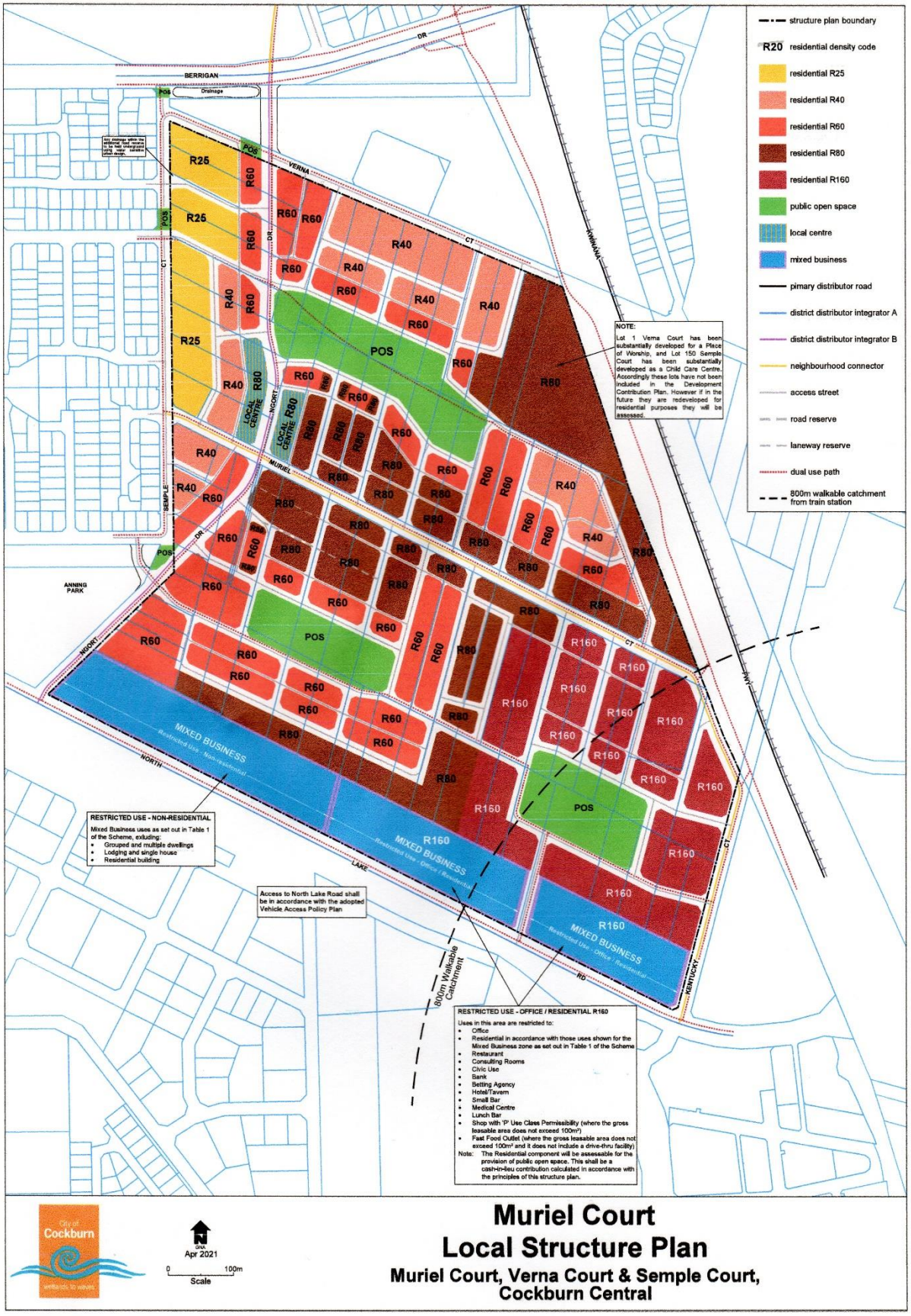

Figure 1. A copy of the Local Structure Plan.

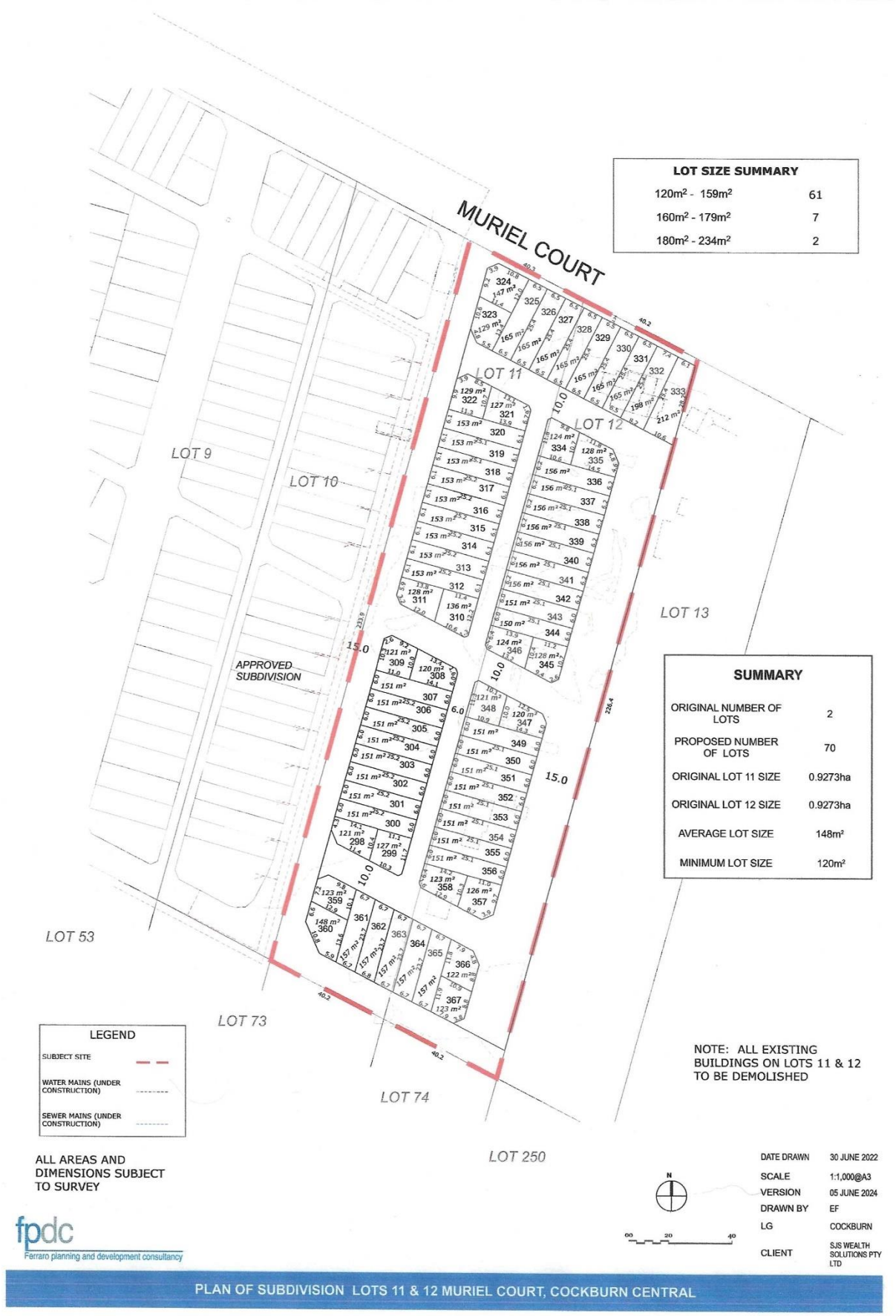

Figure 2. Copy of the subdivision plan.

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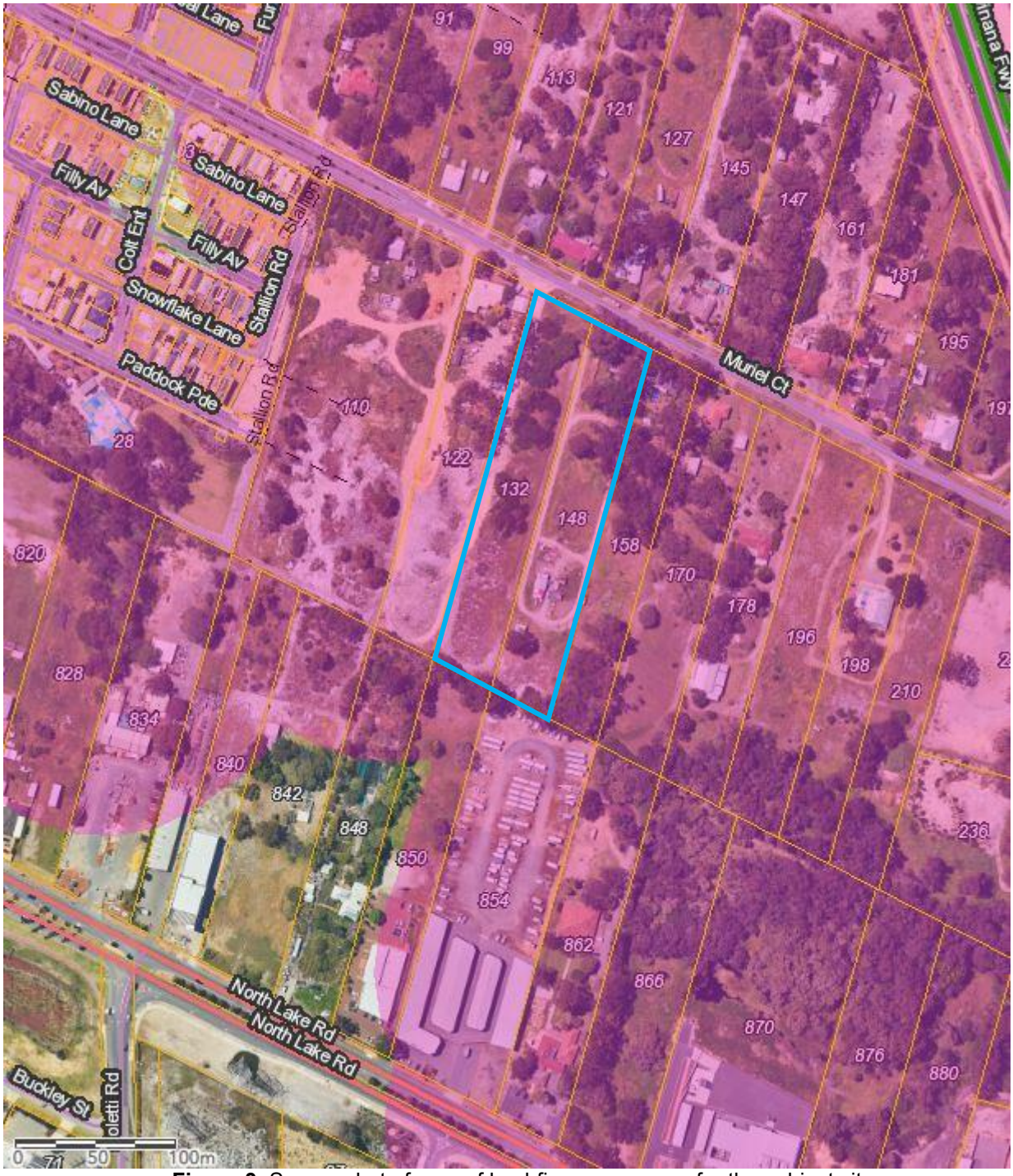


Figure 3. Screen shot of map of bushfire prone areas for the subject site.

The current lot is declared as bushfire prone. The declaration of bushfire prone is required for the Building Code of Australia to trigger AS 3959, and the construction standard requirements.

Section 2: Environmental Considerations

The State Planning Policy 3.7 recognises the need to consider bushfire risk management measures alongside environmental, biodiversity and conservation values. A desktop search has identified that the following are not registered for the development site or immediately surrounding area:

- Threatened and priority flora;
- Threatened and priority fauna;
- Contaminated site registration;
- Clearing Regulation – Environmental Sensitive Areas;
- Threatened ecological community;
- Ringtail possum habitat;
- Black Cockatoo breeding sites; and
- Carnaby Cockatoo confirmed roost sites.

The following two avifauna are within the buffered area:

- Black Cockatoo roosting site buffered 1 km;
- Carnaby Cockatoo confirmed roost sites buffered 6 km.

Subsection 2.1: Native Vegetation – modification and clearing

There will be no need to clear any areas of native scrub vegetation as a component of this subdivision. The lot is entirely a grassland area, except around the current dwelling where there some trees, which are believed to introduced species.

Subsection 2.2: Re-vegetation/Landscape Plans

There is no revegetation plan for the new lots. It is anticipated that any new dwelling will have a level of garden within the building envelope that is compliant with the City of Cockburn firebreak notice.

Section 3: Bushfire Assessment Results

Any dwellings located on the new lots have all been assessed as being with BAL rating of BAL–29 or less, except for Lots 352, 353 and 354. The forest vegetation to the east is the primary vegetation threat that is raining the BAL rating for these lots.

Subsection 3.1: Assessment Inputs

The assessment inputs are shown in the forthcoming pages and are supported by a vegetation assessment, photographic evidence and text to support the vegetation assessment and a BHL assessment map.

Site Assessment

The assessment of the proposed subdivision was undertaken on 24 February & 26 April 2023 for the purpose of determining the Bushfire Attack Level in accordance with AS 3959 (Method 1).

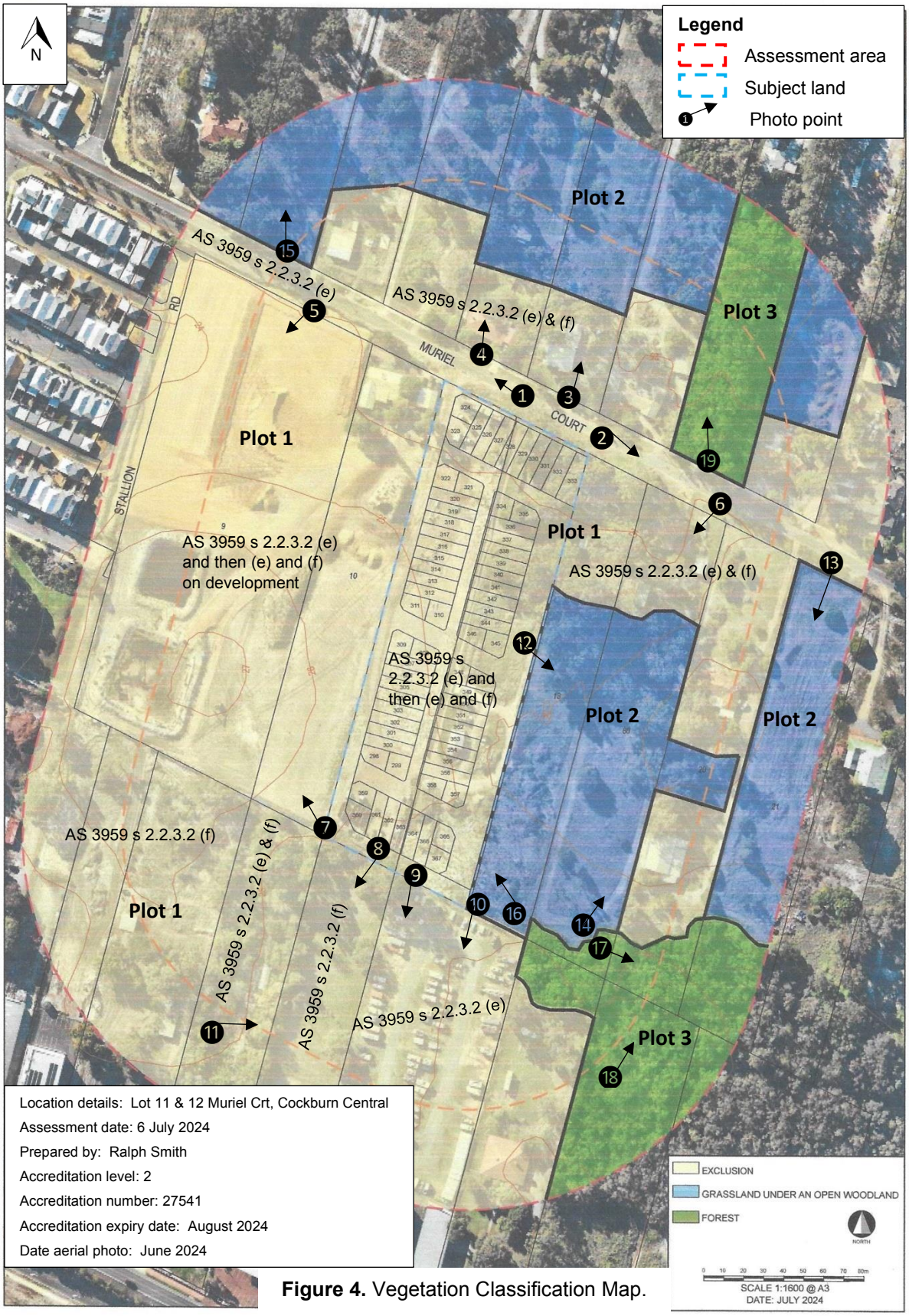


Figure 4. Vegetation Classification Map.

Vegetation Classification

All vegetation within 150 metres of the proposed subdivision as indicated on the site assessment plan was classified in accordance with the Western Australian Government criteria and Clause 2.2.3 of AS 3959 was applied. Each distinguishable vegetation plot with the potential to determine the Bushfire Attack Level is identified below. AS 3959 only requires consideration of 100 metres between vegetation and the building and 50 metres between vegetation and the building for grassland.

Plot 1
Exclusion – Low threat vegetation and non-vegetated areas.
Clause 2.2.3.2 (e) and (f).



Photo ID: Photo 1 Looking west along Muriel Court.



Photo ID: Photo 2 Looking east along Muriel Court. This section of Muriel Court has dwelling and gardens.



Photo ID: Photo 3 Looking at the neigbouring dwelling and APZ.



Photo ID: Photo 4 Looking at the neigbouring land being developed for future dwellings and infrastructure.



Photo ID: Photo 5 Looking at the neighbouring land being developed for future dwellings and infrastructure.



Photo ID: Photo 6 Looking at the 'low threat vegetation' on the neighbouring lot.



Photo ID: Photo 7 Looking at the neighbouring lot where vehicles are stored on solid surface.



Photo ID: Photo 8 Looking across the neighbouring lot at the stored vehicles.



Photo ID: Photo 9 Looking at the productive nursery on the neighbouring lot to the south.



Photo ID: Photo 10 Looking at the neighbouring dwelling and APZ.

Plot 2

Class G – Grassland under an open woodland (AS 3959 classification – G–06)



Photo ID: Photo11 Looking at the grass vegetation on the neighbouring lot.



Photo ID: Photo 12 Looking at the grassland on the neighbouring lots.



Photo ID: Photo 13 Looking south-west at the grassland on the neighbouring land.



Photo ID: Photo 14 Looking at the grassland on the neighbouring land within the 150 m vegetation assessment.



Photo ID: Photo 15 Looking at grassland on the neighbouring land to the north-west.



Photo ID: Photo 16 Looking at the area of overstorey removed that is east of the subdivision lots.

Plot 3

Class A – Forest (AS 3959 classification – A – 03).



Photo ID: Photo 17 Looking at the forest that is south-east of the subdivision site.



Photo ID: Photo 18 Looking at the forest that is south-east of the subdivision site.



Photo ID: Photo 19 Looking at the forest that is north-east of the subdivision site.

Notes to Accompany Vegetation Classification

1. Plot 1

Exclusion – Low threat vegetation and non-vegetated areas
Clause 2.2.3.2 (e) & (f) includes the areas modified to 'low threat vegetation'.

This plot comprises the lots which will be cleared as a component this development. It also includes the land to the west that has already been cleared and is being developed as a subdivision with new dwellings and infastructure to be developed in the near future.

This plot also includes the managed to low threat grassland under a sparse crown overstorey as required in the City of Cockburn firebreak notice. It also includes the single row of windbreaks along private property boundaries as described in AS3959 s 2.2.3.2 Notes 2 (page15).

This plot also includes the road infrastructure, and the neighbouring dwellings, gardens and driveways.

2. Plot 2

Class G – Grassland (AS 3959 classification – G–06)

This plot comprises the grassland that is unmanaged and there is no formal enforecable provision for it to be managed to AS 3959 low threat vegetation standard. This includes the recently cleared overstorey area which had a grass surface vegetation, which is expected to regrow to grass. This plot has been revised and the area modified. The tree crown cover over the entire plot is less than 10% coverage, and meets the AS 3959 Table 2.3 Typical Characteristics "All forms (except tussock moorlands), including situatios with shrubsand trees, if the overstorey foliage cover is less than 10%. Includes pasture and cropland. Note: Grassland managed in a minimal fuel condition and non-curing cropland is regarded as low threat vegetation for the purposes of Cause 2.2.3.2." The oblique nature of recent aerial photographs distort the apparent size of the crowns, through the impact of shade, and where the aerials are at a steeper angle the shade distortion is exagerated. The crown cover determination of less than 10% is based on analysing multiple aerial photographs to obatin the most accurate crown overstorey cover.

3. Plot 3

Class A – Forest (AS 3959 classification – A–03)

This plot comprises the forest that is south-east of the subdivision site on the neighbouring lots. The forest is a mixture of overstorey species, some of which are introduced species and others are native species. The pocket of forest in this area has a vegetation structure that varies with both native multi-tiered scrub species and introduced scrub species.

This plot also has an area that is north-east of Muriel Court. This plot does not have the density of scrub when compared to the other plot in this vegetation assessment area, but comprises introduced overstorey species that exceed 30% crown cover. The trees are lined along the driveway, but the lines are less than 20 metres apart and adjacent to grassland vegetation. The percautionary principle has been applied to this vegetation plot.

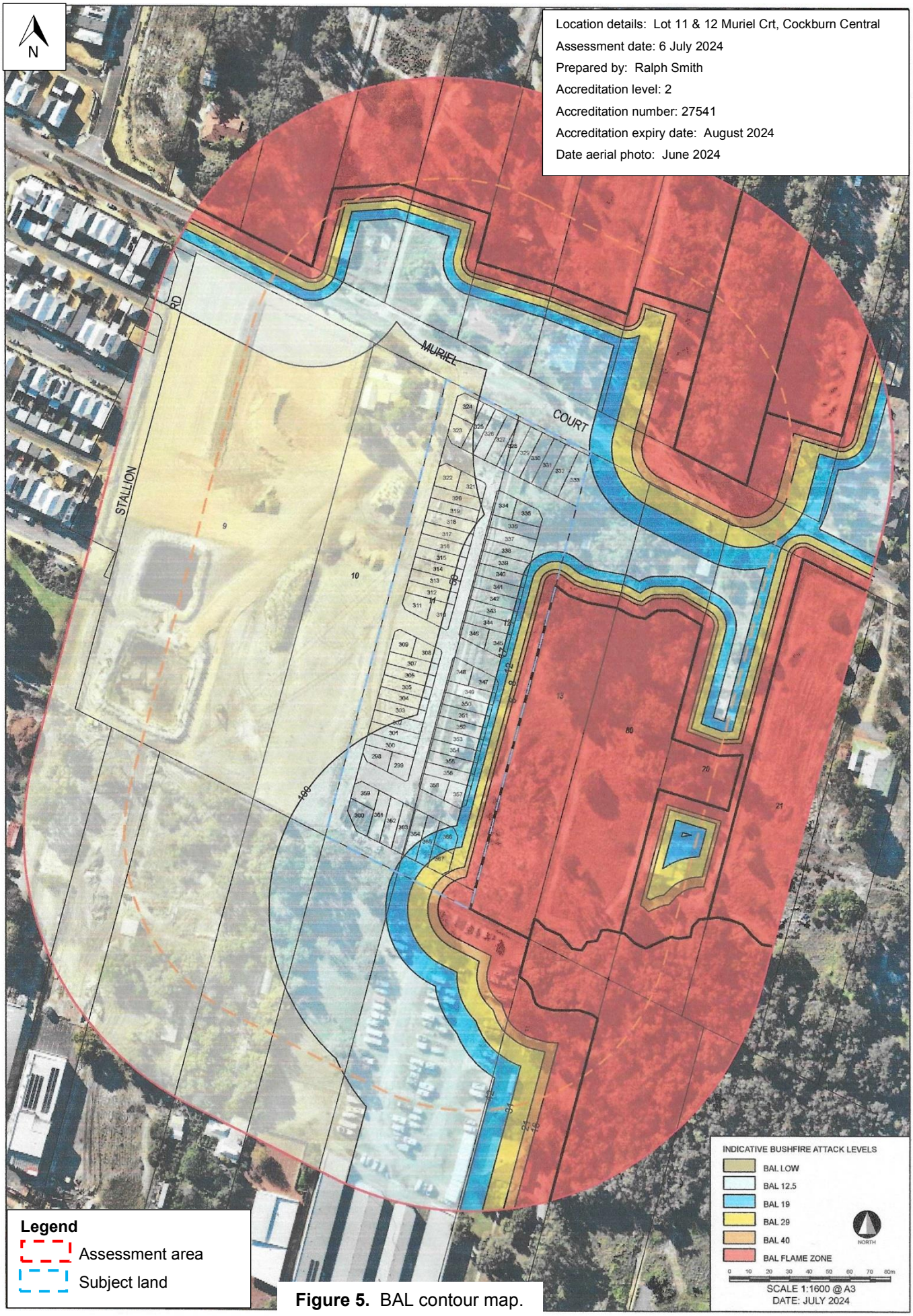


Figure 5. BAL contour map.

Slope



Figure 6. Two-metre contour lines.

Subsection 3.2: Assessment outputs

Plot	Applied Vegetation Classification	Effective Slope Under the Classified Vegetation (degrees)	Separation Distance to the Classified Vegetation (metres)	BAL Contour
1	Exclusion – Low threat vegetation and non-vegetated areas Clause 2.2.3.2 (e) & (f)	Not applicable	Not applicable	LOW
2	Class G – Grassland (AS 3959 classification – G–21)	Level	14	19
3	Class A – Forest (AS 3959 classification – A–03)	Level	21	29

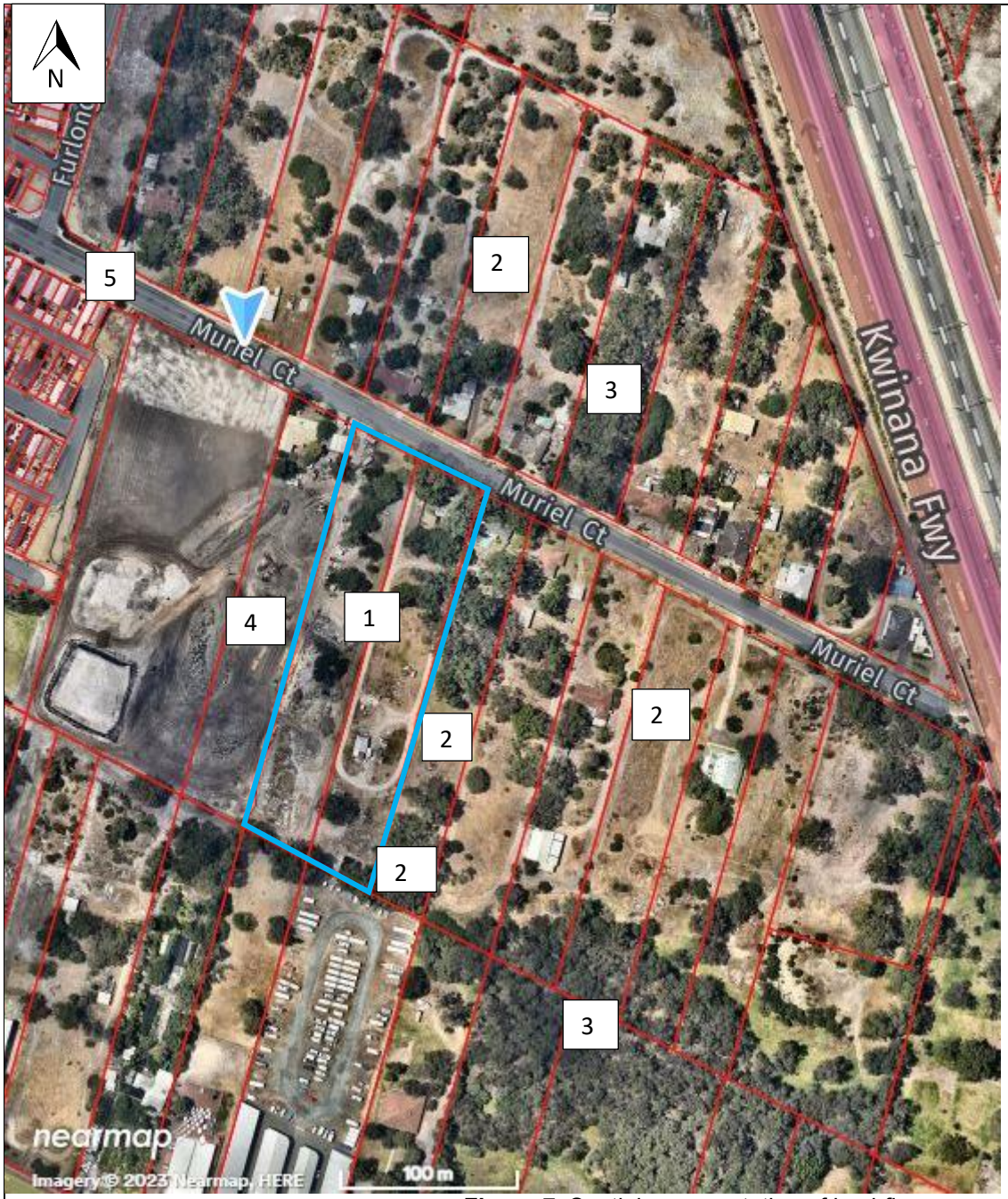
Section 4: Identification of bushfire hazard issues

The most significant bushfire hazard is the grassland vegetation on the neighbouring lot to the subdivision lot, and the forest on the neighbouring lot south-east of the subdivision lot. The protection to the dwellings will be enhanced by constructing to the appropriate standard (AS 3959).

Section 5: Assessment against the Bushfire Protection Criteria

Subsection 5.1: Compliance Table

Bushfire protection criteria	Method of Compliance Acceptable solutions	Proposed bushfire management strategies
Element 1: Location	A1.1 Development location	This development will be developed in such a manner that on completion the BAL rating of BAL–29 or less is possible for all lots.
Element 2: Siting and design	A2.1 Asset Protection Zone (APZ)	There will be no APZs required with the development for the future dwellings.
Element 3: Vehicular access	A3.1 Public road	All public roads will be constructed to the appropriate standards as required in the Guidelines.
	A3.2a Multiple access routes	There will be multiple access options that facilitate movement to a range of alternative locations and directions of travel when the full structure plan has been developed. The access is a legacy issue. The subdivision to the west is being currently developed and this will provide additional access, which will be within a residential built-out area.
	A3.2b Emergency access way	Not applicable
	A3.3 Through roads	The road network will provide the through roads and link to Muriel Court which is constructed.
	A3.4a Perimeter roads	A perimeter road is planned for the subdivision and the roads will link to the subdivision to the west.
	A3.4b Fire service access routes	Not applicable.
	A3.5 Battle-axe access legs	Not applicable.
	A3.6 Private driveways	The private driveways will all be less than 50 metres in length.
Element 4: Water	A4.1 Identification of future water supply	The site will be serviced by reticulated scheme water in accordance with the State Government requirements.
	A4.2 Provision of water for firefighting purposes	Hydrants will be developed in accordance with the State's Guidelines.



LEGEND

Subject land

Sealed roads

REQUIREMENTS

1. The site will serviced by a reticulated scheme water system and hydrants will be established.
2. This is the grassland bushfire threat vegetation.
3. This is the forest bushfire threat vegetation.
4. Principal access roads for access and egress that links to the neighbouring subdivisions.
5. The current access along Muriel Court.

Location details: Lot 11 & 12 Muriel Crt, Cockburn Central
Assessment date: 6 July 2024
Prepared by: Ralph Smith
Accreditation level: 2
Accreditation number: 27541
Accreditation expiry date: August 2024
Date aerial photo: June 2024
Version No: 1.3

Figure 7. Spatial representation of bushfire management strategies.

Section 6: Responsibilities for Implementation and Management of the Bushfire Measures

This section is to set out the responsibilities of the developer/s, landowner/s and local government with regards to the initial implementation and ongoing maintenance of the required actions.

No.	Implementation Action
1	A notification pursuant to Section 165 of the *Planning and Development Act 2005*, is to be placed on the certificate(s) of title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating or 12.5 or above, advising the existence of a hazard or other factor. Notice of this notification is to be included in the diagram or plan of survey (deposited plan). The notification is to state as follows: "*This land is within a bushfire prone area as designated by an Order made by the Fire and Emergency Services Commissioner and is subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land*" (Western Australian Planning Commission).
2	Comply with the relevant local government annual firebreak notice issued under s33 of the Bush Fires Act 1954.
3	Construct the new scheme water fire hydrants to comply with the State's requirements and in accordance with the Water Corporation standards as recorded in Design Standard No 63.
4	Construct the roads to the required standards as specified in the Guidelines.

LANDOWNER/OCCUPIER – ONGOING	
No.	**Management Action**
1	Comply with the relevant local government annual firebreak notice issued under s33 of the Bush Fires Act 1954.
2	Maintain the dwelling to the appropriate construction standard.

Appendix 1

Location of the native vegetation extent in the general area of the development.



Appendix 2

Copy of the Carnaby Cockatoo confirmed roost site buffered by 6 km for the general area and the subdivision lot.



Appendix 3

Copy of the Black Cockatoo confirmed roost site buffered by 1 km for the general area and the subdivision lot.



Appendix 4

Copy of a section of the Fire Control Order on the City of Cockburn website 26 June 2024.

Fire Hazards and Firebreaks

Fire Hazards

Properties under 4047m2 - All flammable materials such as dry grass and weeds must be slashed, mowed or trimmed down to a maximum height of 50mm across the entire property and all dead vegetation must be removed. This must be put in place by 1 November each year and maintained to 15 April.

Firebreak requirements

Properties over 4047m2 - A firebreak is an area where flammable material (such as wood, leaves and grass) has been cleared to provide vehicle access and help minimise the spread of a fire.

Firebreaks must be put in place by 1 November each year and maintained up until 15 April the following year. Extensions will not be granted.

References

Australian Building Codes Board, (2019). *Building Code of Australia*. Australian Building Codes Board, Sydney

City of Cockburn, (2023). *Fire Control Order*. Retrieved 26 June 2024 from https://www.cockburn.wa.gov.au/Health-Safety-and-Rangers/Fire-and-Emergency-Management/Firebreaks-and-Burning-Permits

City of Cockburn, (2023). Intramaps from https://www.Cockburn.wa.gov.au/develop/mapping-services/interactive-property-maps.aspx

Near map from http://maps.au.nearmap.com/

Slope percentage to degrees conversion from https://www.calcunation.com/calculator/slope-percent-conversion.php

Landgate (SLIP), (2023). *Map of Bushfire Prone Areas*. Retrieved 14 March 2023 from https://maps.slip.wa.gov.au/landgate/bushfireprone/

Standards Australia. (2018). *Australian Standard 3959 – Construction of buildings in bushfire-prone areas*. Standards Australia, Sydney, NSW.

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

Western Australian Planning Commission. (2021). *Guidelines for Planning in Bushfire Prone Areas.* Western Australian Planning Commission, Perth, WA. December 2021

Environmental and conservation values from https://espatial.dplh.wa.gov.au/PlanWA/Index.html?viewer=PlanWA

APPENDIX 6

ADJOINING LANDOWNER CONSENT

To whom it may concern

PROPOSED AMENDMENT TO THE MURIEL COURT STRUCTURE PLAN

I note that the owners of Lot 12 Muriel Court Cockburn Central are proposing an amendment to the Muriel Court Local Structure Plan by widening a proposed road on Lot 12 from 6 m to 15 m.

I note that the plans provided by the owners of Lot 12 show that the entire proposed 15m wide road will be located wholly within Lot 12.

I note that the owners of Lot 12 have provided information that shows that fill, in the form of battering using clean fill will be required up to 1m high at the common boundary and tapering down into Lot 13 for a distance of 2m.

I confirm that the owner of Lot 12 has also agreed to make good any works undertaken on Lot 13.

I confirm that I raise no objection to the placement of fill on Lot 13 as described above.

Yours faithfully

Name..Zhuoming Chu
Owner of Lot 13 Muriel Court, Cockburn Central

Signature.....

Date...11/10/2022