



# LOCAL STRUCTURE PLAN

## PART 1 and 2

**PROJECT TITLE: LOT 70 WINTHROP AVENUE, COLLEGE GROVE**

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DATE: 7<sup>TH</sup> AUGUST 2020

### Report Issue History

Report Issue	Job Number	Issued To	Issue Date
Original		City of Bunbury	18 <sup>th</sup> May 2017
Version 1	171478	City of Bunbury	12 <sup>th</sup> March 2018
Version 2	171478	City of Bunbury	07 <sup>th</sup> August 2020



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## ENDORSEMENT

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This structure plan is prepared under the provisions of the City of Bunbury Local Planning Scheme No 8 (LPS 8).

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

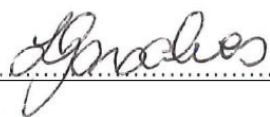
2 September 2020

Signed for and on behalf of the Western Australian Planning Commission:



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An officer of the Commission duly authorised by the Commission pursuant to section 16 of the *Planning and Development Act 2005* for that purpose, in the presence of:



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Witness

2 September 2020

Date

2 September 2030

Date of Expiry

## EXECUTIVE SUMMARY

This LSP report has been prepared in accordance with the Western Australian Planning Commission (WAPC) Structure Plan Framework (August 2015) and the City of Bunbury Local Planning Scheme No 8 for the proposed subdivision and development of Lot 70 Winthrop Avenue.

This Local Structure Plan will facilitate the residential development of the lot and has been prepared pursuant to Part 4 of the Deemed Provisions of the *Planning and Development (Local Planning Scheme) Regulations 2015*.

The Local Structure Plan comprises the following:

Part One – Implementation

Part Two – Explanatory Section; and

Appendices – Technical reports, plans, maps and supporting documents.

The summary provides key statistics and planning outcomes of the Local Structure Plan as follows:

**Table 1: LOCAL STRUCTURE PLAN SUMMARY TABLE**

ITEM	DATA	STRUCTURE PLAN REF (SECTION NO)
TOTAL AREA COVERED BY STRUCTURE PLAN	21,773m <sup>2</sup>	1.2.2
AREA OF EACH LAND USE: I: RESIDENTIAL II: PUBLIC OPEN SPACE	13,101m <sup>2</sup> 5180m <sup>2</sup>	2.2
TOTAL ESTIMATED LOT YIELD	20 Lots	2.2
ESTIMATED NUMBER OF DWELLINGS	20	2.2
ESTIMATED RESIDENTIAL SITE DENSITY	R20	2.2
ESTIMATED POPULATION	*52 people	2.2
ESTIMATED AREA AND % OF POS CEDED AS 'Recreation' and 'Nature'	Recreation: 1698m <sup>2</sup> (8%) Nature: 4502m <sup>2</sup> (20%) Total: 6200m <sup>2</sup> (28%)	2.3

*\*Note: Population based on 2016 ABS data, 2.6 people per household and approximate yield of 20 lots.*

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## **TECHNICAL STUDIES APPENDICIES**

APPENDICIES 1 - CERTIFICATE OF TITLE

APPENDICIES 2 - LEVEL 2 FORA SURVEY

APPENDICIES 3 -FAUNA SURVEY REPORT

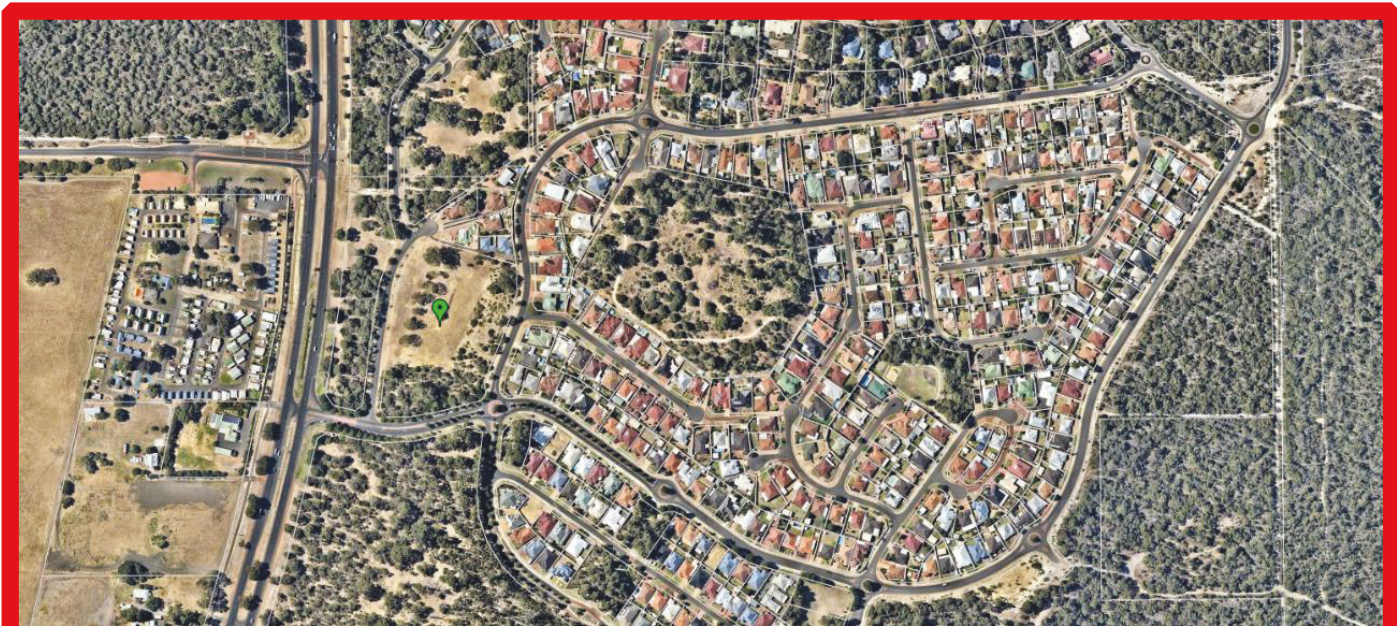
APPENDICIES 4 –AECOM REPORT / NOTICE OF RECLASSIFICATION FOR DER

APPENDICIES 5 -BUSHFIRE MANAGEMENT PLAN

APPENDICIES 6 -TRAFFIC ASSESSMENT

APPENDICIES 7 – ADJOINING LETTER OF IN PRINCIPLE SUPPORT





## PART 1- IMPLEMENTATION

# PART 1 IMPLEMENTATION

## 1.0 LOCAL STRUCTURE PLAN AREA

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The Local Structure Plan (LSP) shall apply to Lot 70 (No 1) Winthrop Avenue being the land contained within the inner edge of the line denoting the Local Structure Plan (LSP) boundary of the SP map.

## 2.0 OPERATION

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In accordance with *Planning and Development (Local Planning Scheme) Regulations 2015*, the Local Structure Plan shall come into effect when it is granted final approval and endorsed by the Western Australian Planning Commission (WAPC).

## 3.0 STAGING

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The development is not proposed to be a staged development.

## 4.0 SUBDIVISION AND DEVELOPMENT REQUIREMENTS

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### 4.1 Land Use Permissibility

Subdivision and development of land shall be in accordance with the zones, reserves and residential density codes assigned on the Local Structure Plan Map. The land use permissibility within the Local Structure Plan area shall be in accordance with the corresponding zone or reserve under the Scheme.

### 4.2 Information required at time of subdivision

The following information is to be provided prior to subdivision:

- 1) A Noise Exposure Forecast is to be submitted to identify the requirement for any noise mitigation from Bussell Highway is required in accordance with State Planning Policy 5.4 Road and Rail Transport Noise and Freight Consideration.
- 2) A Bushfire Management Plan including a BAL Contour Map to be submitted to the satisfaction of the Department of Fire and Emergency Services and the City of Bunbury.

### 4.3 Recommended Subdivision Conditions

The following shall be applied as conditions of subdivision:

- 1) Preparation, adoption and implementation of an approved Urban Water Management Plan to the specifications of the City of Bunbury and in consultation with the Department of Water. The UWMP will be in accordance with 'Better Urban Water Management' and will address water sensitive urban design.
- 2) A geotechnical report is to be submitted to the satisfaction of the City of Bunbury.
- 3) Details on the type of fencing for lots abutting Winthrop Avenue is to be provided to the satisfaction of the City of Bunbury. Fencing is to suitably address the upslope of Lot 70 to maintain the visual amenity of the area, and the frontage to Winthrop Avenue to ensure a uniform frontage.
- 4) A Local Development Plan to be submitted for the area abutting the public open space. The local development plan is to include details on fencing and retaining walls to ensure a uniform frontage and passive surveillance of the public open space.

- 5) To enable shared access between the Strata Lot 1 & 2 (Vol 2659 Fol 698) University Close, College Grove and the adjoining proposed emergency access way, an easement in gross must be registered on the certificate of title of both lots to secure rights of carriageway over the emergency access way. The easements must be at the full cost of the subdivider and to the satisfaction of the City of Bunbury.
- 6) A mosquito-borne disease and nuisance risk assessment and a mosquito management plan prepared by an appropriately qualified person are to be submitted and endorsed to the satisfaction of the City of Bunbury.
- 7) A notification, pursuant to Section 165 of the Planning and Development Act 2005 is to be placed on the certificates of title of the proposed lot(s) advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows: "This lot is on close proximity to known mosquito breeding areas. The predominant mosquito species is known to carry viruses and other diseases." (Western Australian Planning Commission)
- 8) 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 of 12.5 or above, advising of the existence of a hazard or other factor. Notice of this notification is to be included on 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/may be subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on the land.' (Western Australian Planning Commission)
- 9) A detailed Landscaping Plan is to be submitted and approved by the City of Bunbury for designated public open space areas. The Landscaping Plan must include the following:
  - (a) The location, number and type of proposed trees and shrubs including planter and/or tree pit sizes and planting density;
  - (b) Any lawns to be established;
  - (c) Any existing vegetation and/or landscaped areas to be retained;
  - (d) An arboriculture report by a City of Bunbury recommended arborist to identify and trees located in close proximity to any proposed lots. The inventory shall be represented in table format showing the GPS co-ordinate of identified trees, species, diameter, canopy/critical root zone and conditions;
  - (e) Any Verge treatments;
  - (f) Evidence that the proposed landscaping will not, at maturity, negatively impact the development or adjoining properties;
  - (g) Location of bins including pet litter bags, seating, shade, trees, signage, footpaths and drink fountains. All infrastructure is to be accessible to the satisfaction of the City of Bunbury;
  - (h) Detailed designs of the proposed Asset Protection Zone;
  - (i) Evidence that the proposed landscaping at maturity, will comply with the approved Bushfire Management Plan and Asset Protection Zones;
  - (j) Demonstrate the Northern portion of POS can be maintained as a low fuel area into perpetuity; and
  - (k) Details of the ongoing management, including the applicant being responsible for management of POS for a minimum of two years.



LEGEND

LOCAL SCHEME RESERVES

- PUBLIC OPEN SPACE
- PUBLIC PURPOSE - EMERGENCY SERVICES

ZONES

RESIDENTIAL

OTHER

ACCESS ROAD

STRUCTURE PLAN BOUNDARY

EXISTING CADASTRE

R CODE

INDICATIVE FOOTPATH  
LOCATION CONNECTING  
TO EXISTING FOOTPATH  
NETWORK



LOT 70  
WINTHROP AVENUE  
COLLEGE GROVE  
LOCAL STRUCTURE  
PLAN

t=con  
AUSTRALIA

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## **PART 2 – EXPLANATORY SECTION & TECHNICAL APPENDICIES**

# PART 2 EXPLANATORY SECTION

## 1.0 PLANNING BACKGROUND

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### 1.1 Introduction and Purpose

#### 1.1.1 Overview

In response to the City of Bunbury's request for submissions of Expression of Interest (EOI) relating to Lot 70 Winthrop Avenue, Bunbury, PM Team submitted an EOI on the subject property. As part of the expression of interest it was agreed that a structure plan for the subject site be prepared to support and enable the development of the site.

The Local Structure Plan provides a responsive and appropriate layout over the subject site which will serve as a guide to future development to ensure appropriate and integrated land use of the site.

The Local Structure Plan will facilitate subdivision of the subject land into approximately 20 residential lots, while at the same time retaining significant remnant vegetation on the site which will be retained as POS for the area.

#### 1.1.2 Background

The City of Bunbury, as partner in the College Grove Joint Venture (Amended) with the State of Western Australia (State) through the Department of Lands on behalf of the Minister for Lands has called for Expressions of Interest to identify a suitably qualified Respondent to develop Lot 70 Winthrop Avenue, College Grove.

The property located at Lot 70 Winthrop Avenue, College Grove, was transferred to the City of Bunbury as part of the College Grove Joint Venture with the State.

The City has previously explored options with a purchaser and developer for this property, whose intention was to develop the site for affordable and accessible housing consisting of high density dwellings. This proposal however, was received poorly by the local residents of College Grove and therefore did not proceed.

### 1.2 Land Description

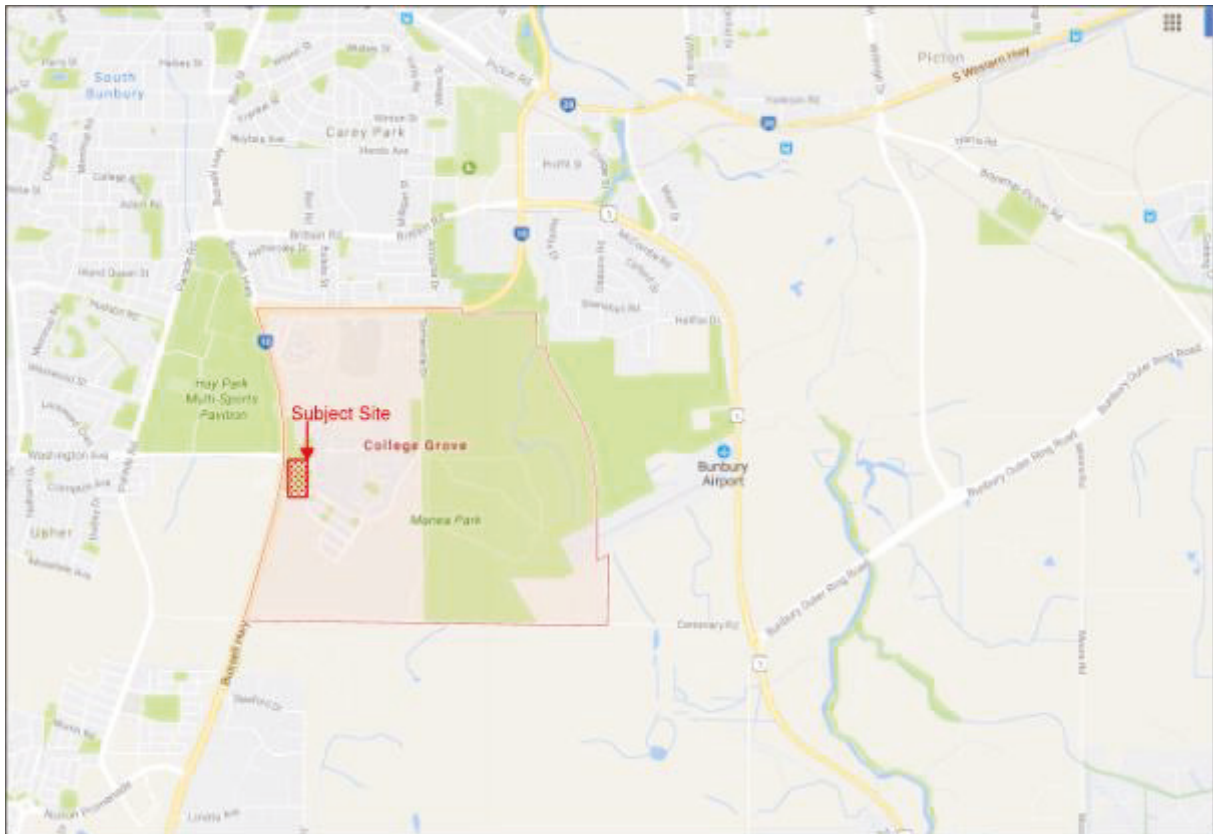
#### 1.2.1 Site Location

The subject site is located within the City's residential suburb of College Grove. College Grove is located approximately 6km south of the Bunbury CBD.

The suburb is bounded by Bussell Highway to the West, the Bunbury Health Care Campus, South West Institute of Technology, Edith Cowan University and Manea Senior College to the North. The Eastern boundary of the suburb is made up of bushland known as 'Manea Park'.

The property comprises a slightly irregular shaped lot with frontage to Trinity Rise, University Close and Winthrop Avenue, Copy of Title Attached at Appendix 1.

**Figure 1 Location Plan**



### *1.2.2 Area and Land Use*

The land is approximately 2.17 hectares in size and is currently zoned 'Urban Development' under the City of Bunbury Local Planning Scheme No 8 and 'Urban' under the terms of the Greater Bunbury Region Scheme.

Approximately .96 hectares of the site comprises of remnant vegetation, which occupies steeply sloping land on the east side of the lot. The eastern boundary of the site rises steeply towards Winthrop Avenue to an elevation of approximately 25m AHD.

The remainder of the site with an elevation of approximately 15m AHD is flat and cleared of vegetation.

### *1.2.3 Surrounding Land Use*

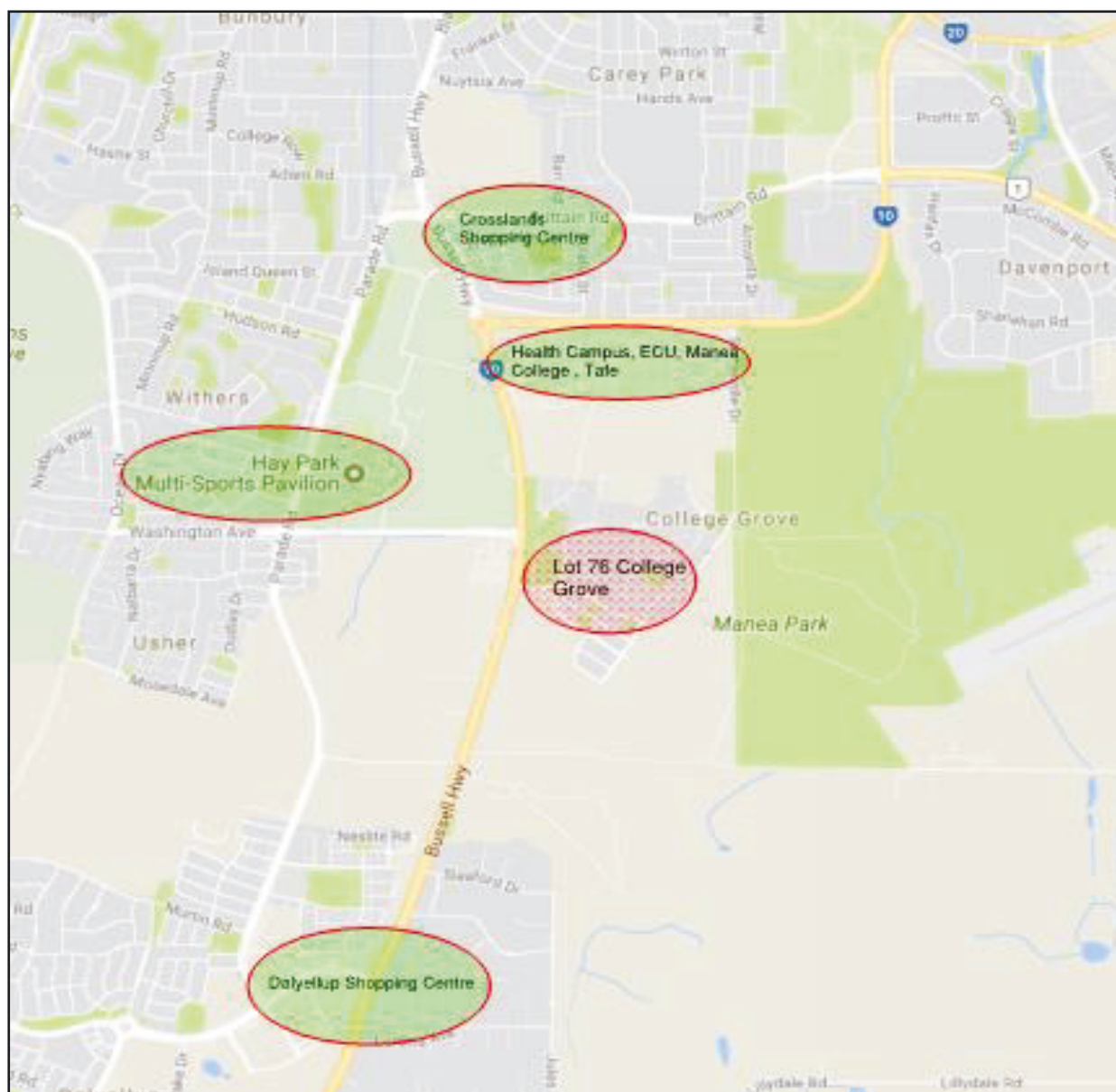
The surrounding built form is typically low density housing. The housing stock is generally in good condition. Housing is characterised by predominately brick and tile or brick and metal single storey construction. There a number of grouped housing developments scattered throughout the area.

The site is located in close proximity to the Bunbury Regional Health Campus, Edith Cowen University, Manera College and TAFE. The land is also with close proximity of Hay Park and the Sports Centre and is located approximately 3.8kms from Dalyellup Shopping Centre and approximately 3.1km to the Parks Shopping Centre.



In addition to the remnant vegetation being maintained on the site there is a significant amount of naturally vegetated areas of reserve land in the immediate locality.

**Figure 2: Local Context Plan**



#### **1.2.4 Legal Description and Ownership**

The landholding is formally described as:

- Lot 70 on Deposited Plan No. 18631 on Certificate of Title as Volume 1959 Folio 434;
- The registered owner of the property is the City of Bunbury.  
Refer Appendix 1 – Certificate of Title



### 1.3 Planning Framework

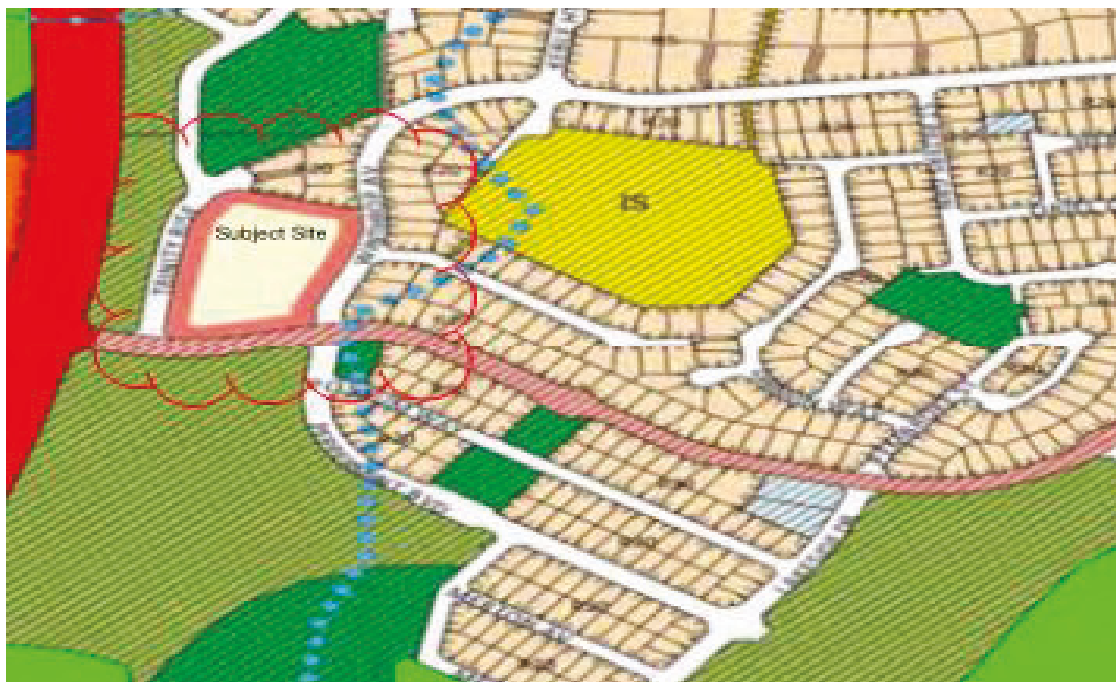
#### 1.3.1 Zoning and Reservations

##### City of Bunbury Local Planning Scheme No. 8

The City of Bunbury Town Planning Scheme No.8 provides the planning framework to achieve sustainable development in the locality, by integrating economic, social and environmental aspirations. The Scheme outlines the applicable zoning and related objectives for each zone, of which the subject site is zoned Urban Development (refer Figure 3. The Purpose and intention of the Urban Development Zone as set out in Part 3 of LPS8 is as follows:

- To provide an intention of future land use and a basis for more detailed structure planning in accordance with the provisions of this Scheme.
- To provide for a range of residential densities to encourage a variety of residential accommodation.
- To provide for the progressive and planned development of future urban areas for residential purposes and for commercial and other uses normally associated with residential development.
- To provide an intermediate transitional zone following the lifting of an urban deferred zoning within the Greater Bunbury Region Scheme.

**Figure 3: Extract from Local Planning Scheme No 8**



#### 1.3.2 Regional and Sub-Regional Structure Plan

##### Greater Bunbury Region Scheme

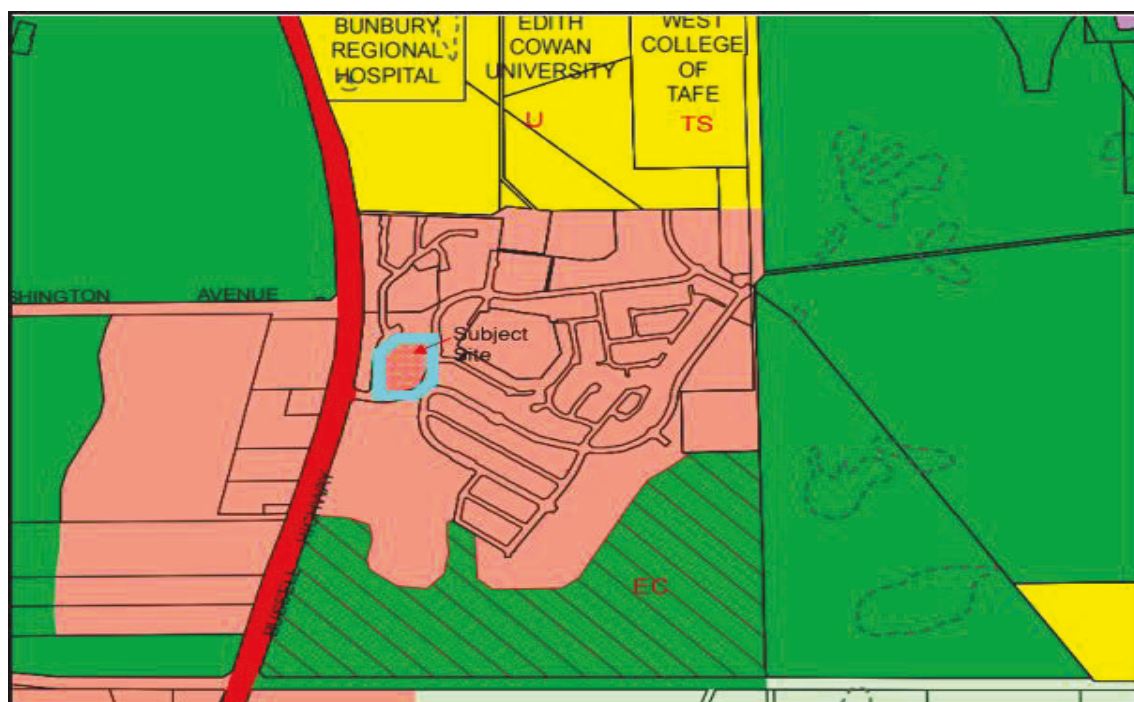
The GBRS provides a high level strategic direction for the promotion of sustainable development in the region through regulation of subservient schemes, strategies and policies. The GBRS provides regional scale land allocation and mapping in order to guide the zoning of land, provision of

infrastructure, protection of environmental assets, areas of regional open space, location of industrial areas, extraction of resources and protection of productive agricultural land.

The subject site is zoned Urban under the GBRs. The purpose of the Urban zone is “to provide for residential development and associated local employment, recreation and open space, shopping schools and other community facilities”.

This development will provide a high quality residential development providing for a greater variety of affordable infill development in the Urban zone. This Structure Plan acts to ensure that the proposed development will further the objectives of the GBRs, by providing a high quality medium density development in a well serviced urban infill location.

**Figure 4: Extract from GBRs**



### 1.3.3 Planning Policies

#### Liveable Neighbourhoods

*Liveable Neighbourhoods* is an operational policy for the design and assessment of structure plans and subdivision for new urban areas.

*Liveable Neighbourhoods* is applied in the design and approval of urban development, structure planning and subdivision for green field sites and for the redevelopment of large brown field and urban infill sites. The design of the College Grove Local Structure Plan has been formulated using the Liveable Neighbourhoods planning approach to development.

Design Element 2 (Movement Network) is addressed at section 2.1 of this report, with the proposed internal road complying with the road hierarchy standards as described by Liveable Neighbourhoods.

Design Element 5 (Public Open Space) has similarly been addressed at section 2.3 with 23 % being provided consistent with 'Nature' and 'Recreation' space requirements.

#### State Planning Policy No 3: Urban Growth Centres and Settlement

The State Planning Policy No 3: Urban Growth Centres and Settlement sets out the principals and considerations which apply to planning for urban growth settlement in Western Australia.

The main objectives of the policy include the promotion of:

- *a sustainable and well planned pattern of settlement across the State, with sufficient and suitable land to provide for a wide variety of housing, employment, recreation facilities and open space*
- *existing communities with established local and regional economies, growth and development of urban areas in response to the social and economic needs of the community*
- *development of a sustainable and liveable neighbourhood form which reduces energy, water and travel demand whilst ensuring safe and convenient access to employment and services by all modes,*

Given the proposed built form and the close proximity to employment, transport, education, open space, healthcare, retail and local centres, the proposed Structure Plan is considered to be consistent with the intent of SPP No. 3. (WAPC 2006).

#### State Planning Policy No 3.7: Planning in Bushfire Prone Areas

The State Planning Policy 3.7 directs how land use should address bushfire risk management in Western Australia and applies to all land mapped by the Fire and Emergency Services (FES) Commissioner as being a Bush Fire Prone Area.

SPP 3.7 is supported by *Guidelines for Planning in Bushfire Prone Areas* which provides advice on how bushfire risk is to be addressed when planning, designing or assessing planning proposals within a designated bushfire prone area. The guidelines outline four performance based criteria for assessment:

- Element 1: Location;
- Element 2: Siting and Design of Development
- Element 3: Vehicle Access; and
- Element 4: Water

Table 4 of Appendix 5 outlines the assessment under each of the above elements. The proposed Structure Plan is compliant with the acceptable solutions.

#### Draft State Planning Policy No 5.4: Road and Rail Noise

This policy aims to promote a system in which sustainable land use and transport are mutually compatible. One of the main objectives of the policy is to protect people from unreasonable levels of transport noise.

The proposed development is set back approximately 70m from edge of carriageway of Bussell Highway. Within this 70m area is 40m strip of well vegetated land that is reserved for 'Environmental Conservation' and provides an effective buffer both acoustically and visually from the Bussell Highway.

It is not perceived that Noise from Bussell Highway will negatively impact the proposed residential lots. Notwithstanding, the subject lot is still within a trigger distance to the transport corridor.

As per 4.1.2 of the policy, where any part of the lot is within the specified trigger distance, an assessment against the policy, specifically a Noise Exposure Forecast, is required prior to subdivision to determine the likely level of transport noise and management/mitigation required.

## **2.0 PROPOSED LOCAL STRUCTURE PLAN**

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### **2.1 Access and Movement**

The subject property has frontages to 3 roads. Winthrop Avenue to the East, Sommerville Drive to the South and Trinity Rise to the West of the site. The effective road frontage is via Trinity Rise and vehicular access to and from the site will be provided via this frontage. Access to both Sommerville and Winthrop Avenue is restricted (except in cases of emergency at which time access to Winthrop Av is provided via the "Emergency Access Way").

The existing road infrastructure has been reviewed by Engenuity and their assessment is that there will be no negative impact as a result of the proposed development on the existing road network a copy of Traffic Assessment Attached at Appendix 5.

Internal street widths of 14.5m have been proposed consistent with Liveable Neighbourhoods Access Street D. A section of street parking is also indicated adjoining the POS area at the southern end of the site.

#### **2.1.1 Emergency Vehicle Access**

Emergency vehicle access is to be provided in the location shown of the Structure Plan Map. Reciprocal rights of access is to be provided for portion of the access way with a legal agreement needing to be entered into at the time of subdivision with the owner of Lot 72 Trinity Rise. In principle support for the reciprocal rights of access is provided at Appendix 7.

### **2.2 Lot Sizes and Yield**

The Local Structure Plan provides for medium density residential development in a layout that responds to community concern over higher density options which were previously put forward for the site.

The structure plan proposes an estimated yield of 20 lots.

The mixture of lot sizes provides for a diversity in housing and lifestyle choices and also addresses the concerns previously raised within the community about the site being fully developed at a higher density.

The proposed larger lots along the northern and western boundaries deal with the slope of the site and provides for some retaining to enable a developable area at the front of the lot.

Lots are also proposed on the flat area of the site that overlooks Trinity Rise and the bushland that exists at Lot 733 Trinity Rise which is reserved for 'Environmental Conservation'.

Suitability for development of this remaining portion of the College Grove Estate is centred on:

- A range of community facilities are within close proximity to the site including:
  - Bunbury Regional Hospital;
  - St John of God Hospital;
  - Parks Centre Shopping Centre and Dalyellup Shopping Centre; and
  - South West Sports Centre including Hay Park.
- The area is adjacent to Bussell Highway which provides excellent connectivity to the City Centre and outer Regional area.
- Subdivision is consistent with RCodes General Objectives as well as elements of Liveable Neighbourhoods general principles:
  - Provides for a full range of housing types and densities that meets the need for a range of people;
  - Provides for local variations in neighbourhood character (i.e. compared to balance of College Grove);
  - Ensures that as far as possible high levels of local amenity.

## 2.3 Public Open Space

In accordance with Liveable Neighbourhoods, the proposed development would see the provision of two separate areas of Public Open Space, both with differing functions.

The main area of Public Open Space at the southern end of the site provides for an area of open space that is a 'Nature Space'. The provision of the 'Nature Space' at this location also serves to protect the four large Tuart Trees (trees of significance) that have been noted on this site.

This area of POS will provide a walking trail through the native vegetation to enable the community to enjoy the environment without causing damage to the existing vegetation.

The smaller area of POS as demonstrated on the plan, provides a 'Recreation Space'. This area provides the community with an informal space that can be utilised for such things as:

- Picnic/barbeque area,
- Casual exercise area,
- Dog exercise area.

The retention of the large Tuart tree is the main reason for providing a "small park" in this location. It is proposed that this area will be grassed and ceded free of cost and without compensation as a condition of subdivision.



The development of the POS will be addressed in the Landscape Plan that will be required as a condition of subdivision.

**FIGURE 5 – POS Provisions**



**TABLE 1 – POS Schedule**

POS SCHEDULE	
TOTAL SITE AREA	21,773m <sup>2</sup>
REQUIRED POS (10%)	2177 m <sup>2</sup>
BREAKDOWN OF POS PROVIDED BY FUNCTION:	
RECREATION	1698 m <sup>2</sup>
NATURE	4502 m <sup>2</sup>
Provision of POS as Percentage of Gross Subdivisible Area	28%

## **2.4 Provision of Infrastructure**

### **2.4.1 Water Supply**

Aqwest has confirmed that there is sufficient water mains surrounding the site to enable connection to the reticulation system.

### **2.4.2 Wastewater**

It is proposed to connect the development to the existing reticulated sewerage system as part of the subdivision and development process.

### **2.4.3 Stormwater**

An Urban Water Management Plan will be required as a condition of subdivision.

### **2.4.4 Earthworks**

It is proposed that some terracing/retaining will be required for lots along the eastern side of the proposed development.

### **2.4.5 Power and Communications**

Preliminary investigations indicate that the land can be serviced by underground power.

## **3.0 SITE CONDITIONS AND CONSTRAINTS**

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To assist in the preparation of this Local Structure Plan report, a number of background studies were undertaken including:

- Level 2 Flora Survey;
- Fauna Survey Report;
- Traffic Assessment; and
- Bushfire Management Plan.

Copies of these reports are included in the schedule of appendices and are summarised below.

### **3.1 Biodiversity and Natural Assets**

A level 2 vegetation survey has been undertaken by the City of Bunbury. The City prepared the report to support any future federal and /or State environmental impact assessment process necessitated by proposed vegetation clearing onsite.

A summary of the finding of the report are as follows:

- No Declared Rare Flora Species listed under Section 23 F of the Western Australian *Wildlife Conservation Act 1950* or Priority flora species as listed by the Department of Parks and Wildlife (DPaW) were located within the survey area.
- No flora protected under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) were recorded within the survey area.
- Key flora species that may provide habitat for the threatened Western Ringtail Possum (WRP) and threatened species of black cockatoo protected under the EPBC Act were identified within the survey area. Key flora for Western Ringtail Possums include Peppermint *Agonis flexuosa* and key flora for the black cockatoos include Marri, Tuart, Jarrah, Banksia species and introduced Lemon Scented Gums.
- The survey area is identified as occurring within the Karrakatta Complex - Central and South which is mapped to be at 23.92% of its pre-European extent. A single vegetation unit was identified within the survey area. This is described as:

*Eucalyptus gomphocephala* Open Forest over *Banksia attenuata*, *Agonis flexuosa* and *Xylomelum occidentale* Low Woodland over *Allocasuarina humilis* Tall Open Shrubland over *Hibbertia hypericoides* Low Shrubland over *\*Briza maxima* Grassland over mixed Open Herbland.

The mapped vegetation unit is inferred to represent the Floristic Community Type 25 (FCT 25) Southern *Eucalyptus gomphocephala Agonis flexuosa* woodlands which is listed by the Department of Parks and Wildlife as a Priority 3(iii) ecological community.

- The Department of Parks and Wildlife has recorded four Threatened Ecological Communities within a five kilometre radius of the survey area. None were identified as occurring at the site during the field survey and comparative analysis.
- Vegetation condition within the survey area ranged from Completely Degraded to Good condition.
- 80 species of flora were recorded from the survey area from 30 families of which 19 were recognised as weeds.
- No declared pest plants under the *Biosecurity and Agriculture Management Act 2007* or recognised Weeds of National Significance were recorded.
- Five locally significant weed species were recorded from the survey area: *\*Leptospermum laevigatum*, *\*Acacia iteaphylla*, *\*Acacia longifolia*, *\*Ehrharta calycina* and *\*Freesia sp.* *Leptosperma laevigatum* has a high priority for control with the other plants having a medium priority. These species should be controlled as resources allow.
- *Synaphea spinulosa* was recorded as being potentially at its range end or near its range end extent within the survey area.
- The survey area is contiguous with bushland that forms part of the Maidens to Preston River Regional Ecological Linkage.

In summary the report concludes that in order to avoid impacts on federally protected threatened fauna habitat and impacts on the study area, it is recommended that vegetation clearing is avoided or minimised where possible. A copy of the Level 2 Flora Survey is attached at Appendix 2 (Spencer C (2015)).

The Local Structure Plan where possible provides for the retention of the existing remnant vegetation which will be retained for public use (POS) where appropriate. Should any clearing be proposed, a clearing permit may be required under the Environment and Biodiversity Act 1999 and Environmental Protection Act 1986.

### 3.2 Fauna Survey

A fauna survey of the site has been undertaken to fulfil anticipated regulatory requirements. A precautionary approach was adopted in the compilation of the identified fauna species likely to use the site (either on a regular or infrequent basis). The report identifies that as the site is relatively small and it is likely that only a small subset of the potential species would be present at any one time.

The report was also prepared on the assumption that all native vegetation currently remaining on the site would require clearing to allow for future development. Based on this approach it was identified that the most likely potential impacts of development of the site were:

- Loss of vegetation habitat that may be used for foraging , breeding , roosting, or dispersal; and
- Death or injury of fauna during clearing and construction.

The assessment suggests that impacts on fauna, in particular those of conservation significance will be, in most instances, negligible or very low. This conclusion is based on the small area of clearing likely to be required and the extent of nearby bush land, much of which is within secured reserves. The report notes that It can be expected that all the species currently utilising the study area as habitat will persist in the vicinity despite any development proceeding.

The report also notes that Planning should take into account the potential presence of species of conservation significance and fauna in general to occur within the study area so that any impacts can be minimised or offset. Management plans and protocols should aim to minimise the potential impact on fauna species and habitat where possible. A copy of the Fauna Survey Report is attached at Appendix 3 (Harewood G (2015))

Based on the findings of the report it is proposed that the majority of remnant vegetation, where possible, will be maintained on the site.

### 3.3 Acid Sulphate Soils

Regional geological mapping indicates the site geology is likely to comprise sand associated with the Tamala Limestone formation which predominantly comprises creamy white to yellow or light grey, fine to medium grained quartz sand and minor clayey lenses, calcareous eolianite (Stewart *et al.*, 2008; Geological Survey of Western Australia, 1981).

Exploratory boreholes undertaken approximately 200m to the south of the Site by GHD in 2010 indicated that the geology comprised dune deposits comprising mainly sands recorded as 12 m to 32 m thick and bands of calcarenite limestone between 1 m and 5.5 m in thickness (GHD, 2010). The sands were generally fine to medium grained, sub rounded to sub angular, moderately to well graded quartz, with trace black fine particles of organic matter and occasionally partially cemented. The bands of limestone were noted to be generally strongly cemented, fine to medium grained quartz and calcium carbonate.

The preliminary geotechnical research indicates the subject land is of low risk for presence of Acid Sulphate Soils (ASS) and it is unlikely that further assessment will be required prior to construction.

### 3.4 Site Contamination

The Site was previously classified under the *Contaminated Sites Act 2003* as '*Potentially contaminated – investigation required*' due to the former use as a landfill facility and pistol club / rifle range. Following the submission of a Voluntary Auditors Report (VAR), the site has been formally reclassified by the Department of Environment Regulation. The site has now been classified as Decontaminated. Attached at Appendix 4 is a copy of the Notice of Reclassification from DER.

### 3.5 Ground Water and Surface Water

The site is located within a Priority 3 Public Drinking Water Source Area.

The City of Bunbury commissioned AECOM to undertake an assessment of ground water on the site (October 2014). The ground water assessment indicated the following:

- No surface water features were observed within or in the immediate vicinity of the Site.
- Surface water is expected to directly infiltrate through onsite soils and there is unlikely to be any surface water runoff from the Site under normal rainfall conditions.
- During periods of high rainfall, surface waters that do not infiltrate at the Site are expected to flow to stormwater infrastructure located within adjacent roadways.
- The nearest surface water body is the Indian Ocean, located approximately 3.3 km west and down gradient of the Site.

The report notes that it is the opinion of AECOM that surface waters are unlikely to pose a risk of harm to receiving surface waters.

The site is located within the East Bunbury sub area where the Swan Superficial, Leederville and Yarragadee South Aquifers are all fully allocated. The proposed Urban Water Management Plan will need to consider the requirements of POS irrigation.

It is proposed that a comprehensive Storm water management plan will be provided as part of future subdivision or development proposals. A copy of the Aecom Site Investigation is attached at Appendix 4 (Betti A (2014))

The submitted 'Notice of Re-classification' from the DWER and associated with the previous site contamination, identifies that any groundwater to be abstracted is recommended to be tested to ensure it is suitable for its intended use.

### 3.6 Landforms and Soil

The site has a large central area of the lot which is flat and cleared of native vegetation. The lot falls sharply from the eastern boundary abutting Winthrop Avenue and southern boundary abutting Sommerville Drive refer Figure 6 – Contour Plan.



**Figure 6 Contour Plan**



### **3.7 Bushfire Hazard**

The site has been identified as bushfire prone on Department of Fire and Emergency Services (DFES) bushfire prone area maps. A Bushfire Management Plan has been prepared for the site and is appended to the Structure Plan at APPENDIX 5.

The subject site was assessed as having internal areas of Woodland Type B and adjacent bushfire risks of Woodland type B. Slopes were assessed in direction of fire run as per AS3959 methodology and low to moderate slopes prevail adjacent to the site with all internal areas being upslope of the development. BAL allocation across the site has demonstrated BAL29 or less can prevail over the lots in the structure plan.

**Figure 7 DFES Bush Fire Prone Map**



### 3.8 Heritage

A search of local and state heritage databases has identified no listings or features specific to the structure plan area or immediate surrounds. A search of the Department of Aboriginal Affairs DAA Aboriginal Heritage Inquiry system undertaken on the 2 May 2017 indicates that there are no registered aboriginal heritage sites located at the Site or within 1km radius of the site.

### 3.9 Public Health

The location of the site is within a mosquito breeding and mosquito borne disease risk area. A condition of subdivision approval is to submit a mosquito-borne disease and nuisance risk assessment and management plan. Similarly a condition of subdivision approval requires a notification on certificate of title, advising purchasers of the mosquito breeding areas and risks.

### 3.10 Context and Constraints Analysis

A context analysis of the subject site has been undertaken to identify the key opportunities and any potential constraints presented by the context of the site within its locality.

A site analysis has identified the following factors which have guided the structure plan concept:

- High quality of development creating an attractive built form to match the surrounding development.
- Maintaining existing remnant vegetation where possible
- Limited vehicle connections to the site.

The subject land provides unique opportunity within the College Grove locality with the following features noted:

- It is a large redevelopment site and therefore provides a unique opportunity to deliver a sizable infill housing project.
- It has a large flat/level cleared developable area unimpeded by topography.
- It is in close proximity to the hospital and education facilities
- It is located in close proximity to active recreation spaces (Hay Park).
- It has frontage to three existing roads.
- It is within close proximity to bus routes providing convenient access to local Shopping Centres.

This combination of factors confirms that the subject site is ideally located to accommodate redevelopment for residential purposes which will benefit from these locational assets.

#### **4.0 CONCLUSION**

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The subject land offers a sizable opportunity for new residential infill development and investment in the suburb of College Grove. It is well serviced and close proximity to local facilities.

The site is relatively unconstrained. A large area of remnant vegetation has been identified to be retained as POS, this vegetation has good visual and environmental value and quality and would be desirable to be retained and incorporated as a landscape feature within the structure plan area.

This report has demonstrated that the proposed density and form of development anticipated by the structure plan is consistent with the relevant strategic and statutory planning documents.

This proposed Local Structure plan represents a logical response to the opportunities and constraints affecting the subject site which will enable redevelopment to be progressed in a manner which will achieve a positive outcome for the community.

Adoption of the structure plan by the City of Bunbury and the Western Australian Planning Commission is therefore respectfully requested.





## APPENDICIES