# PART 2 EXPLANATORY REPORT

#### **EXPLANATORY REPORT** 2\_

#### 2.1. **LAND DESCRIPTION**

#### 2.1.1. Location

The Eglinton district centre comprises a 54.5ha land parcel located 43km north-west of the Perth CBD in Perth's north-west growth corridor. Nearby features include:

- The site is located 5km south of the Yanchep city centre.
- The site is located 5.5km north of the Alkimos town centre.
- The Indian Ocean is located 2.1km to the west.
- The most immediate estates are Allara (Satterley/LandCorp) to the north, Amberton (Stockland/Eglinton Developments), Shorehaven (Peet), Trinity (LWP) and East of the Beach (Urban Quarter).

The greenfield and emerging character of the locality, together with the future train station, will influence the urban outcomes able to be achieved in the activity centre.

#### 2.1.2. Regional and Local Context

Eglinton is located in Perth's fast-growing north-west growth corridor. A district structure planning process commenced more than a decade ago and identified the need for a mix of activity centres to accommodate future population growth planned in the Alkimos and Eglinton area.

The north-west corridor has historically been home to a large number of master planned land estates which have supported strong population growth. In the current major growth area of Alkimos and Eglinton, residential development activity has historically been dominated by Amberton, Shorehaven, Alkimos Beach and Trinity at Alkimos. Estates south of Alkimos are largely developed apart from Jindalee and Eden Beach.

Several new developments recently commenced or progressed planning in the corridor such as Alkimos Vista, East of the Beach and Eglinton Hill. Longer term, several larger land holdings will likely start to offer lots to the market over the next decade such as Alkimos Coastal Node, Alkimos City Centre and urban zoned land holdings by Eglinton Estates Pty Ltd and LandCorp to the western side of Marmion Avenue in Eglinton.

Further, the State Government METRONET project is being implemented and includes construction of the Butler to Yanchep rail extension. As part of this project, a train station within the Eglinton district centre is expected to be completed late-2021.

A regional context plan and aerial plan is shown at Figures 4 and 5.

## 2.1.3. Legal Description and Ownership

The centre is comprised of the following lots and reserves:

Table 7 - Lot Detail

Lot/Plan	Proprietor	Description
Lot 800 on Plan 404604	Eglinton Estates Pty Ltd	Western side of railway
Part Lot 802 on Plan 404604	WA Planning Commission	Railway reserve
Part Lot 803 on Plan 404604	Eglinton Estates Pty Ltd	Eastern side of railway
Total		

A cadastral plan is included at Figure 6.

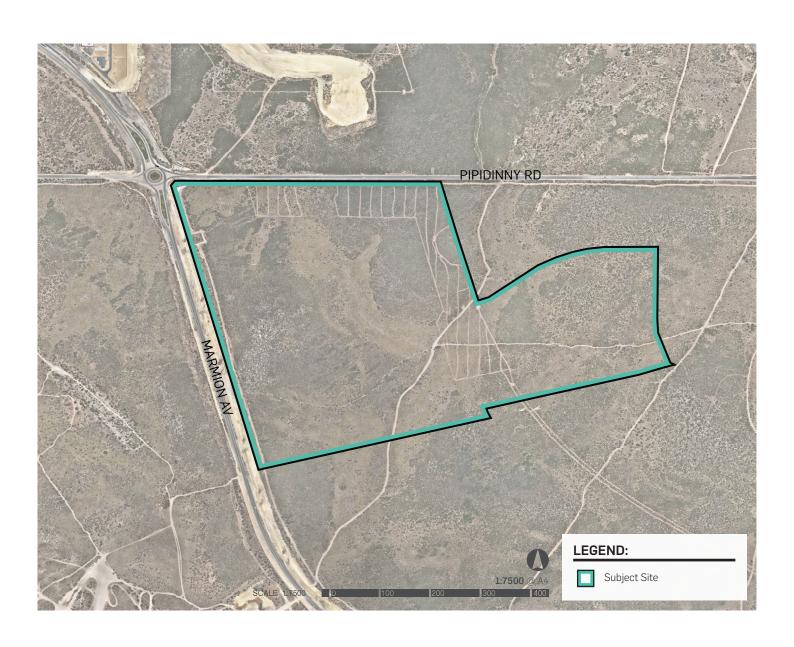


Source: Urbis



FIG 4 - REGIONAL CONTEXT PLAN
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 15.03.2019 JOB NO: ND1523 DWG NO: 002 REV: -

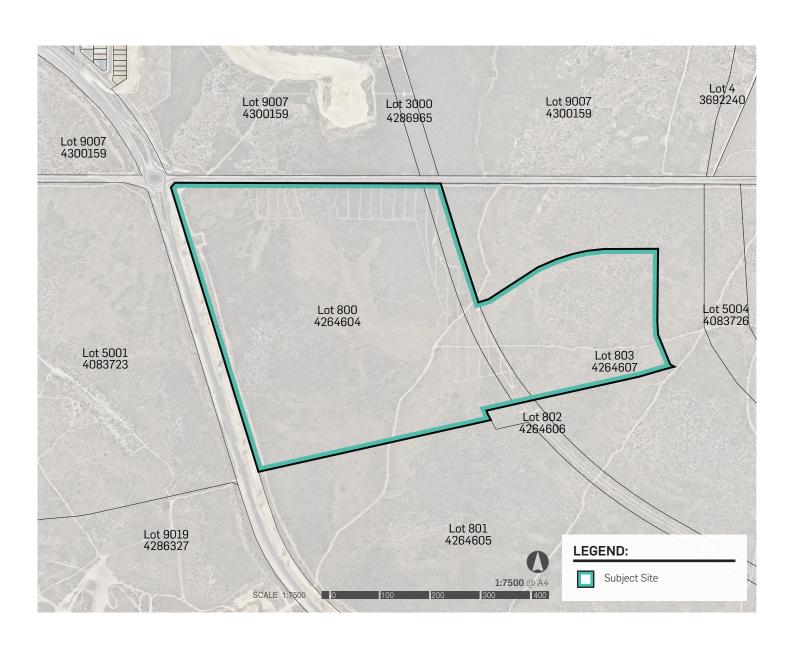


Source: Urbis/Near Map



FIG 5 - AERIAL LOCATION MAP
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 15.03.2019 JOB NO: ND1523 DWG NO: 003 REV: -



Source: Urbis/Landgate



FIG 6 - CADASTRAL PLAN
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

**DATE:** 15.03.2019 **JOB NO:** ND1523 **DWG NO:** 004 **REV:** -

# 2.2. PLANNING BACKGROUND

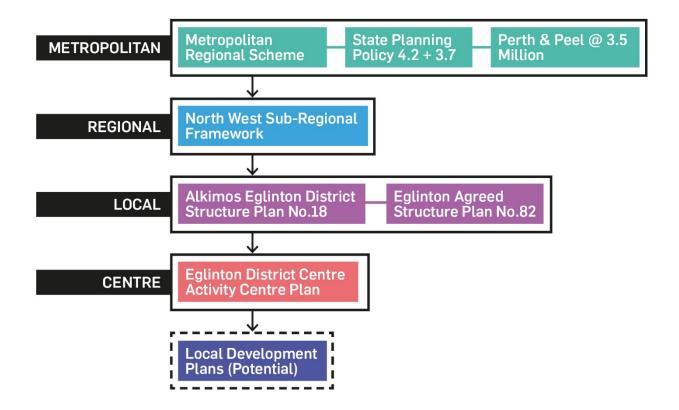
## 2.2.1. Introduction and Purpose

The purpose of the Eglinton ACP is to facilitate the development of a district activity centre in Eglinton, as contemplated and planned for in a variety of state and local planning documents.

The ACP is made pursuant to the requirements of Agreed Structure Plan No.82, SPP 4.2, and the deemed provisions. The centre will provide for a mix of land uses and provide a focal point for the emerging surrounding residential estates.

Figure 7 outlines the key planning documents relevant to the activity centre.

Figure 7 - Key Planning Documents



# 2.2.2. Planning Framework

The documents outlined in the table below provide the basis for the proposed development of the ACP and should be read in conjunction with Figures 7 to 10.

Table 8 - Key Planning Documents

Document	Zones, Controls and Relevant Provisions
Metropolitan Region Scheme	The site is primarily zoned Urban under the MRS, with the inclusion of a Railway reserve which transects the site to accommodate the future proposed Yanchep passenger rail line extension and Eglinton station (refer <b>Figure 8</b> ). Marmion Avenue and Eglinton Drive are both Other Regional Roads and the Mitchell Freeway is a Primary Regional Road.  The development of a district centre is consistent with the Urban zoning. Both Marmion Avenue and Eglinton Drive will be delivered to a standard so that they can operate as Other Regional Roads, consistent with the Transport Assessment ( <b>Appendix B</b> ). The Railway reserve has been preserved through the APC in addition to PTA's broader requirements for the bus interchange and carparking.
City of Wanneroo TPS 2	The site is zoned 'Urban Development' under TPS 2 (refer <b>Figure 9</b> ), which requires a structure plan to be prepared prior to subdivision and development, consistent with the deemed provisions of the Planning Regulations. This resulting requirement has guided the establishment of the Alkimos-Eglinton District Structure Plan No. 18 (DSP) and subsequent Agreed Structure Plan No.82 (ASP) which seek to facilitate and guide the development of the area. TPS 2 sets out the general development requirements for all development within the City of Wanneroo, this is inclusive of matters pertaining to residential, non-residential and environmental considerations.  The zones depicted on the ACP map (Part 1) reflect those zoned provided for under TPS 2.
Alkimos Eglinton District Structure Plan No.18	The subject site is identified within the DSP 18 area (refer <b>Figure 10</b> ). The DSP was formally adopted by Council in 2008 and approved by the WAPC in 2010 and has been amended over time.  DSP 18 has been prepared to facilitate the extensive coastal development to provide for the logical growth of the north-west corridor, addressing vital land supply demand and employment creation. DSP 18 outlines the broad urban framework upon which future planning will be based including the indicative location of activity centres and coastal nodes.  DSP 18 provides the general basis for the preparation of local structure plans. This has resulted in the provision of the ASP which provides a more detailed level of planning necessary to facilitate development over the subject site.
Eglinton Agreed Structure Plan No.82	This ASP identifies a district centre over the area subject to the ACP (refer <b>Figure 11</b> ). The district centre comprises Precinct 5 of the structure plan which aims to create a 'strong sense of place, created by its memorable setting, its distinctive landscape and the structure of its built elements.  It also responds to the structure plan and specifically the character and land use strategies for Precinct 5 as follows:

# **Document Zones, Controls and Relevant Provisions** A true town centre focused around a main street incorporating a wide range of uses including major retail, civic, entertainment, office, commercial and education uses along with a diverse range of higher density residential. Activated public streets with a focus on high quality public realm where development addresses the street. The main focus for community life in Eglinton. Such places, including the Station Square, Civic Precinct and town park are focused around a strong east-west axis (main street). Architecture of the buildings to be a contemporary interpretation of traditional WA coastal towns in its detailing and choice of materials. It is highlighted that the ACP only covers a portion of the district centre shown on the ASP. Through the ACP process (and in engagement with the City and DPLH), there was considered a need to reduce the ACP area given its significant size (65ha) in order to concentrate more intensive development around the train station. On this basis, a concurrent amendment to the DSP and ASP will be undertaken to rezone the portion of the district centre which sits outside the ACP, to Residential. The ASP also guides the location of access points into the centre, particularly from Eglinton Drive and Marmion Avenue. The ACP maintains the general location of these access points, albeit provides for roundabouts (consistent with MRWA's current policy position) in lieu of signalised intersections as shown on the ASP. Further, the alignment of the main entry into the town centre (main street) from Marmion Avenue, Carphin Drive, has been reconfigured to respond to a range of detailed factors including topography and the location of the PTA infrastructure. From a residential density perspective, it is noted that the ASP designates a density code of R60-R160. While density closer to the train station (core of the centre) has been maintained at R100, the residential area adjoining Marmion Avenue is proposed as R30-R80 to respond to the outcomes of the Residential Market Analysis prepared to support the ACP. Local Planning Policy (LPP) This Policy applies to applications for development approval under the Design Principles 2.1 - Residential of the Residential Design Codes (R-Codes). Development This Policy prescribes standards the City considers acceptable in addition to the deemed-to-comply provisions of the R-Codes. When applying this Policy, the City will consider these standards in conjunction with relevant standards in conjunction with relevant 'design principles' and objectives stated in the R-Codes. The ACP has considered the key objectives of the Policy, with future subdivision and development applications to consider these requirements in further detail.

#### LPP 3.2 - Activity Centres

This policy provides additional guidance on the implementation of SPP 4.2. It recognises the Eglinton district centre and its intended function. The ACP is consistent with this policy in that it:

- Is consistent with the applicable DSP and ASP.
- Includes an Employment Strategy which is consistent with the modelled floorspace volumes.

Document	Zones, Controls and Relevant Provisions
	<ul> <li>Includes a main street as the focus of energy in the centre.</li> <li>Provides a legible and interconnected street network that can adapt over time as the centre evolves.</li> <li>Incorporates a town square and public spaces in close proximity to the main street and train station.</li> <li>Provides for an integrated and coordinated parking provision both in the short and ultimate term.</li> </ul>
LPP 3.6 – Employment Policy	This policy established a framework to encourage and retain local employment in the City and north-west corridor. In response, a Local Employment Strategy has been prepared (at <b>Appendix D</b> ).  The Strategy provides the direction for the district centre to become a vibrant hub that attracts and retains skilled and professional workers in the Alkimos Eglinton area. It establishes an action plan outlining potential initiatives, objectives and responsibilities of stakeholders to contribute towards the local economy. Examples include industry diversification and attraction, business support and workplace development (such as coworking hubs and youth employment programmes) and considering employment location through adaptive buildings and employment clusters.
LPP 3.8 – Marmion Avenue Arterial Road Access	This Policy prescribes acceptable standards for the type and location of vehicular access points, provisional standards for cycling infrastructure, and operational procedures for all new planning proposals. The Policy identifies signalised intersections at Pipidinny Road, Carphin Drive and Eglinton Drive. Left in, left out intersections intersperse these signalised intersections.  The same arrangement applies along Eglinton Drive through to the railway alignment. The ACP reflects the general locations of the intersections shown in this Policy however instead provides for roundabouts consistent with Main Roads current policy position.
LPP 4.3 – Public Open Space	The policy articulates Council's position on the planning, provision, location, design, development and interim maintenance of public open space. Section 2.4.7 articulates the landscape and public open space strategy for the ACP including the preparation of two concept plans for Carphin Park and the residential public open space area.
LPP 4.4 – Urban Water Management	The purpose of this Policy is to ensure planning and development within the City of Wanneroo optimises the use and management of urban water resources (including rainwater, stormwater, groundwater, drinking water and wastewater) consistent with State Planning Policy 2.9: Water Resources (SPP 2.9) and the Western Australian Planning Commission's (WAPC) Better Urban Water Management (BUWM).  The LWMS Addendum which accompanies this ACP (Appendix E) has had due regard to these documents and has been prepared in close consultation with the City of Wanneroo Officers.
LPP 4.8 – Tree Preservation	This Policy provides a mechanism to protect significant trees of the City.  Subdivision design shall carefully locate future public open space areas to accommodate significant groups of trees. Wherever possible and practicable, significant individual trees shall be preserved on private lots and retained appropriately within proposed road reserves, public open space reserves and within car parks.

Document	Zones, Controls and Relevant Provisions	
	Given the extensive earthworks that are to be associated with the ACP area (described at Section 2.5.12), a large amount of clearing is required. However, the trees introduced back into the public realm shall augment the planting associated with the public open space areas in terms of windbreak, erosion control, and shade provision. In addition, the trees would provide vegetative cover in the longer term in order to address offsetting the removal of existing cover and wildlife corridors.	
LPP 4.18 – Earthworks and Sand Drift	The purpose of this Policy is to provide guidance for the assessment of development applications for earthworks, and to provide guidance on dust management measures to be employed during earthworks on-site as part of a development approval or subdivision approval.	
	The earthworks strategy for the ACP area is outlined at Section 2.5.12.	
LPP 4.19 – Medium Density Housing	This Policy replaces the R-Code provisions for medium density housing within development zones and applies where the approved structure plan identifies that the R-MD standards apply (ie. R25-R60). This policy will apply to those portions of land within the Residential zone, and for residential development in other precincts where they fall within the R-MD coded area.	
LPP 4.20 – Split Coded Areas	This Policy articulates Council's position on the planning, design and development of areas subject to a split density code.	
	Essentially the Policy requires that development comply with the lower density code unless it is demonstrated that development at the higher density code would provide for sufficient capacity in all necessary public utility services and the development has one consolidated vehicle access point for each street frontage, with reciprocal access rights to serve all dwellings. In the case of the ACP map (Part 1), a split R30/R80 code is proposed within the Residential zone which is further articulated on the Part 2 map. In order to achieve the higher coding, matters such as servicing and vehicle access will be considered consistent with this Policy.	



Source: Urbis/WA Planning Commission



FIG 8 - METROPOLITAN REGION SCHEME PLAN EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 15.03.2019 JOB NO: ND1523 DWG NO: 006 REV: -

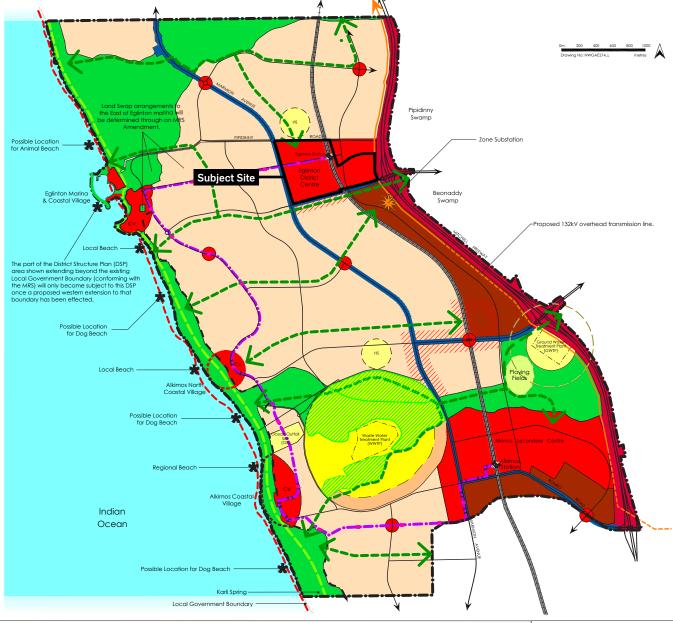


Source: Urbis/WA Planning Commission



FIG 9 - LOCAL PLANNING SCHEME MAP
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 15.03.2019 JOB NO: ND1523 DWG NO: 007 REV: -



#### The following notes relate to the Structure Plan:

- a. The final locations and configurations of the government school sites depicted on this Structure Plan will occur at the local structure planning stage through landowner consultation with the Department of Education and Training, the City of Wanneroo and the Department of Planning. Locations depicted are notional and approximate to reflect catchment requirements.
- b. The coastal setbacks, including any proposed reduction in coastal setback for the coastal activity nodes are to be consistent with State Planning Policy No. 2.6. State Coastal Policy.
- c. Final location of railway stations and associated pedestrian and vehicular crossings will need to be determined to the satisfaction of the Public Transport Authority, in consultation with the City of Wanneroo and the WAPC.
- d. The north-south road on the western side of the WWTP which transverses the 'Parks and Recreation' reserve is supported in principle and is subject to further
- e. Retail floorspace allocation for the proposed activity centres as outline in the Structure Plan has not been assessed in terms of its impact upon other proposed and existing centres. Accordingly, the activity centres are notional and will require compliance with any approved State Planning Policy relating to Activity Centres.
- f. Areas identified as being of National Environmental Significance under the Environmental Protection and Biodiversity Conservation Act 1999 may be subject to assessment by the Federal Department of the Environment, Water, Heritage and the Arts. The outcome of any such assessment may require modification to the DSP.
- g. District Open Space identified within the Structure Plan does not form part of the public open space allocation.
- h. Local Open Space will be determined at the time of Local Structure Plan preparation in consultation with the City of Wanneroo and the WAPC. Detail in relation to drainage credits will be assessed at the Local Structure Planning stage, and will need to be consistent with Liveable Neighbourhoods and WAPC Policy DC 2.3 'Public Open Space in Residential Areas.
- Activity Centres will be subject to further structure planning, to ensure there is a mix of retail, residential, community and service provision meeting main street design objectives.
- j. Subdivision and/or development within the DSP is required to contribute to infrastructure items as identified in the Developer Contribution Plan to be approved by the City of Wanneroo.
- k. The Structure Plan is subject to Environmental Conditions, Statement No. 722
- l. Final servicing requirements will need to be accommodated within the Structure Plan, and will be determined at the Local Structure Planning Stage.
- m. This DSP is subject to monitoring and review commencing in 2017.
- An easement of up to 32m may be required for the proposed 132kv overhaed transmission line. This may have implications on adjacent land uses. Final width of the
  easement to be determined at LSP stage.



Source: City of Wanneroo



FIG 10 - ALKIMOS EGLINTON DISTRICT STRUCTURE PLAN MAP NO.18
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 15.03.2019 JOB NO: ND1523 DWG NO: 008 REV: -



Source: City of Wanneroo



FIG 11 - AGREED STRUCTURE PLAN NO.82 MAP EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 15.03.2019 JOB NO: ND1523 DWG NO: 009 REV: -

# 2.2.3. Other Planning Documents

Process/Approval/Decision	Proposal	Impact
Subdivision of Eglinton Hill (Part Lot 800 and 801 Marmion Avenue, Eglinton)  Decision pending	A subdivision application was lodged over the land, immediately south of the district centre, in October 2018. The proponent is the same as that for the ACP.  The application is for Stages 1 and 2 of the Eglinton Hill subdivision which will facilitate the creation of:  274 single residential lots ranging in size from 234sq.m – 700sq.m  A 1.02ha commercial site for a future neighbourhood centre  A 8,038sq.m density site  A 1.84ha superlot lot for mixed use development  2.4ha for POS and drainage  The Eglinton Drive road reserve  Balance of title over Lots 800 and 801 for the district centre  The application has been prepared to be consistent with the Eglinton Agreed Local Structure Plan No.82 which provides a road connection through to the District centre, the creation of the Eglinton Drive Road reserve, and a mixed-use interface with Eglinton Drive opposite the District Centre.  The application is currently being assessed by the Department of Planning, Lands and Heritage and will be determined imminently.	This ACP was prepared in the context of the Eglinton Hill subdivision and therefore has considered impacts from a residential yield and market demand perspective as well as the provision of infrastructure and community facilities such as the school.
Amendment No.2 to Alkimos Eglinton District Structure Plan No.18  Decision pending	<ul> <li>An amendment to the Alkimos Eglinton DSP No.18 was advertised between 6 November and 6 December 2018.  The amendment was lodged by Urban Quarter, who control the land south east of the ACP area and propose to: </li> <li>Rationalise the portion of Service Commercial land owned by Urban Quarter located south of the Eglinton district centre between the proposed train line and freeway (within the Central Precinct) and amend to Urban. It is noted the Service Commercial land owned by Eglinton Estates Pty Ltd (fronting Eglinton Drive) is not proposed to be amended.</li> <li>Extend the eastern DSP boundary to include a new 113ha Eastern Precinct to provide a new Service Commercial area which will provide an opportunity for a focussed area of employment generating uses (on what is currently Rural land).</li> </ul>	The DSP amendment may have potential impacts on the ACP and broader Alkimos Eglinton area given the new urban land proposed and its potential implications in terms of educational requirements, development contributions and access.  These matters are being explored through a submission and discussions with the City of Wanneroo.

# 2.2.4. SPP 4.2 - Activity Centres for Perth and Peel

The following table summarises how the ACP responds to the key provision of SPP 4.2.

Table 9 – Assessment against SPP 4.2

Provision/s	Note
An emerging district centre is identified in Eglinton	The ACP facilitates the delivery of a district centre in Eglinton and fulfils the requirement for an ACP for district centres prior to major development.
Typical Characteristics	This ACP aims to achieve the typical characteristics of a district centre as follows:
Greater focus on servicing the daily and weekly needs of residents. They are to have a greater local community focus the provide services, facilities and jobs that reflect the needs of their catchment	The ACP will facilitate a convenience-based centre with retail, community and service offerings targeted towards the local community and commuters.
<ul> <li>Contain discount departments stores, supermarkets, comparison shopping, personal shopping and speciality shops</li> </ul>	As part of the ultimate development of the centre, all of these retail types are anticipated consistent with the RSA ( <b>Appendix A</b> ), subject to market demand.
Should be a focal point for the bus network	A new passenger train station will be delivered at Eglinton which together with bus facilities, will provide exceptionally high public transport service and amenity to residents and visitors to the centre. Park and ride services will also be incorporated, accessible via Pipidinny Road.
<ul> <li>Should have district level office development and local professional services</li> </ul>	The ACP allows for office development, with the retail core and main street conducive to accommodating local professional services.
Should cater for 20,000-50,000 persons	The accompanying RSA ( <b>Appendix A</b> ) bases its analysis on an ultimate trade area population of 42,130 by the year 2040.
Should accommodate a minimum 20 dwellings per gross hectare residential density within a 400m walkable catchment, and a desirable 30 dwellings per gross hectare	The activity centre is capable of meeting this residential density target. This is outlined in further detail in other sections.
Should accommodate a 30% mix of land uses where there is more than 20,000sq.m NLA of shop retail floorspace	The ACP well-exceeds the 30% diversity target, as demonstrated by the RSA. For the 27,100sq.m of shop/retail floorspace envisaged by 2040, a significant amount of other 'mix of land uses' will be delivered. This assumes the following land uses:  • Showroom (bulky goods) – 8,000sq.m
	<ul> <li>Non-retail uses (community, medical, other) – 20,000sq.m</li> <li>School – approximately 5ha floorspace (assumes half of the 10ha school site will comprise buildings).</li> </ul>

Provision/s	Note
Retail sustainability/needs assessments are required prior to major development in activity centres	The ACP will facilitate development greater than 10,000sq.m of shop/retail floorspace, and therefore an RSA has been prepared to support the ACP. The assessment concludes that the trade area can sustain further major development at the Eglinton district centre, and that any impacts of the development will not unduly impact other activity centres.
SPP4.2 outlines a range of matters that are to be addressed in activity centre plans, under the headings of centre context, movement, activity, urban form, resource conversation and implementation.	All of these matters are addressed throughout the ACP.

#### 2.2.5. SPP 3.7 - Bush Fire Risk Management

A Bushfire Management Plan (BMP) been prepared by Strategen Environmental consistent with SPP 3.7 and the Guidelines for Planning in Bushfire Prone Areas to accompany the Eglinton ACP (refer **Appendix C**). The BMP concludes that the associated bushfire risks are readily manageable through standard implementation responses outlined in the Guidelines and AS 3959.

Future BMP's prepared for subsequent subdivision and development applications are to meet the relevant commitments outlined in this strategic level BMP as well as address the broader requirements of SPP 3.7 and demonstrate in detail how the proposed development will incorporate the acceptable solutions or meet the performance requirements of the Guidelines.

#### 2.2.6. Pre-lodgement Consultation

A range of consultation activities have taken place to inform the development of this activity centre plan, including:

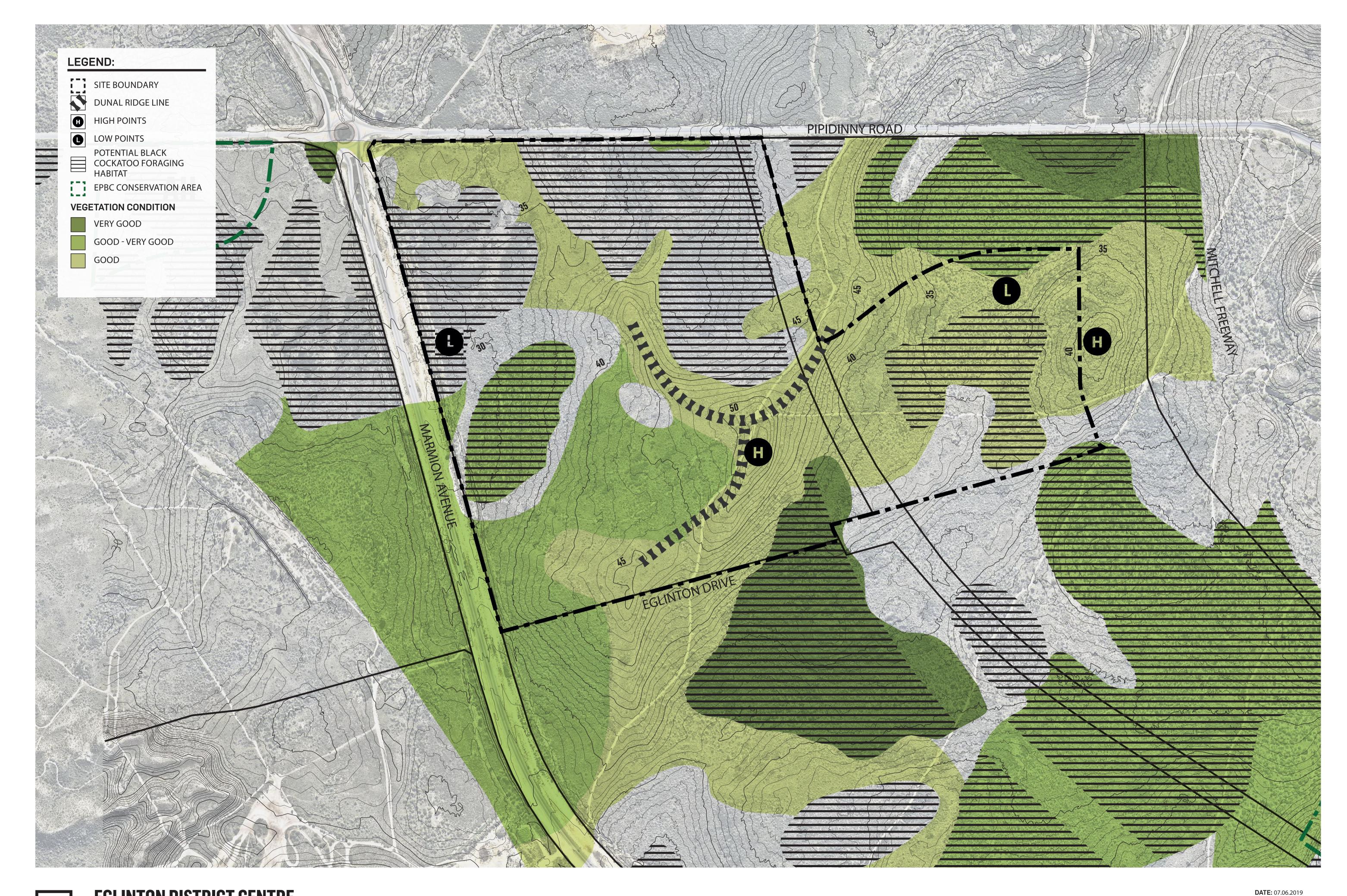
- An initial workshop with the City of Wanneroo, Department of Planning, Lands and Heritage and METRONET in mid-2018 to discuss the vision for the activity centre, the impact and opportunities afforded by the proposed new train station and the planning process.
- Ongoing discussions with both the agencies above in relation to specific matters relating to the ACP.
- Issuing the draft ACP plan, Retail Sustainability Assessment and approach for the Local Water Management Strategy to the City of Wanneroo and Department of Planning, Lands and Heritage in late-2018 to provide an opportunity to comment prior to the finalisation of the documents.
- Ongoing liaison with METRONET and the Public Transport Authority in relation to the location and form of public transport infrastructure within the centre and its impact on the centre development.
- Liaison with relevant Government authorities including Main Roads WA regarding traffic and access matters and relevant servicing authorities to inform technical reporting.

The preparation of this ACP has been undertaken with appropriate levels of consultation between the applicant and relevant stakeholders prior to lodgement.

# 2.3. NATURAL ENVIRONMENT, LANDFORM AND TOPOGRAPHY

The Eglinton Approved Local Structure Plan 82, section 3.8 discusses, in some detail, the existing topography and landform for the broader Eglinton area, including the area subject to this Eglinton ACP. In summary and as identified in **Figure 12**:

- The existing topography comprises, in general, an undulating sand dune landform with elevations from 28mAHD closest to Marmion Avenue up to 53mAHD nearby, on the western side of the railway line.
- Vegetation and flora over Alkimos-Eglinton has been comprehensively investigated over the last two decades. Detailed vegetation and condition mapping was produced in 2004 to support the EPA assessment of the MRS Amendment 1029/33.
- The Eglinton ACP area was subject to the EPBC Referral 2010/5777 approval and conditions.
- Native vegetation in the Eglinton ACP is not subject to long term conservation under the EPBC approval.
- Areas identified as having habitat for the Carnaby's Black Cockatoo (as shown by black hatching in
  Figure 12) cannot be cleared until seed collection has been undertaken and the condition of the habitat
  has been appraised to determine if top soil will be of a suitable quality to be reused in landscaping on
  site or in the rehabilitation areas in Yellagonga Regional Park.
- All soil types are suitable for the construction of roads and urbanisation.
- Archaeological and ethnographic assessment has been undertaken for the site and no archaeological, cultural material or ethnographic sites of significant were identified during this process.





## 2.4. ECONOMIC ASSESSMENT

## 2.4.1. Retail Sustainability Assessment

Urbis has prepared a Retail Sustainability Assessment (refer **Appendix A**) in accordance with SPP 4.2 - Activity Centres for Perth and Peel, in order to assess the sustainable future provision of floorspace. The key requirements of the research and advice were to:

- Determine the potential scale, mix and timing of development (retail and ancillary non -residential uses) within the Eglinton district centre; and
- Advise on the appropriate location of the potential range of uses, layout of the town centre and required land area to accommodate these uses.

The study was complemented by a Local Employment Strategy which determines the potential employment contribution of the centre and strategies to enhance employment and diversity outcomes.

**Table 10** outlines the recommended composition and timing for retail and other uses within the activity centre. The analysis indicates that the centre can sustain around 27,000sq.m of shopping centre floorspace when the trade area population is reached. This floorspace would be based around one discount department store and three supermarket anchors.

A further 28,000sq.m could be sustained in bulky goods and other non-retail uses. Total community, commercial and retail floorspace amounts to around 55,000sq.m.

Table 10 – Supportable Floorspace and Staging

# SUPPORTABLE FLOORSPACE AND STAGING, EGLINTON DISTRICT CENTRE

Retail Uses	2025	2030	2035	2040
DDS	0	0	5,000	5,000
Supermarket	<u>5,600</u>	9,600	9,600	9,600
- Coles/Woolworths	4,000	8,000	8,000	8,000
- ALDI	1,600	1,600	1,600	1,600
Mini Majors	500	1,000	2,000	2,000
Specialty Shops	3,000	4,000	7,000	7,000
External	<u>1,500</u>	2,500	3,000	3,500
Total Retail	10,600	17,100	26,600	27,100
Other Uses				
Bulky Goods	<u>2,700</u>	<u>4,600</u>	<u>6,200</u>	<u>8,000</u>
- Hardware	1,300	2,200	3,000	3,900
- Furniture	400	700	900	1,200
- Automotive Accessories	400	700	900	1,200
- Other	600	1,000	1,400	1,700
Non-Retail	<u>6,900</u>	<u>11,400</u>	<u>15,900</u>	20,000
- Church/Community Uses	900	1,500	2,100	2,600
- Libraries	300	600	800	1,000
- Pub/Tavern	300	600	800	1,000
- Sporting Facilities	600	900	1,300	1,700
- Medical Centre	800	1,300	1,800	2,200
- Gyms	900	1,400	2,000	2,500
- Cinema/Entertainment	300	600	800	1,000
- Child Care	400	700	1,000	1,300
- Motor Vehicle Services	400	600	800	1,000
- Real Estate/Finance/Insurance	900	1,400	2,000	2,500
- Retail/Trade Services	1,000	1,700	2,300	3,000
- Travel Agency	100	100	200	200
Total Other	9,600	16,000	22,100	28,000
Total Activity Centre	20,200	33,100	48,700	55,100

#### 2.4.2. Local Employment Strategy

Urbis has prepared a Local Employment Strategy in conjunction with the RSA (refer Appendix D). This Strategy is the outcome of engagement and analytical understanding of the region. In particular the analysis focussed on understanding:

- The expected development potential throughout the district centre and the attributes and market factors which impact on the ability of the centre to attract investment;
- How the district centre can complement other centres to maximise employment and optimise the distribution of land use and floorspace in the region; and
- What potential investment attraction and innovative urban renewal strategies and actions stakeholders should adopt and champion.

In summary, the activity centre is expected to support approximately 2161 jobs by 2040, as shown in the table below.

Table 11 - Employment Estimates

# **EMPLOYMENT ESTIMATES**

	2025	2030	2035	2040
DDS	0	0	167	167
Supermarket	175	300	300	300
Mini Majors	17	33	67	67
Specialty Shops	100	133	233	233
External	115	192	231	269
Total Retail	582	959	1297	1336
Bulky Goods	33	55	75	97
Church/Community	4	6	9	11
Library	2	4	6	7
Pub/Tavern	10	20	26	33
Sporting Facilities	6	9	13	17
Medical Centre	33	53	73	90
Gyms	10	16	22	28
Cinemas/Other Entertainment	4	7	10	12
Child Care	10	17	25	32
Motor Vehicle Services	15	22	29	37
Real Estate / Finance / Insurance	54	79	118	144
Retail / Trade Services	21	36	49	64
Private School	40	80	120	120
Aged Care	0	0	85	85
Total Activity Centre Floorspace	822	1,365	1,957	2,111
Home-Based / Co-Working Hub	10	30	50	50
TOTAL	832	1,395	2,007	2,161

It is expected that population-serving industries will dominate early employment generation, responding to the growth of the retail catchments and associated expenditure levels and service demand. However, as the district centre develops, its exposure to visitation and the provision of co-working spaces will support a more diversified industry base.

Assuming a workforce share of total residential population of 50% (in line with corridor averages and accounting for the demographic breakdown of the population), the ESS within the district centre was estimated at 216% by 2040. This ESS varies across the development profile and staging, reflecting the evolution of the local economy over time and changes in the composition of economic activity. ESS estimates are shown in the table below.

Table 12 - Employment Self Sufficiency Estimates

#### **EMPLOYMENT SELF-SUFFICIENCY ESTIMATES**

	2025	2030	2035	2040
Labour Force	200	600	1,000	1,000
Employment	832	1,395	2,007	2,161
Employment Self Sufficiency	416%	233%	201%	216%
Contribution to DSP Target (16,000 jobs)	5.2%	8.7%	12.5%	13.5%

To support the implementation of the strategy, an action plan has been developed. The plan outlines potential initiatives, objectives and deliverables of responsible stakeholders to facilitate the development of the district centre's economy.

## 2.4.3. Preliminary Residential Market Analysis

Urbis prepared a Preliminary Residential Market Analysis to develop the evidence base required to identify and interrogate the likely residential development within the district centre. The analysis identifies the following matters which will impact the residential market within the ACP area:

- Given an observed limited diversity of buyer types in Eglinton, land and dwelling values, and considerable competing supply for medium density product, the ability for the district centre to accommodate apartment and townhouse/terrace product will be limited in the short to medium term (0-5
- The market depth for apartment products will likely be limited over a 15-year period.
- The market depth for terrace/townhouse products is currently untested in Eglinton however many developments are incorporating a mix of terrace and lots under 100sq.m within developments. The market depth is likely to be limited to 20-40 dwellings per annum over a 15-year period.
- Detached housing is the strongest market in the area and varies between estates from approximately 50 to 250 sales per annum, dependent on market conditions.
- Dependent on the development timeframe, Urbis recommends consideration of the following development mixes.

Table 13 - Potential Market Depth and Mix Considerations, 2021-36

# MARKET DEPTH AND MIX CONSIDERATIONS

Dwelling Type	Market Depth (per annum)	Recommended Dwellings	Indicative Land Area (ha)
Detached House	50+	-	-
Semi-Detached Dwelling	20-40	300-600	6-11
Apartment/Flat/Unit	5-10	75-150	1-1.5

The proposed extent of Residential zoned land and the densities proposed has been directly informed by the outcomes of the above analysis.

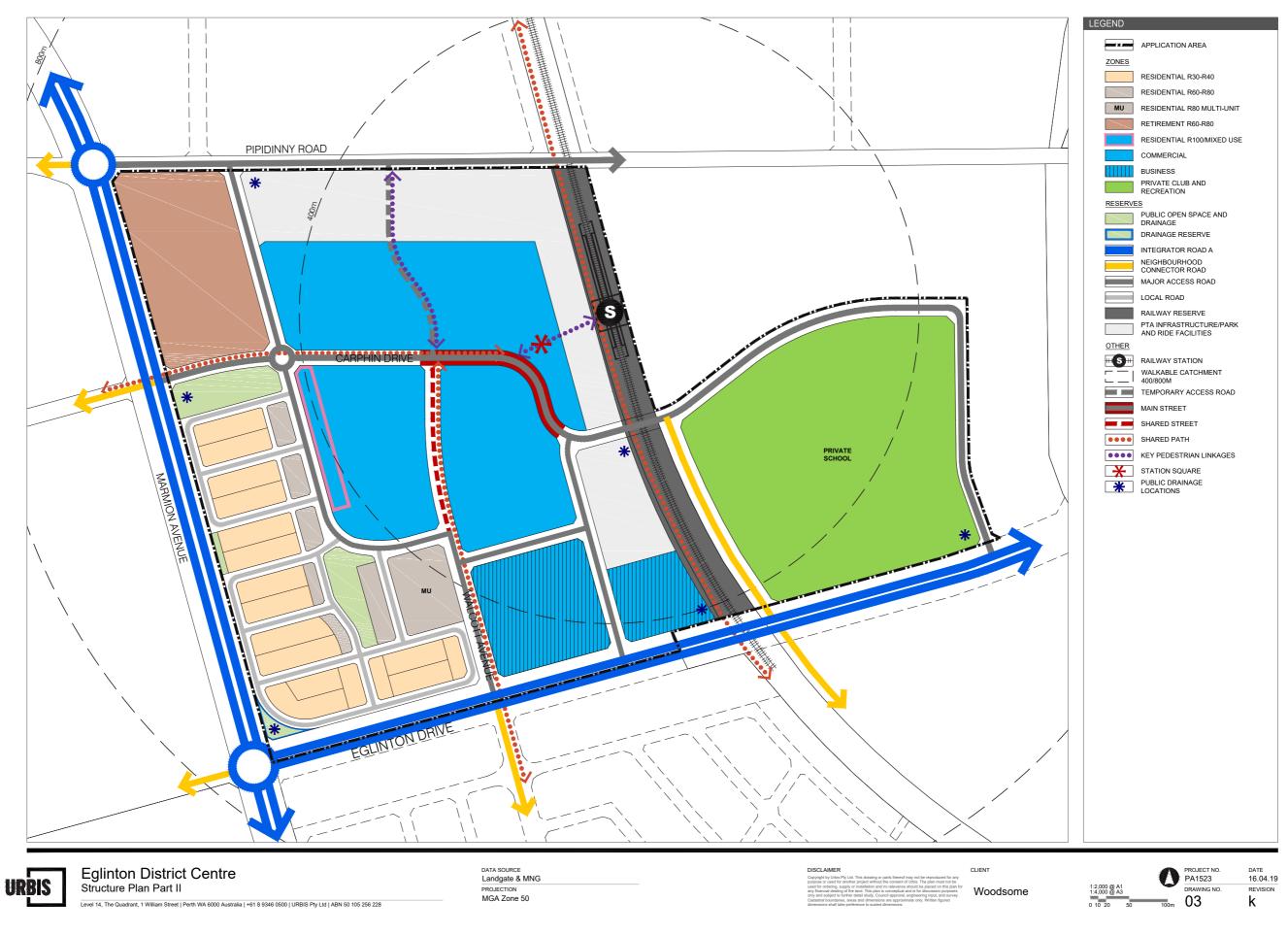
#### 2.5. **CENTRE VISION AND FORM**

The ACP Part 2 plan provided at Figure 13 illustrates an additional level of detail to the Part 1 plan to show how the ACP could evolve at a street block and superlot level. Further, the illustrative concept plan provided at Figure 14 outlines one potential spatial built form outcome of the activity centre, focusing on Stage 1.

The plan provides an illustration of the intent of some of the provisions of the ACP, and therefore should be used as a guide for interpretation and decision making, but in no way should be viewed as a requirement or standard, particularly with regard to building placement and layout.

Similarly, the explanation of the provisions in Part 1 of the ACP in this section should be used to interpret those provisions and should not be considered as additional requirements.





Source: Urbis

URBIS

FIG 13 - ACTIVITY CENTRE PLAN MAP (PART 2) EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 16.04.2019 JOB NO: PA1523 DWG NO: 0010 REV: -





**EGLINTON DISTRICT CENTRE**ILLUSTRATIVE MASTER PLAN - STAGE 1



DATE: 15.04.19 JOB NO: PA1523 DWG NO: 01 REV: B

Source: Urbis



FIG 14 - ILLUSTRATIVE CONCEPT PLAN
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 16.04.2019 JOB NO: PA1523 DWG NO: 0011 REV: -

### 2.5.1. Activity Centre Precincts

The Eglinton district centre will offer a convenience centre that is retail focussed with complementary commercial, community and residential uses. The retail core and activity of the centre will be focused around a new train station which will provide active day and night uses where locals and commuters can stop and meet.

The activity centre is divided into five precincts that are intended to have distinct urban forms and functions. These precincts clarify the legibility of the centre and concentrates activity to ensure the main street and core will thrive.

The various precincts are illustrated at Figure 15 and described in the table below.

Figure 15 – Activity Centre Precincts Plan



Table 14 - Activity Centre Precincts

Precinct		Precinct Description
SSS	Main Street Precinct  Area: 3.6ha	This precinct will comprise the main retail and community hub including Station Square. It will accommodate the majority of shop-retail activity, with a mix of commercial and hospitality buildings fronting both sides of the main street on Carphin Drive, as identified on the ACP map.
	Shopping Precinct  Area: 9.6ha	This precinct will accommodate a mix of retail and commercial land uses in a shopping centre environment – enclosed and unenclosed, and a consolidated area for car parking in the southern and western portion of the precinct
	Business Precinct  Area: 3.9 ha	This precinct will predominantly accommodate a mix of car-based retail uses and carparking, drawing such uses away from the main street environment. The built form will provide appropriate presentation to the 'high speed' environment of Eglinton Drive. Some non-retail commercial uses may also be accommodated in this precinct.
	Residential Precinct  Area: 14.9ha	This precinct will be primarily for residential purposes, with a mix of single and grouped dwellings.  The built form will present an appropriate interface to Marmion Avenue and Eglinton Drive, considering acoustic treatment and will overlook public open space to increase amenity and passive surveillance.
	Education Precinct  Area: 12.1ha	This precinct comprises an 10ha Kindergarten to Year 12 school (K-6 in the initial stage).  The school will be designed to give prominence to the north-west corner as part of the initial stage to ensure integration with the town centre.

#### 2.5.2. Role in Hierarchy, Size and Use

The Eglinton activity centre has been designed to operate as a district centre. This consistent with all higherlevel planning documentation including SPP 4.2. The development of the activity centre will be retail-led with a likely initial stage of 10,600sq.m NLA of shop-retail (in 2025), growing to over 27,000sq.m shop-retail NLA upon full development (2040).

The proposed development staging and timing of the district centre was assessed in the context of the balance of demand available to other activity centres in the region, such as Alkimos and Yanchep.

Importantly, sales in competing centres will not be impacted by greater than 10% as a result of the development of the Eglinton district centre. 10% or less is the industry accepted impact standard, and therefore, the development of Eglinton will not disrupt the established and proposed centre hierarchy within the trade area.

The estimated mix of land uses to be achieved in the activity centre is outlined in the table below.

Table 15 – Estimated Mix of Land Uses (at 2040)

Land use category	Estimated Floorspace NLA	%	Notes
Non-Retail  Health/welfare/community services; government and non-government activities that provide services such as hospitals, schools, community services and hotels  Office/business; administrative, clerical, professional and medical offices	20,000sq.m	36%	-
Bulky goods retail/showroom	8,000sq.m	15%	Allows for development of Business Precinct
Shop-retail	27,100sq.m	49%	-
TOTAL	55,100sq.m	100%	

#### 2.5.3. Urban Form

The activity centre is in an emerging greenfield residential area, and the intensity, scale and form of the centre will reflect its context. As a result, the centre will be of a low to medium intensity, in low-scale buildings that integrate with the surrounding predominantly single storey residential environment.

The presence of a train station lends the urban form to being of greater intensity near the station and centre core, to encourage commuters to access a range of both dining, entertainment and convenience services either before or after their commute to work (or leisure).

As outlined above, the urban form across the precinct will differ according to the five precincts, each with distinct roles and intended land uses.

Traditional urban form will be concentrated along and surrounding the main street, with car-based uses concentrated to the south along Eglinton Drive and north into the site on Walcott Avenue.

The desired urban form will be driven by a number of features and provisions including:

- Street frontage standards.
- Key public spaces and features.
- Requirements for residential density.
- Landscaping.

#### 2.5.4. Street Interfaces

Street interfaces will determine where activity is concentrated, the appearance of activity centre development and how development integrates with surrounding areas. To achieve the vision, a number of frontage types have been allocated to all road edges, refer **Figure 3 – Development Requirements Plan**. The nature and location of each frontage and characteristic is outlined below.

Table 16 - Frontage Types

Frontage Type	Nature	Locations
Active	Frontages with street facing tenancies and development.  Nil setbacks, high ceilings, minimise façade heights, awnings and high levels of glazing will ensure building frontages are highly active.	Main street
Semi Active	This frontage promotes activation and street-oriented development, however not to the extent of the active façade. This frontage still promotes large openings and glazing, high ceilings and minimum façade heights to ensure an urban form to the street.	Edges to Main street (Carphin Drive)
Attractive	This frontage is intended to allow for development that may not directly front or open to the street but to still provide standards for an attractive, high-quality interface through design and material treatments and promotion of openings where possible.	Service areas
High Speed	High speed frontages are for areas where the built form is largely car based but where effort is still required for entries, built form and signage to deliver an attractive frontage to the street.	Eglinton Drive (east) and Pipidinny Road
Built Form Emphasis	These locations are intended to ensure that prominent corners and vistas are acknowledged in built form outcomes through increased height and architectural features.	Building emphasis is required on major corners of the main street, on the school site and on the corner of Carphin Drive and Walcott Avenue (south of the main street)
Residential only	Where a site or frontage is developed for residential purposes only, then the applicable R-Code requirements apply.	Residential areas abutting Marmion Avenue and the western portion of Eglinton Drive

#### 2.5.5. Key Spaces and Features

Building on the vision for the Eglinton activity centre, a number of key spaces and features have been identified as critical to the delivery of Eglinton as a true and unique town centre. This includes:

- Station Square a scaleable and defined town square adjoining the train station will provide a civic focus
  of energy for the centre. The space may be retained in private ownership to allow for it to be
  programmed and well maintained to a high standard including high-specification landscaping, flexible
  event spaces and recognisable features, with the potential for it to be designed to allow for its closure for
  markets and other community events.
- Main Street the central portion of Carphin Drive will be an extension to the Station Square and will serve as the main street with a focus for pedestrian activity. It may include custom pavement and similar to the Station Square, will promote high-specification landscaping and pedestrian friendly features to encourage people to walk, linger and feel safe.
- Shopping Centre in addition to traditional retailing, the shopping centre will provide opportunities for the
  community to meet in hospitality outlets. It will provide for the main convenience and comparison retail
  shopping and will provide access to a range of daily and weekly services such as bank, medical and
  other consulting and office uses.
- Pedestrian Linkages numerous pedestrian linkages shave been identified in the ACP, linking the train station with the main street, north to the park and ride facility and south to the shopping centre and the Eglinton Hill estate south of Eglinton Drive.

## 2.5.6. Residential Density

As per SPP 4.2, district centres have a performance target of achieving 20 (minimum) to 30 (desirable) residential dwellings per gross hectare within a 400m walkable catchment. Based on a gross area of 11.7ha for Residential and 0.5ha for Mixed Use, the minimum and desirable yield targets for the ACP area are:

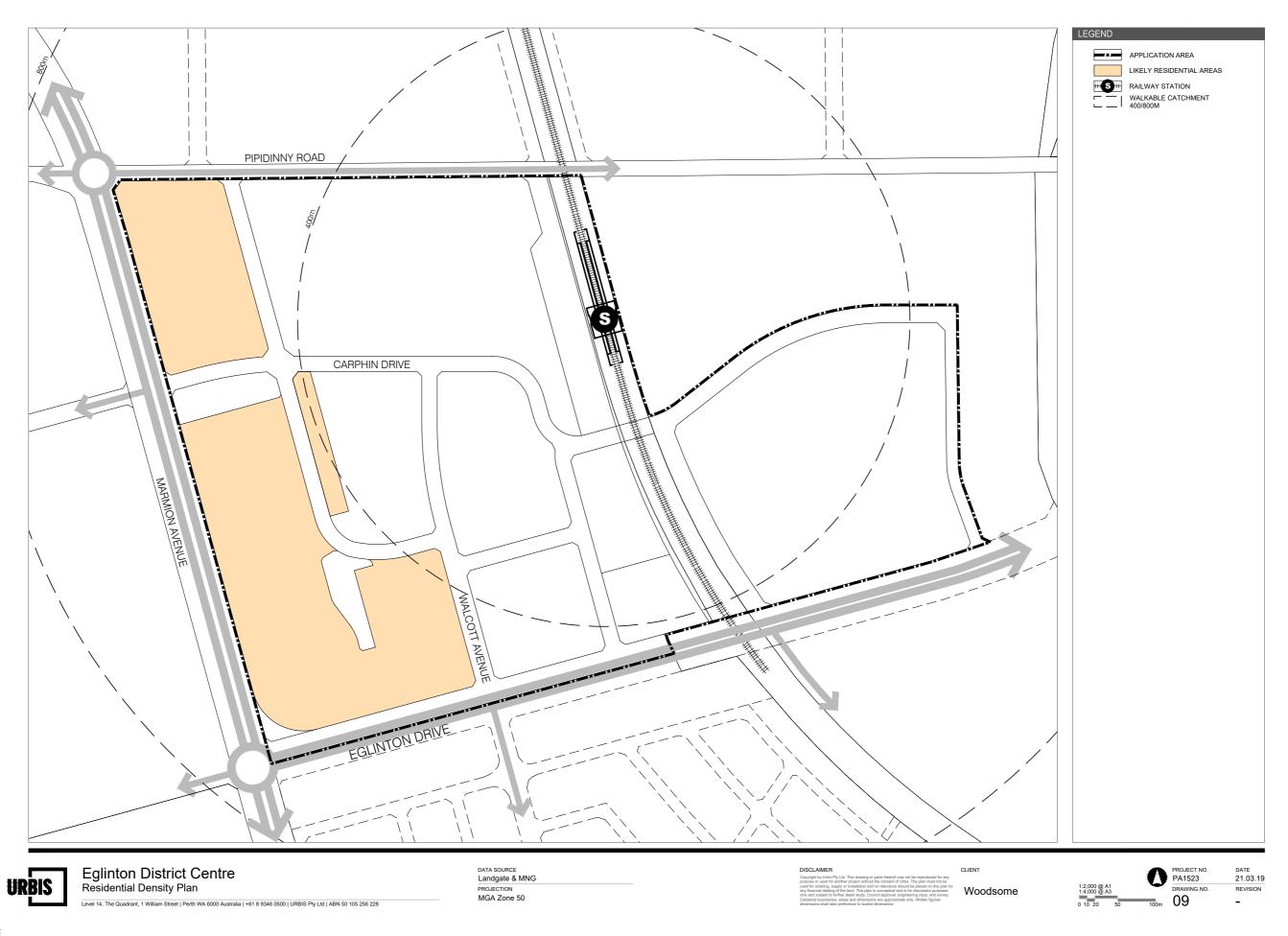
- Minimum 243 dwellings.
- Desirable 365 dwellings.

A breakdown of the estimated residential yield is provided in the table below and at Figure 16.

Table 17 – Estimated Residential Density Key Numbers

Item	Figure	Note
Total activity centre area	54.5ha	Land within the activity centre boundary only
Total activity centre area identified as residential	11.7ha	-
Total number of single-lot product	201 dwellings	Comprises 130 dwellings at R30 (300sq.m average lots size) and 71 dwellings at R80 (120sq.m average lot size)
Total number of multiple dwelling product	72 – 103 dwellings	Assumes development of 64 multiple dwellings (120sq.m average apartment size) and 39 dwellings within the Residential Mixed Use area on the ACP Map (Part 2)
Estimated number of retirement living dwellings	68 – 102 dwellings	
Total	341 – 406 dwellings	

The above demonstrates that the provision of residential land within the ACP meets the desirable targets of SPP 4.2.



Source: Urbis

URBIS

FIG 16 - RESIDENTIAL DENSITY PLAN
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 25.03.2019 JOB NO: PA1523 DWG NO: 0013 REV: -

#### 2.5.7. Private School Site

A private school site has previously been identified in the Eglinton ASP82. The school has been re-located further north to be located within the Eglinton ACP and in proximity of the railway station. Comprising a 10ha site accommodating a Kindergarten to Year 12 school in the south-eastern portion of the ACP area, access will be provided via road, rail and bus.

The development of the school will be staged with the private primary school (K-6) being developed in the first stage of development and the middle and secondary schools constructed by 2030.

The school will be designed to give prominence to its north-west corner (closest to the train station) as part of the initial stage to ensure integration with the town centre.

Given the significant landholding in proximity to the railway station, with limited market demand for residential development in the next 10 years of development within the Eglinton ACP, it is considered that the school site will provide a vibrancy to the activity and employment in the Eglinton ACP.

At full build out it is expected that with a minimum of two classes per year, potentially three, together with the potential for before and after school care and early learning there is the potential for 900 – 1500 school aged children.

#### 2.5.8. Landscape and Public Realm

The key landscape and public realm elements of the ACP are explained below.

#### **Station Square**

The town centre landscape character will be comprised of a series of small precinct squares defined by the urban form and streetscape. The largest of these being the Station Square, which leads from the main street to the train station and allows for the provision of numerous seating and shade opportunities. Use of the level changes towards the station has the potential to provide interest and containment to the square, and the ordered arrival sequence from the station to the town centre. The space is to be predominantly hard with the use of landmark trees permitted with the City guidelines.

Station Square will be designed to cater for occasional events and markets and has been scaled for this purpose based upon successful Perth examples of street and growers' markets. Surface treatments will incorporate a combination of monolithic hardwearing paving such as washed aggregate concrete combined with visually softer materials such as consolidated bound gravel. The Square and the associated paving are to allow for alfresco opportunities from the adjoining cafes and shops.

The Carphin Drive (main street) streetscape will provide a seamless link to Station Square with the street levels and the Square being the same kerb free environment and 'shared space' section of the street allowing for ease of movement from the station to the centre. Traffic management through the use of fixed and movable bollard systems will allow for the main street to be closed for special events thereby further incorporating the Square into the broader main street precinct.

#### **Public Open Spaces**

The ACP area contains two spaces of unrestricted POS that have been considered in line with the City Local Planning Policy 4.3 (LPP 4.3) and in tandem with the drainage catchment and treatment/infiltration basins to the centre, refer **Figure 17**. These public open space areas perform a number of functions as part of the network of spaces for the ACP area. In addition to community benefit, the spaces perform drainage functions incorporating water sensitive urban design principles, areas for neighbourhood amenity (including landmark sites visible from a number of streets), and future nature spaces.

The sites identified for public open space will be subject to an extensive earthwork strategy over the entire ACP area and therefore retaining existing vegetation is impractical. Both of these areas will therefore be planted with rehabilitation planting as part of the creation of nature spaces. The two key public open space areas are described below:

• Carphin Park - the northern POS area is greater than 5,000sq.m and complies with LPP 4.3. It will provide drainage in the form of a surface basin (1,195sq.m) and subsurface storage/infiltration. It is proposed that the area be grassed for approximately half of the site as part of the recreation provision including play equipment based on nature play.

This area will provide an attractive entrance to the town centre and will provide a buffer between the entry road off Marmion Avenue and the southern residential areas.

• Southern POS – this area is proposed to be recreation in function with the drainage component to address the immediate area only. This area will contain two high quality shaded grassed areas within circular tree lined pathways. The site is less than 5,000sq.m and the provision of inventory requirements will be reflected accordingly.

The designs for the above public open space areas will consider the City requirements set out in LPP 4.3.

#### **Trees**

The ACP area lies over the Quindalup Dune system typically characterised as having a limited number of natural trees of stature. In keeping with the City Street Tree Policy and the preference for locally occurring native species, the majority of the street trees would be drawn from a palette of species that are known to perform in such environments.

A number of the species that would be considered could also include local species not directly associated with Quindalup sand but that can be seen to be also characteristic of those environments, such as some of the Casuarinas and Eucalypts. It is considered that trees that are clearly exotic be restricted to the Main Street Precinct where the specific qualities such as seasonal shade, size, and form may be seen to be of advantage and where marker trees may signal key nodal/landmark locations.



Source: Urbis



FIG 17 - PUBLIC OPEN SPACE & DRAINAGE PLAN EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 16.04.2019 JOB NO: PA1523 DWG NO: 0014 REV: - Given the extensive earthworks that are to be associated with the ACP area, the street trees shall augment the planting associated with the public open space areas in terms of windbreak, erosion control, and shade provision. In addition, the trees would provide vegetative cover in the longer term in order to address offsetting the removal of existing cover and wildlife corridors.

## 2.5.9. Movement Network

The surrounding road network has been planned to accommodate an activity centre in the location proposed, including the construction of Eglinton Drive. The activity centre benefits from a legible residential street network that feeds into the activity centre, and surrounding roads that have been designed and/or built to accommodate anticipated traffic volumes.

A Transport Assessment is included at Appendix B. This outlines the anticipated traffic volumes on the surrounding road network, with the conclusions being that the layout is consistent with Liveable Neighbourhoods and that the proposed network will operate satisfactorily and within capacity at year 2021. The Assessment does however indicate that the intersections on Marmion Avenue are showing early signs of capacity issues, with the possible expansion of park and ride bays from 400 to 1,000 exacerbating the issues on the external road network. The proposed road network at 2021 is illustrated in Figure 18 and with the ultimate network at 2031 illustrated in Figure 19.

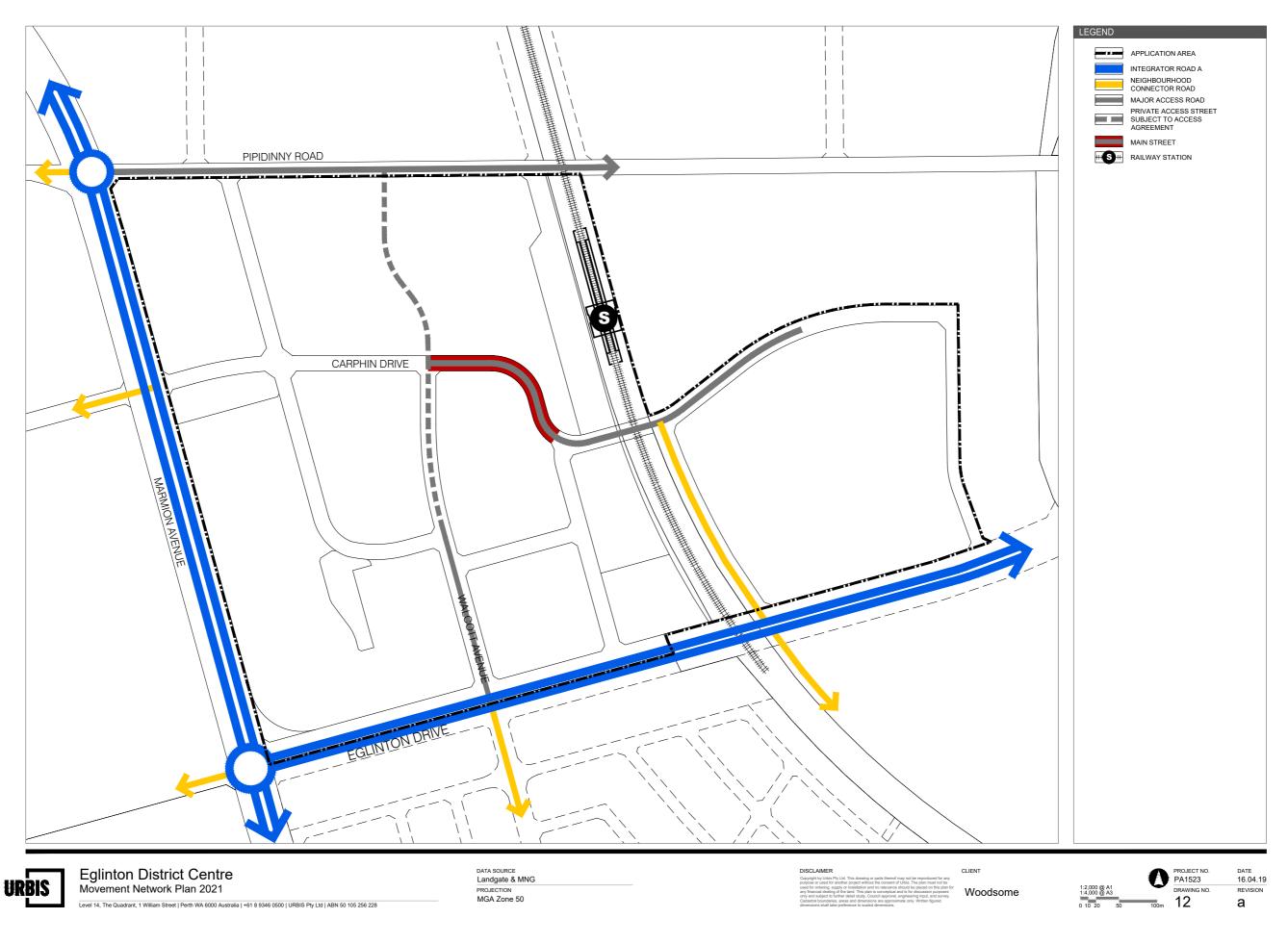
Given this longer-term capacity context, the Assessment recommends that further examination is needed in consultation with PTA who will control the park and ride bays in order to best locate these bays so that they result in volumes that are commensurate with the street classification. Urbis will work with MRWA and PTA through the statutory process to address these long-term matters.

The table below summarises the intended movement network features and principles of the activity centre.

Table 18 – Movement Network Features and Principles

Mode/Issue	Features and Principles
Public Transport	The centre will be serviced by a new train station at Eglinton which will be operational by 2021 and is proposed to be located centrally within the ACP. The provision of a station at the heart of the centre means that bus services will be in place early within the development staging. The bus routes at year 2021 from the south and west are assumed to access the station via Pipidinny Road. These services will revert to Carphin Drive once it is constructed through to Marmion Avenue.
Walking and Cycling	Active transport has been resolved to a high level of detail including provision for cycling and pedestrians. Carphin Drive and Walcott Avenue will be key active transport links in the centre with shared paths leading to the main street. The northern end of Walcott Avenue is also proposed to be a shared street for cyclists. There is provision for a shared path along the western side of the rail alignment providing north-south connectivity around the centre.
	The centre will facilitate strong cycle links to the east linking to the proposed school site and planned principal shared path (PSP) that will run adjacent to the freeway.
	Pedestrian connectivity between Pipidinny Road and Carphin Drive is adjacent to the temporary access road extending from Walcott Avenue to the north. Eglinton Station is also connected by a pedestrian link from the main street through the Station Square.
Cars and Parking	Being an emerging greenfield residential area away from urban centres, it is expected that the highest proportion of trips to and from the Eglinton district centre will be via private car.

Mode/Issue	Features and Principles
	Carparking associated with the train station (park and ride) is concentrated to the north on Pipidinny Road as part of the initial stage, with allowance for expansion south of the train station. In the short term, 400 park and ride bays are required, with allowance for up to 1,000 bays in the long (ultimate) term.
	Carparking for the shopping centre will be provided at-grade (at least the short to medium term) however will be configured away from the Station Square and main street to ensure activity and finer grain land uses are located close to the train station.  Consideration of how this at-grade parking could evolve to a decked structure has been considered as part of the design.
	To encourage alternative modes of transport to the centre, the minimum car parking rate for non-residential land uses is set at 4 spaces per 100sq.m of NLA, and at a lower rate for uses such as Showroom, Office and Community Purposes. This is within SPP 4.2 guidance and is a relatively low rate given the activity centre's context.
	The lower rate will reduce the extent of car parking across the activity centre and allow for more intense development around the main street.
	At the development application stage, specific traffic advice will inform the configuration and extent of access points and car parking required for the relevant developments.
Servicing	It is a reality of commercial development, particularly shopping centres, that loading, and service areas are required to meet the needs of tenants, and the efficient operation of any centre.
	The key driver of planning should therefore to be to minimise the visual, acoustic and spatial impact of these facilities.
	Guidance is provided in Part 1 of the ACP to ensure that service areas appropriately screened from view, and their amenity impacts minimised.

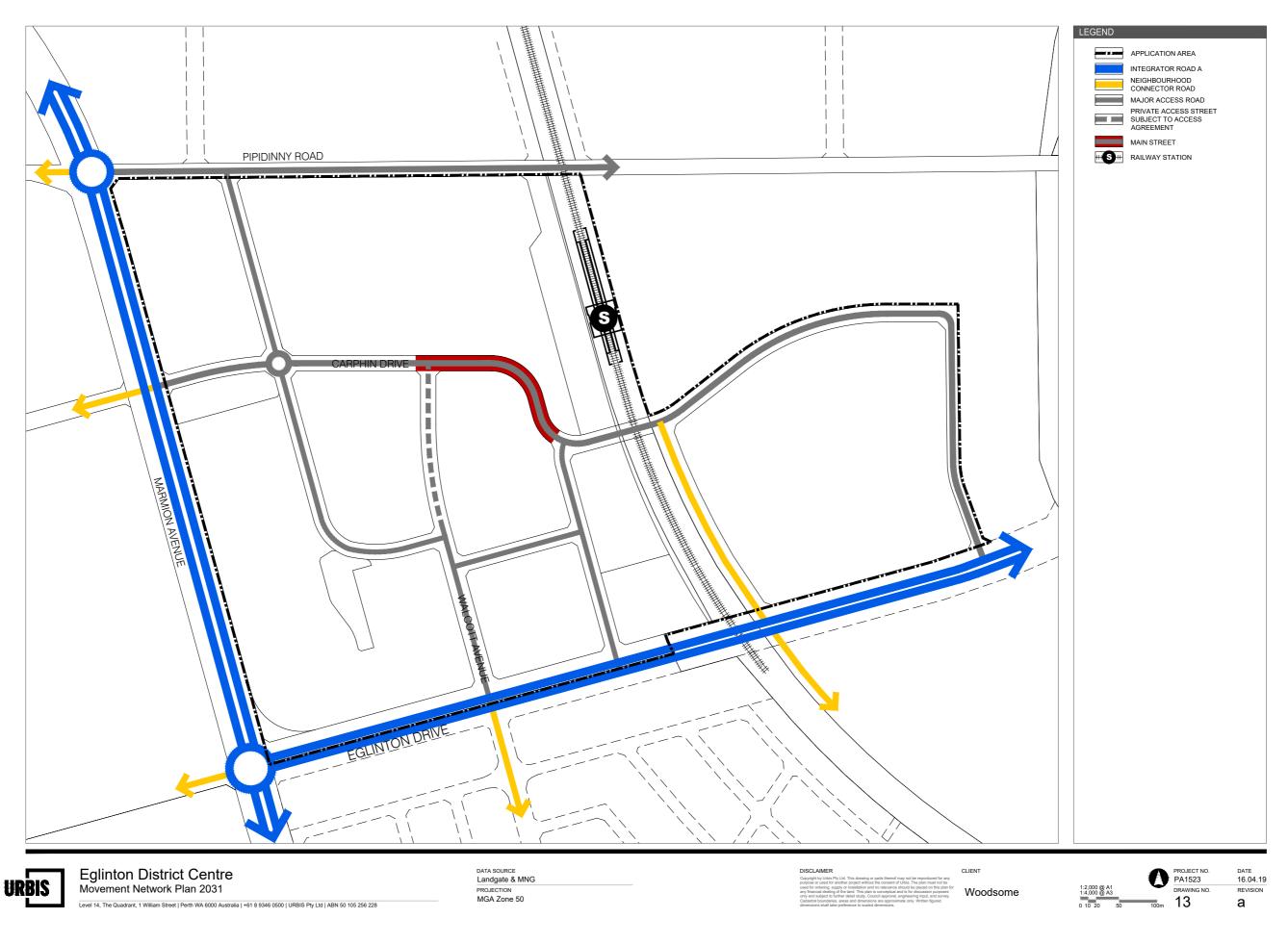


Source: Urbis



FIG 18 - MOVEMENT NETWORK 2021
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 16.04.2019 JOB NO: PA1523 DWG NO: 0015 REV: -



Source: Urbis



FIG 19 - MOVEMENT NETWORK 2031
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

DATE: 16.04.2019 JOB NO: PA1523 DWG NO: 0016 REV: -

## 2.5.10. Stormwater Management

The first step in applying integrated water cycle management to the site is to establish agreed environmental values for receiving waters and their ecosystems. Key characteristics of the site that inform water management include:

- Undulating topography reflecting the dunal system on which the site sits.
- Highly permeable sandy soils resulting in at source infiltration of stormwater runoff with no discharge of flows from site in a major event.
- Significant clearance to groundwater (>26m)
- Existing vegetation across the site.

The overall objective for integrated water cycle management for the site is to maintain the existing hydrological regime and minimise pollution.

The LWMS addendum prepared to support this ACP (included at Appendix E) is provided as an addendum to the previously approved Eglinton Local Structure Plan Area LWMS (Coffey 2011) in order to ensure the water management objectives and principles proposed reflect current policy, and City of Wanneroo and DWER expectations.

The LWMS addendum design objectives seek to deliver best practice outcomes using a water sensitive urban design (WSUD) approach, including management approaches for water conservation, flood mitigation, stormwater quality management and groundwater management.

The criteria proposed within the LWMS addendum are based on consultation with key stakeholders, the characteristics of the existing environment and a contemporary best-practice approach to integrated water cycle management.

The overall approach to water conservation is to reduce the amount of scheme water required within the development at both a lot and estate scale. Within the lot, potable water consumption will be reduced by promoting water efficient fixtures and appliances (WEFA) and water wise gardening (WWG) principles within lot gardens. On an estate scale, groundwater will be utilised for irrigation of landscaped areas within POS which will also utilise WWG principles.

The stormwater management strategy for the site (included at Figure 20) aims to maintain the existing hydrology by retaining flows up to the major rainfall event on site. Retention will be provided through the use of lot soakwells, median swales, bio-retention areas, flood storage areas and sub-surface storage.

Treatment of small event runoff will be provided through the retention of runoff in vegetated treatment structures including median swales and bio-retention areas. Additional treatment structures including tree pits, verge swales and raingardens can also be considered.

Surface runoff modelling has been used to inform the concept design of surface water management infrastructure and understand the spatial implications of drainage requirements across the site, shown in Figure EP18-100(02)-F07. The location of assets has been determined based on existing topography and natural low points as well as in consideration of the overall requirements of the development in relation to the mixture of residential and commercial and appropriate functionality of open space areas. A combination of POS and drainage reserves will be utilised to incorporate efficient drainage design and higher amenity outcomes.

The significant clearance to groundwater across the site means that direct groundwater management is not required, and groundwater quality will be maintained through appropriate treatment of surface water runoff before infiltrating to groundwater.

18 Site boundary Cadastral boundary Road catchment bounda Concept structure plan layout POS Drainage reserv FSA ///// Sub-s Swale - - Flow dire Figure 5: Stormwater Management Plan emerg roject Scale: 1:5,500@A4

Figure 20 - Stormwater Management Strategy Plan

# 2.5.11. Acoustic Management

An Acoustic Assessment has been prepared by Herring Storer and is included at **Appendix F.** The assessment was undertaken with respect to State Planning Policy No.5.4 – Road and Rail Transport Noise and Freight Considerations (SPP 5.4) and specifically associated with vehicles travelling along Marmion Avenue and Eglinton Drive and the proposed railway line.

The results of the assessment indicate that noise received at the ground floor of residences located adjacent to Marmion Avenue and Eglinton Drive would exceed the noise limit and therefore a Notification on Title and 'quiet house design' would be required.

For residences adjacent to Marmion Avenue, it is not considered that a noise wall along its entire length would be practicable or desirable, therefore the following is recommended:

- Where lots are constructed onto Marmion Avenue, the construction of a 2.2m barrier wall is recommended (locations provided at **Appendix F**).
- Where possible, minor access streets should be located between Marmion Avenue and residential premises. This will allow the front of residences to face the major roads and ensure that the residences provide a barrier to an outdoor living area at the rear of the residence.

Specific acoustic measures will be explored in greater detail as part of future subdivision applications.

## 2.5.12. Earthworks Design and Strategy

The proposed recontouring over the ACP area provides a balanced earthworks design to avoid any import or export of material to and from the site. A preliminary earthworks design has been prepared by Tabec over the total land holding to ensure the balance is achievable.

The earthworks design is generally based on retaining the nominal landform however undertaking earthworks to achieve acceptable grades (nominally <5%) over the full site to present a developable landform and minimise subsequent site costs for lot purchasers. The existing slope of the subject land is included on the Slope Analysis Plan (2380-SK-008C Rev. B) included at **Appendix G** and demonstrates the significant areas in excess of 5%.

The mass haul requirements for the land is summarised on the Earthworks Plan (2380-SK-007C Rev. B) also at **Appendix G**. The earthworks model incorporates all excavated material from the rail way reserve within the subject land.

The earthworks over the subject land, including the rail reserve, will require approximately 2,100,000m³ of cut to fill over a total site area of approximately 172ha. The mass haul requirements for the land are summarised as follows:

- All material excavated from the rail reserve is to be located within the SE lot.
- The SW lot cut to fill exercise is supplemented with approximately 100,000m³ from the NW lot.
- The NW lot generates about 200,000m³ excess material with 100,000m³ to cross Eglinton Drive to the SW lot (as above) with another 100,000m³ to cross the rail corridor to the NE lot.
- The Eglinton Drive excess is divided between the NE and NW lots.

The extent of the Stage 1 earthworks wherever practical, will need to achieve the following:

- Stage 1 of the town centre and the 10ha school site with no constraints imposed by the rail construction.
- Provision of an area of approximately 7ha for PTA use for the rail construction within the NE lot, with maintained access off Pipidinny Drive.
- All rail excavation to be located on one lot to the east of the rail corridor.
- Minimisation of the amount of material to be exported across the rail corridor or Eglinton Drive.
- Stage 1 to achieve a balanced cut to fill exercise with all material transported across the rail corridor before the access is compromised by the rail construction.

Notwithstanding the rail earthworks, the extent of the proposed Stage 1 earthworks exercise is included on the attached Preliminary Earthworks (Town Centre) Plan (2380-SK-006A Rev. C) at **Appendix G**. This results in a balanced cut to fill exercise while generally satisfying the above criteria while also providing a 15ha strip of uncleared land extending from Eglinton Drive up to Pipidinny Road to act as both a visual and physical dust separation buffer.

## 2.5.13. Sustainability

The sustainability of the Eglinton activity centre will be driven by its efficient urban design and complementary mixture of land uses, resulting in more effective use of land and encouraging efficient means of transportation. Innovation on an ongoing basis will provide opportunities for reducing waste and using resources more efficiently.

The sustainability and resource conversion measures in the table below are encouraged for all development in the activity centre

## 2.5.14. Utilities

#### Wastewater

The proposed Eglinton Town Centre development is within the Water Corporation license area. Planning provided by the Water Corporation indicates a series of gravity sewers, grading from east to west and connecting to a proposed DN225 sewer in Marmion Avenue. The DN225 sewer in Marmion Avenue will connect to a DN300 sewer in the Amberton Estate development to the southwest of the Site that will outfall to the Yanchep Main Sewer also within the Amberton Estate development.

#### Water

The Site is within the Water Corporation license area and can be served via an extension of the existing DN700 steel distribution main on the eastern side of Marmion Avenue that currently terminates at Cinnabar Drive to the south.

Ultimately the DN700 steel distribution main will be extended to the intersection of Marmion Avenue and Eglinton Drive and a DN500 steel distribution main is proposed to be constructed east along Eglinton Drive. Initially it may be possible to service the Eglinton Town Centre via an extension of the existing DN250 water main that is located adjacent to the Site in the western verge of Marmion Avenue.

#### **Power**

The proposed development can be supplied via connection to the existing high voltage (HV) underground cable in the eastern verge of Marmion Avenue. Two new HV feeder cables will be connected to the Marmion Ave feeder and will eventually connect to the existing HV in Pipidinny Road and the surrounding subdivision projects to the north and south of the Town Centre.

Within the Town Centre the HV cables will connect to several HV switchgear and transformers which will function to reduce the voltage suitable for consumer usage. This HV equipment will be distributed throughout the proposed development. Power will then be reticulated underground throughout the development.

A review of the Western Power Network Mapping Tool indicates the existing available capacity is between 20MVA and 25MVA, more than sufficient for the proposed development.

#### Communications

NBN Co fibre exists within the eastern verge of Marmion Avenue. The existing NBN network provides a connection point for the proposed development and should remove any requirement for cable backhaul and associated charges.

Alternative communication providers, Telstra and Opticomm, also have fibre networks in the Alkimos-Eglinton corridor.

### Gas

A DN225 PE high pressure gas main is located in the eastern verge of Marmion Avenue extending past the Site and supplies the nearby Amberton Estate, Allara and Shorehaven developments.

A connection to the existing main in Marmion Avenue would allow a reticulated gas network to be provided to the proposed Town Centre development.

All required utility services can be extended to service new development.

Based on the preliminary engineering servicing review, there would appear to be no servicing constraints to the development of the Site. Significant planning has already been undertaken by the relevant authorities to support existing developments within the vicinity of the Site and future development within the greater area.

## 2.5.15. Implementation and Staging

The Eglinton activity centre is expected to develop over a period of 20 years, encompassing:

- Stage 1: 2022 to 2025 (opening year)
- Ultimate full build-out when the trade area population capacity is reached (expected by 2040)
- Stage 1 of the ACP will likely comprise the following:
- Extension of Yanchep passenger railway line through the site and opening of the Eglinton train station (envisaged end-2021).
- Supermarket and some limited specialty (and associated carparking) in line with the Retail Sustainability Assessment (refer Appendix A).
- Town square connecting the train station to Carphin Drive.
- Appropriate provision of all essential services.
- K-6 development of the school site
- Construction of the following road infrastructure (at the time of Eglinton train station opening):
  - Construction of Walcott Avenue from Eglinton Drive to Carphin Drive
  - Extension of Carphin Drive from Walcott Avenue to the railway line.
  - Construction of Eglinton Drive from Marmion Avenue to the railway line.
  - Access from Carphin Drive through to the railway station carparks
  - Construction of vehicle bridge crossings over Pipidinny Road, Eglinton Drive and central bridge within the ACP area.
  - Walcott Avenue, to the southern portion of the retail only.
- Ultimate development of the activity centre will include:
- K-12 ultimate build out of the school site (expected by 2030)
- Additional retail (including a discount department store), bulky goods and non-retail uses (and associated carparking) in line with the Retail Sustainability Assessment (refer Appendix A).

The configuration and staging of roads is to be in line with the Transport Assessment (refer **Appendix B**).

The subsequent staging of further retail and the residential components will take place in line with market demand, with further discussion of potential staging of development outlined in Part Two of this ACP.

A Staging Plan which illustrates the above is provided at **Figure 21**.



Source: Urbis

URBIS

FIG 21 - STAGING PLAN
EGLINTON DISTRICT CENTRE ACTIVITY CENTRE PLAN

#### 2.6. **TECHNICAL STUDIES AND APPENDICES INDEX**

This ACP incorporates the following technical studies and appendices:

Table 19 - Technical Studies and Appendices Index

Appendix	Title	Date and Author
А	Retail Sustainability Assessment	Urbis, 2018
В	Transport Assessment	Arup, February 2019
С	Bushfire Management Plan	Strategen, March 2019
D	Local Employment Strategy	Urbis, 2018
Е	Local Water Management Strategy Addendum	Emerge, March 2019
F	Acoustic Assessment	Herring Storer, March 2019
G	Earthworks Plans	Tabec, March 2019