

**Lot 301 (No. 221) Barfield Road,
Hammond Park**

Standard Structure Plan

Project Ref: 1151

Prepared for

Blokk Property Australia
PO Box 137
MOUNT LAWLEY WA 6929

History and Status of this Document

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ENDORSEMENT PAGE

This structure plan is prepared under the provisions of the City of Cockburn Town Planning Scheme No. 3 District Zoning Scheme.

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

06 February 2024

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, in the presence of:

Witness:



Date: 13 February 2024

Date of Expiry: 13 February 2034

TABLE OF AMENDMENTS

| Amendment No. | Summary of the Amendment | Date Supported by Council | Date approved by WAPC |
|---------------|--------------------------|---------------------------|-----------------------|
| | | | |
| | | | |

Executive Summary

The Lot 301 (No. 221) Barfield Road Local Structure Plan comprises of 1.6897ha of land, being generally bound by Barfield Road, Rowley Road, Lot 41 Barfield Road and existing residential development.

The Structure Plan is zoned 'Urban' under the Metropolitan Region Scheme (MRS) and 'Development' under the City of Cockburn Town Planning Scheme No. 3 (TPS3). This Structure Plan has been lodged in accordance with TPS3 provisions that require a structure plan prior to development or subdivision of land.

The Structure Plan proposes residential development at a density of R30-R40 with the higher R40 present in close proximity to an area of proposed public open space. It is expected that the Structure Plan will accommodate a total of 32 dwellings and up to 82 residents which equates to 18.9 dwellings per hectare and 32.4 dwellings per site hectare exceeding the Liveable Neighbourhoods and Directions 2031 targets.

A permeable road network is proposed with one connection to the established road network in Barfield Road. Within the Structure Plan the road network will present as a loop road that will act as a buffer to the Planning Control Area associated with Rowley Road in the south and the bushfire threat on Lot 41 to the east.

All essential service infrastructure is located within proximity and is easily extended to the Structure Plan area.

The Structure Plan is supported by a number of technical reports which are provided as appendices and include:

- Ecological Report.
- Bushfire Management Plan.
- Traffic Impact Statement.
- Noise Assessment.

- Engineering and Servicing Report.
- Landscape Concept Plan.

Table 1 provides a land use summary of the Structure Plan.

| Item | Data | Reference |
|---|---|---------------|
| Total Structure Plan Area | 1.6897ha | Section 1.2.2 |
| Area of each land use zones: | | Section 3.2 |
| • Residential | 0.9881ha | |
| Area of reserves: | | |
| • Road Reserves | 0.5755ha | |
| • Public Open Space | 0.1261ha | |
| Estimated lot yield | 32 lots | Section 3.2 |
| Estimated dwellings | 32 dwellings | |
| Estimated density per site hectare | 32.4 dwellings | Section 3.3 |
| Estimated population | 82 residents @ 2.56 people per household. | Section 3.2 |
| Primary Schools | None | Section 3.2 |
| High Schools | None | |

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Part One - Implementation

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PART ONE – IMPLEMENTATION

1.0 Structure Plan Area and Operation

This Standard Structure Plan (Structure Plan) applies to the entirety of Lot 301 (No.221) Barfield Road, and a 14.2m wide portion of Lot 41 Barfield Road, being the land contained within the inner edge of the line denoting the Structure Plan Boundary on the Structure Plan Map (Refer to Plan 1 situated at the end of Part 1 of this Structure Plan Report). The plan is in effect from the date stated on the cover and for a period of 10 years.

2.0 Structure Plan Content

This Structure Plan comprises:

- a) Part One – Implementation Section
This section contains the structure plan map and outlines the intent of the structure plan.
- b) Part Two – Explanatory Section
This section contains the background and explanation of the structure plan, including design methodology, relevance and compliance with the planning framework at the State and Local levels

3.0 Staging

Given the size of the site, development within the Structure Plan area is intended to occur as a single stage.

4.0 Subdivision and Development Requirements

4.1 Land use zones and reserves

Zones

The Structure Plan Map (Plan 1) outlines land use, zones and reserves applicable within the Structure Plan area. The zones and reserves designated under this Structure Plan apply to the land within it as if the zones and reserves were incorporated into the City of Cockburn Town Planning Scheme No.3 (TPS3).

On this basis under TPS3, the ‘Development’ zoned portion will accommodate residential and public open space land uses. The ‘Special Use’ zoned portion will retain the infrastructure use, road reservation and potential overflow drainage, but no residential development.

Road Reserves

The proposed street network within the Structure Plan is consistent with an Access Street D classification in accordance with Liveable Neighbourhoods. These will consist of a 14.2m wide road reserve with the cross section depicted below.

There will also be one 12m wide road reserve abutting Planning Control 156. A cross section for this road is also depicted below.

There will be no access/egress to and from Rowley Road with the primary point of access to the existing road network occurring from Barfield Road.

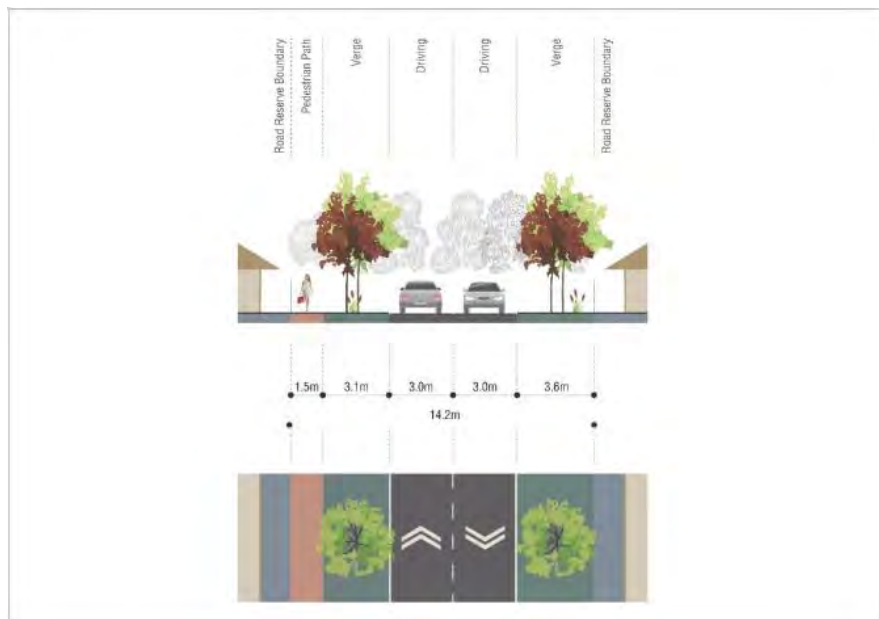


Figure 1 – 14.2m road cross section

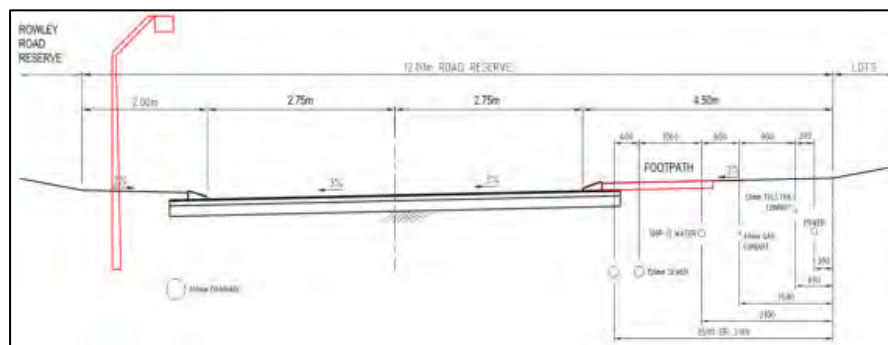


Figure 2 – 12m wide road cross section

Public Open Space

The function of the public open space (POS) will be consistent with a Local Park classification in accordance with Liveable Neighbourhoods. An indicated Landscape Concept Plan has been provided in Appendix 9 with the detailed design to be addressed as a condition of subdivision approval. The design should include:

- No areas of restricted public open space with an underground detention tank being provided for drainage.
- A site level for the POS at approximately 33 AHD which is slightly lower than the adjoining lot and road levels.
- A planting mix consistent with low threat vegetation with some turf, low height plants and trees.
- Irrigation through an available groundwater allocation.

The Structure Plan provides a total of 1,261sqm of POS which equates to a total of 8.4% of the total gross subdividable area. The minor shortfall of 1.6% will be paid via a cash in lieu contribution as a condition of subdivision approval. Table 2 below provides a schedule of POS within the Structure Plan Area.

| PUBLIC OPEN SPACE SCHEDULE | |
|---|-----------------|
| Structure Plan Site Area | 1.6897ha |
| Less | |
| - Environmental protection policy areas Wetlands to be ceded | n/a |
| - Protected bushland site | n/a |
| - Unrestricted public open space sites not included in public open space contribution | n/a |
| - Foreshore reserves to be ceded | n/a |
| Total | 0.00 ha |
| Net site area | 1.6897ha |
| DEDUCTIONS | |
| Primary School | n/a |
| Town Centre and commercial | n/a |

| | | |
|--|-----------|-------------------------|
| Dedicated drainage reserve | n/a | |
| Transmission corridors | 0.19525ha | |
| Road Widening | n/a | |
| Gross Subdivisible area | | 1.4945ha |
| Public open space @ 10 per cent | | 0.1494ha |
| Public open space contribution | | |
| May comprise: | | |
| - Minimum 80 per cent unrestricted public open space | 0.1195 ha | |
| - Minimum 20 per cent restricted use public open space | 0.0299 ha | |
| Unrestricted public open space sites | | |
| - POS | 0.1261 ha | 0.1261 ha (8.4%) |
| Restricted use public open space sites | | |
| Total restricted use public open space | 0.0ha | 0.0ha |
| Public Open Space provision | | 0.1261 ha (8.4%) |
| Note: Gross subdivisible area includes house lots, access roads, and any land incidental to the subdivision. The gross subdivisible area does not include areas for schools, shopping centres, infrastructure (e.g. land required for sewer pump stations), dedicated drainage sites not having a recreational function and land set aside for arterial roads and other non-residential uses. | | |

Table 2 – POS Schedule

4.2 Density and Development

Density and R-codes

The residential density codes applicable to the Structure Plan shall be in accordance with those shown on the Structure Plan Map (Plan 1).

In accordance with Liveable Neighbourhoods and Directions 2031 targets, the Structure Plan area shall provide for an average minimum of 22 dwellings per residential site hectare and 15 dwellings per gross urban hectare.

Local Development Plans

The WAPC may require, as a condition of subdivision approval, that a local development plan(s) be prepared in accordance with Part 6 of Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015, prior to the creation or development of lots:

- i. With an area less than 260m² or irregularly configured;
- ii. Abutting public open space;
- iii. Affected by road or rail noise exceeding targets set out in State Planning Policy 5.4: Road and Rail Noise and the associated implementation guidelines;
- iv. Where specific vehicle access and egress control is required.

4.3 Other requirements

Notifications on title

Notifications(s) is / are to be placed on titles of all affected lots to advise:

- i. That the lot is located near a transport corridor and higher construction standards may be required to reduce transport noise to acceptable levels in accordance with State Planning Policy 5.4: Road and Rail Noise;
- ii. That the lot is located within an area which has been declared bushfire prone and may be subject to a bushfire management plan and additional construction requirements may apply in accordance with Australian standard (AS3959) Construction of buildings in bushfire prone areas (as emended).

A BAL assessment and contour plan will be submitted with subdivision applications.

Restrictive covenant

A restrictive covenant may be required on titles of all affected lots that have been assessed as BAL-40 or BAL-Flame Zone, with notice of this restriction to be included on the diagram or plan of survey (deposited plan)

to advise that no habitable buildings are to be built within areas as BAL-40 of BAL-Flame Zone.

Bushfire protection

The Structure Plan is supported by a Bushfire Attack Level (BAL) Assessment and a Bushfire Management Plan (BMP). Regardless of whether the land has been formally designated as bushfire prone, any buildings to be erected on land identified as falling within 100 metres of a bushfire hazard shall comply with the requirements of Australian Standard (AS3959) Construction of buildings in Bushfire prone areas (as amended).

Noise management

The structure plan is affected by road and rail noise from Kwinana Freeway and Rowley Road in accordance with State Planning Policy 5.4: Road and Rail Noise (SPP5.4).

Prior to subdivision, an updated Transport Noise Assessment is to be provided. The updated assessment shall suitably address on-site noise monitoring to the specifications of main Roads and demonstrated compliance with SPP5.4. The Noise Management Plan is to be suitably updated to address the outcomes of the updated Transport Noise Assessment (if applicable).

Infrastructure arrangements

Earthworks – Site grading and remodelling will be kept to minimum limits wherever possible but will be required across the site to enable the construction of the proposed roads, building pads and facilitating the provision of services to each lot.

Water – Servicing the development with a potable water supply will be dependent on the progression of development in Vivente Estate. Through this development water mains will be provided along Barfield Road with sufficient capacity for the Structure Plan to access. All internal potable

water infrastructure will be designed to Water Corporation standards at the point of subdivision.

Sewer – Similar to the proposed water supply, the provision of a sewer will be dependent on the progression of development within the Vivente Estate. A future connection will be available along Barfield Road enabling the Structure Plan to connect to the gravity sewer reticulation network along Barfield Road which has sufficient capacity for the proposed development. All internal sewer infrastructure will be designed to Water Corporation standards at the point of subdivision.

Stormwater Drainage – The Structure Plan is punctuated by a high point approximately mid-block along its eastern boundary. The site will therefore require re-grading and stabilisation to ensure building sites are created and stormwater requirements are satisfied. Stormwater will be disposed of on-site via the use of soak wells or other infiltration facilities. It is proposed to provide below ground detention tank within the public open space and rain gardens within the selected areas of the road verges to accommodate the stormwater disposal from the road network.

Electrical –All lots will be serviced with underground power with the existing network having adequate capacity to service the proposed development.

Telecommunications – Telstra/NBNco and Optus networks are available to service the development. Headwork charges for Telstra/NBN service extensions are anticipated as part of the subdivision process.

Gas – The closest gas service to the Structure Plan Area is a D110 350kPa gas main located at Mokare Entrance approximately 300m west of the site. There are no obvious constraints to the extension of this network with sufficient capacity available to service the development if required.

Development Contributions

The Structure Plan Area is located within Development Contributions Areas 9 (Hammond Park) and 13 (community infrastructure) under the TPS3. Contributions costs are to be paid in accordance with the requirements of the Scheme at subdivision development stage.

Urban water management

Stormwater drainage will be consistent with the Russell Road Arterial Drainage Scheme from the City of Cockburn with all catchment up to and including the 1 in 100 year ARI event contained within the development area.

The site will be re-contoured to achieve the levels that carry the stormwater to an underground detention tank within the POS which will have a capacity of 212m³ with a footprint of 355m² which is sufficient to accommodate the 1 in 100-year ARI event. In addition, rain garden swales are able to be contemplated within selected road reserves.

Each lot will accommodate their own stormwater through soak wells or other infiltration facilities.

Ground water will be used for irrigation of the POS and vegetation within the road reserves. To facilitate this, a bore ground water license for irrigation purposes will be obtained prior to subdivision or development.

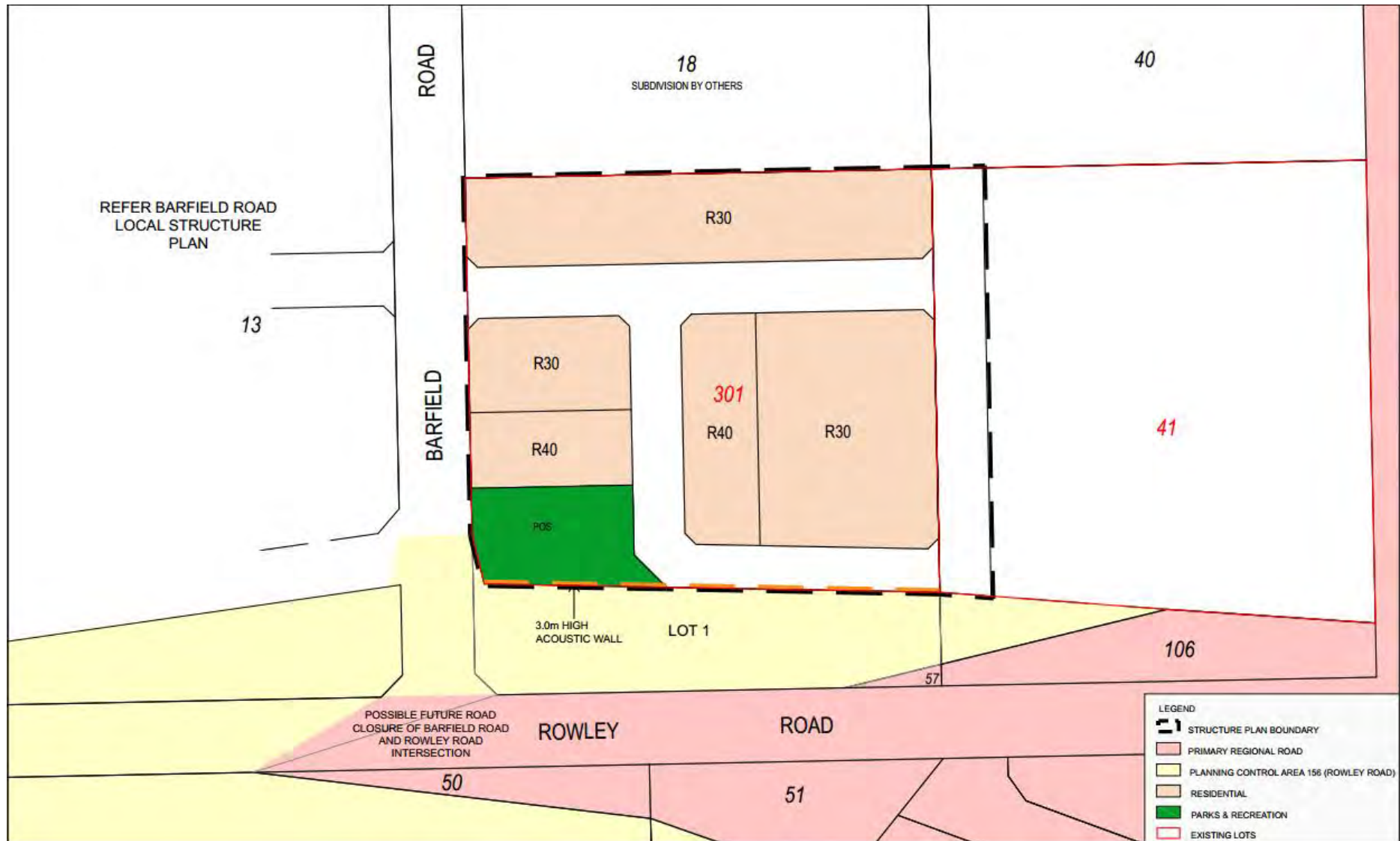
Environmental protection and management

A Landscape Management Plan is to be provided at the subdivision application stage, identifying any trees worthy for retention, where not affected by subdivision works.

Prior to the commencement of subdivisional works, a Fauna Survey and Relocation Management Plan is to be prepared and approved to ensure the protection and management of the site's existing fauna, with satisfactory arrangements being made for the implementation of the approved plan.

5.0 Additional Details

| Additional Information | Approval Stage | Consultation Requirement |
|--|-------------------------|------------------------------------|
| Landscape Management Plan | Subdivision Application | City of Cockburn |
| Urban Water Management Plan | Subdivision Application | DWER and City of Cockburn |
| Fauna Survey and Relocation Management Plan. | Subdivision Application | DBCA and City of Cockburn |
| Bushfire Attack Level Assessment and Plan | Subdivision Application | DFES, DPLH and City of Cockburn |
| Acoustic Assessment | Subdivision Application | Main Roads WA and City of Cockburn |



Plan 1 – Structure Plan Map

Part Two – Explanatory Section

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PART TWO – EXPLANATORY SECTION

1.0 Planning Background

1.1 Introduction and Purpose

This report has been prepared on behalf of Blokk Property Pty Ltd in support of a Structure Plan for Lot 301 (No. 221) and a portion of Lot 41 Barfield Road, Hammond Park. The structure plan will provide for residential development and an associated complimentary portion of public open space. The purpose of the Structure Plan is as follows:

- To provide guidance on the use, subdivision and development of land to create a high quality urban environment.
- To achieve an optimum housing density and diversity with an emphasis on achieving consistency with the existing and future housing demand for the locality.
- Maximise the quality of living of future residents.

The Structure Plan provides densities that are consistent with the Southern Suburbs District Structure Plan and results in 18.9 dwellings per hectare and 32.4 dwellings per site hectare which exceeds the density targets noted in Perth and Peel @ 3.5 Million (15 dwellings per hectare) and Liveable Neighbourhoods (22 dwellings per site hectare).

The project team involved in delivering the Structure Plan includes:

- Dynamic Planning and Development – Town Planning;
- Peritas Group – Engineering;
- Strategen & JBS&G – Environmental and Bushfire
- KCTT – Traffic Engineering; and
- Herring Storer – Acoustics.

1.2 Land Description

1.2.1 Location

The Structure Plan is located within the suburb of Hammond Park, within the municipality of the City of Cockburn. The structure plan area is located approximately 38.0 kilometres south of the Perth Central Business District and 9.0 kilometres from the Indian Ocean. The nearest strategic metropolitan activity centre being Cockburn Gateway is located 5.8km to the north, the centre providing a range of services including retail, administrative, service, community and entertainment uses.

The closest train station to the Structure Plan is Auburn Grove which is 3.3km away. Servicing this train station is the 535 bus which is the closes bus route to the Structure Plan being some 800m away. Schools in the area include Hammond Park Secondary College (900m), Hammond Park Catholic Primary School (1.3km) and Hammond Park Primary School (2.2km).

Figures 3 and 4 below illustrates the structure plan's local and regional context.

1.2.2 Area and Land Use

The structure plan area encompasses a total land area of approximately 1.6897ha and comprises of the entirety of Lot 301 (No. 221) Barfield Road and a 14.2m wide portion of Lot 41 Barfield Road. At present Lot 301 includes a single house and some associated outbuildings with Lot 41 including a 20m wide portion of cleared land and a Western Power high voltage power line easement.

Immediately to the south is an adjoining lot impacted by Planning Control Area 156 which is required for the purposes of the Rowley Road upgrade. Historically this lot was a part of the Lot 301 but was the subject of a subdivision application to establish a separate lot for acquisition by Main Roads. No access to and from the Planning Control Area or Rowley Road is proposed as part of the Structure plan. The surrounding locality is characterised by expanding urban /residential development associated with the Barfield Road Structure Plan.

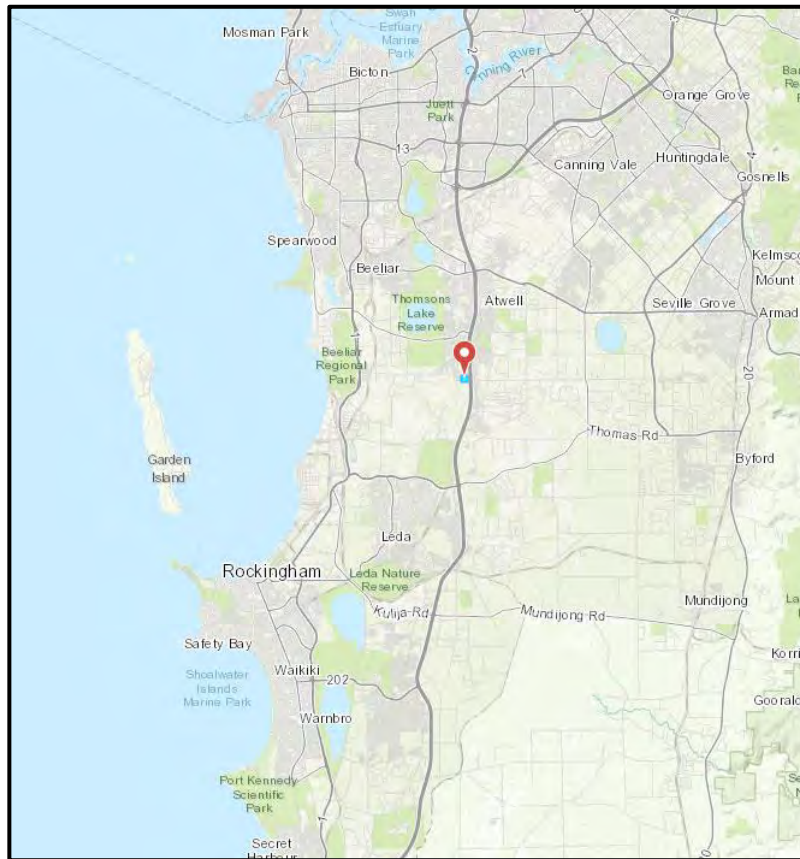


Figure 3 – Regional Context (Source: PlanWA)

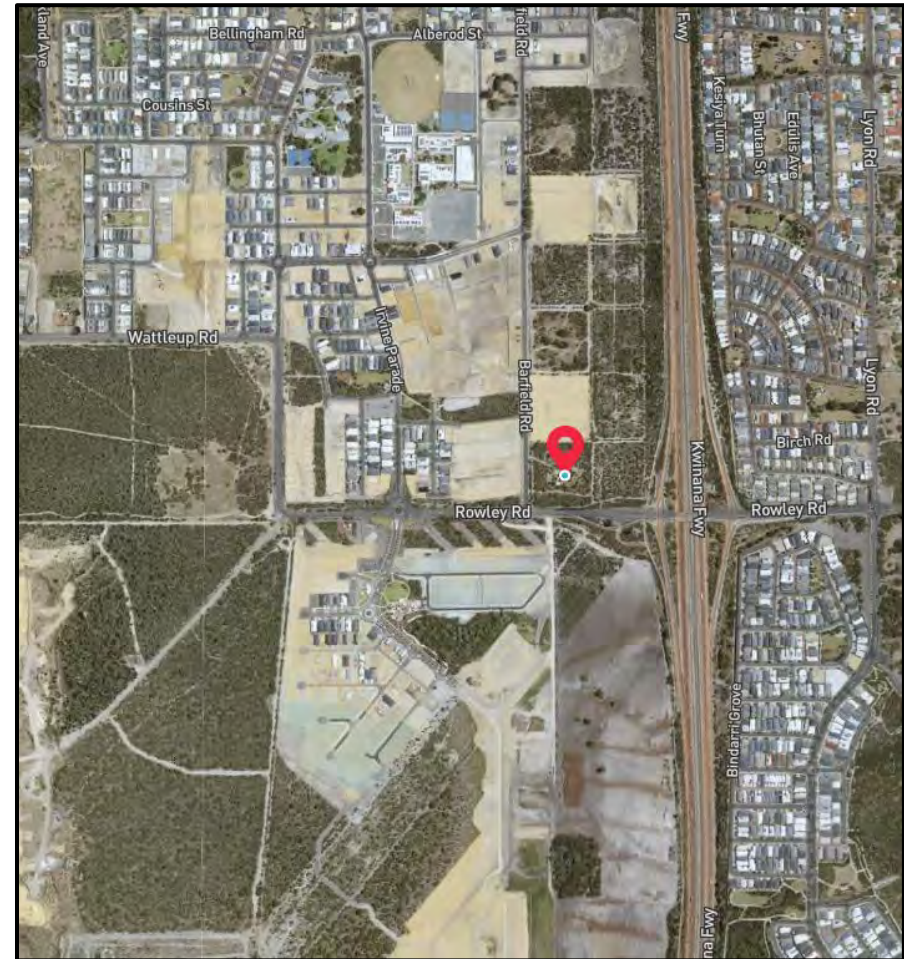


Figure 4 – Local Context (Source: MetroMap)

1.3.2 City of Cockburn Town Planning Scheme No. 3

Under the provisions of the City of Cockburn Town Planning Scheme No. 3 (TPS3), the Structure Plan is zoned 'Development' (Development Area 26) and Special Use 23 as illustrated in Figure 6 below.

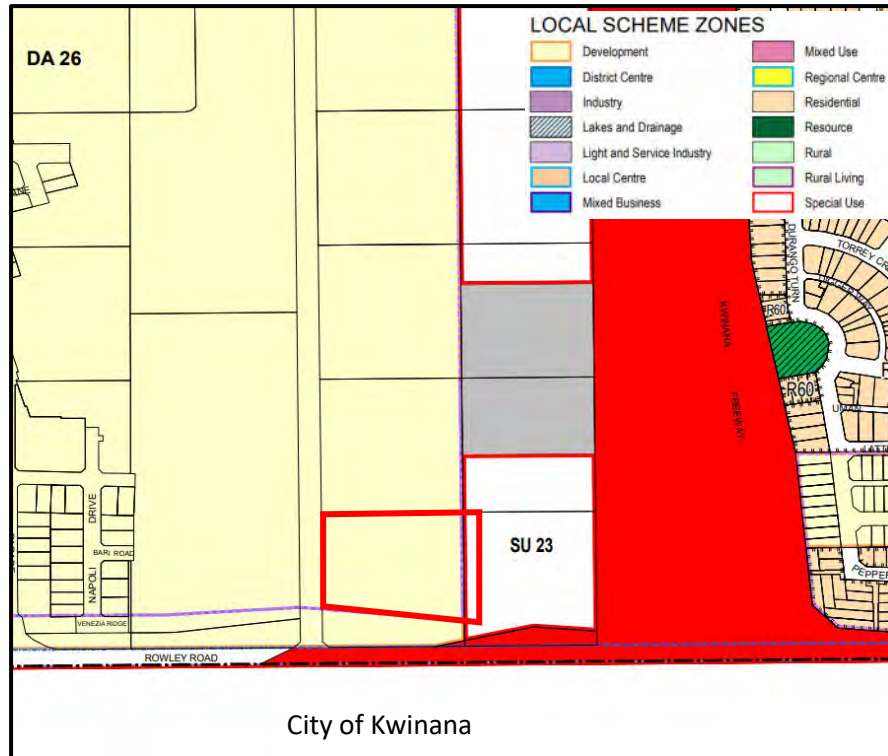


Figure 6 – City of Cockburn TPS No. 3 Zoning

In accordance with Clause 3.2.1, the relevant objective for the development zone is:

To provide for future residential, industrial or commercial development to be guided by a comprehensive Structure Plan prepared under the Scheme.

As a requirement for land zoned 'Development' in TPS3, a Structure Plan has to be prepared prior to Council providing comment on subdivision applications and determining development applications.

The 14.2m wide portion of Lot 41 included in the Structure Plan is zoned 'Special Use 23' which is intended to address lots impacted by the Western Power high voltage power lines easement. There are restrictions on the use of this land, however the construction of a road reserve is permitted and will not require separate planning approval.

1.3.3 Southern Suburbs District Structure Plan

The structure plan area is subject to the provisions of the Southern Suburbs District Structure Plan – Stage 3 (SSDSP) which was prepared by the City of Cockburn and adopted in September of 2012.

The SSDSP provides a framework for urban development to integrate seamlessly with the broader sub-regional context. Under the provisions of the SSDSP the structure plan area is intended for medium density residential development with a major shared path within the Rowley Road Planning Control Area. The structure plan is consistent with the SSDSP as the R40 residential development proposed by the structure plan around the designated public open space and R30 residential development beyond that is considered to constitute 'medium density residential development'.

The SSDSP also states that *'Future residential development shall not directly abut Rowley Road. Future local structure planning is to demonstrate a suitable interface treatment (e.g. enlarged service road design with fronting residential development as a minimum) being provided to the future Rowley Road freight access route'*. The Structure

Plan does not provide any residential lots abutting Rowley Road, instead there is a portion of POS and a 12m wide public road abutting Planning Control Area 156 which represents the proposed boundary of an upgraded Rowley Road.

The SSDSP also considered the future upgrade of Rowley Road, however since the adoption of the SSDSP, we understand that a grade separated pedestrian and vehicle access at the intersection of Rowley Road and Barfield Road is no longer being considered and instead Barfield Road will terminate at this point and be connected to Venezia Ridge. The Structure Plan has appropriately considered these road upgrades will all access to the Structure Plan occurring from Barfield Road.

1.3.4 State Policies

State Planning Strategy 2050

The State Planning Strategy 2050 was prepared by the WAPC and provides a strategic planning response to the challenges that Western Australia is likely to face. It contemplates a future in which high standards of living, improved public health and an excellent quality of life are enjoyed by present and future generations of Western Australians.

The Strategy proposes that diversity, liveability, connectedness and collaboration must be central to the vision of sustained growth and prosperity. It envisages that by 2050, Western Australia will double its current population and will have a diverse range of well-connected and vibrant communities of the highest quality in the world.

The structure plan will allow for the future development of under-utilised land for residential purposes which is largely consistent with the existing housing typology within the surrounding locality.

Perth and Peel @ 3.5 Million – South Metropolitan Peel Sub-Regional Planning Framework.

Perth and Peel @ 3.5 Million provides the overarching strategic framework for the Perth and Peel Regions. The structure plan area is located within the South Metropolitan Peel sub-regional planning framework which is intended to provide strategic guidance to government agencies and local governments on all aspects of land use and infrastructure provision within the region. The framework clearly identifies a focus on urban infill within areas with proximity to high-quality public transport routes or within activity centres and urban corridors. Specifically an infill development target of 47% by 2050 is identified relative to 2014 rates which reached only 28%.

In accordance with the South Metropolitan Peel sub-regional planning framework, the structure plan area is identified as undeveloped urban land that is earmarked for development in the short term (2015-2021). It is considered that the structure plan will facilitate residential subdivision and development on the subject land which is entirely consistent with what has been proposed in the South Metropolitan Peel sub-regional planning framework.

Liveable Neighbourhoods

Liveable Neighbourhoods is the primary policy used for the design and assessment of structure plans (regional, district and local) and subdivision and development applications for new urban areas. Its primary objective is to promote the design of walkable neighbourhoods, places that support community and a sense of place, mixed use and active streets, accessible and sustainable parking, energy efficient design, and housing choice.

The primary objectives are addressed in eight design elements, which if implemented appropriately are considered to fulfil the overall objectives of Liveable Neighbourhoods. These eight design elements are to be considered at the various levels of planning (structure planning and

subdivision) to ensure that development will occur in a thoughtful and sustainable manner.

Liveable Neighbourhoods was at the forefront when establishing the structure plan layout and it is considered that the resultant road network, public open space and proposed density will provide diversity in housing choice and residential development that is integrated seamlessly with the surrounding neighbourhood. A comprehensive justification of how the structure plan meets the requirements of Liveable Neighbourhoods is provided in Section 3.2 to 3.4 of this report.

State Planning Policy No. 1 – State Planning Framework

State Planning Policy No. 1 (SPP1) – State Planning Framework sets out the key principles relating to environment, community, economy, infrastructure and regional development which should guide the way in which future planning decisions are made. It brings together existing State and regional policies and plans which apply to land use and development in Western Australia into a State Planning Framework. It also restates and expands upon the key principles of the State Planning Strategy in planning for sustainable land use and development.

The structure plan is consistent with the primary aim of this overarching policy which seeks to provide for the sustainable use and development of land. Further consideration of the relevant instruments referred to under SPP1 will be carried out by the WAPC and the Local Government in the assessment of the structure plan and further planning proposals for the site.

State Planning Policy No. 3 – Urban Growth and Settlement

State Planning Policy No. 3 – Urban Growth and Settlement (SPP3) applies to all of Western Australia and seeks to promote sustainable and well planned settlement patterns. Various principles included in the broader

strategic planning framework (Perth and Peel @ 3.5 Million) and other State policies such as Liveable Neighbourhoods are included in SPP3.

SPP3 intends to encourage alternative development outcomes that aren't low density suburban growth which has been common throughout Perth in recent decades. It is considered that the structure plan will create a more consolidated urban form through the application of a medium density (R40) outcome in an area that is already well serviced through access to public transport, high quality public open space and a walkable community. This resultant development outcome, facilitated by the structure plan, meets the guiding principles of SPP3.

State Planning Policy 3.7 – Planning in Bushfire Prone Areas

State Planning Policy No 3.7 – Planning in Bushfire Prone Areas (SPP 3.7) applies to land identified and designated by the Fire and Emergency Services Commissioner under the *Fire and Emergency Services Act 1998 (as amended)*. Such areas are identified on the Map of Bush Fire Prone Areas. Designation of an area as being bushfire prone reflects the potential of bushfire to affect that site.

Under the provisions of SPP 3.7, strategic planning proposals are to be accompanied by the following information:

- a) *The results of a BHL assessment determining the applicable hazard level(s) across the subject land, in accordance with the methodology set out in the Guidelines. BHL assessments should be prepared by an accredited Bushfire Planning Practitioner; or*
- b) *Where the lot layout of the proposal is known, a BAL Contour Map to determine the indicative acceptable BAL ratings across the structure plan area, in accordance with the Guidelines. The BAL Contour Map should be prepared by an accredited Bushfire Planning Practitioner; and*

- c) *The identification of any bushfire hazard issues arising from the relevant assessment; and*
- d) *Clear demonstration that compliance with the bushfire protection criteria in the Guidelines can be achieved in subsequent planning stages.*

Further detail on bushfire planning for the structure plan is contained under Section 3.7 of this report.

State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning

State Planning Policy 5.4 – Road and Rail Transport Noise and Freight Considerations in Land Use Planning (SPP5.4) addresses and seeks to manage the impact of transport noise from major transport and freight corridors on sensitive land uses such as residential development. As residential development is being proposed within close proximity to an existing or proposed regional road and freight route, consideration of SPP5.4 as part of the structure plan process is warranted.

In considering the sites proximity to both Rowley Road and the Kwinana Freeway, the noise criteria discussed in SPP5.4 has been examined in detail by Herring Storer Acoustics. The outcome of their investigation and any required noise mitigation measures required to comply with SPP5.4 has been included in Section 3.8 of this report.

1.3.5 Local Government Planning Strategies and Policies

City of Cockburn Local Planning Strategy

The Local Planning Strategy (LPS) has been prepared to set out the long term planning directions for the City and to guide land use planning within the City over the next ten to fifteen years. The Local Planning Strategy outlines and applies the wide range of relevant State, regional and local

planning policies and strategies, and provides the rationale for the land use and development controls in Town Planning Scheme No. 3.

The Local Planning Strategy aims to address district and local issues including but not limited to:

- a description of the key characteristics of the municipality, its regional context and major planning issues;
- a Statement of Aims explaining the strategic land use directions which the City is seeking to pursue;
- land use or development opportunities and constraints which provide a context for local planning decisions;
- the links between strategic planning in the municipality, and the State and regional planning context;
- strategic policy statements about key issues such as housing, industry and business, open space and recreation, transport, infrastructure, environment, town sites and rural land;
- more detailed policies and proposals for particular areas or specific issues contained in the strategy;
- an outline of how the strategy will be implemented including reference to any Local Planning Policies and guidelines which may be required, planning scheme measures and proposals of the State and local government to facilitate development including capital works.

The SSDSP notes that the District Structure Plan is consistent with the following actions outlined in the City of Cockburn Local Planning Strategy:

- Promote higher density and mixed use developments to reduce car use and promote walking and public transport.
- Ensure there is an appropriate housing and density mix to fulfil existing and potential demand from various groups.
- Promote medium and high density housing in and near regional and district centres and near public transport facilities.

- Provide a range of housing opportunities; and
- Promote mixed land uses in community, especially through the location of housing in commercial centres.

The structure plan remains generally consistent with the SSDSP and as such is considered to be in accordance with the above actions within the structure plan.

Local Planning Policy 1.12 – Noise Attenuation

Local Planning Policy 1.12 (LPP1.12) is intended to outline when an acoustic report will be required at the various development stages. In addition it also seeks to provide details of the City's requirements in relation to the different types of acoustic reports.

In accordance with the provisions of LPP1.12, the structure plan has been accompanied by an acoustic report which examines the noise mitigation measures required to mitigate the impact of noise from Rowley Road and the Kwinana Freeway.

Local Planning Policy 5.1 – Public Open Space

Local Planning Policy 5.1 (LPP5.1) is intended to supplement the provisions of Liveable Neighbourhoods with the purpose of the policy to:

1. To specify land features that will not be accepted by the City as part of the public open space requirements.
2. To clarify how bushfire protection zones and hazard separation zones will be considered in relation to public open space.

It is commented that the public open space provision and associated schedule have been prepared with the provisions of LPP5.1 in mind.

Local Planning Policy 1.2 – Residential Design Guidelines

Local Planning Policy 1.2 (LPP1.2) aims to ensure that the 10 design principles of State Planning Policy 7.0 are implemented with regard to medium density development. This policy is to be considered as part of subdivision and residential dwelling design.

2.0 Site Conditions and Environment

2.1 Environmental assets and constraints

2.1.1 Flora and Fauna

A flora and fauna assessment of the structure plan area and the adjoining Lot 41 Barfield Road was undertaken by Strategen JPS&G in October of 2020. A copy of their report detailing their methodology and results has been included in Appendix 6. In summary the following was noted:

- Analysis of the subject area identified that, based on the habitat present, four threatened and priority species were considered to have the potential to occur. These included:
 1. *Caladenia huegelii* (Threatened [*Biodiversity Conservation Act 2016*]; Endangered [*Environmental Protection and Biodiversity Conservation Act 1999*])
 2. *Dodonea hackettiana* (Priority 4)
 3. *Drakaea micrantha* (Threatened [*Biodiversity Conservation Act 2016*]; Vulnerable [*Environmental Protection and Biodiversity Conservation Act 1999*])
 4. *Tripterococcus* sp. *Brachylobus* (A.S. George 14234) (Priority 4)
- One federal listed Threatened Ecological Communities (TECs), under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) and two listed as a TEC or Priority Ecological

Community (PEC), under the State *Biodiversity Conservation Act 2016* (BC Act) were identified within the subject area.

- No known black cockatoo breeding or roosting sites occur within the subject area. However, it is situated within the mapped buffers of multiple breeding sites.
- Black cockatoo foraging habitat within the subject area is considered to have lot to moderate habitat value for Carnaby's and Baudin's Black Cockatoo, and Negligible to Low foraging value for both Baudin's Black Cockatoo and Forest Red-tailed Black Cockatoo, based on the density of suitable foraging species.
- Vegetation within the Survey Area is comprised of Jarrah-Banksia-Allocastrum woodland over mixed shrubs and exotic grasses on sandy soils. No Threatened flora species as listed under section 178 of the EPBC Act or under the BC Act were recorded during targeted surveys within the Survey Area; however, one individual *Caladenia* sp. was recorded during the targeted survey. This single plant could not be identified beyond genus level as no identifiable characteristics (e.g. flowers) were present at the time of survey. The closest vouchered recording of *Caladenia huegelii* is 5.1 km to the north east, with an unvouchered record located within the Harry Waring Marsupial Reserve 2.1 km to the North West. As surveys were conducted during the known flowering period of *Caladenia huegelii* and known populations of the species were in flower immediately prior to the survey, it was considered unlikely that this was an individual of *C. huegelii*
- One native vegetation type was identified and mapped within the subject area and occupied around 70.1% of the site. The condition of this vegetation ranged from very good to completely degraded.

The primary implications for residential development on the subject site relates to the potential impact on the Black Cockatoo habitat and the Banksia Woodlands of the Swan Coastal Plain Threatened Ecological Community which are Matters of National Environmental Significance listed under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). With consideration of area thresholds for recent "Controlled Action" decisions related to black cockatoo habitat and the Banksia Woodlands TEC, it has been determined that referral of the action (clearing for development) is not warranted.

Further to the above, clearing of native vegetation associated with the future subdivision is expected to be exempt from requiring a native vegetation clearing permit under Part V Environment Protection Act 1986, through the application of an exemption under Schedule 6.

A Fauna Survey and Relocation Management Plan will be undertaken at the subdivision stage. In addition, a Landscape Management Plan will be prepared (at the subdivision stage), identifying any trees capable and worthy of retention.

2.2 Bushfire Hazard

A Bushfire Management Plan has been prepared to accompany the structure plan in order to address the requirements of SPP3.7 as the subject site is identified as being located within a bushfire prone area. Details on how the Bushfire Management Plan impacts the structure plan are addressed in Section 3.10 with the report included in Appendix 4.

2.3 Noise

An acoustic report has been prepared to accompany the structure plan in order to examine the impacts of transport noise in accordance with State Planning Policy 5.4 – Road and Rail Noise (SPP5.4) as the Structure Plan

Area is located within a designated trigger distance of Rowley Road which identified as a key freight link. Implications of the acoustic report on the structure plan are addressed in Section 3.11 below, with the report included in Appendix 5.

2.4 Context and Constraints Analysis

2.4.1 *Western Power Easement*

A portion of the Structure Plan Area (land within Lot 41 Barfield Road) is impacted by a Western Power easement. Development within the easement area is subject to the provisions of Special Use 23 which are outlined in Table 8 of the City of Cockburn Town Planning Scheme No. 3.

The only development within the easement area will be the construction of a road reserve which is capable of being accommodated within the easement area.

2.4.2 *Rowley Road*

Rowley Road borders the Structure Plan Area to the south and is considered a key future strategic freight route. To enable the delivery of this strategic freight route the WAPC have established a Planning Control Area that impacts a portion of the Structure Plan Area, as noted on the Structure Plan Map. It is understood that this Planning Control Area will facilitate the upgrade of Rowley Road to allow safe and efficient commercial vehicle movements on the strategic east-west freight route.

To maintain the viability of Rowley Road as a freight route and progress the development of the Structure Plan area, it is a requirement that the interface is treated appropriately (in accordance with SPP5.4 outlined in Section 1.3.4) The treatment of this interface is outlined in Section 3.4 below.

2.5 Acid Sulphate Soils & Contaminated Sites

The Structure Plan is identified as being subject to a moderate to low risk of acid sulphate soils, this may require a self assessment to be completed when carrying out subdivision works at the site.

The Structure Plan is not identified as a contaminated site on the DWER Contaminates sites database.

2.6 Ground and Surface Water

Surface water generally flows from the north east to the south west across the site. The groundwater levels across the development site vary from 22.4m AHD to 23.1m AHD in the same flow directions. The natural ground level generally ranges from 38m AHD to 31m AHD which indicates a substantial clearance to ground water with an 8.7m minimum and 14.9m maximum.

2.7 Aboriginal and European Heritage

The Structure Plan has not been identified as having any Aboriginal or European Heritage.

3.0 Structure Plan

3.1 General

In accordance with SSDSP the structure plan proposes medium density residential development (R30 and R40) with an associated portion of Public Open Space (POS). Whilst not required by the SSDSP, the proposed POS is considered to improve the amenity afforded to the future residents of the Structure Plan Area whilst also justifying the proposed R40 residential density.

Further to the above, the structure plan also notes a safe and efficient road network that will connect seamlessly to the established road network proposed by the Barfield Road Structure Plan.

3.2 Land Use

The structure plan proposes residential development on the subject site with the land use permissibility to be consistent with the ‘Residential’ zone under TPS3. The proposed residential density of R30 and R40 is considered to be ‘medium density’ in accordance with the SSDSP and is appropriate when considering access to POS, public transport and local schools.

A copy of the relevant structure plan is illustrated in Figure 7 below. An overview of the key elements is provided in Table 2 below.

| Item | |
|---|--|
| Total area covered by the structure plan | 1.6897Ha |
| Area of specified land use | Residential: 9,881sqm POS: 1,261sqm Road Reserve: 5,755sqm |
| Estimated Lot Yield | 32 |
| Estimate Number of Dwellings | 32 |
| Estimated Population | 82 |
| Number of high schools | n/a |
| Number of primary schools | n/a |
| Number and area of public open space | |
| District Parks | 0 |
| Neighbourhood Parks | 1,261sqm |

Table 4 – Structure Plan Summary



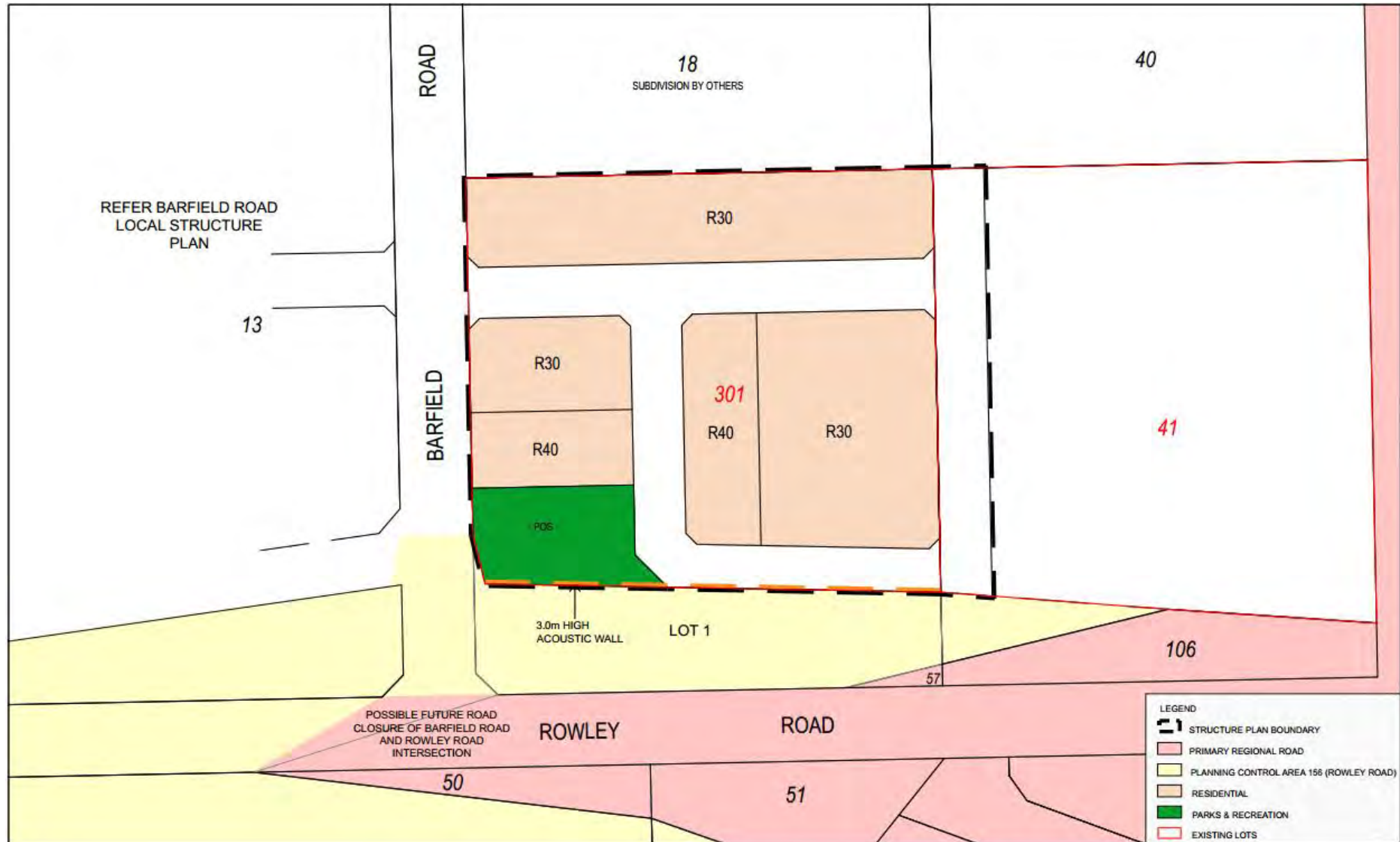


Figure 7 – Structure Plan

3.3 Residential

The residential densities proposed in the structure plan (R30 and R40) is considered to be entirely consistent with the medium density residential development planned for the site through the SSDSP. In accordance with the draft Medium Density Code¹, medium density development consists of single houses and grouped dwellings in areas coded R30 and above and multiple dwellings in areas coded R30 to R60.

The proposed R30 and 40 residential density is also considered to add a level of housing diversity to the area with the adjoining Barfield Road Structure Plan proposing limited R40 residential development and densities ranging from R25 to R60. Further, the Barfield Road Structure Plan has focused the higher densities around the areas of public open space. In considering the rationale for the density distribution in the Barfield Road Structure Plan together with the site’s access to public open space and the elevated topography, the proposed R30 and R40 density is entirely appropriate.

As development progresses in the area numerous facilities are being added to support the growing population. The facilities with close proximity to the Structure Plan Area include:

- Hammond Park Secondary College;
- Hammond Park Catholic Primary School;
- Bus routes along Irvine Parade and Gaebler Road as well as future bus routes along Barfield Road;
- Numerous child care centres include Nido Early Learning, Next Generation School of Early Learning, Great Beginnings Hammond Park; and
- Medical Centre and Café on Marquis Lane.

¹ <https://www.dplh.wa.gov.au/getmedia/86c57c2d-a7e2-4261-9cd7-1811ebc97e1a/DWA-Draft-Medium-Density-Code>

These facilities provide important services and amenity to the growing local community and will also be supported by further residential population in the area.

The R30 and R40 residential density will also assist in achieving the dwelling yield per hectare targets outlined in both Perth and Peel @ 3.5 Million and also Liveable Neighbourhoods. Table 5 below provides an assessment of the recommended and proposed dwelling yields.

| Planning Document | Density Target | Proposed |
|------------------------------|---|---------------------------------|
| Perth and Peel @ 3.5 Million | 15 dwellings per hectare (1.6897ha) | 18.9 dwellings per hectare |
| Liveable Neighbourhoods | 22 dwellings per site hectare (0.9881 ha) | 32.4 dwellings per site hectare |

Table 5 – Density Targets

3.4 Movement Network

The proposed street network within the structure plan area has been guided by the provisions of Liveable Neighbourhoods and is considered to provide a permeable road network that will facilitate ease of movement through the Structure Plan Area. There will be no access/egress to and from Rowley Road with the primary point of access to the existing road network occurring from Barfield Road.

By virtue of the structure plan location, there will be limited traffic through the area with the proposed road network only be accessed by residents of the Structure Plan Area and their visitors. All primary structure plan roads have been designed to be consistent with an Access Street D classification as per Liveable Neighbourhoods (see Figure 8 below).

| Street type and function | Street characteristics | Street name | Max design speed/target operating speed (km/hr) | Indicative volume range* (vehicles per day) | Indicative street reserve width (metres)+ | Indicative road pavement width (metres) |
|--|--|---|---|---|---|---|
| Access streets Access streets are to accommodate shared pedestrian, bike and vehicular movements. The requirements of adjacent land uses should be supported through street design. | Varied formats to suit a range of typical conditions in predominantly residential areas at different densities, and with different traffic volumes. An avenue access street (Access street A) with median is particularly suited to incorporation of a drainage swale. Access street B is a wider undivided street for situations with increased parking and/or traffic demand. The most typical and most common residential street will be Access street C – Yield street. Access street D is for short, low volume and low parking demand streets. In addition, a comprehensively designed variant with 3.5 m travel lane with indented parking, is also specified for very low volume short streets. | Access street A – avenue | 50/40 | 3000 | 20-24 | 2 x 3.5 (or 2 x 3.6 under some conditions) plus indented parking. |
| | | Access street B – wider street | 50/40 | 3000 | 16.5-18 | 9.7 |
| | | Access street C – yield or give way street | 50/40 | 3000 | 15.4-16 | 7.2 (7-7.5) |
| | | Access street D – narrow yield or give way street | 50/30 | 1000 | 14.2 | 5.5-6 |
| | | | 50/20 | 150 | 14.2 | 3.5 (plus parking indents) |

Figure 8 – Access Street C Requirements

In addition to the Access Street D road, there will also be a 12m wide road reserve provided along the southern boundary of the Structure Plan. To illustrate the design of the proposed 12m wide road reserve the below mentioned cross section is applicable.

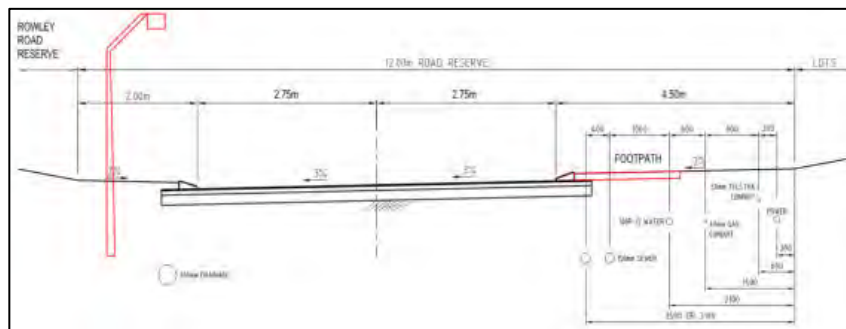


Figure 9 – 12m Road Cross Section

The intersection of Barfield Road and Rowley Road will be closed in the future and all access through the intersection will be temporary in nature. Future landowners should be made aware of this through information packs as part of the sales process.

With regard to the structure plan's interface with Rowley Road, it is noted that Rowley Road is proposed to undergo considerable upgrades and road widening with the land identified as Planning Control Area 156. Further, due to the forecast noise levels from Rowley Road, a 3m high noise wall is required along the boundary with Planning Control Area 156.

3.5 Public Transport

At present there is no bus routes within 400m or rail routes within 800m of the Structure Plan. Existing bus routes 525 and 526 terminate within approximately a 1,200m radius from the Structure Plan. In consultation with the Public Transport Authority it was confirmed that:

- Bus route 525 is planned to be extended along Barfield Road.
- Bus route 526 is planned to be extended along the future Hammond Road and/or Frankland Road.

The Aubin Grove train station is situated approximately 2.7 kilometres to the north of the site. Access to the Aubin Grove train station is provided via bus route 536, with the closest bus stop located approximately 700m north-west of the structure plan area.

3.6 Pedestrian and Cycle Network

Within 400m of the Structure Plan most of the roads have a pedestrian path on one or both sides of the road with a Principle Shared Path located along the Kwinana Freeway and Rowley Road. The Perth Bicycle Network is also present along Rowley Road and Frankland Avenue.

All roads within the Structure Plan area will include pedestrian infrastructure to connect to the existing network beyond the Structure Plan area.

3.7 Public Open Space

The location and size of the proposed public open space (POS) is intended to service the residents of the Structure Plan Area and has been proposed in addition the POS required through the SSDSP. The function of the POS will be consistent with a Local Park classification in accordance with Liveable Neighbourhoods with the POS being within a 200m walkable catchment of all dwellings within the Structure Plan.

An indicative landscape concept plan for the proposed POS has been included in Appendix 9 with the detailed design of the POS to be addressed as a condition of subdivision approval. In considering this indicative concept plan the below is relevant to the proposed public open space:

- There will be no areas of restricted public open space with an underground detention tank being provided for drainage.
- The site level for the POS will be 33 AHD which is slightly lower than the adjoining lot and road levels.
- The planting mix will be consistent with low threat vegetation with some turf, low height plants and trees.
- The POS area will be irrigated through an available groundwater allocation.
- Lots abutting the POS should consider visually permeable fencing on the affected boundary with a major opening orientated toward the POS to ensure a level of passive surveillance is achieved.

The structure plan provides a total of 1,261sqm of POS which equates to a total of 8.4% of the total gross subdividable area. The minor shortfall of 1.6% will be paid via a cash in lieu contribution as a condition of subdivision

approval. Table 6 below provides a schedule of POS within the Structure Plan Area.

In line with Element 4, Requirement 42 of Liveable Neighbourhoods, the gross subdivisional area is exclusive of the road reserve within the Lot 41 Western Power Easement, which has been included as a deduction in the POS schedule below.

| PUBLIC OPEN SPACE SCHEDULE | | |
|---|-----------|-----------------|
| Structure Plan Site Area | | 1.6897ha |
| Less | | |
| - Environmental protection policy areas Wetlands to be ceded | n/a | |
| - Protected bushland site | n/a | |
| - Unrestricted public open space sites not included in public open space contribution | n/a | |
| - Foreshore reserves to be ceded | | |
| Total | | 0.00 ha |
| Net site area | | 1.6897ha |
| DEDUCTIONS | | |
| Primary School | n/a | |
| Town Centre and commercial | n/a | |
| Dedicated drainage reserve | n/a | |
| Transmission corridors | 0.19525ha | |
| Road Widening | n/a | |
| Gross Subdivisible area | | 1.4945ha |
| Public open space @ 10 per cent | | 0.1494ha |
| Public open space contribution | | |
| May comprise: | | |
| - Minimum 80 per cent unrestricted public open space | | 0.1195 ha |
| - Minimum 20 per cent restricted use public open space | | 0.0299 ha |
| Unrestricted public open space sites | | |

| | | |
|--|-----------|-----------------------------|
| - POS | 0.1261 ha | 0.1261 ha (8.4%) |
| Restricted use public open space sites | | |
| Total restricted use public open space | 0.0ha | 0.0ha |
| Public Open Space provision | | 0.1261 ha (8.4%) |
| Note: Gross subdivisible area includes house lots, access roads, and any land incidental to the subdivision. The gross subdivisible area does not include areas for schools, shopping centres, infrastructure (e.g. land required for sewer pump stations), dedicated drainage sites not having a recreational function and land set aside for arterial roads and other non-residential uses. | | |

Table 6 – Public Open Space Schedule

3.8 Water Management

Stormwater drainage will be consistent with the Russell Road Arterial Drainage Scheme from the City of Cockburn with all catchment up to and including the 1 in 100 year ARI event contained within the development area.

The site will be re-contoured to achieve the levels that carry the stormwater to an underground detention tank within the POS which will have a capacity of 212m³ with a footprint of 355m² which is sufficient to accommodate the 1 in 100-year ARI event. In addition, rain garden swales are able to be contemplated within selected road reserves.

Each lot will accommodate their own stormwater through soak wells or other infiltration facilities.

The capacity of the proposed stormwater drainage system is detailed below In Table 7 with Figure 10 illustrating a cross section of the POS and underground detention tank.

| Drainage Element | Catchment Area (m2) | First Flush Volume Required (15mm) m3 | Volume Provided allowing 150mm freeboard (m3) | Volume Required for 1 in 100yr event (m3) | Volume Available for 1 in 100yr event (m3) |
|----------------------|---------------------|---------------------------------------|---|---|--|
| Below Ground Storage | 5,123 | 30.5 | 30.5 | 208.5 | 212.2 |
| | | | 30.5 | | |
| TOTALS | 5,123 | 30.5 | Incorporated in below ground storage | 208.5 | 212.2 |

Table 7 – Stormwater Capacity

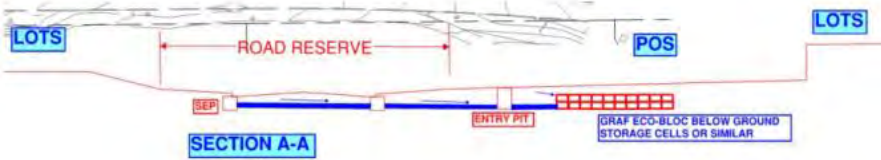


Figure 10 – POS Cross Section

3.9 Infrastructure Coordination and Servicing

An Engineering Servicing Report has been prepared by Peritas Group which details that the structure plan will have no servicing impediments to the future intended residential development. A copy of the Engineering Servicing Report is included in Appendix 7 with a summary of the findings below.

Earthworks

Site grading and remodelling will be kept to minimum limits wherever possible but will be required across the site to enable the construction of the proposed roads, building pads and facilitating the provision of services to each lot.

Water

Correspondence with Water Corporation indicates that servicing the development with a potable water supply will be dependent on the progression of development in Vivente Estate with subdivisional works already underway. Through this development water mains will be provided along Barfield Road with sufficient capacity for the structure plan to access. All internal potable water infrastructure will be designed to Water Corporation standards at the point of subdivision.

Groundwater

Ground water will be used for irrigation of the POS and vegetation within the road reserves. To facilitate this, a bore ground water license for irrigation purposes will be obtained prior to subdivision or development. The license will be to access the Superficial Swan Aquifer within the Jandakot area and the subarea of Success. Based on the area of the proposed public open space and road verges to be irrigated it is expected that a license for 2400 kilo litres will be required.

Sewer

Similar to the proposed water supply, the provision of a sewer service to the structure plan will be dependent on the progression of development within the Vivente Estate. A future connection will be available along Barfield Road enabling the Structure Plan Area to connect to the gravity sewer reticulation network along Barfield Road which has sufficient capacity for the proposed development. All internal sewer infrastructure will be designed to Water Corporation standards at the point of subdivision.

Electrical

Low Voltage cables are located within and adjacent to the western boundary of the site, immediately outside the south western corner of the site within the norther verge of Rowley Road and within the western verge of Barfield Road. All lot will be serviced with underground power with the existing network having adequate capacity to service the proposed

development. Within Lot 41 which is impacted by an easement associated with the High Voltage transmission lines it is proposed to provide a 14.2m road reserve for the purposes of access. The road reserve will extend to the north east corner of the site in close proximity to the existing tower. Whilst the reserve will be in close proximity to the tower the works proposed will simply be landscaping to a low threat state and will not impact the tower in any way.

Telecommunications

In accordance with the City's Local Planning Policy 5.19 – Telecommunications Infrastructure, Peritas Group has undertaken consultation with relevant telecommunications providers over a period of 9 months. A copy of the relevant correspondence is included in the Engineering Servicing Report in Appendix 7. The outcome of these liaisons demonstrates that the Telstra/NBNco and Optus networks are available to service the development.

Fortunately, there are a number of service extension options from the existing networks to service the site, any of which have the capacity to offer site connection for each of the development lots. Headwork charges for Telstra/NBN service extensions are anticipated as part of the subdivision process.

In addition to the work undertaken by Peritas, separate liaison has occurred with Vodaphone, Telstra and Optus in relation to network coverage and aboveground infrastructure in the area. All three (3) providers confirmed that the quality of service in the area is sufficient to accommodate the additional demand created by the structure plan and that there were no intentions to place above ground infrastructure within the Structure Plan Area.

Gas

The closest gas service to the Structure Plan Area is a D110 350kPa gas main located at Mokare Entrance approximately 300m west of the site.

There are no obvious constraints to the extension of this network with sufficient capacity available to service the development if required.

3.10 Bushfire Management

As the subject site is designated as a bushfire prone area, consideration of State Planning Policy 3.7 – Planning in Bushfire Prone Area (SPP3.7) is warranted. In accordance with SPP3.7, Strategen JPS&G have prepared a Bushfire Management Plan (BMP) to demonstrate how the ultimate development will comply with the provisions of SPP3.7. A copy of the relevant BMP is included in Appendix 4 with the findings relevant to the structure plan noted below:

- The applicable BAL ratings for the proposed residential lots is noted below in Figure 11 with the highest BAL rating being BAL-FZ.

| Method 1 BAL determination | | | | | | |
|----------------------------|--|-------------------|---|-------------------------------|--|-------------|
| Plot | Vegetation classification | Effective slope | Minimum separation distance to lot boundary | Highest BAL (to lot boundary) | APZ setback | Reduced BAL |
| 1 | Class D Scrub | Flat/upslope (0°) | 68 m | BAL-12.5 | N/A | N/A |
| 2 | Class D Scrub | Flat/upslope (0°) | 0 m | BAL-FZ | 13 m setback of northeast corner boundary for Lot 10 | N/A |
| 3 | Class D Scrub | Downslope >5–10° | >100 m | BAL-Low | N/A | N/A |
| 4 | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f]) | N/A | N/A | N/A | N/A | N/A |
| 5 | Class D Scrub | Downslope >0–5° | 56 m | BAL-12.5 | N/A | N/A |
| 6 | Class D Scrub | Flat/upslope (0°) | 12 m | BAL-40 | 1 m setback off southern boundary for Lots 15–18 | BAL-29 |
| 7 | Excluded – Clause 2.2.3.2 [c] | N/A | N/A | N/A | N/A | N/A |
| 8 | Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f]) | N/A | N/A | N/A | N/A | N/A |

Figure 11 – BAL Ratings

- Whilst the proposed vegetation within the Planning Control Area will ultimately be removed when Rowley Road is upgraded, this has been included in the BAL assessment and assessed as if it will be retained in its current state.
- Separation to surrounding vegetation and the associated bushfire threat will be achieved by:
 - Providing a perimeter road as a buffer to the bushfire threat within the Planning Control Area and the adjoining Lot 41.
 - Management of the POS area to a low threat standard.
- The proposed development complies with the applicable bushfire protection criteria with an appropriate management response to each of the four elements outlined in Table 4 of the submitted BMP.
- Landscaping within the proposed public open space will need to be constructed and maintained to a low threat state.
- Other relevant management strategies that require implementation to ensure a compliant bushfire rating is achieved include:
 - POS landscaping to be managed by the developer until transfer to the City of Cockburn who will be responsible for the ongoing management;
 - Notifications on titles will be required for lots subject to a BAL12.5 rating or higher.
 - The residual area of road reserve proposed in the north east corner of the Structure Plan will be landscaped in a low threat state to be managed by the developer until such time as the reserve is handed over to the City of Cockburn.
 - A restrictive covenant placed on titles of all affected lots that have been assessed as BAL-40 or BAL-FZ.
- The responsibilities for the implementation and management of the bushfire measures are outlined in Table 5 of the submitted

BMP. Future planning stages are expected to be implemented in accordance with this table to ensure compliance with SPP3.7

Through the implementation of the BMP submitted by Strategen JPS&G, the future residential development will comply with the provisions of SPP3.7.

3.11 Noise Management

In accordance with State Planning Policy 5.4 – Road and Rail Noise (SPP5.4), the subject site is located within a trigger distance of a transport corridor (Rowley Road and Kwinana Freeway) and as such analysis of the noise impacts on the proposed residential land use is required. Herring Storer were engaged to model the likely noise impacts at the future residential lots and recommend noise mitigation measures to ensure noise levels comply with those permitted under SPP5.4. A copy of their report is included in Appendix 5 with the critical findings noted below.

- In order to comply with SPP5.4 the following measures are required:
 1. A 3m high noise wall along the boundary of the proposed road reserve and POS with the Planning Control Area; and
 2. Quiet House Design Package A and B being applicable for future residential development on various lots.
- Numerous lots will still exceed the recommended 55dBa noise levels and as such will require a notification on the Certificate of Title.

3.12 Development Contributions

The Structure Plan Area is located within an area already subject to two Development Contribution Areas (DCA) being DCA9 and DCA 13 which

specify the applicable development contributions to be paid when subdivision occurs.

3.13 Local Development Plans

It is expected that the WAPC may require, as a condition of subdivision approval, that a local development plan(s) be prepared in accordance with Part 6 of Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015, prior to the creation or development of lots:

- i. With an area less than 260m² or irregularly configured;
- ii. Abutting public open space;
- iii. Affected by road or rail noise exceeding targets set out in State Planning Policy 5.4: Road and Rail Noise and the associated implementation guidelines;
- iv. Where specific vehicle access and egress control is required.

The local development plan(s) should address:

- Fencing requirements.
- Dwelling orientation.
- Location of crossovers and garages.
- Specific quiet house design package requirements.