



FINAL Queens Park Local Structure Plan. NOVEMBER 2016

This Local Structure Plan has been prepared to guide development within a designated precinct area centred on Queens Park Train Station. The diversity of housing, non-residential land use, activation of the area and transport connectivity are key elements of the Local Structure Plan.

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Citation

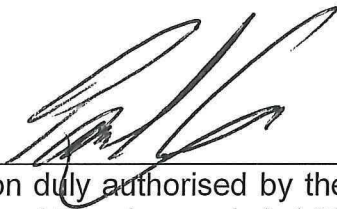
This document should be cited as follows:

City of Canning (2016), Queens Park Local Structure Plan.

This structure plan is prepared under the provisions of the City of Canning Town Planning Scheme No.40

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON: 22 November 2016

Signed for and on behalf of the Western Australian Planning Commission



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:



Witness

22 November 2016

Date

Date of Expiry: 22 November 2026

Table of Amendments

Amendment No. by Council	Description of Amendment	Date of Final Approval	Date of Final Endorsement by WAPC



Executive summary

The Queens Park Local Structure Plan project represents an opportunity for development within the City of Canning that links in with the proposed Canning City Centre Activity Centre Structure Plan and the existing Guided Development Schemes in the area. Queens Park is a predominantly residential suburb characterised by single storey houses and grouped dwellings. The Cannington part of this study is a more diverse area used for residential, commercial and recreational purposes. The area contains a small neighbourhood centre, Catholic education facilities and is divided by the South Eastern Rail Line. The area lies adjacent to Cannington and Welshpool, two important employment centres within the central metropolitan sub region. Over the last 30 years, the large residential and semi-rural lots that characterised the area have been redeveloped into a denser urban neighbourhood. Whilst there has been an increase in the population, the development that has occurred has been on an ad-hoc basis. The result has been an area that lacks character and amenity.

The Queens Park Train Station lies at the centre of the project area. It is a small station on Perth's train network, catering for the local community and providing public transport access to adjacent schools. Unlike several stations on the network, Queens Park is not a 'park and ride' station, which provides greater opportunity to promote Transit Oriented Development and increase development densities close to the station. Notwithstanding the presence of the station, development around it has been blighted, with many sites remaining vacant or underdeveloped.

In *Directions 2031 and Beyond* (Directions 2031), the Western Australian Planning Commission identifies several objectives and themes in Perth which can be delivered by the local government through many urban regeneration projects. These include achieving articulated density and infill development targets, promotion of affordability, planning housing supply to meet demographic needs and providing community identity and character. An additional yield of 570 dwellings is identified for the area in Directions 2031 supporting documentation.

This Local Structure Plan has been prepared to guide the residential and non-residential development of the precinct towards the objectives of City of Canning's Strategic Community Plan and Directions 2031. The inclusion of commercial uses and higher density near Queens Park Train Station will provide for the activation of the area and the increased density of the area will create genuine housing choice reflecting changes in society.

Title: Queens Park Local Structure Plan

Project: Queens Park, City of Canning

Status: Final

Version: A

Author: City of Canning

Table 1: Structure Plan Summary Table

Item	Data	Section number referenced within the structure plan report
Total area covered by the structure plan	144.6 hectares 16.4 hectares POS– 11% of the total area	Part 1 Section 2
Area of each land use proposed (as per Plan 1: Local Structure Plan)		
Railway (Core) Precinct - Mixed Use	6.5 hectares	Part 1 Section 2
Railway (Frame) Precinct	40.1 hectares	Part 1 Section 2
Residential Precincts A and B	44.9 hectares	Part 1 Section 2
Estimated Dwelling Yield by 2031	3200 dwellings	Part 1 Section 1
Estimated Residential Density	Between 15 and 25 dwellings per gross hectare	Part 1 Section 4
Estimated population	Up to 8.000 people	Part 1 Section 1
Number of education facilities	9	Part 2 Section 7
Estimated Area of Open Space	11 spaces, total estimated area 16.4 hectares	Part 2 Section 4

Contents

PART 1 – IMPLEMENTATION 9

1. INTRODUCTION..... 10

2. PRECINCTS 13

2.1 Character for each precinct..... 13

3. PREFERRED LAND USES 15

4. DEVELOPMENT REQUIREMENTS..... 16

4.1 Acceptable development for the Railway (Core) Precinct 17

 4.1.1 Landmark and Gateway Sites 18

 4.1.2 Density 18

 4.1.3 Movement, Access and Parking 18

 4.1.4 Open space 20

 4.1.5 Built Form 20

 4.1.6 Streetscape character 24

 4.1.7 Landscaping and Public Realm 25

 4.1.8 Service and Storage..... 25

 4.1.9 Stormwater Management..... 26

4.2 Acceptable Development outside the Railway (Core) Precinct 27

 4.2.1 Landmark and Gateway Sites 28

 4.2.2 Density 28

 4.2.3 Local Development Plan (LDP)..... 28

 4.2.4 Movement, Access and Parking 29

 4.2.5 Open space 30

 4.2.6 Built Form 31

 4.2.7 Streetscape character 32

 4.2.8 Landscaping and Public Realm 33

 4.2.9 Service and Storage..... 33

 4.2.10 Stormwater Management..... 33

PART 2 – EXPLANATORY SECTION 36

1. PLANNING BACKGROUND 37

 1.1 Land description..... 37

 1.2 Area and land use..... 40

 1.3 Demographics..... 40

 1.4 Dwelling Target..... 41

 1.5 Consultation process 42

2. PLANNING FRAMEWORK 42

 2.1 Zoning and reservations..... 42

 2.2 Strategies and Policies 43

3. SITE CONDITIONS AND CONSTRAINS 50

 3.1 Biodiversity and natural area assets 50

 3.2 Sustainability Policy..... 51

 3.3 Landform and soils 52

 3.4 Groundwater and surface water 52

 3.5 Heritage 53

4. LAND USE AND SUBDIVISION REQUIREMENTS 54

 4.1 Land use and Public Open Space (POS)..... 54

 4.2 Planting palettes 58

 4.3 Current built-form 58

 4.4 Landmark Sites 59

 4.5 “Development Requirements” analysis 59

 4.5.1 The Precincts 60

 4.5.2 Railway Precinct description 60

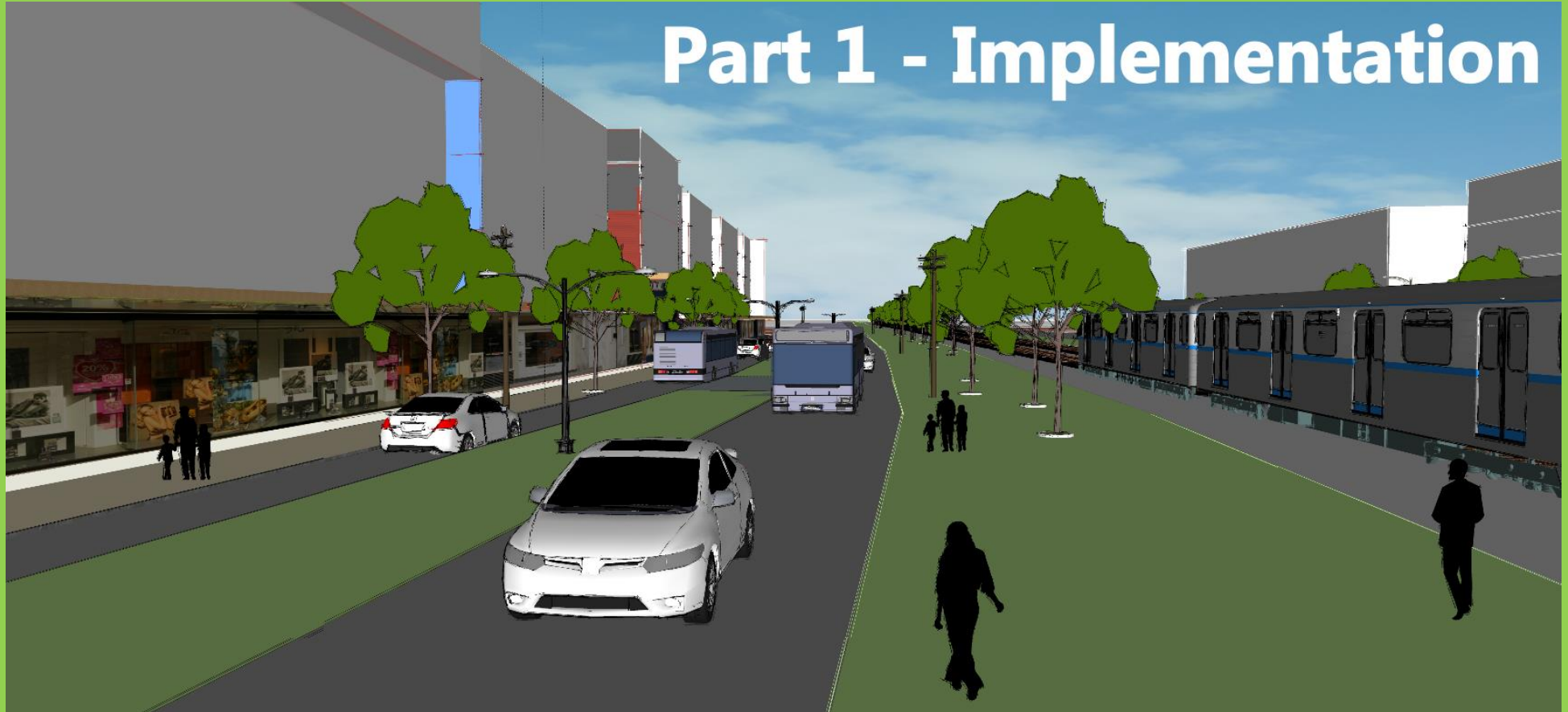
 4.5.3 Railway (Core) Precinct Vision 61

 4.5.4 Railway (Frame) Precinct Vision 61

FINAL QUEENS PARK STRUCTURE PLAN

4.5.5 Residential Precinct A and B description	61	6.1 Sewer	73
4.5.6 Residential Precinct A and B vision	62	6.2 Water Supply	73
5. MOVEMENT NETWORK.....	64	6.3 Stormwater management.....	74
5.1 Roads.....	64	6.4 Power	77
5.1.1 Existing network	64	6.5 Telecommunications	78
5.1.2 Issues and future changes	66	7. EDUCATION FACILITIES	78
5.2 Cyclists and Pedestrians	70	8. ACTIVITY CENTRES AND EMPLOYMENT	78
5.2.1 Existing network	70	9. FUNDING ARRANGEMENTS	79
5.2.2 Issues and Future changes	70	10. IMPLEMENTATION.....	79
5.3 Public Transport	71	11. COMPLEMENTARY PLANS AND IMAGES.....	80
5.3.1. Existing network	71	REFERENCES AND RESOURCES	88
5.3.2 Issues and Future changes	71	GLOSSARY OF TERMS/ DEFINITIONS	88
5.4 Parking.....	72	TABLE OF FIGURES INDEX	93
6 MAJOR SERVICES AND INFRASTRUCTURE.....	73	APPENDICES	94

Part 1 - Implementation



1. Introduction

1.1 Objective

This Local Structure Plan (LSP) seeks to encourage efficient land uses and Transit Oriented Development (TOD) centred on the Queens Park Train Station; which is considered a neighbourhood activity centre. The LSP outlines the strategic planning framework and the vision for the development of the area, with a clear focus on land use, function, and urban design.

1.2 Vision

- *Strive to maintain existing community oriented activities and provide further opportunities for these activities through redevelopment;*
- *Consolidate and reinforce development within the Railway Precinct to enhance a local sense of place;*
- *Ensure a well-connected Queens Park;*
- *Provide safe and enjoyable public realm;*
- *Enhance Public Open Space (POS) to service future growth;*
- *Ensure that new development is high quality, with an integrated built form that is compatible with surrounding development;*
- *Ensure a high amenity, vibrant, sought after Neighbourhood Centre that attracts investment;*
- *Facilitate redevelopment of pre-existing light industry sites which are zoned Urban under the Metropolitan Region Scheme (MRS); and*
- *Provide development and a range of land uses that are complementary and reinforce the primacy of the neighbouring Canning City Centre.*

Refer to Image 1 below for details:

Image 1: What does the Local Structure Plan try to achieve?

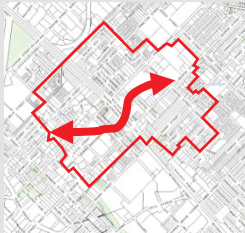
Strive to maintain community oriented activity



The Railway Precinct will provide services, features and places that are reflective of community values and aspirations. It will create interaction and creativity.



Consolidate and reinforce development



Consolidate the area into a unified and identifiable place with a defined core and consistent surroundings. The streetscape, minimum density and active uses on the ground floor will contribute to street activation.



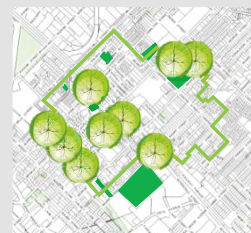
Ensure a well-connected Queens Park



Provide better connectivity between the Railway Precinct, the train station and the area allowing good quality and safe accessibility at all times. Pedestrian links will improve the walking experience in the area.



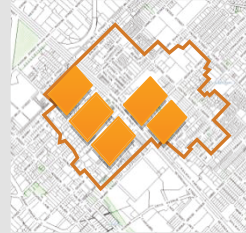
Enhance POS to service future growth



The financial contributions from the guided schemes to be converted into acquisition of public open space and any excess funds will be used to further improve this POS.



Ensure high quality development

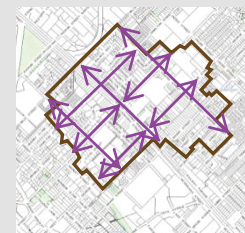


High quality and integrated built form will accommodate all functions and population for the area.

Density and high quality are to co-exist in the future core precinct.



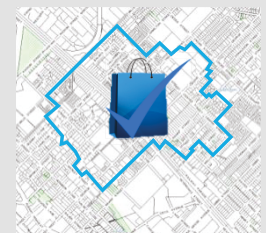
Provide safe and enjoyable public space



Streets and parks will create an attractive, vibrant and safe place, accessible at all times by people with all level of abilities, enjoying all that the area can offer.



Ensure an attractive, vibrant, sought after town centre that attracts investment



The integration of visionary planning controls and best practice public realm design and delivery will create the opportunity for investment.



1.3 Local Structure Plan content

The provisions of the Local Structure Plan (LSP) apply to the land within the LSP boundary shown on **Plan 1 - Local Structure Plan**.

The Queens Park LSP comprises three parts:

• **Part One, Implementation** – sets out the planning provisions used in the assessment and approval of subdivision and development by the City of Canning and the Western Australian Planning Commission (WAPC). This part includes the Structure Plan map, statutory planning provisions and requirements of “Clause 4 –Development Requirements”.

• **Part Two, Explanatory Section** – is a reference guide and provides a summary of the context and technical studies conducted for the site to interpret and justify the implementation of Part 1.

• **Part Two includes the following appendices which are available in the City’s website:**

- Queens Park Local Structure Plan Intramaps addresses
- Supporting studies - Western Power and Water Corporation
- Community consultation outcomes
- Final Local Housing strategy map - September 2014
- LCACS Draft Chapter 3 - Floorspace demand assessment
- City of Canning Water Management Strategy
- Arterial Drainage Plan (Draft)
- Environmental Management Strategy
- Supportive guidance for development
- Queens Park Streetscapes Plan-e
- Ordinary Council Meeting (February 2015)
- GIS files

1.4 Interpretations and scheme relationship

Town Planning Scheme 40 (TPS40) zones the Structure Plan area as Centre.

The provisions, standards and requirements of the LSP provide guidance in the assessment of development within the Centre Zone. This structure plan is to be read in conjunction with the provisions of the Residential Codes (R-Codes) and TPS40.

The words and terms used in the LSP have the respective meanings given to them in TPS40 unless otherwise varied or provided for in the LSP.

The precincts, reserves and residential densities are demonstrated in “Plan 1 - Local Structure Plan” and in “Clause 4 - Development Requirements” which are in Part 1 of this LSP.

Importantly, the LSP does not:

- Change any approved development;
- Change any property’s existing land use or impose development timeframes; and
- Allow for any decrease in the type and amount of development currently allowed.

1.5 Operation

This LSP comes into effect when it is granted approval by the Western Australia Planning Commission (“WAPC”).

2. Precincts

a) Plan 1 - Local Structure Plan applies the following development precincts and reserves to the LSP area:

- Railway Core;
- Railway Frame;
- Residential A; and
- Residential B.

b) The precincts classify and describe the desired character of areas within the LSP organised according to the intensity and composition of development, and guide all development within the public and private realms including, but not limited to:

- The distribution of land uses and residential density;
- Building types, form, scale and placement;
- The design and composition of movement networks; and
- The design and composition of parks and civic spaces.

2.1 Character for each precinct

a) **The desired character for each precinct with regard to land use is as follows:**

- i. **Railway (Core) Precinct:** The Railway Precinct (Core) is intended to develop into a vibrant, pedestrian-focused, high density mixed use precinct transport hub. It will allow for retail, entertainment, office and

community uses in addition to higher density residential development on upper levels of mixed use buildings. Other residential uses including single houses and grouped dwellings are not preferred.

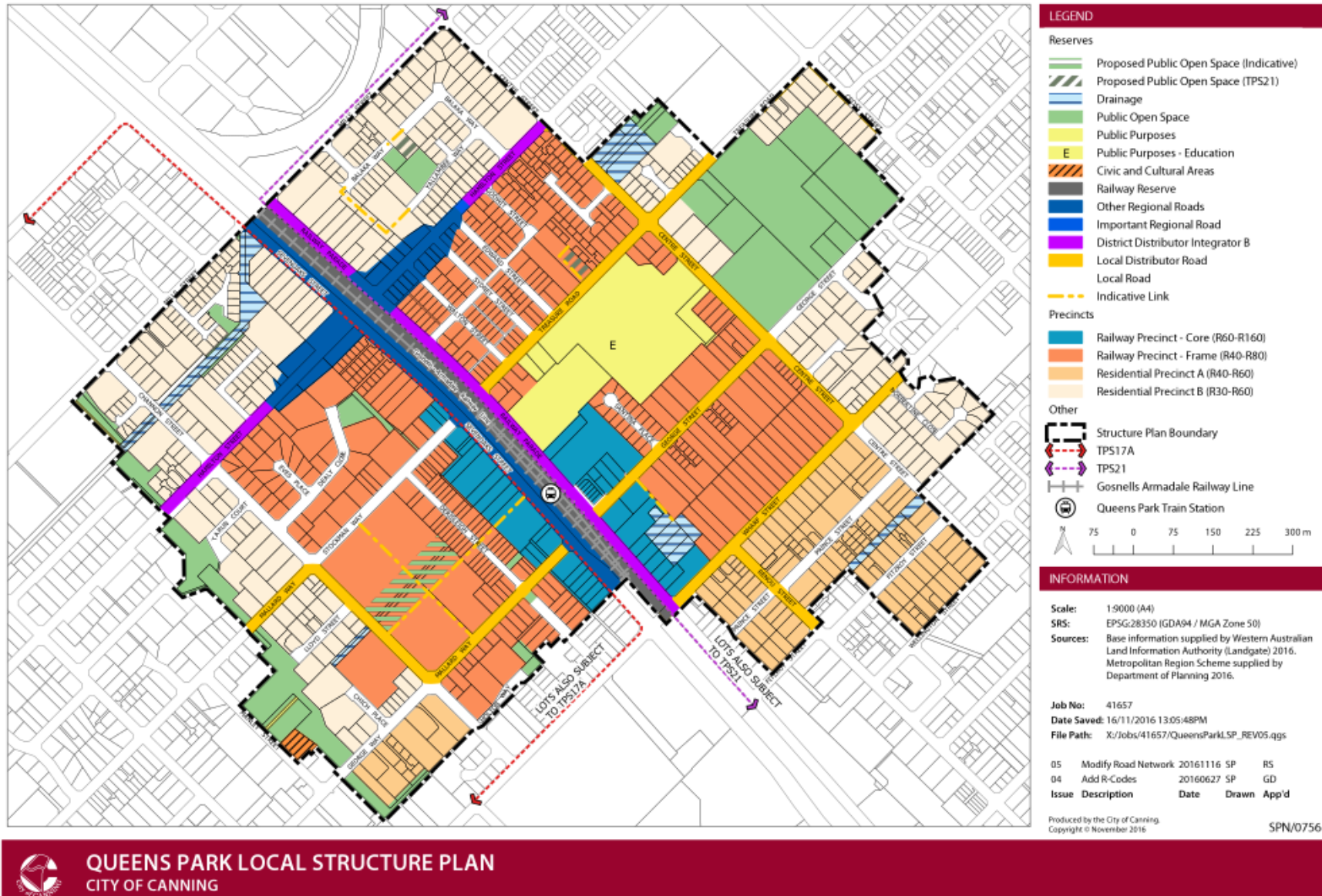
- ii. **Railway (Frame) Precinct:** The Frame of the Railway Precinct is intended to develop as a medium-high density area. The precinct will incorporate multiple dwelling residential uses only. Other residential uses including single houses and grouped dwellings are not preferred.

- iii. **Residential A and B Precincts:** The Residential Precincts will develop as a medium density area with a focus on increased intensity accommodation, greater precinct amenity and improved surveillance of the streets. The precinct will incorporate a mix of residential uses only.

b) The preferred uses for each precinct within the Queens Park LSP area is detailed in Table 2 –Preferred uses in each precinct. The City will have regard to Table 2, the desired character and objectives for each precinct and the development requirements when considering an application for development of a land use classified as A or D under the Zoning Table of TPS40.

FINAL QUEENS PARK STRUCTURE PLAN

Plan 1 - Local Structure Plan



3. Preferred Land Uses

The preferred uses for each precinct within the Queens Park LSP area is detailed in Table 2 – Preferred uses in each precinct.

Table 2: Preferred uses in each precinct

Railway Core Precinct	Railway Core Precinct	Railway Frame Precinct	Residential Precincts (A and B)
Ground Floor	Upper Floors	All floors	All floors
Preferred Uses	Preferred Uses	Preferred Uses	Preferred Uses
Car Park	Aged and Dependent Person's Dwellings	Aged and Dependent Person's Dwellings	Aged and Dependent Person's Dwellings
Child Day Care Centre	Car Park	Car Park	Ancillary Accommodation
Community Building	Child Day Care Centre	Child Day Care Centre	Child Day Care Centre
Community Purpose	Community Building	Community Building	Community Building
Display Home Centre	Community Purpose	Community Purpose	Community Purpose
Educational Establishment	Display Home Centre	Cottage Industry	Cottage Industry
Health Centre	Educational Establishment	Display Home Centre	Display Home Centre
Hotel	Family Day Care Centre	Educational Establishment	Educational Establishment
Market	Health Centre	Family Day Care Centre	Family Day Care Centre
Occasional Uses	Home Business	Home Business	Grouped Dwelling
Office	Home Occupation	Home Occupation	Home Business
Public Amusement	Home Office	Home Office	Home Occupation
Public Exhibition	Hotel	Medical Consulting Rooms	Home Office
Public Utility	Mixed Development	Multiple Dwelling	Home Store
Public Worship	Multiple Dwelling	Public Utility	Medical Consulting Rooms
Restaurant	Night Club	Public Worship	Multiple Dwelling
Restricted Premises	Office	Residential Building	Public Utility
Shop	Public Amusement	Retirement Village	Public Worship
Showroom	Public Exhibition	Single Bedroom Dwelling	Residential Building
Small Bar	Public Utility	Telecommunications Infrastructure	Retirement Village
Special Facilities	Public Worship	Veterinary Clinic	Single Bedroom Dwelling
Stall	Reception Lodge		Single House
Take-Away Food Outlet	Residential Building		Telecommunications Infrastructure
Tavern	Restaurant		Veterinary Clinic
Telecommunications Infrastructure	Restricted Premises		
Veterinary Clinic	Retirement Village		
Warehouse (Incidental)	Shop		
	Showroom		
	Single Bedroom Dwelling		
	Small Bar		
	Special Facilities		
	Tavern		
	Telecommunications Infrastructure		
	Veterinary Clinic		
	Warehouse (Incidental)		

4. Development Requirements

- a) The R-Codes apply except where varied by the development requirements under 4.1 and 4.2 of the LSP.
- b) The local government may consider 25% variations of plot ratio and height requirements for developments in the LSP area that demonstrate compliance with an adopted built form sustainability policy and related documents. A comprehensive report demonstrating the reductions detailed above is required to be submitted along with any development application seeking the height and/or plot ratio bonuses
- c) In the absence of an adopted policy, developments are to demonstrate a minimum 30% reduction of energy and water use when compared to the Business as Usual (BAU) for the design and construction phases of the development (refer to BCA Section J requirements for BAU).

4.1 Acceptable development for the Railway (Core) Precinct

Table 3: Key development provisions for developments in the Railway (Core) Precinct (Subclause 4.1.5)

Precinct	Preferred ground floor land use (could be extended to upper floors)	Required setbacks	Height	Plot Ratio
Railway (Core)	<p>All buildings in the Railway (Core) Precinct are to provide for an Activated ground floor use. Cafes and shop activities are to be located at the front of buildings to activate the street frontage.</p> <p>Activated uses as per Plan 3. Residential use on the ground floor is not accepted.</p>	<p>Nil <u>front setback (to primary and secondary streets)</u> on ground floor up to a height of 9.0 metres. Parts of the building above a height of 9.0 metres are to be stepped back by a minimum of 3.0 metres. **</p> <p>Nil <u>side setbacks</u> on the ground floor unless required for access.</p>	<p>Minimum 9.0 metres (3 storeys) Maximum 15 metres* Maximum 18 metres for <i>Corner Elements</i>***</p>	<p>Minimum 0.7 Maximum 2*</p>
<p>*In accordance with subclause 4.b), the City will consider variations of plot ratio, height and car parking requirements for developments that demonstrate compliance with an adopted built form sustainability policy and related documents.</p> <p>** Where a development site is situated in close proximity to existing power lines, the developers are to liaise with Western Power to obtain approval with regards to proposed setbacks. In that case, 2nd and 3rd storeys could be stepped back from the boundary;</p> <p>***Corner Element is defined in the Glossary</p>				

4.1.1. Landmark and Gateway Sites

- a) **Railway Parade and Sevenoaks Street** – Developments are to incorporate a diverse and interactive facade as well as weather protection suitable for a neighbourhood commercial centre in the form of awnings to encourage pedestrian movement in the area. These developments are to facilitate a casual and relaxed experience that supports pedestrians and provides strong delineation between the carriageway and kerb side activity. Development design is to accommodate interaction between the building occupant and the pedestrians on the street.
- b) **Old library site** (164 Railway Parade and 145-149 George Street) – the site represents an opportunity for a development to enhance the area adjacent to the train station. The development on this site is to become a design icon in the neighbourhood, integrated with the drainage basin next to it which is to be enhanced as a landscaped feature. An activated ground floor is to connect the train station to the drainage basin.

4.1.2 Density

- a) Within the Railway (Core) Precinct, multiple dwelling developments are to have a minimum density of R60 and a maximum residential density of R160 in accordance with the LPS map - Plan 1 - Local Structure Plan. This includes the residential components within mixed

use development. **Single houses and grouped dwellings are not supported.**

4.1.3 Movement, Access and Parking

- a) In mixed use development the residential component is to comply with the R-Codes and the non-residential component is to comply with car parking requirements of TPS40.
- b) Visitor parking may be provided within road reserves directly in front of the development site subject to the local government's approval.
- c) On-street publicly available parking directly in front of the property can be credited as parking for non-residential uses. The construction of any car park bay on the street will be at the developer's cost.
- d) Should on-site and on-street parking be insufficient, the applicant may contribute towards the construction of public car parks identified in Plan 3 or on-street car parking embayments, subject to the local government's approval. In case the City decides to proceed with the provision of public car park, a policy will be developed.
- e) The local government will accept reciprocal parking arrangements between two private properties where:

FINAL QUEENS PARK STRUCTURE PLAN

- The uses utilising the parking have a demonstrated difference in peak demand; or between users needing short-term visitor parking; and
 - The affected property owners must enter into a legal agreement and associated caveat.
- f) At grade car park is to be located at the back of the building, screened by an activated use.
- g) Open lot car parking is to be minimised, with car parking on larger sites sleeved with active uses. The use of undercroft parking is supported where practicable.
- h) Carpark entrances are to be shared with adjoining properties where possible.
- i) **New buildings are to incorporate ‘end of trip’ facilities for the use of tenants / owners**, such as: secure bicycle parking for each residential unit, locker facilities and change rooms to support cyclists, joggers and walkers in using alternative travel methods.
- j) **The local government will consider variations to car parking requirements for developments that achieves the vision and the intent of the LSP.** Any requested variations to parking standards will require supporting analysis and justification addressing the following matters:
- i. Whether demand for car parking associated with the proposed development has been demonstrated to be less than the specified standards;
 - ii. The availability and likely use of modes of transport other than the private car;
 - iii. The availability and likely use of end-of-trip facilities;
 - iv. Any reduction in car parking demand due to the shared use of car spaces between different land uses; and
 - v. Any other relevant consideration.
- k) Vehicular ingress or egress points that are permitted on Sevenoaks Street, future local streets and Rights of Way are indicated in Plan 3 in Part 2 to limit any potential conflicts with pedestrian activity areas and to protect the transport function of Sevenoaks Street.
- l) **Future local streets and new links are to be provided at the subdivision stage in accordance with Plan 3. The links are to be accessible at all times.**
- i. The public links identified within Plan 3 are to have a minimum width of 10 metres and are to be developed as a low speed shared vehicle and pedestrian zone to the satisfaction of the local government.

- ii. The nature and the width of the link between Sevenoaks Street and Mallard Way is indicative and its details will be determined by the local government.

4.1.4 Open space

- a) **Communal Open Space** is provided at the following rates:
 - Up to 10 dwellings – no requirement
 - 11 to 20 dwellings – 10% of site area
 - 21 to 30 dwellings – 15% of site area
 - 31+ dwellings – 20% of site area
- b) Communal Open Space should have a minimum dimension of 3 metres, for the main (largest) component.
- c) **Deep soil areas** are to meet the following minimum requirements:

Site Area	Minimum dimension	Minimum deep soil area (% site area)
Less than 650m ²	–	12%
650m ² – 1,500m ²	3m	12%
Greater than 1,500m ²	6m	12%

- d) If existing tree(s) are retained and incorporated into the development, deep soil area requirement can be reduced to 8% of site area.
- e) **Tree planting** may be required by the local government.
- f) Communal open space should be co-located with deep soil areas however where not possible can be located on structure.

- g) Where communal open space cannot be provided at ground level, it should be provided on a podium or roof.
- h) Where developments are unable to achieve the communal open space requirement they should:
 - i. Provide increased private open space at a ratio of 1:1, i.e. any reduction in communal open space should be reapportioned to private open space.
 - ii. Demonstrate good access to quality green open space within five minutes (500m) walking distance.
 - iii. Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room.

4.1.5 Built Form

- a) **Building Envelopes**
 - i. Height, setbacks and plot ratio are to be in accordance with the requirements outlined in Table 4 – Key Development Provisions for developments in the Railway Core.
 - ii. Ground floor to ceiling height is to be a minimum of 3.5 metres to allow for changes in use within commercial tenancies over time.
 - iii. Podium and tower built form are encouraged where appropriate to create a pedestrian friendly scale at the street level.

b) **Building Setbacks**

- i. Setbacks to be in accordance to Table 4.
- ii. For developments along Railway Parade and Sevenoaks Street, the building may include a recess from the street boundary for alfresco dining areas. For Sevenoaks Street, the alfresco dining area may spill on to the street if not interrupting pathways along footpaths for pedestrians.

c) **Building Orientation**

Buildings are to be orientated towards the street and public areas such as POS.

d) **Active Frontages and Adaptability**

- i. Buildings are to provide '**Active Frontages**' where required. Refer to Plan 3 for hierarchy of frontages.
- ii. Where buildings face the street or POS, even if not identified in Plan 3, they are required to have a '**Semi-Active Frontage**' by providing building entrances and windows to create good passive surveillance.

e) **Building Entrances**

Clearly defined, separate entrances that provide for commercial and residential uses are to be provided to all developments.

f) **Building Facades**

- i. A minimum of 30% of facades above ground floor are to be fenestrated and/or have balconies;

- ii. Shading elements in upper floors such as eaves, louvers, shields and other architectural elements are to be provided in a way to allow for passive surveillance.

g) **Landmark Corners**

- i. Development on landmark corners as identified on Plan 3 are to be designed and constructed in a manner that recognises the strategic location of the identified site, by having distinctive architectural expression through one or more of the following features:

- Additional height on the Corner Element (as per Table 4);
- Unique geometric or volumetric design;
- Architectural feature elements such as enhanced vertical articulation or modulation;
- Additional glazing (fenestration);
- Decorative windows, variety in building material and corner entrances to create a focal point and landmark;
- Enhanced palette of materials and textures; and
- Major openings and balconies.

- ii. Corner lots are to provide elevations addressing both Primary and Secondary streets. The same applies where a building has a corner frontage with a pedestrian access way, a Right of Way, a drain or public open space.

- iii. Buildings along landmark streets as per Plan 9 – Landmark Sites (Railway Parade, Sevenoaks Street, Hamilton Street) and buildings framing the POS (Queens Park Reserve and Charles Treasure Park) are to provide for CPTED principles and surveillance from the building to the street and to the POS. Permeable fences and windows will create the desirable environment.

h) Crime Prevention Through Environmental Design (CPTED)

- i. CPTED principles are to be incorporated into building design;
- ii. Developments are to provide windows facing public areas and allow for alternative access to the site from the public realm;
- iii. Buildings are to be designed to ensure that as many dwellings as practicable are provided with an outlook to public or communal open spaces within the development;
- iv. Fencing treatments are to allow for viewing through front yards into the public realm; and
- v. Lighting is to provide visibility and enable pedestrian use of key paths and public spaces. Blind-spots are to be avoided.

i) Noise Attenuation

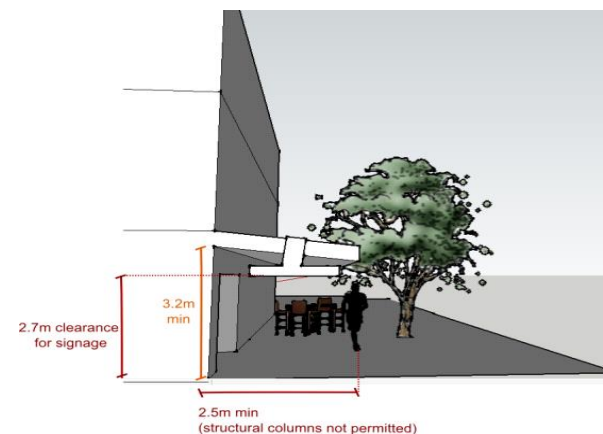
- i. Applications for development approval are required to provide details regarding intended uses for the building and their expected intensity.

- ii. Consideration is to be given for the placement of sensitive uses such as residential uses within a mixed use development.
- iii. Buildings are to be designed to minimise noise transference between adjoining buildings and between retail and commercial uses and residential dwellings within the same and adjacent buildings.
- iv. All plant equipment and services including flues, exhaust ducts, air conditioning and heating units are to be located and treated to minimise any noise, odour and emission impacts on residential uses within the development and on adjacent sites.
- v. Ensure that residential development in the precinct is designed to address railway and aircraft noise wherever practical. In this regard, noise attenuation is to be in line with SPP5.1 (Land Use Planning in the Vicinity of Perth Airport) in relation to aircraft noise and SPP5.4 (Road and Rail Transport Noise and Freight Considerations in Land Use Planning) in relation to railway noise.
- vi. Lots facing the railway line or that fall within the ANEF (Australian Noise Exposure Forecast) contour areas are required to incorporate noise attenuation features, vibration insulation design and notification on titles pursuant to s70A of the *Transfer of Land Act 1893*.

vii. Developments that are required to provide noise and vibration assessments in accordance with sub clause 4.1.5.i are to do to as part of the development application process.

j) Verandahs and Awnings

- i. All canopies, verandahs and sunblinds projecting beyond the title boundary are to meet the requirements of Division 2, Part 5 of the Building Regulations 2005.
- ii. All balconies along Active Frontages are to be constructed within the lot boundary.
- iii. All balustrading is to be visually permeable and made of permeable materials such as glass, split rail, wrought metal or similar material infill sections.
- iv. Awnings are to be of high quality architecture, integrated with the design of the building, and provide a unifying element within the streetscape.
- v. Awnings are to be provided with:
 - A minimum clearance of 3.2 metres;
 - A depth of 2.5 metres cantilevered over the footpath;
 - A minimum 2.7 metre clearance to structures, signage and lighting, and
 - 1 metre clearance from street trees trunks if necessary.



- Stepped awnings for design articulation or to accommodate sloping streets are to have a maximum of 0.7 metre differential.
- Awnings are not to be supported by pillars located outside of the lot boundary.

k) Flexible and universal design / accessible housing

- i. Adaptable dwellings are to be provided at a rate of:
 - Developments of 6 to 10 units – 1 adaptable dwelling;
 - Developments of 11 to 20 units – 2 adaptable dwelling;
 - Developments of 21 to 30 units – 3 adaptable dwelling;
 - and
 - An additional adaptable dwelling for every 10 units in excess of 30 or part thereof.
- ii. Dwellings are to be designed and constructed to be visitable by having essential facilities and rooms at the ground floor or entry level with wider doors, corridors and adequate circulation

spaces (unless the essential facilities and rooms can be reached by an available lift or stair lift from the ground or entry level).

- iii. Buildings with residential components that are equipped with a lift are to be designed to ensure dwellings are capable of being adapted/fitted to cater for the needs of people with limited mobility (refer to AS4299-1995 Adaptable Housing).

l) **Privacy will be managed as per the R-Codes.**

- m) Where development is proposed to be located within 50 metres from the rail reserve, it is to be undertaken in accordance with 'Guidelines for Working in and Around the PTA Rail Reserve' to ensure all the relevant Rail Safety Act, Regulations and PTA Electrical requirements are complied with.

4.1.6 Streetscape character

a) **Vehicle access**

- i. Entrances and openings for the use of vehicle traffic are to be integrated into the design of the building.
- ii. Carparking on the ground floor is to be screened and/or landscaped from the public realm.

b) **Active Frontages are to provide clear glazing along Railway Parade and Sevenoaks Street**

- i. No tinted, translucent, opaque or reflective screening is permitted on the ground floor of buildings with Active Frontages.
- ii. Area of windows which may be used for advertising signs are to be no more than 20%.
- iii. Any window security barriers are to be internal to buildings and operable.
- iv. Allow for alfresco dining or windows that open the façade out to the street. Restaurants, cafes and bars are to use bi-fold, stacker or operable glazed doors to encourage street activation.
- v. Doors to commercial premises are accessible (open) at all times that the commercial use is open for business.
- vi. Ground floor windows and doors are to be designed to ensure they do not protrude into the road reserve (i.e. doors open into the building).
- vii. Small windows and repetitive arrangements are to be avoided.

c) **Interface between Active Frontage and the street**

- i. The design of Active Frontages is to provide for direct access from the footpath with minimal change of level, and incorporate provision for visual interaction between ground floor activities and the pedestrian environment.

- ii. Ground level street frontages are to contribute to the safety, visual interest and vitality of the street by minimising the extent and visual impact of blank walls, office lobbies, vehicle entrances and utilities.
 - iii. Cohesion with adjacent buildings is to be achieved by providing continuity of the built form. Gaps in frontages and significant changes in building alignment are to be avoided.
 - iv. Developments are to be designed to integrate each ground floor tenancy in a manner that achieves a seamless appearance.
 - v. A floor to ceiling display window and/or entrance that covers at least 70% of the length of the building at the street level is to be provided on ground floor tenancies. Where there are multiple ground floor tenancies within a building that face the street; each tenancy is to have an opening or window that is at least 70% of the width of the tenancy's frontage.
 - vi. Facade design is to incorporate lighting to add to security at night.
- d) **Integrate signs and building numbers into the overall façade.**
 - e) **Signage is restricted to one under-awning sign for a residential building and one per commercial or retail tenant. Signage is to have a minimum clearance of 2.7 metres above finished pavement level if located below awnings.**

- f) **Developments are to clearly define spaces for pedestrians, parking, storage areas and services.**
- g) **Developments are to be designed to provide good lighting, surveillance and visibility of communal space, including building entrances and car parking areas.**

4.1.7 Landscaping and Public Realm

- a) **Protection and retention of existing street trees is to be considered in the design of developments.** Where the tree is in poor health or where the local government determines appropriate, a street tree may be removed and replaced in a more appropriate position to accommodate development at the cost of the developer.
- b) Landscaping is to minimise water use and include appropriate structures or planting to assist with providing shade in summer while maintaining solar access in winter.

4.1.8 Service and Storage

- a) **Service and bin storage areas are to be concealed from the street.** Where a development includes 8 or more dwellings, general waste disposal is to be provided via a 1100 litre shared bin. Provision for additional bins will be mandatory based on the number of dwellings.

4.1.9 Stormwater Management

- a) The peak stormwater runoff from the site is not to exceed the peak runoff from the site prior to development.
- b) Runoff events up to the 5 year average recurrence interval events are to be managed on-site to the serviceability requirements of Australian Rainfall and Runoff (Engineers Australia, 2001) minor/major system.
- c) All flows from constructed impervious surfaces and from subsoil drains are to receive treatment prior to infiltration or discharge, for example through bio filters or rain gardens.
- d) If catchment based solutions are provided by the local government in the future as per Appendix 7, developments will be exempted from providing on-site stormwater retention as per parts 'a' and 'b' above.

4.2 Acceptable Development outside the Railway (Core) Precinct

Table 4: Key development provisions for developments outside the Railway (Core) Precinct (subclause 4.2.6)

Precinct	Preferred ground floor land use (could be extended to upper floors)	Required setbacks	Height	Plot Ratio
Railway (Frame)	Non-activated. Residential at ground floor must address the street through visually permeable fencing, passive surveillance, open courtyards and communal areas.	<u>Front setbacks</u> to primary and secondary streets are to be a maximum of 4 metres. **	Minimum 6.0 metres (2 storeys) Maximum 12.0 metres*	Minimum 0.6 Maximum R1.0*
Residential Precinct A	Non-activated. Residential at ground floor must address the street through visually permeable fencing, passive surveillance, open courtyards and communal areas.	<u>Front setbacks</u> to primary and secondary streets are to be a minimum of 2 metres and a maximum of 4 metres. **	Minimum 6.0 metres (2 storeys) Maximum 9.0 metres*	Minimum N/A Maximum 0.7*
Residential Precinct B	Non-activated. Residential at ground floor must address the street through visually permeable fencing, passive surveillance, open courtyards and communal areas.	<u>Front setbacks</u> to primary and secondary streets are to be a minimum of 2 metres and a maximum of 4 metres. **	Minimum 6.0 metres (2 storeys) Maximum 9.0 metres*	Minimum N/A Maximum 0.7*
<p>* In accordance with subclause 4.b), the City will consider variations of plot ratio, height and car parking requirements for developments that demonstrate compliance with an adopted built form sustainability policy and related documents.</p> <p>** Where a development site is situated in close proximity to existing power lines, the developers are to liaise with Western Power to obtain approval with regards to proposed setbacks. In that case, 2nd and 3rd storeys could be stepped back from the boundary.</p>				

4.2.1 Landmark and Gateway Sites

- a) **Hamilton Street** – buildings along Hamilton Street are to provide for Crime Prevention Through Environmental Design principles (CPTED principles) outlined in Clause 3.2.6 and surveillance from the building to the street.
- b) **Queens Park Reserve** – the focal POS of the area that attracts users for sports and leisure purposes. Buildings that face the reserve are to provide for CPTED principles outlined in Clause 3.2.6 and surveillance from the building to streets and POS.
- c) **Charles Treasure Park** – a linear park that represents the LSP boundary to the south-west. Buildings that face the POS are to provide for CPTED principles outlined in Clause 3.2.6 and surveillance from the building to the street and POS.
- d) **Open drain at the rear of current light industry sites** – Future buildings that face the drain are to provide for CPTED principles outlined in Clause 3.2.6 and surveillance from the building to the street and to the open drain area.

4.2.2 Density

- a) Within the Railway (Frame) Precinct, multiple dwelling developments are to have a minimum density of R40 and a maximum residential density of R60 in accordance with the LPS map - Plan 1 - Local Structure Plan. This includes the residential components within mixed use development. **Single houses and grouped dwellings are not supported.**

- b) Within the Residential Precinct A, the maximum densities are as follows:
 - R40 for single and grouped dwelling development; and
 - R60 for multiple dwelling development.
- c) Within the Residential Precinct B, the maximum densities are as follows:
 - R30 for single and grouped dwelling development; and
 - R60 for multiple dwelling development.

4.2.3 Local Development Plan (LDP)

- a) The City will not support subdivision or approve development within landholdings marked in Plan 2 unless a Local Development Plan has been prepared and adopted pursuant to Part 6 of the Deemed Provisions.
- b) A LDP can be prepared for each lot individually or as a joint LDP.
- c) In preparing a LDP, the following aspects are to be addressed:
 - i. Consolidation and/or subdivision of land;
 - ii. building envelopes;
 - iii. distribution of land uses within a lot;
 - iv. public and private open space;
 - v. services;
 - vi. vehicular access, parking, loading and unloading areas, storage yards and rubbish
 - vii. collection closures;
 - viii. the location, orientation and design of buildings and the space between buildings;
 - ix. landscaping, finished site levels and drainage;
 - x. protection of sites of heritage, conservation or environmental significance;

FINAL QUEENS PARK STRUCTURE PLAN

- xi. special development controls and guidelines; and
- xii. other information considered relevant by the Council.

Plan 2 - Landholdings requiring a LDP



4.2.4 Movement, Access and Parking

- a) Parking is to comply with the car parking provisions of the Town Planning Scheme 40.

- b) Parking for single and grouped dwellings is to be provided on-site (Residential Precinct).
- c) Visitor parking for multiple dwellings may be provided within road reserves directly in front of the development site subject to the local government's approval.
- d) Vehicle access to and from new development is to be safe, manageable and convenient. Visual separation between vehicle and pedestrian access is to be provided.
- e) Car parking is to be located at the rear of all developments, allowing the frontage of the buildings to face the street.
- f) For sub-basement carparking, a ground floor finished floor level is to be no greater than 1.2 metres above natural ground level. Landscape screening is required to minimise visual impact of car parking on the street.
- g) Pedestrian access ways are to be accessible and designed in line with CPTED principles. All pedestrian links as detailed in Plan 3 need to be publicly accessible at all times, provided with good lighting, surveillance and visibility.
- h) **Future local streets and new linkages are to be provided at the subdivision stage in accordance with Plan 3. The links are to be accessible at all times.**
 - i. The linkages identified within Plan 3 are to have a minimum width of 10 metres and are to be developed as a low speed

shared vehicle and pedestrian zone to the satisfaction of the local government.

- ii. The nature and the width of the link between Sevenoaks Street and Mallard Way is indicative and its details will be determined by the local government.
- iii. Interim solutions such as culs-de-sac may be constructed before all future links are fully built.
- i) Carpark entrances are to be shared with adjoining properties where possible.
- j) The local government will consider variations to car parking requirements for developments that achieve the vision and the intent of the LSP. Any requested variations to parking standards will require supporting analysis and justification addressing the following matters:
 - i. Whether demand for car parking associated with the proposed development has been demonstrated to be less than the specified standards;
 - ii. The availability and likely use of modes of transport other than the private car;
 - iii. The availability and likely use of end-of-trip bicycle facilities;
 - iv. Any reduction in car parking demand due to the shared use of car spaces between different land uses; and
 - v. Any other relevant consideration.

4.2.5 Open space

- a) **Communal Open Space** is provided at the following rates:
 - Up to 10 dwellings – no requirement
 - 11 to 20 dwellings – 10% of site area
 - 21 to 30 dwellings – 15% of site area
 - 31+ dwellings – 20% of site area
- b) Communal Open Space should have a minimum dimension of 3 metres, for the main (largest) component.
- c) **Deep soil areas** are to meet the following minimum requirements:

Site Area	Minimum dimension	Minimum deep soil area (% site area)
Less than 650m ²	–	12%
650m ² – 1,500m ²	3m	12%
Greater than 1,500m ²	6m	12%

- d) If existing tree(s) are retained and incorporated into the development, deep soil area requirement can be reduced to 8% of site area.
- e) **Tree planting** may be required by the local government.
- f) Communal open space should be co-located with deep soil areas however where not possible can be located on structure.
- g) Where communal open space cannot be provided at ground level, it should be provided on a podium or roof.
- h) Where developments are unable to achieve the communal open space requirement they should:

- i. Provide increased private open space at a ratio of 1:1, i.e. any reduction in communal open space should be reapportioned to private open space.
- ii. Demonstrate good access to quality green open space within five minutes (500m) walking distance.
- iii. Provide communal spaces elsewhere such as a landscaped roof top terrace or a common room.

4.2.6 Built Form

a) Building entrances

- i. Clearly defined entrances that provide shelter and a sense of personal address are to be provided to all developments.
- ii. **Built form is to address public streets, parks, pedestrian access ways and laneways where possible by incorporating CPTED principles.** Buildings are to provide windows, visually permeable fences and alternative resident access to parks on the secondary frontage.

b) **Finished floor levels:** For residential units at ground level, the finished floor level is required to be at least 0.8m above the pedestrian or shared path level.

c) **Building setbacks** are to be in accordance with Table 4.

d) Building orientation

Buildings are to be orientated towards the street and public realm, including POS. Corner developments are to be oriented towards both streets. This also applies for buildings that face a street and a POS.

e) **Interface treatments:** Fences to the public realm are to be visually permeable above a height of 0.75 metres above natural ground level (development site side) excluding structural columns.

f) Crime Prevention Through Environmental Design (CPTED)

- i. CPTED principles are to be incorporated into building design;
- ii. Developments are to provide windows facing public areas and allow for alternative access to the site from the public realm;
- iii. Buildings are to be designed to ensure that as many dwellings as practicable are provided with an outlook to public or communal open spaces within the development;
- iv. Fencing treatments are to allow for viewing through front yards into the public realm; and
- v. Lighting is to provide visibility and enable pedestrian use of key paths and the public realm. Blind-spots are to be avoided.

g) Noise Attenuation

- i. Ensure that residential development in the precinct is designed to address railway and aircraft noise wherever practical. In this regard, noise attenuation is to be in line with SPP5.1 (Land Use Planning in the Vicinity of Perth Airport) in

relation to aircraft noise and SPP5.4 (Road and Rail Transport Noise and Freight Considerations in Land Use Planning) in relation to railway noise.

ii. Lots facing the railway line or that fall within the ANEF contour areas are required to incorporate noise attenuation features, vibration isolation design and notification on titles pursuant to s70A of the *Transfer of Land Act 1893*.

iii. Developments that are required to provide noise and vibration assessments in accordance with sub clause 4.2.6.g are to do to as part of the development application process.

h) Flexible and universal design / accessible housing

i) Adaptable dwellings are to be provided at the following rates:

- Developments of 6 to 10 units – 1 adaptable dwelling;
- Developments of 11 to 20 units – 2 adaptable dwelling;
- Developments of 21 to 30 units – 3 adapted dwelling; and
- An additional adapted dwelling for every 10 units in excess of 30 or part thereof.

j) Dwellings are to be designed and constructed to be visitable by having essential facilities and rooms at the ground floor or entry level with wider doors, corridors and adequate circulation spaces (unless the essential facilities and rooms can be reached by an available lift or stair lift from the ground or entry level).

k) Buildings with residential components that are equipped with a lift are to be designed to ensure dwellings are capable of being adapted/fitted to cater for the needs of people with limited mobility (refer to AS4299-1995 Adaptable Housing).

l) Privacy will be managed as per the R-Codes.

m) Where development is proposed to be located within 50 metres from the rail reserve, it is to be undertaken in accordance with 'Guidelines for Working in and Around the PTA Rail Reserve' to ensure all the relevant Rail Safety Act, Regulations and PTA Electrical requirements are complied with.

4.2.7 Streetscape character

a) Vehicle access

i. Entrances and openings for the use of vehicle traffic are to be integrated into the design of the building.

ii. Carparking on the ground floor is to be screened and/or landscaped from the public realm.

b) Buildings with facades facing public streets are to incorporate features such as decorative windows, variety in building materials and corner entrances.

c) Provision of Public Open Space (POS) – Some sites within the LSP area are required to contribute 5% of the land area as Public Open Space on the ground. An indicative placement of Public Open Space is outlined in Plan 3.

d) **Built form is to address public streets, Public Open Space, pedestrian access ways, open drain and laneways.**

- i. Buildings are to provide windows and alternative resident access to parks (secondary frontage).
- ii. Where a site faces more than one element listed in (d) above a site is to address at least two of these frontages with regards to entrances, windows and passive surveillance (refer to Plan 3 for hierarchy of frontages).
- iii. Ground level street frontages are to contribute to the safety, visual interest and vitality of the street by minimising the extent and visual impact of large blank walls, vehicle entrances and utilities;
- iv. Buildings are to present an attractive pedestrian, residential focused frontage by providing:
- v. Individual entry doors to ground level dwellings to create a residential address to the street;
- vi. Shelter/porch; and
- vii. Lighting to entries.

e) Developments are to be designed to provide good lighting, visibility and surveillance of communal space, including building entrances and car parking areas.

4.2.8 Landscaping and Public Realm

- a) **Protection and retention of existing street trees is to be considered in the design of developments.** Where the tree is in poor health or where the local government determines appropriate, a street tree may be removed and replaced in a more appropriate position to accommodate development at the cost of the developer.
- b) Landscaping is to minimise water use and include appropriate structures or planting to assist with providing shade in summer while maintaining solar access in winter.

4.2.9 Service and Storage

Service and bin storage areas are to be concealed from the street.

Where a development includes 8 dwellings or more general waste disposal is to be provided via a 1100 litre shared bin. Provision for additional bins will be mandatory based on the number of dwellings.

4.2.10 Stormwater Management

- a) The peak stormwater runoff from the site is not to exceed the peak runoff from the site prior to development.
- b) Runoff events up to the 5 year average recurrence interval events are to be managed on-site to the serviceability requirements of Australian Rainfall and Runoff (Engineers Australia, 2001) minor/major system.

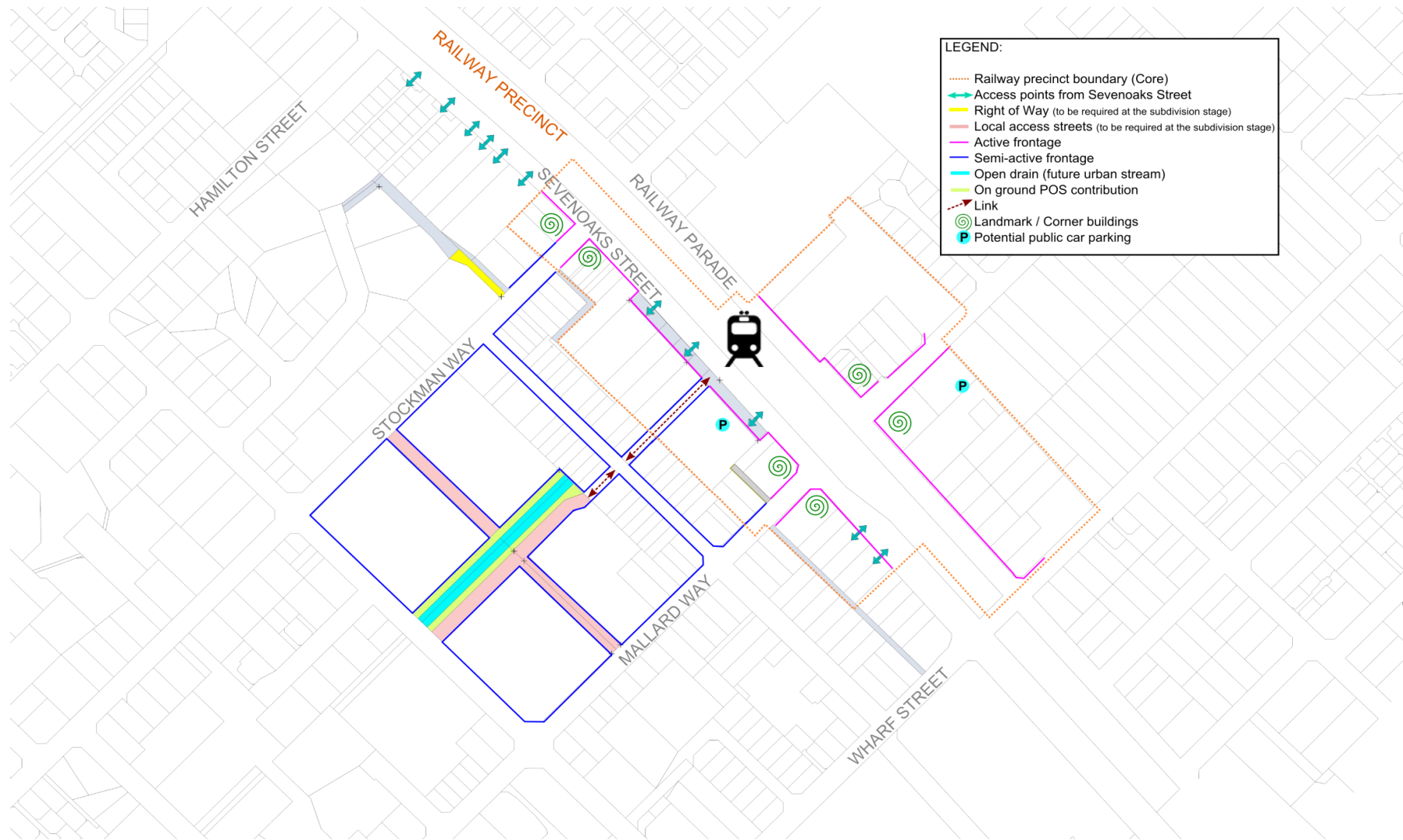
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- c) All flows from constructed impervious surfaces and from subsoil drains are to receive treatment prior to infiltration or discharge, for example bio filters or rain gardens.
- d) If catchment based solutions are provided by the local government in the future as per Appendix 7, developments will

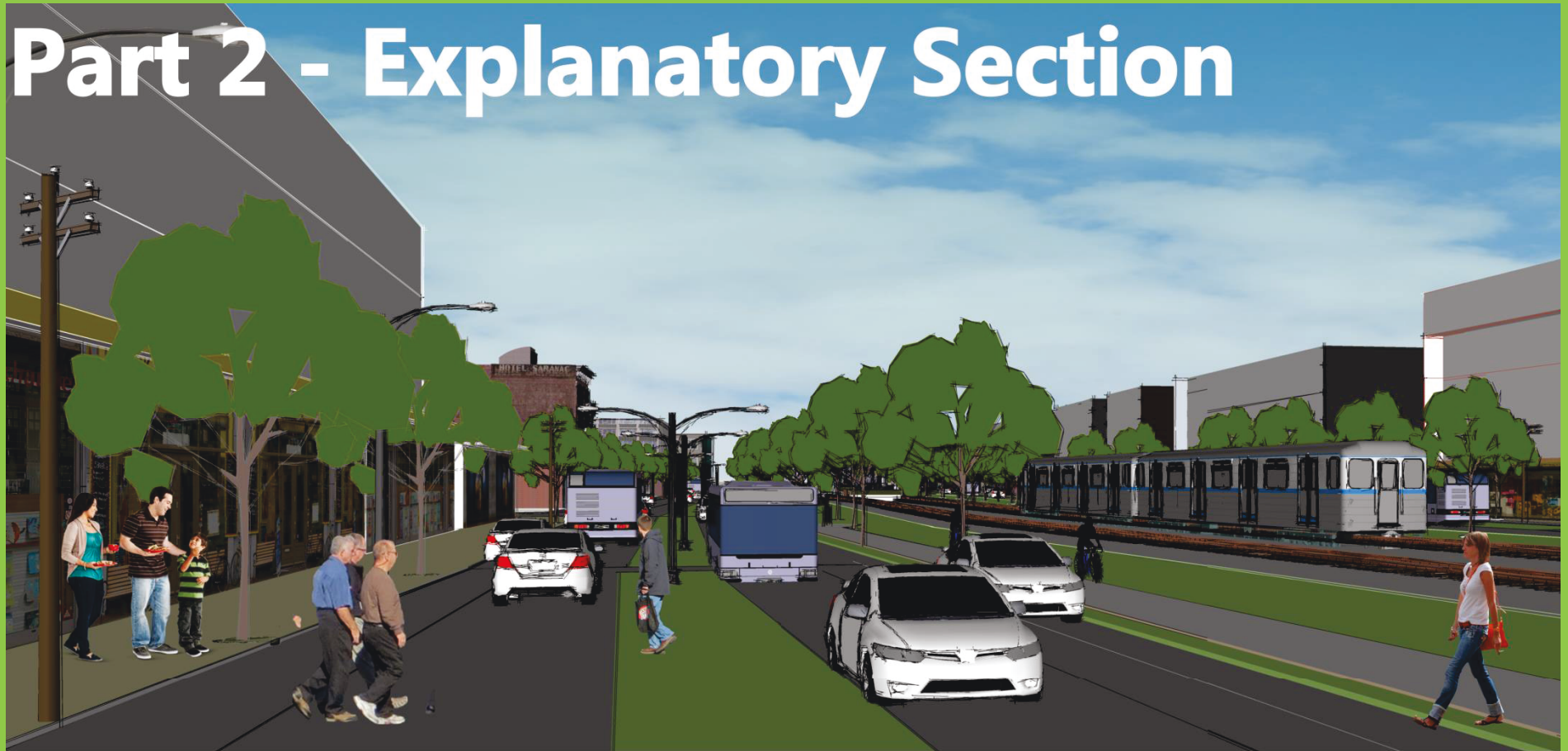
be exempted from providing on-site stormwater retention as per parts 'a' and 'b' above.

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Plan 3 - Private interface and hierarchy of frontages and movement improvement



Part 2 - Explanatory Section



1. Planning background

The purpose of the explanatory section of the LSP report is to provide background for the preparation of the LSP itself, present the main issues relevant to the future planning and provide a concept for its ultimate development.

The LSP will help to guide the planning and decision making in order to achieve the vision outlined in the introduction of this LSP

1.1 Land description

The LSP area comprises a portion of Cannington and Queens Park, located within the City of Canning, 11km from Perth CBD. It has a population of 3,134 according to the 2011 Census.

Existing lots

The area subject of this LSP generally comprises properties within 800 metres walking distance from Queens Park Train Station, as illustrated in Plan 1 –Local Structure Plan. A complete table listing all the lots included in the LSP area can be found in Appendix 1.

Physical barriers were considered when deciding on the LSP boundary location including Charles Treasure Park, Canning City Centre Structure Plan, open drains and existing streets alignments. Where possible selecting only one of the side of roads that ended in a cul-de-sac was avoided to ensure uniform development intensity along the entire street.

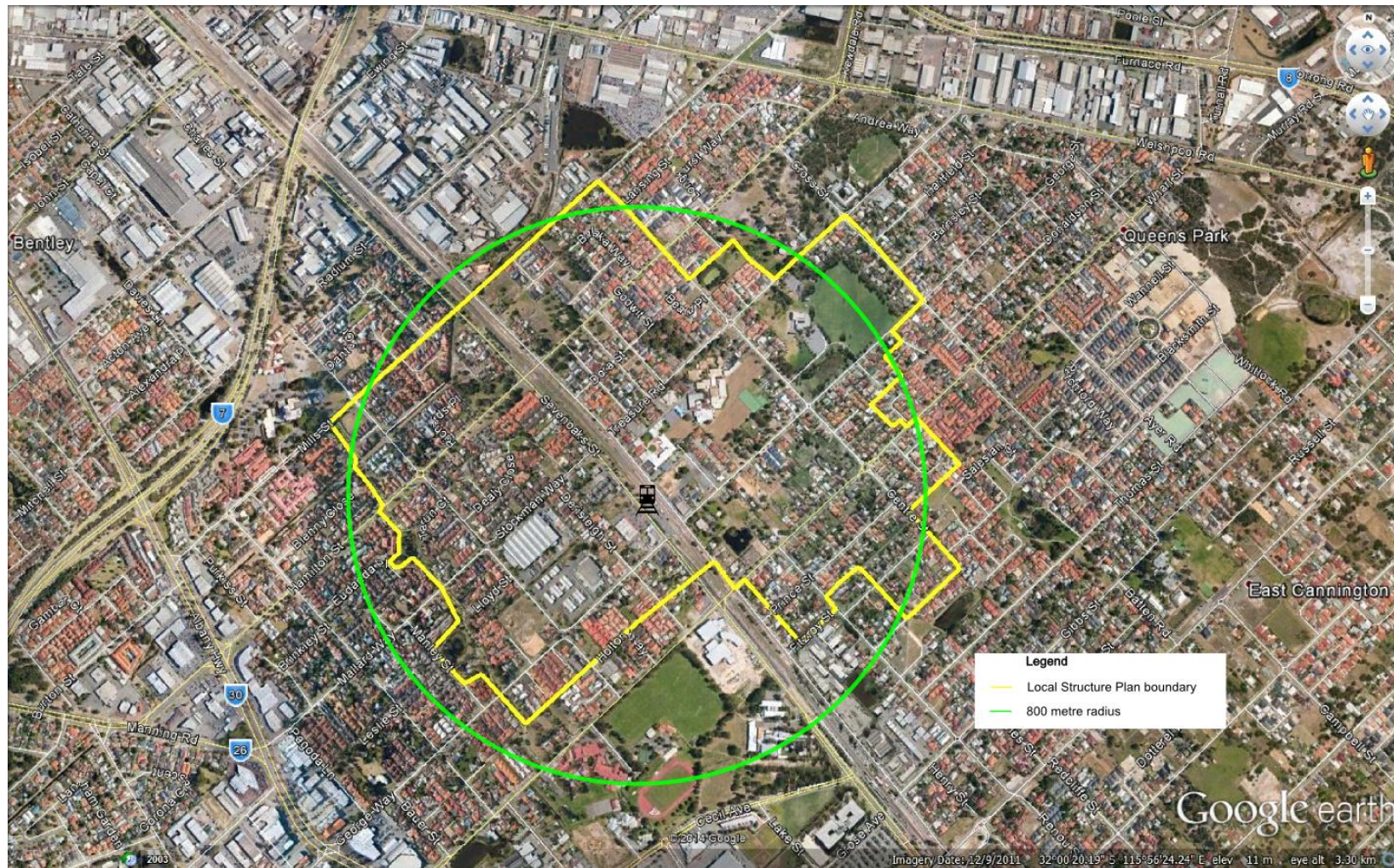
It is immediately adjacent to the Canning City Centre Structure Plan area, and in close proximity to Albany Highway and Leach Highway. As shown on Plan 3 and Plan 4, the Perth-Armadale railway divides the area in two.

The suburbs around the LSP area are:



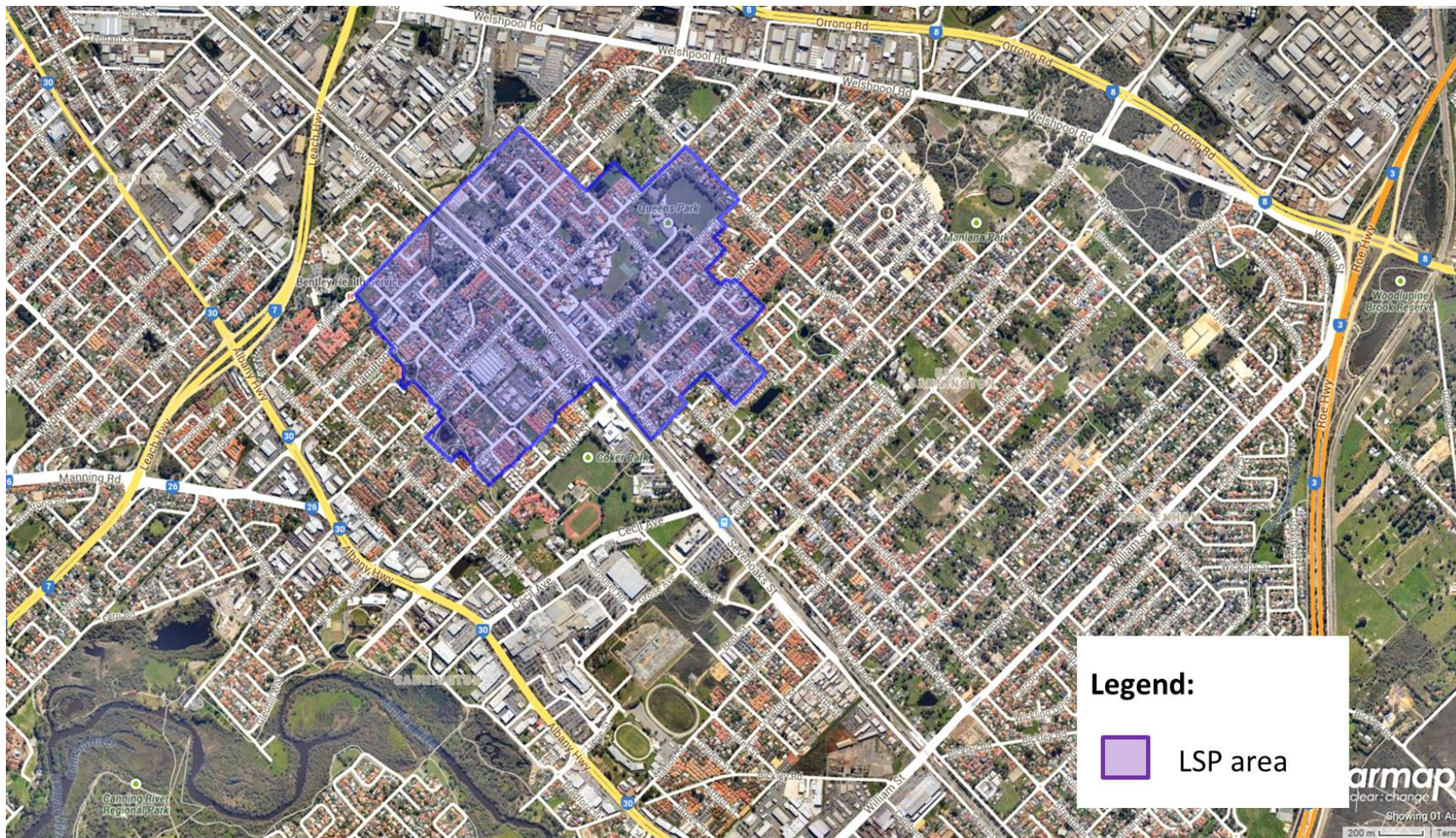
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Plan 4 - 800 metre walking distance from Queens Park Train Station



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Plan 5 - The location of the LSP site in relation to the area and region



The LSP area developed from a semi-rural character into a predominantly residential suburb that contains a mix of single, detached houses and

semi-detached grouped dwellings. The original lots (generally around 2000 to 3000 square metres) have been subdivided into single and grouped

dwellings. This has increased the density of dwellings in the suburb to around an R40 code (40 dwellings per hectare). However, there are still large areas of land that have not been subdivided and developed and retain a blighted character.

The initial focus for the Queens Park LSP is the train station and a small commercial centre around it. A neighbourhood sized supermarket, a small collection of offices / service businesses, delicatessen, newsagent, Cannington Leisureplex and its library provide for the daily needs of the surrounding area, act as a convenient alternative to the nearby regional shopping area of Cannington and are a focal point of the local community. The local IGA represents the core of the community as it has a high social function, where residents gather and where they are known to the supermarket staff by name. The local government is supportive of this neighbourhood character retail, which should be maintained and complemented. A tavern within this central area has recently been demolished and has developed into a group of town houses with commercial space fronting Railway Parade.

1.2 Area and land use

The area covered by the LSP comprises of a total of 144.6 hectares and the predominant land use is residential, followed by industrial and shopping (as per Plan 19).

The Queens Park LSP area encompasses an area located on either side of the Armadale/Thornlie railway line including parts of the suburbs of Cannington and Queens Park.

The residential density codes currently vary from R17.5/R30 to R17.5/R40. The higher density can be achieved through connection to sewer and for development of more than two dwellings, and a minimum site frontage of 25 metres, unless otherwise indicated. The current population density is 21.89 persons per hectare.



Source: Australian Bureau of Statistics, Census of Population and Housing 2011. Compiled and presented in profile.id by .id, the population experts.

The Queens Park LSP area is close to the Welshpool Industrial area and a relatively small amount of industrial development has occurred historically within the Cannington portion of the LSP area. A small number of light industrial uses are still in operation; however the majority of the land is suitable for redevelopment. The former Spicers Warehouse is currently being used as a storage facility, and there are also a collection of small workshops that contain vocational training activities (carpentry, bricklaying and associated activities).

The industrial functions in Cannington, whilst of low impact, are isolated from other industrial functions, located away from arterial or integrator roads and surrounded by residential development. This LSP will focus on facilitating redevelopment of those few old light industry sites which are classified as Urban in the MRS.

The major features of the area include Queens Park Reserve, Charles Treasure Park, Cannington Leisureplex and library, St Norbert College, St Joseph's Catholic Primary School and the Queens Park Train Station.

1.3 Demographics

The Queens Park LSP area accommodates 3,134 people and has a multi-cultural community, with a large proportion of residents being born overseas (only 53% of residents are Australian born).

The LSP area is split into two localities for the Census, being Queens Park to the east of the railway, and Cannington to the west of the railway. The settlement of the area dates from the mid-1800s. Population was minimal until the 1880s, with land used mainly for farms, market gardens, orchards

and nurseries. Growth took place from the late 1800s into the early 1900s, spurred by the opening of the railway line. Significant residential development occurred from the post-war years. The population increased substantially from the mid-1990s as new dwellings were added to the area, including medium density housing.

The community contains a large Asian population, most being from south-east Asia and India. Queens Park contains a slightly higher than average proportion of the community in the workforce, which accounts for the population largely being working age.

The workforce tends to be employed in low paid jobs in the labour and service industries. 1,515 people living in Queens Park LSP area are employed, of which 59% are working full time and 29.3% part time. Between 2006 and 2011, the number of people employed in the area showed an increase of 500 persons and the number unemployed showed an increase of 105 persons.

The average household weekly income in Queens Park LSP area was \$1,423 in 2011, which is slightly above the WA weekly average of \$1,415. A high proportion of Queens Park households are rentals, at 35%, where the national average is 28% and the Perth metropolitan average is 27%. Like Queens Park, Cannington has a high proportion of working aged people in the labour and service professions. Rental accommodation in Cannington is very high, at 45% of the total housing stock. The average weekly income for Cannington residents is lower than Queens Park at \$794 per week.

The project area is therefore a relatively low socio economic suburb comprising of many migrant households. The quality of the urban form to date has catered for this market, with many low cost grouped dwelling developments being constructed. The location of the project area in relation to tertiary education facilities and high rate of rental properties also suggests a high proportion of shared student households. This would also account for the relatively low weekly household income in Cannington.

The titles ownership are in Appendix 1.

1.4 Dwelling Target

The Queens Park LSP area represents a strategic area that would leverage existing infrastructure and amenity in order to improve the sustainability of the City.

The dwelling target will be high in the core and medium to high in the Residential Precinct to support the retail activity in the core.

There are currently 1,497 dwellings in the area. This LSP provides for a total of approximately 3,200 dwelling units, however, the number may vary according to the development industry response.

The expected increase in dwellings was calculated by determining what the maximum yield would be under the proposed densities based on the available land within the LSP and subtracting the existing dwelling stock from this number. For the purposes of calculating the total number of dwellings, ancillary dwellings are not included in the total dwelling yield.

The assessment of the potential development yield based on an increase in density was first considered however demolition activity, the current age of dwelling stock and where amalgamation might occur was also taken into account in this assessment.

Population forecasts for the City of Canning suggest that it will have a growing aged population and a higher proportion of young couples without children, resulting in smaller household sizes. The housing types available to the market will need to cater for this demographic, and also provide more affordable housing options. Strategic centres and corridors such as areas around train stations are attractive locations for people to live.

The local government will encourage aging in place and affordable housing wherever possible. In this context, "Clause 4 – Development Requirements" has provisions for adaptable dwellings. The City's Local

Housing Strategy discusses affordable and accessible dwellings in this context.

1.5 Consultation process

The consultation process has focussed on local residents, land owners, local businesses and institutions such as the St. Norberts College and St. Joseph Catholic Primary School. Consultation was designed to obtain public feedback on analysis, alternatives and decisions. Through this ongoing process the local government will keep the community informed, acknowledge the concerns and provide feedback when required.

The first formal workshop in 2010 sought to understand what the local issues were, what issues needed to be addressed and enhancement opportunities. The second workshop in 2011 tested ideas within the preliminary design proposals. The third workshop in 2013 was to present to the community the local government's intention of improvement and the presentation of design ideas for streetscape projects.

The feedback from the consultation relating to intensification of development and the shift of use from 'light industries' to 'residential' was generally positive.

Some of the concerns raised through the extensive consultation helped shape this LSP. These concerns include:

- Promote surveillance of the street;
- Include more lighting and trees;
- Encourage community interaction;
- Traffic intensification, parking and railway crossings;
- Avoid fencing and barriers;
- Promote businesses and retail; and
- Deliver quality design.

The LSP was developed in accordance with the Strategic Community Plan which identifies strong community aspirations for the built environment, for community prosperity and for development across the local government. The LSP investigates and recommends mechanisms which will facilitate the following aspirations:

Built Environment - Community goals:

- Protect and enhance the amenity and lifestyle within the City; and
- Provide a range of housing for different lifestyles.

Prosperity - Community goal:

- Provide greater variety of activities, entertainment and shopping.

2. Planning framework

2.1 Zoning and reservations

Under the provisions of the Metropolitan Region Scheme (MRS) the LSP area is zoned 'Urban'. Development in the LSP area is currently controlled by three schemes:

- **Town Planning Scheme 17A** (Cannington Lakes Guided Development Scheme) is a guided development scheme that provides for coordinated development of the area west of the railway line;
- **Town Planning Scheme 21** (Queens Park/East Cannington Guided Development Scheme) provides for coordinated development of the Queens Park area east of the railway line; and
- **Town Planning Scheme 40:** the City wide district Town Planning Scheme for the City of Canning, establishing zones, reserves and general development standards.

2.2 Strategies and Policies

Directions 2031 and Beyond (Directions 2031) is a strategic plan and spatial framework for the metropolitan Perth and Peel region. Directions 2031 establishes a vision for future urban growth, addressing population growth, land use patterns with a view to the medium and long term population increase of more than 35%, potentially reaching 3.5 million people in Perth and Peel in 2056. It proposes a strong role for urban infill and consolidation to accommodate this increase in population, and identifies the importance of inner and middle suburbs in contributing to meeting this demand.

Delivering Directions 2031 – Annual Report-Card 2013 (WAPC, 2013) highlights a number of achievements by State Government agencies, local government and the planning and development industry that have contributed to the ongoing implementation of Directions 2031. It aims to assess the impact and facilitate the future development proposed to accommodate a city of 3.5 million people. It states a target of 11,440 dwelling yield for the City of Canning.

Perth and Peel @3.5million

The suite includes the over-arching Perth and Peel @3.5million report and four draft planning frameworks for the Central, North-West, North-East and South Metropolitan Peel sub-regions.

These documents will guide the sustainable growth of the Perth and Peel Region to accommodate a population of 3.5 million people. Consistent with the principles of Directions 2031, the Draft Frameworks focus on the efficient use of existing and future urban land and infrastructure, the provision of employment opportunities close to population centres and the protection of areas of environmental significance and basic raw material sources.

Draft Central sub-regional planning framework 2016

The draft framework focuses on achieving higher infill and densities of residential and employment development within the existing built environment by making better use of established infrastructure.

It advocates for greater use of activity centres, transport corridors and station precincts to support a diversity of higher-density accommodation that is close to jobs and amenities, while ensuring urban development does not encroach on existing industrial centres and the green network.

It identifies Queens Park as a 'Station Precinct' in Sections 4.4 and 4.5. 'Station Precincts' are areas around train stations and other major public transport infrastructure have been identified as having the potential to accommodate increased development.

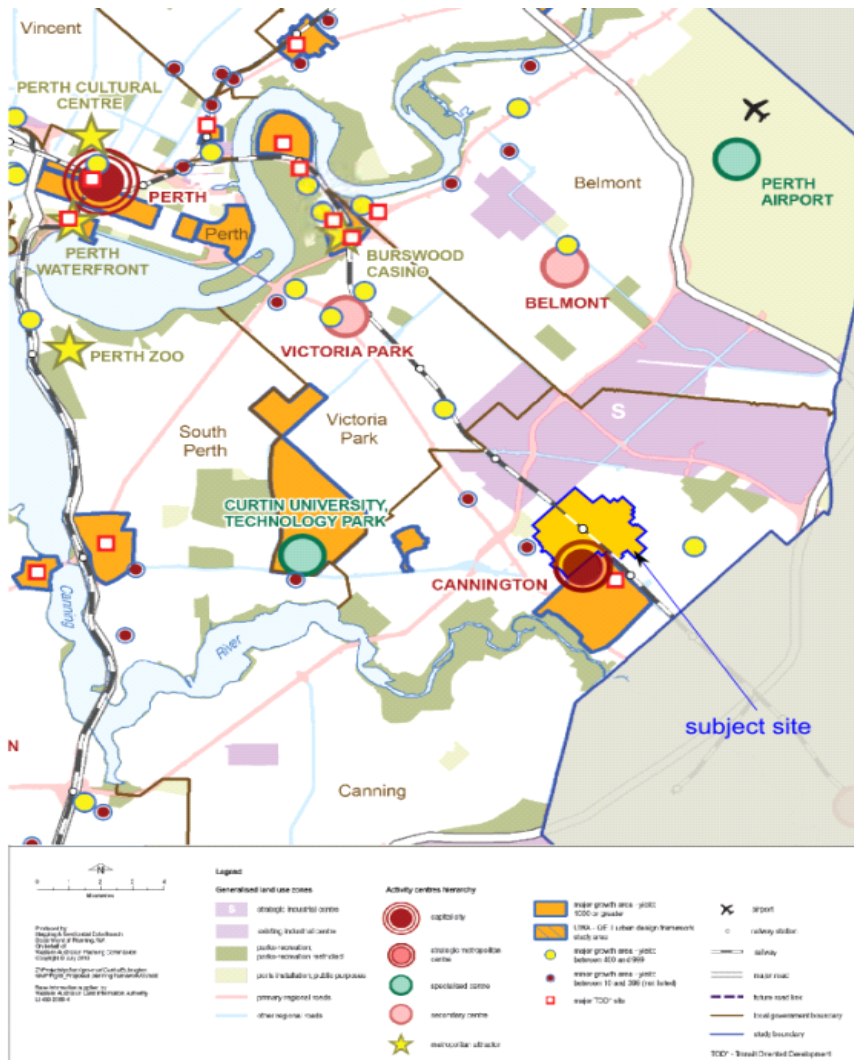
The City of Canning development of this LSP will help deliver transit oriented mixed use development and medium-rise higher density housing for Queens Park. The LSP provides for both medium and high density development with anticipated dwelling yield of approximately 2,550 dwellings, calculated at 60% efficiency rate, thus contributing to the infill development requirements of the CMPSRS in this regard.

State Planning Policy No.4.2 (SPP4.2): Activity Centres for Perth and Peel (Plan 5) specifies broad planning requirements for the planning and development of new activity centres and the redevelopment and renewal of existing centres in Perth and Peel, identifying targets according to each centre hierarchy. It is mainly concerned with the distribution, function, broad land use and urban design criteria of activity centres, and with coordinating their land use and infrastructure planning. Also, the basic walkable catchments and target densities are listed in SPP4.2.

Liveable Neighbourhoods addresses both strategic and operational aspects of structure planning and subdivision development in a framework. Element 7 outlines in some detail the types of mixed use walkable activity centres envisaged under Liveable Neighbourhoods.

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Plan 6 - Activity Centres Hierarchy



State Planning Policy No.3 (SPP3): Urban Growth and Settlement applies to the whole of the State in promoting sustainable and well planned settlement patterns that have regard to community needs and are responsive to environmental conditions. The objectives and principles of *Directions 2031* and Liveable Neighbourhoods are enshrined in this Policy.

SPP3 recognises that a majority of new development in metropolitan Perth has been in the form of low density suburban growth. This form of development intensifies pressure on valuable land and water resources; imposes costs in the provision of infrastructure and services; increases the dependence on private cars; and creates potential inequalities for those living in the outer suburbs where job opportunities and services are limited.

To promote growth that is sustainable, equitable and liveable, the LSP encourages a more consolidated urban form. In this regard, the LSP will enable:

- The creation of a compact, cohesive and walkable community with a strong emphasis on high quality streets and pedestrianism;
- A diversity of housing types and lot sizes (including medium and high densities);
- A mixed-use community that includes retail, education and community uses within easy walking distance; and
- The connection between new development and the train station.

Development Control Policy 1.6 Planning to Support Transit Use and Transit Oriented Development

This policy seeks to maximise the benefits to the community of an effective and well used public transit system by promoting planning and development outcomes that will support and sustain public transport use, and which will achieve the more effective integration of land use and public transport infrastructure.

The **City of Canning Local Housing Strategy** outlines the future direction for residential development over the next 10 years. The Local Housing Strategy draws on community aspirations identified in the Strategic

Community Plan, and outlines locations for residential intensification consistent with Directions 2031. The specific elements of the Local Housing Strategy have been developed from detailed spatial and housing profile analysis conducted by the Curtin University Sustainability Policy Institute, and culminating in the 2012 City of Canning Local Housing Study.

The Local Housing Strategy, adopted by Council in October 2014, predominantly focusses residential intensification in locations where there is recognised redevelopment potential, and those served by high quality public transport. The Local Housing Strategy also explores the introduction of greater housing diversity and sustainability into the City of Canning. It is envisaged that the Local Housing Strategy will deliver approximately 7,900 additional dwellings into the City of Canning, excluding Queens Park, Canning City Centre and Bentley Regeneration Precinct Structure Plan areas.

State Planning Policy 5.1 (SPP5.1) – Land use planning in the vicinity of Perth Airport and Aircraft Noise Insulation for Residential Development in the Vicinity of Perth Airport, 2004

SPP5.1 applies to land in the vicinity of Perth Airport, which is, or may in the future, be affected by aircraft noise. SPP5.1 applies to land above the 20 ANEF (Australian Noise Exposure Forecast) noise contour. SPP5.1 impacts on this LSP as it aims to protect Perth Airport from what is considered an unreasonable encroachment by incompatible (noise sensitive) development. Clause 4.3.2 restricts residential development to R20, however this LSP is based on the exemption that allows density greater than R20 “where there is a strategic need for more consolidated development and a higher density coding is desirable to facilitate redevelopment or infill development of an existing residential area” (Clause 5.3.2).

State Planning Policy 5.4 “Road and Rail Transport Noise and Freight Considerations in Land Use Planning”, 2009. Lots facing the railway line require noise attenuation features and may also require vibration isolation design and notification on titles to ensure compliance with the internal LAmax criteria of 50 dB(A) within bedrooms and 55 dB(A) within living areas construction. In order to achieve the noise limits, special treatment to sleeping and living spaces could be applied to windows, doors, walls, roofs and eaves.

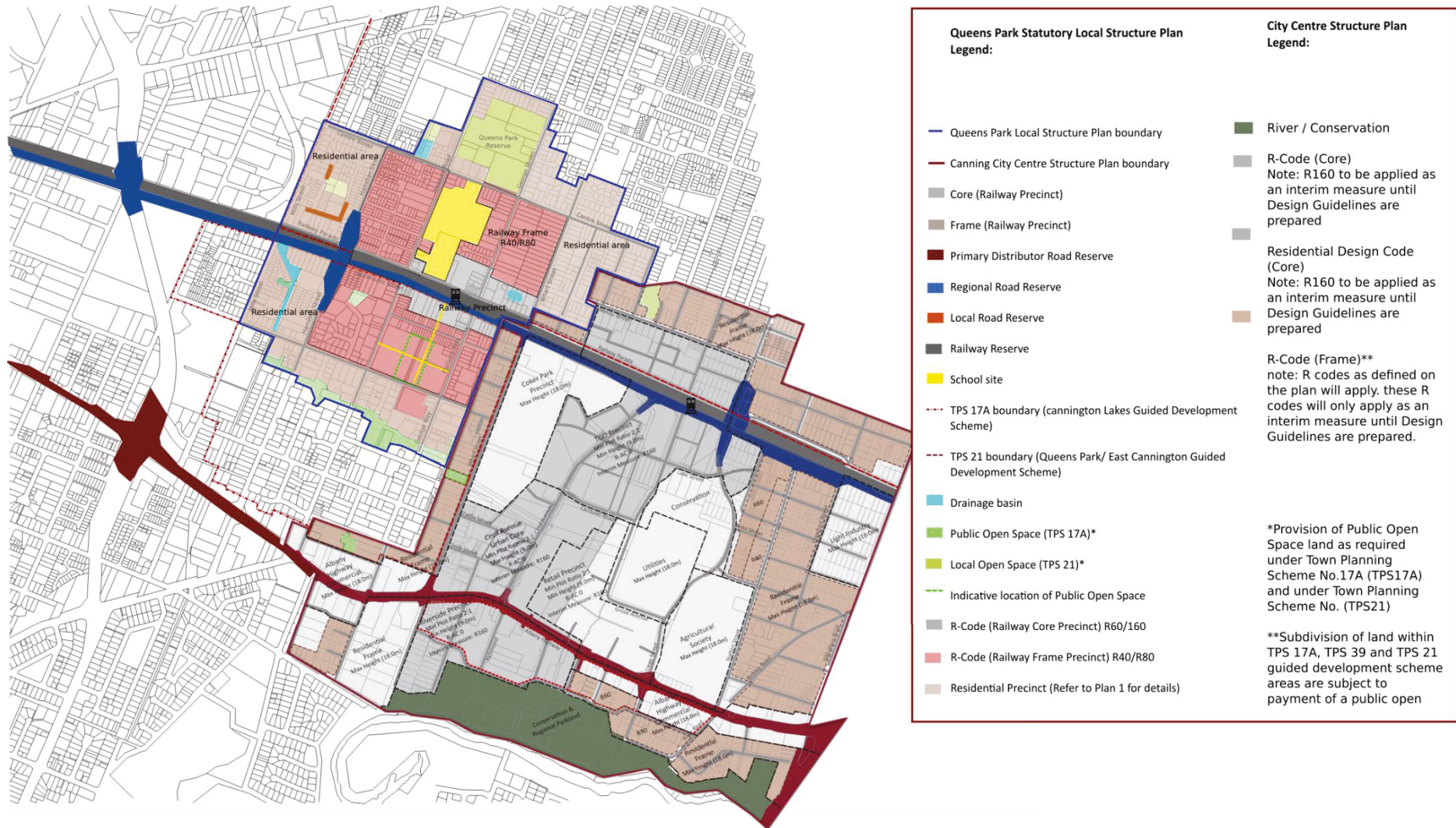
Conditions of approval of subdivisions may refer to the need for a noise management plan, but more likely the undertaking of components of these plans such as walking distances, noise bunds or noise walls. In this case, the preparation of a noise management plan would need to be signed off by the local government.

Canning City Centre Structure Plan - Queens Park is immediately adjacent to the Canning City Centre where future development is guided by a structure plan. The Canning City Centre Structure Plan vision is to produce a city centre that brings new energy to the south east corridor, building on its strengths by creating connections down Cecil Avenue through three squares, from Cannington Train Station to the Canning River. Cecil Avenue will be transformed into a main street, with alfresco dining, generous shaded footpaths, bicycle lanes and improved public transport. Cannington Train Station will support multi-storey residential, office and convenience shopping and is close to Cannington Leisureplex. The vision will create more diversity including retail, recreation, entertainment, housing and offices and provide more opportunities for work and play.

The Queens Park LSP represents a minor TOD (Transit Oriented Development) next to the Canning City Centre Structure Plan area. They will be complimentary to each other and contribute to the extension of development along the railway line.

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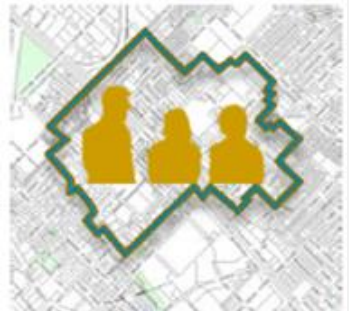

Plan 7 - The integration between Queens Park LSP and Canning City Centre Structure Plan







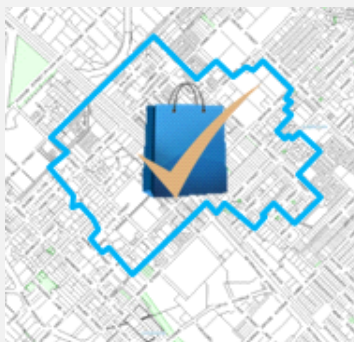
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The table below shows an analysis of context, constraints and potential impacts. It also indicates how the LSP is to be integrated into the surrounding area.

Table 5: Site issues, condition, constraints and remedies

Issue	Comment	Remedy	
<p>Lack of character and identity</p>	<p>Queens Park has flat topography and non-descript buildings and streets. The current urban environment does not create any meaningful sense of place or quality of space. Built form and open space do not convey a cohesive sense of place or represent the culture of local residents.</p>	<p>Strive to maintain existing community oriented activities and provide further opportunities for such activities through redevelopment.</p> <p>The Railway Precinct will provide services, features and places that are reflective of the area's community values and aspirations and create places to gather, shop, work and live.</p> <p>The neighbourhood centre will be improved in terms of pedestrian amenity through lighting, footpath treatment and planting. This LSP targets an intensified development around the train station such that over time, building form will help to contain the centre and create a sense of place for the area.</p> <p>There is opportunity to create identity for the streets of Queens Park LSP area. Streets can be beautified through street tree planting. The existing streetscape design plan is to be expanded through the LSP area.</p>	
<p>Queens Park is disconnected and unattractive</p>	<p>The incoherent land use, few retail outlets and the existing railway do not intensify accessibility and movement of pedestrians.</p>	<p>Consolidate and reinforce development within the precinct core to enhance a local sense of place.</p> <p>The LSP will consolidate the central precinct into a unified and identifiable place with a defined core and consistent surroundings. The consolidation of a neighbourhood centre, the new retail area, the streetscape works along Sevenoaks Street and Railway Parade and the provisions of this LSP will aim to create a better visual connection between the two sides of the railway.</p>	

<p>Large Street Blocks</p>	<p>The street blocks in Queens Park are traditionally very large. This limits the connectivity of the street network and hinders opportunities for pedestrian connections to important areas, such as the train station and local businesses.</p>	<p>Ensure a well-connected Queens Park Given the significant redevelopment that has occurred in Queens Park to date, there is limited opportunity to decrease the street block sizes. New connections are already identified in the current Guided Development Schemes 17A and 21. These proposed new roads and links seek to improve the quality of the network. Where long street blocks are likely to remain into the future, the attractiveness of the setting will be improved through street tree planting, effective lighting and comfortable footpaths. Building envelope, setbacks and mixed use will create a distinct and more interactive environment and greater surveillance. This will enhance the pedestrian experience along longer trips and promote walkability.</p>	
<p>Inconsistent building types</p>	<p>Building heights, forms, uses and urban character are very modest and simplistic as development proceeds without a structured vision in place.</p>	<p>Ensure that new development is high quality with an integrated built form that is complimentary to adjoining and nearby development, and Facilitate redevelopment of pre-existing light industry sites which are zoned urban under the MRS. High quality, integrated built form will accommodate all functions and population for the area in alignment with the regional and metropolitan strategies.</p>	
<p>Lack of quality open space</p>	<p>Public spaces and streets should be well connected and appropriate for the future population.</p>	<p>Enhance POS to service future growth. The financial contributions from the Guided Development Schemes that are currently converted into acquisition of open space can be converted into further improvement of POS once all POS required by the Guided Development Schemes has been acquired. The POS will gather the most significant landscape features and amenity in the area. The defined streetscape for Sevenoaks Street and Railway Parade may be extended to the rest of the LSP area. The current Light Industry sites are exempt to make financial contributions to the Guided Development Schemes. Those sites need to provide the 5% of physical on-ground POS next to the open drain rather than cash-in-lieu. The LSP shows an indicative area for POS contribution.</p>	

<p>Poor amenity and streetscape definition</p>	<p>Built form has a poor interface with the public realm. Significant open areas in the centre are dedicated to car parking.</p>	<p>Provide safe and enjoyable public spaces. Streets and parks will create an attractive, vibrant and safe place, accessible at all times by people with all level of abilities, enjoying all that the area can offer. “Clause 4 –Development Requirement” provides direction for streetscapes.</p>	
<p>Lack of retail and commercial demand</p>	<p>Built form currently defines fragmented retail activity while the public transport node could contribute positively to commercial confidence in the area.</p>	<p>Ensure a high amenity, vibrant, sought after neighbourhood centre that attracts investment. The integration of visionary planning controls, best practice public realm design and delivery will create an environment where the amenity of the locality has improved, leading to an increased and more diverse population, which will then create opportunities for business and other investment.</p>	

3. Site conditions and constrains

3.1 Biodiversity and natural area assets

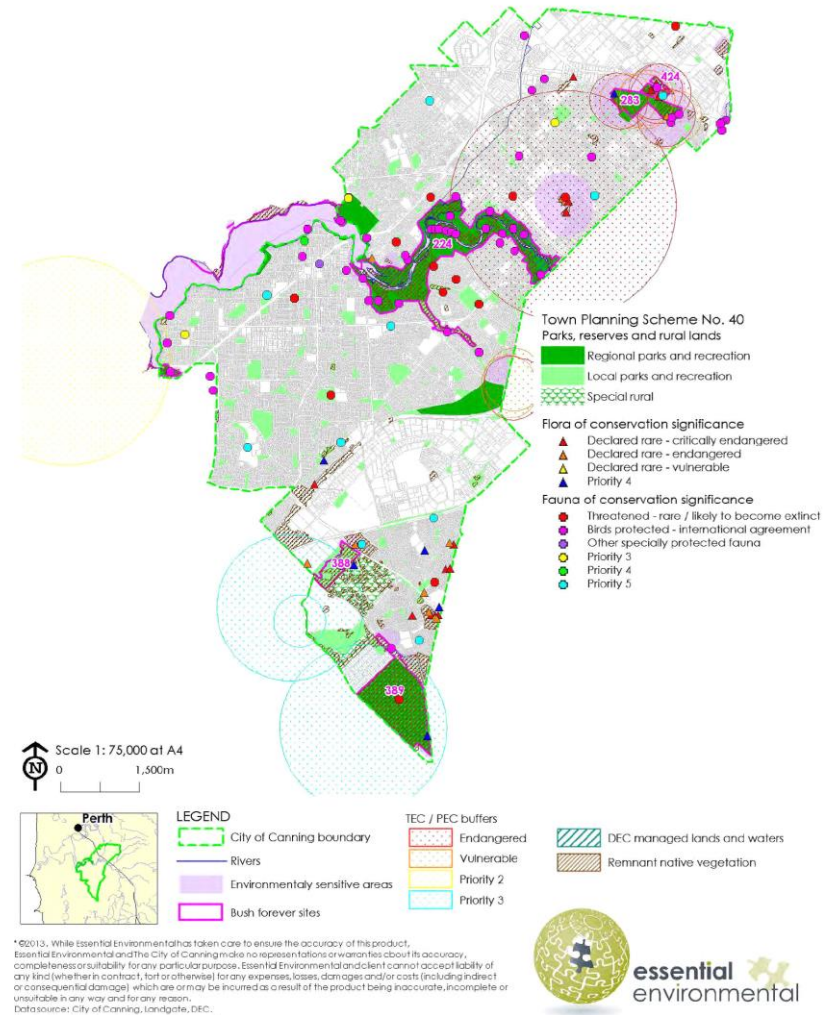
The LSP area is highly urbanised with virtually no remnant vegetation. Queens Park Bushland is located in the Queens Park Regional Open Space. It is listed as Bush Forever Site number 283, identified on the City of Canning Environment Management Strategy (EMS).

The Department of Parks and Wildlife lists a number of threatened fauna and flora species in the City of Canning which are summarised in the City of Canning EMS. Two of those places are in the LSP area: Queens Park Reserve (listed as 'Priority 3') and Charles Treasure Park (listed as 'Protected under international agreement' due to the presence of birds).

A number of future considerations came out of the EMS and the local government's Natural Areas Team is preparing work plans outlining long term and short term goals to describe the ecological value of all sites, including those sites mentioned above. The plans include current and future projects and conservation actions.

Plan 8 - City of Canning Environment Management Strategy (EMS) plan

City of Canning - Local Environmental Management Strategy
Figure 3: Biodiversity



BIODIVERSITY STRATEGY

The draft Local Biodiversity Strategy (2015, in preparation) aims to protect and enhance the biodiversity assets within the City of Canning. The Strategy identifies local biodiversity conservation priorities considering the regional and local context and establishes specific objectives and targets for protection and management of biodiversity assets. With only 7% of the pre-European extent of native vegetation remaining in the City, the focus of conservation efforts are on establishing adequate mechanisms to protect all high conservation value vegetation and other natural areas, to increase their long term viability by providing buffers, linking them to other natural areas through restoration and revegetation and actively managing threatening processes. Additional biodiversity links are identified and suggested to increase the overall % of natural areas within the City.

While no native vegetation is mapped within the LSP area, it is within a designated Water Quality Improvement Plan Catchment (Canning Plain). Management of water runoff from the study area to improve water quality in the wider catchment also provides an opportunity to improve connectivity between conservation significance natural areas outside the Structure Plan area. More importantly, the Strategy identifies opportunities for establishment of ecological linkages across the City Centre and the Queens Park LSP areas. The Strategy proposes to increase vegetation cover using locally indigenous species. It aims to improved environmental outcomes within the Structure Plan area and outside. The benefits are expected to be:

- Increased vegetation within the sub catchment will contribute to improved water quality in the catchment and in the Canning River, a major biodiversity asset in the City and the Region.
- Increased vegetation along local ecological linkages will facilitate connectivity between high conservation value areas identified outside the LSP area. One of the proposed local linkages is a continuation of a local linkage identified in the City of Belmont (Collective Local Biodiversity Strategy 2010) and joins a local linkage within the City Centre Structure Plan. The second local linkage connects a high conservation value natural area outside the study area to the Queens

Park Bushland (Bush Forever Area 283) and to the Canning River. While the long term protection of vegetation on this site (corner of Andrea Way and Hamilton Street, Queens Park) is not yet secured, the results of local natural area prioritisation undertaken for the City's local biodiversity strategy identify numerous conservation criteria being met at the site.

To support connectivity between the high conservation value areas outside the Structure Plan area, the following considerations should be made when planning for POS and street scaping upgrades (see Plan 9).

- On all existing POS lands and lands reserved for Public Purposes (e.g. Private Clubs and Institutions), establish and provide incentives to establish vegetation within portions of land not actively used for the designated purpose.
- Provide incentives to private and commercial within the buffer lines of the proposed local linkages, to increase vegetation cover (e.g. by replacing lawns by local groundcovers, easy to maintain small shrubs and mulch). Increase tree canopy within streetscapes.
- Upgrade drain lines and drainage sumps to create 'living streams' and provide new opportunities for walking/cycling.

3.2 Sustainability Policy

The City of Canning adopted the Sustainability Policy in March 2014. The policy defines sustainability as:

"...a journey towards development that meets the needs of the present without compromising the ability of future generations to meet their own needs and is achieved by developing policies and practices that ultimately meet the sustainability principles."

The sustainability principles are the means to reduce and eventually eliminate:

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- Fossil fuel dependence and wasteful use of scarce metals and minerals;
- Reliance upon persistent chemicals and wasteful use of synthetic substances;
- Encroachment upon nature (eg land, water, wildlife, bushland, soil, ecosystems); and
- Conditions that systematically undermine people's ability to meet their basic human needs.

In this context, sustainability adherence refers to the degree to which a proposal encompasses the sustainability principles. The policy requires the City to ensure all activities and programs deliver on this Policy.

The application of these principles in this Structure Plan relate to environmental performance through built form controls, protection and enhancement of biodiversity, provision of high quality public open space and community services and facilities and ensuring safety and wellbeing as a key design consideration for developments.

3.3 Landform and soils

The Department of Mines and Petroleum environmental geology mapping of Canning and surrounds describes the soils of the LSP area as:

- Bassendean sands – light grey at surface yellow at depth (S8)
- Thin Bassendean Sand over Guildford Formation – thin layer of sand over clays (S10)
- Muchea Limestone – white-cream limestone (LS5)

The majority of the Queens Park LSP area comprises a thin layer of sandy soils over clay (S10). The north of the Queens Park LSP plan area abuts a pocket of swampy soils in the form of peaty clays. However, the northern half of Queens Park itself contains areas with deeper sand (S8) and the southern half is situated over limestone (LS5).

The sandy and limestone soils described above generally have moderate or high permeability and are therefore expected to achieve good infiltration rates. However, areas comprising more silty and clayey soils typically have lower infiltration rates and may not be suitable for onsite drainage.

The LSP area has a moderate to low risk of acid sulfate soils occurring within 3 metres of the natural surface in the vast majority of its land (soils and sediments that contain iron sulphides).

The low risk acid sulfate soils are harmless when left in a waterlogged, undisturbed environment. However, when exposed to air, through drainage or excavation, the iron sulfides in the soil react with oxygen and water to produce iron compounds and sulfuric acid. This acid can release other substances, including heavy metals, from the soil into the surrounding environment and waterways (DEC, 2012a).

Contamination investigations and possible remediation may be required for industrial sites.

3.4 Groundwater and surface water

The Queens Park LSP area is located in an area of predominantly sandy soils with shallow groundwater, which imposes restrictions in terms of land coverage and drainage impacts for current and future developments.

There is an existing drainage system which actively manages stormwater and groundwater levels throughout the area, typically resulting in a net export of shallow groundwater to the Canning River throughout the year. This export of groundwater, together with the nutrients and other contaminants have contributed to poor water quality in the Swan Canning River system and in recent years have been the focus of efforts by the Swan River Trust and others to improve drainage water quality.

There are three major groundwater aquifers present within the LSP area; these are (in order of increasing depth):

- Superficial (unconfined)

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- Leederville (confined)
- Yarragadee (confined)

Locally, the Superficial and Leederville Aquifers are used for irrigation of Public Open Space under the City of Canning's consolidated licenses and a separate license is held by the Catholic Church for irrigation of St Norbert College playing fields.

A series of open drains run through the LSP area, denoting the presence of a high water table. These drains generally run at the rear of properties, are poorly maintained and create opportunities for anti-social behaviour. At present, there is no evidence of Water Sensitive Urban Design (WSUD) functions being implemented and this LSP represents a major opportunity to introduce nature into the built environment. Increasing native vegetation and providing adjacent properties with a beautiful, unique living stream along the back boundary would be suitable for the area. Once the drains are appropriately improved and landscaped, the houses and lots can open on to them with permeable fencing and living areas.

With the exception of Queens Park compensating basin, each of the compensating basins is 'wet' throughout the year which means that they intercept with the local superficial groundwater aquifer. Although the Queens Park compensating basin is not always wet, groundwater is close to the surface in the basin and it is likely that groundwater is intercepted throughout winter and much of spring. There are three surface water catchments present within the boundaries of the LSP area, these are:

- Cockram Street
- Wharf Street
- Mills Street

Surface water features within the LSP area include three short sections of open drainage and five Water Corporation compensating basins as follows:

- Cockram Street catchment

- Fitzroy Street open drain
- Centre Street compensating basin
- Queens Park compensating basin
- Railway Parade compensating basin

- Wharf Street catchment
 - Mallard Way open drain
 - Manly St compensating basin
 - Tarun Court compensating basin
- Mills Street catchment
 - Mills Street open drain

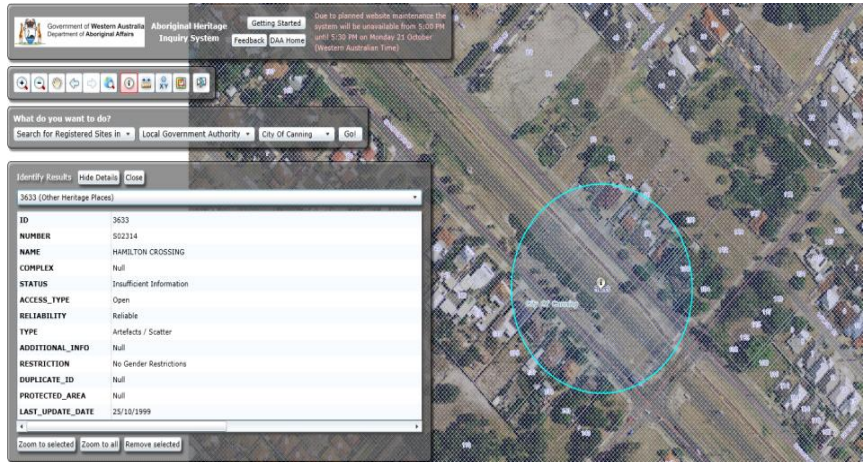
3.5 Heritage

Any government agency, organisation or individual who is the proponent for strategic or statutory planning documents, construction of individual developments or engaged in any ground-disturbing activities should seek advice from the Department of Aboriginal Affairs (DAA) on their requirements and obligations under the *Aboriginal Heritage Act*, and any other investigations that may be required.

A preliminary search of the Aboriginal heritage register has been undertaken and returned one record of a heritage site classified as 'insufficient information' (ID 3633) within the Queens Park LSP area, identified in Image 2.

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Image 2 - Aboriginal register site 3633



The site was listed in 1999 as “artefacts/scatter”; however, there is no information about restrictions or protection requirements.

4. Land Use and subdivision requirements

4.1 Land use and Public Open Space (POS)

Regardless of the location and function, the POS in the LSP area will represent more than 11% of the area.

A dispersed network of open space exists in Queens Park LSP area as a consequence of earlier subdivision. Much of this POS is located to the south west of the railway reserve and this is expressed as a linear POS in conjunction with an easement for high voltage power lines and drainage infrastructure. A large area of open space is also located to the north east of the railway line that provides an active recreation function.

Plan 8 shows existing building footprints (as at 2013) in black and highlights the dispersed form of development around the train station as well as the propensity of grouped dwelling development.

The POS in the area is largely associated with the schools (sports ovals) or district level playing fields, and also the linear open space corresponding to the electricity transmission corridor. A series of open drains are considered to be a liability to the visual and spatial quality of Queens Park, being areas that may attract anti-social behaviour; these drains are unsightly and may collect rubbish. However, there is opportunity, through development alongside the drains, to rejuvenate these items of infrastructure such that they add to the amenity and character of Queens Park. This would be required to be carried out in conjunction with the Water Corporation who own and manage these drains.

The following parks make up the POS within the LSP area:

FINAL QUEENS PARK STRUCTURE PLAN

Table 6: POS within Queens Park LSP area

POS	Area (ha)
Queens Park Reserve	8.6
Charles Treasure Park	5.18
Dealy Park	0.2
POS within TPS 17-A	0.76
Hobby Retreat (TPS 21)	0.19
Yalabee Way POS (TPS 21)	0.87
Treasure road POS (TPS 21)	0.09
POS along drains + 5% of light industry sites	0.58
TOTAL	16.55 (11.4% total area)

Plan 9 - Existing footprint in the LSP area



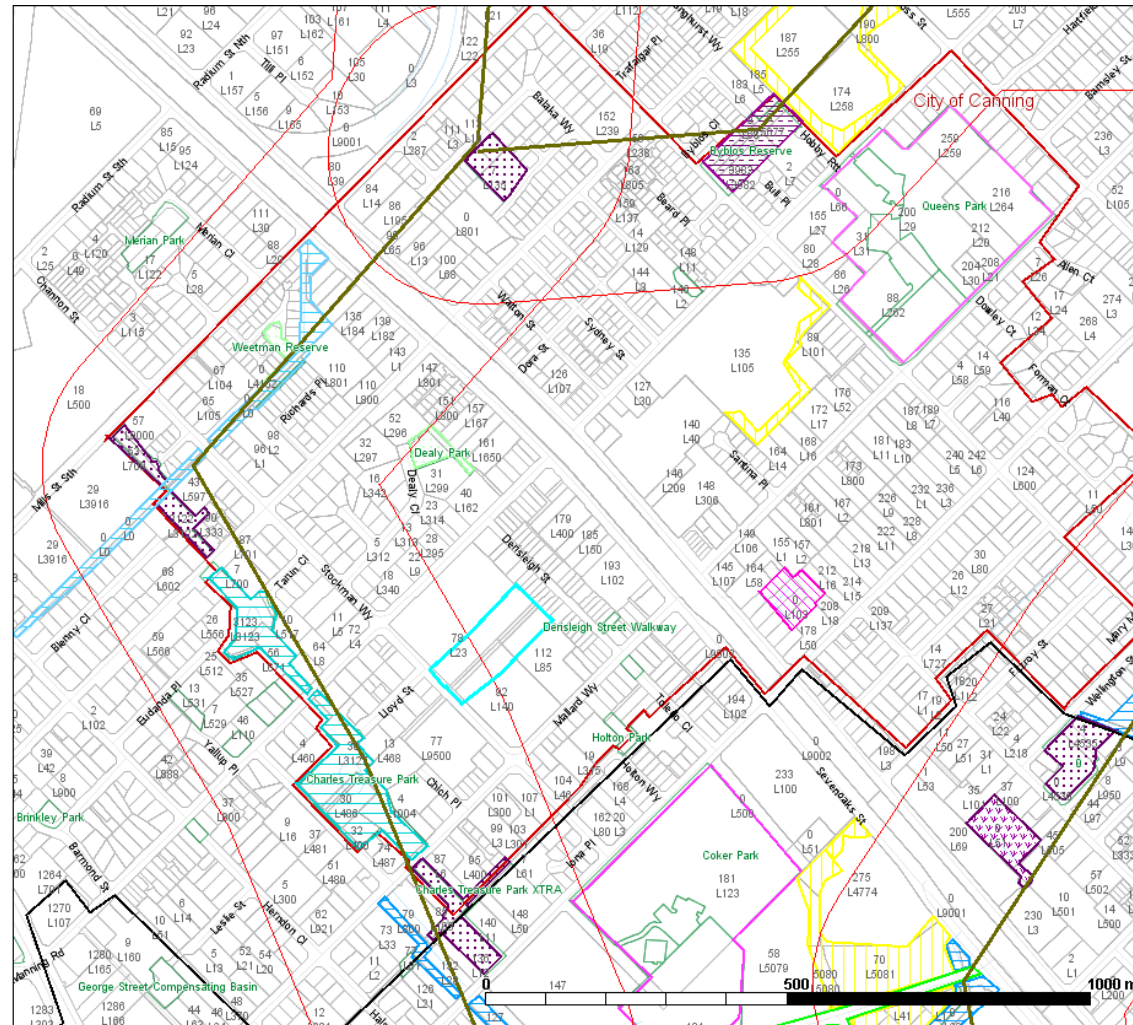
Legend : — LSP boundary

FINAL QUEENS PARK STRUCTURE PLAN

Plan 10 - POS and reserves distribution

Legend

- Future POS areas**
- Future POS
- landscaping recommended**
- Landscaping recommended
- Existing living stream CB**
- Existing Living Stream
- Existing adequately landscaped CB**
- Landscaped CB
- City Centre SP boundary**
- Local linkage
- CCSP boundary
- District/Sport
- Drain/Living stream
- Landscaping incentives priority
- Local/Recreation
- Local/drainage/linkage
- Neighbourhood/Recreation
- Neighbourhood/Sport
- Non POS land/proposed part of local linkage
- Regional/Nature conservation
- Urban Stream/part of Local linkage
- Queens Park SP boundary**
- District/Sport
- Drain/potential living stream
- Local/Drainage/Recreation
- Local/Recreation
- Neighbourhood/Recreation/Drainage
- Non POS land/proposed part of local linkage
- Pocket
- Queens Park SP
- Public Open Space**
- Perth Regional Ecological Linkages
- Property Boundaries**
- Local Government Authority**
- State Roads**
- Other Roads**
- Hydrography**
- Native Vegetation Extent (DAFWA, 2014)**



Map Printed from WALGA Local Biodiversity Project Environmental Planning Tool on Thu Jan 29 11:51:35 AWST 2015

FINAL QUEENS PARK STRUCTURE PLAN

There is no POS associated with the train station, however the streetscape design for the neighbourhood street area is being shaped to provide for an outstanding urban realm to support the retail and community activities in the area.

- **Queens Park Reserve** (8.5 hectares) is an important 'green space' for the area and, more broadly, for the City. It includes an Australian Rules football grassed area, central synthetic cricket wickets, 2 synthetic cricket practice nets, gazebo, playground, change rooms with kiosk, floodlights and parking, all suitable for football, cricket, little athletics, teeball, softball, fairs, fetes and school carnivals.
- **Cunnington Park** (approximately 1.0 hectare) is currently subject to a design proposal (2014);
- **Mills Reserve** is a drainage corridor occupied by a trapezoidal drain. The reserve is generally narrow with limited opportunity for improvements;
- **Weetman Park** (0.16 hectares) is a pocket park adjacent to the Mills Street Drain and has some opportunity for 'water sensitive' integration with the Mills Street Drain, which is under the management of the Water Corporation;
- **Charles Treasure Park** (5.18 hectares) is a well-used linear park. Work in recent years has included improvement of compensating basins to strip nutrients and improve water quality and, with improvement of amenity in the vicinity of the basins both the environmental and visual quality of the park has been improved. In addition, lighting was upgraded in 2012 and the park is more accessible and safer for night time use. The result is that the park does get used more frequently in the evening. There is opportunity for further work in the future, such as the improvement of play areas, provision of barbecues and the introduction of exercise equipment along the pathways;
- **'Ancillary' Open Space** – Access to school grounds, whether private or public schools, may be restricted due to safety concerns that the school management may have. From that perspective school grounds are not considered as 'Public' open space. Nevertheless, access for the community, whether broadly accessible or more limited, may be negotiated with the schools. However, 'visual access' to the grounds can provide some benefit to the broader community as studies have shown that visual access to the green environment has mental health benefits.

As this LSP provides for increased density in accordance with Liveable Neighbourhoods, the local government may consider the following:

- Improve the quality and functionality of existing open spaces;
- Improve lines of access to and from existing spaces – make them legible and universally accessible and ensure, at early planning stages, the application of Crime Prevention through Environmental Design (CPTED) principles are considered;
- Establishing a community garden. A potential site of 2,000sqm has been identified in the Queens Park Reserve, as per Image 3;
- Ensure that sufficient POS, in various forms including the future POS that will be provided in the current light industry sites, is integrated into the LSP and that it responds appropriately to the anticipated demographic needs of the community; and
- Ensure the protection of the larger recreation facilities for formal sports such as Queens Park Reserve and Coker Park (acknowledging that Coker Park is outside of the LSP area).

Image 3 - Potential site for a community garden



4.2 Planting palettes

The planting palettes for the POS and streetscape will help create an identity that is unique to Queens Park. Using a variety of species that are endemic to the area, native to WA and even exotics that thrive in coastal sandy soils will help create a colourful softness to the urban setting. Street trees particularly are perceived as being important and integral to creating a 'liveable' environment as they bring many social, environmental and economic benefits to the community.

The local government is currently developing a streetscape masterplan for the Railway Precinct. This will guide the species as well as the pattern of trees that will be utilised within the Queens Park LSP area. Correct planting techniques, ongoing maintenance and management of street

trees are important consideration in a successful street tree programme. In this regard, the following principles will be followed:

- **Urban native mix / planted roundabouts** - Predominantly drought tolerant native species and selected drought tolerant exotic species and bold interesting planting patterns
- **Parkland native mix** – Based on water efficient and adaptable principles choose decorative planting which are predominantly drought tolerant native species with carefully selected drought tolerant exotic species.
- **Green corridors / verges** - Predominantly drought tolerant native species which are bird attracting. Combination of low to medium sized shrubs and ground covers. Development of verge landscaping is to be in accordance with the City's Verge Policy.
- **Swales, retention basin and rain gardens** - Predominantly native species adapted to both wet and dry conditions. Simple, bold planting patterns.

4.3 Current built-form

The proposed configuration for the Queens Park LSP area may change the current scenario as far as it would establish minimum densities, minimised setbacks and street activation.

Buildings throughout Queens Park are of a domestic scale. They are generally residential in nature, most having been constructed between the 1960s and current day. The predominant height throughout Queens Park is single storey. For this reason, and because of the flat topography, there are no visual cues as to important nodes within Queens Park. Whilst the buildings are generally sound, they are modest in construction and quality. Around the train station, where there is commercial development, building quality is generally poor. Newer buildings tend to be set back from the street and are designed to support vehicle movement and

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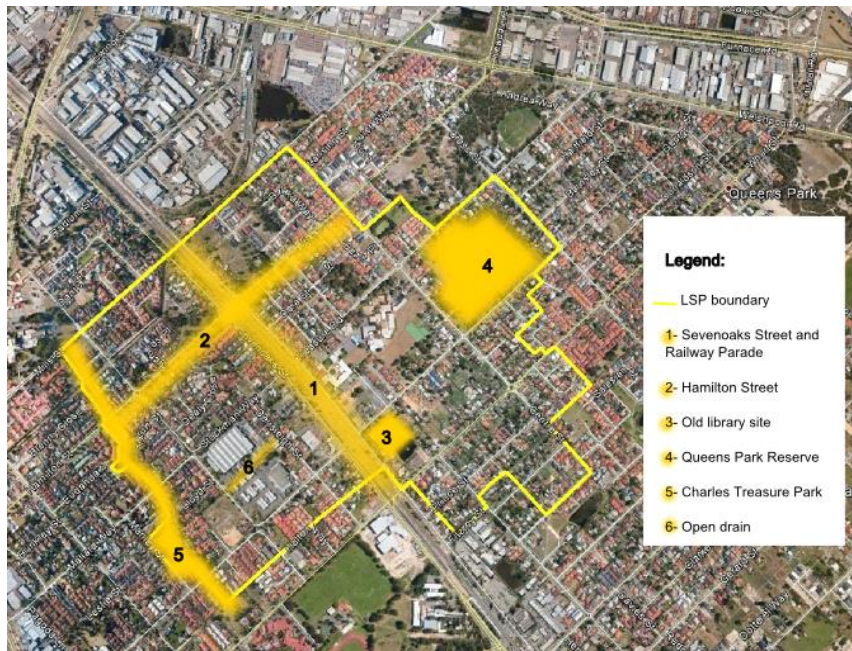
accommodation. The quality of the centre suffers because of an inconsistency of form, a sparseness and low intensity of development.

The establishment of a mixed use area in the neighbourhood activity centre will provide for a shift from vehicle to pedestrian oriented environment.

4.4 Landmark Sites

The LSP identifies as landmarks or gateway sites the main links and specific places near the train station. Development adjacent to landmark sites will have special guidance.

Plan 11 - Landmark sites



Developments facing landmark or gateway sites are to be developed in a manner that will facilitate way-finding and reflect the natural hierarchy and land uses of the LSP

4.5 “Development Requirements” analysis

“Clause 4 –Development Requirements” provides the built form for the Queens Park LSP area.

The objectives for each precinct outline the desired outcomes to be achieved by the LSP. The objectives have been grouped under the categories of land use; movement, access and parking; built form; streetscape character; landscaping and public realm; service and storage; and stormwater management.

The objectives are not listed in any priority or ranked order, but need to be read as a whole and in each of the precincts and understood as a complete package.

Developments are required to meet a performance based approach by addressing all the requirements.

The “Development Requirements” are to be read in conjunction with the following statutory documents:

- State Planning Policy 3.1 – *Residential Design Codes*;
- Town Planning Scheme No. 40;
- Town Planning Scheme No. 21;
- Town Planning Scheme No. 17A;
- Local Planning Policy SRS 220 – *Interim Assessment Of Subdivision And Development Application For Residential Land In Town Planning Scheme Nos 17A And 21*;
- Local Planning Policy SRS 214 - *Non Residential Development Adjacent To Residential Property*;
- Local Planning Policy SRS 227 - *Residential Development* (subject to the statutory planning review of this LPP); and

- The Building Code of Australia.

The diagrams and drawings contained within the guidelines are intended as a guide only and are not provided to define the final built form on any particular lot within the LSP area. Developments are to be designed to meet specific site conditions.

4.5.1 The Precincts

There are three precincts in this LSP, the Railway Precinct (Core and Frame) and the Residential Precinct. Each precinct makes an important contribution to the overall Queens Park LSP vision. However, each precinct will serve a different function and this will be reflected in the future built form and land use identified for each of them. This document provides an estimate of the likely dwellings; retail and office units for the precinct based on land use demand and built form capacity.

The Railway Precinct requirements provide a framework for the major changes proposed in the area including the interface with properties and the proposed links. The intent of the precinct is to give a combined overview of features, projects and opportunities for the precinct. This will:

- assist developers in preparing a design response and ensure new development contributes to the precinct vision;
- Introduce higher density in the 400 metre area around the train station; and
- assist in determining future public realm improvements and capital works.

The Residential Precinct requirements seek to provide guidance to developers to ensure that a quality built form is achieved within the context of the existing Town Planning Schemes 17A and 21 and support the transition toward higher intensification in the area.

The change proposed by the LSP has been classified into three levels. These levels are as follows:

- **Significant change** – the core of the activity centre where redevelopment will transform uses, activity and urban character to implement the objectives of Directions 2031 and the LSP.
- **Medium change** – areas where change that will contribute to the vitality of the activity centre is encouraged, but where change needs to be managed to maintain the established urban character.
- **Incremental change** – areas where change is expected, but where it is to be managed to ensure that it does not dilute the focus on development of the core, and where there are significant interface and urban character considerations.

4.5.2 Railway Precinct description

The Queens Park Railway Precinct encompasses the land around the Queens Park Train Station on the Perth/Armadale Line and aims to provide daily to weekly household shopping and community needs.

The Precinct currently contains medium and low density housing. The railway line does not have a very high usage rate within the City of Canning. Queens Park Train Station is currently not well-integrated into the neighbouring areas.

The area generally contains single storey dwellings on single lots on either side of the railway line. In addition to the dwellings there are some shops, open space, St. Norbert College and St. Joseph School. The land reserved for the station is relatively narrow, varying between 30 and 40 metres. The rail reserve currently contains car parking bays for the use of people using the train station allowing for a limited 'Park and Ride' service.

The area lacks public parking near the train station and the schools. The predominant commercial activity in this area is the supermarket which plays an important role in the local community. Its car park represents a barrier to pedestrians.

4.5.3 Railway (Core) Precinct Vision

- ❖ *Mixed use area*
- ❖ *Total land area: 6.5 hectares*
- ❖ *Level of change: Significant*
- ❖ *Anticipated number of dwellings: 400 (based on 60% efficiency rate)*

The Railway Precinct (Core) will develop as a high density mixed use precinct transport hub. The precinct will be focused on the movement of people between the train station, the activities of the Railway Precinct and the adjacent Residential Precinct. This precinct has the potential for major redevelopment and will transform into a vibrant, pedestrian-focused, mixed-use area. It will allow for retail, entertainment, office and community uses in addition to medium to higher density residential development on upper levels of buildings.

This vision will be achieved through the increased intensity of the precinct and the proximity of the new built form to the street. Landscape works surrounding the train station will beautify the area and improve access for all to the centre.

A new built-form character is to be developed, with an increase in scale and intensity to recognise and reinforce the area as the centre of the neighbourhood. A high standard of contemporary design, which maximises passive and active solar design and environmentally sustainable development opportunities, will be expected.

New development will provide a balance between the western and eastern parts of the railway and will incorporate Activated Use to the main streets. Car parking to service the centre is to be provided in basement or sub-basement, ground floor (at the rear of properties), multi-storey buildings or at the back of the buildings ensuring a high level of activity and amenity to the street and allowing for a less interrupted pedestrian environment. Pedestrian paths will improve connectivity in the area and access to POS.

The precinct is linked to the existing Cannington Leisureplex, which has a Library, indoor swimming pools and other water features, sports courts, a function centre, gym, kid's indoor playground, a crèche and a cafe.

In the future, when the Structure Plan is rescinded, the Railway Precinct (Core) will be rezoned to a Shopping zone, or comparable zone under the Local Planning Scheme.

4.5.4 Railway (Frame) Precinct Vision

- ❖ *Anticipated number of dwellings: 1500 (based on 60% efficiency rate)*
- ❖ *Residential area*
- ❖ *Total land area: 40.15 hectares*
- ❖ *Level of change: incremental*

The Frame of the Railway Precinct will develop as a medium-high density area with a focus on increased intensity accommodation, greater precinct amenity and improved surveillance of the streets. The precinct will incorporate residential uses only.

In the future, when the Structure Plan is rescinded, the Railway (Frame) Precinct will be rezoned to Residential, or comparable zone under the Local Planning Scheme.

4.5.5 Residential Precinct A and B description

- ❖ *Residential area*
- ❖ *Total land area: 44.9 hectares*
- ❖ *Level of change: Medium at the frame and incremental at the edge of the LSP area*
- ❖ *Anticipated number of dwellings: 1600 (60% efficiency rate)*

The Queens Park Residential Precincts encompasses the land immediately after the Railway Precinct in a 400 metre walking distance from its edges. It contains mostly low density housing. It will represent a

zone of transition between high and low density and deliver a development potential intended to result in broad-scale coordinated development.

The area generally contains single storey dwellings on single lots. There is some vacant and underutilised land in the area, especially the industrial land which has great potential for residential development.

4.5.6 Residential Precinct A and B vision

The Residential Precincts will develop as a medium density area with a focus on increased intensity accommodation, greater precinct amenity and improved surveillance of the streets. The precinct will incorporate residential uses only.

A new built-form character is to be developed, with an increase in scale and density to recognise and reinforce development in the Railway Precinct. A high standard of contemporary design, which maximises

passive and active solar design and environmentally sustainable development opportunities, is expected. Improved pedestrian links will be developed through the precinct. The precinct will foster a safe and enjoyable public realm.

A mix of residential development types to accommodate the future population in the area is expected. The existing road network and future improvements are illustrated in this section of the LSP.

In the future, when the Structure Plan is rescinded, the Residential Precincts (A and B) will be rezoned to Residential or comparable zone under the Local Planning Scheme.

FINAL QUEENS PARK STRUCTURE PLAN



Image 4 – Outcome example for the Railway (Core) Precinct: multiple dwellings



Image 5 - Outcome example for the Railway (Frame) Precinct: Multiple dwellings



Image 6 - Outcome example for the Railway (Frame) Precinct: multiple dwelling



Image 7 - Outcome example for the Residential Precinct: multiple dwelling



Image 8 - Outcome example for the Residential Precinct: multiple dwelling

5. Movement network

The area is well served by roads, footpaths and public transport however improvements may be required along the journey.

The character, form and function of Queens Park and Cannington has changed from rural to suburban during the past few decades and as a consequence it has inherited the current road layout. The large plots of land that accommodated market gardens and other rural activities were serviced by the former and current grid street block pattern. Under Town Planning Scheme No. 21 (reviewed in 2010) new roads were designated to accommodate residential development within the northern portion of the Queens Park Railway Precinct. Many of the new roads are cul-de-sacs which do not contribute to improved connectivity and legibility.

The railway is a strategic corridor running north-south along the Perth/Armadale Line. This route connects destinations to the south of the Swan River to Queens Park including Belmont Park, Burswood, Victoria Park, Welshpool, Cannington, Gosnells and Armadale and ultimately connects to Perth CBD.

5.1 Roads

As development occurs, road enhancements will be considered by the local government aiming to improve movement and accommodate parking within the area.

5.1.1 Existing network

Plan 11 shows the current road hierarchy for the LSP area.

The **Access Roads** are those that contain the lowest traffic volumes and generally service a small number of lots or are cul-de-sac roads. These roads are narrower than other roads throughout Queens Park and Cannington, generally between 14 and 20 metres wide. Due to low traffic

volumes, cyclists are able to share the road with vehicles, whilst footpaths are constructed for pedestrians only. No changes are proposed to those streets.

The **Local Distributor Roads** (Wharf Street, Treasure Road, Mallard Way, George Street and Centre Street) are those that provide access across the locality between District Distributor Roads. They are to be safe and attractive as they provide access to train stations and local centres. The suggested road section foresees approximately 20 metre width with 3.5 metre traffic lane width to allow sufficient space for public transport, should buses be routed through these roads in the future. In this model, trees could be accommodated within the 5.5 metre verge. Placing the footpath adjacent to the property boundary allows pedestrians to be separated from street traffic and located close to the property boundary. A landscape area with trees separates the footpath from the street pavement, consistently Liveable Neighbourhood guidelines.

The **District Distributor Roads:** The following District Distributor Roads provide access to and from neighbouring localities and carry higher volumes of traffic and public transport. They are important in setting the entry into Queens Park:

- Railway Parade - which runs parallel to the railway and provides an alternative route to Albany Highway;
- Hamilton Street - which connects Albany Highway to Welshpool Road across the railway line); and
- roads in a higher hierarchy (Sevenoaks Street).

For the roads that have medians, those should allow for a substantial tree planting area to provide a pedestrian refuge given the higher traffic volumes. With more street trees added to the medians, a lush and vegetated character will be given to the Queens Park area over time. Hamilton Street connects Albany Highway and Welshpool Road to Sevenoaks Street. This road should allow for a footpath on both sides of the carriageway as it is classified as a shared path “off-road cycle route”

FINAL QUEENS PARK STRUCTURE PLAN

according to the Canning Bike Plan, 2006, where pedestrians should share paths with bicycle users.

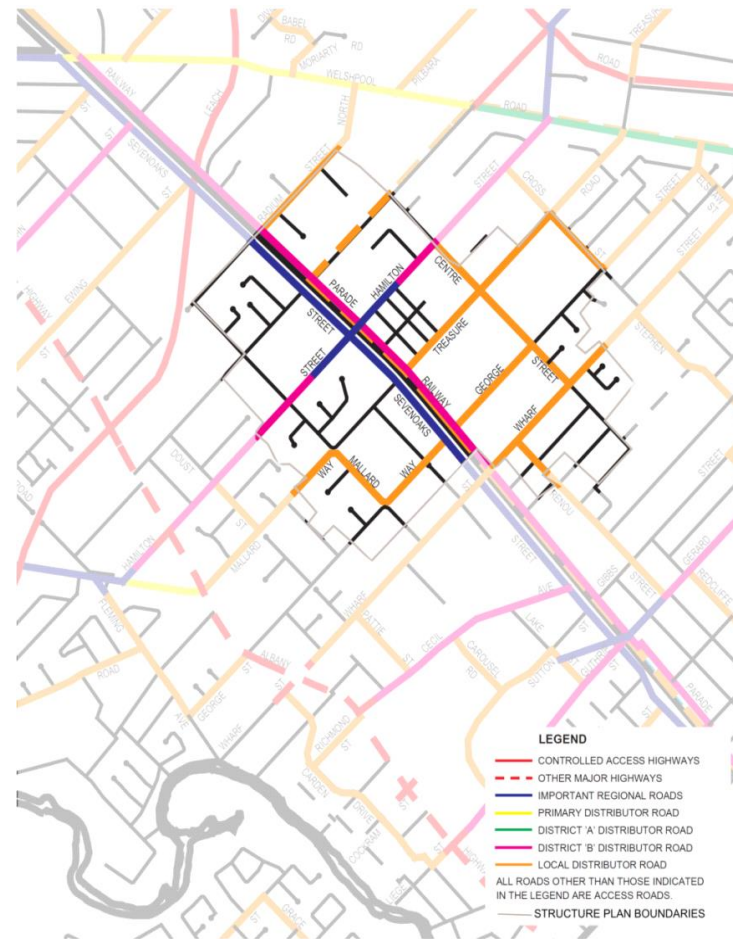
Sevenoaks Street is classified as an **Other Regional Road** which has progressively been upgraded. The fact that Railway Parade does not function as a **District Road** and also carries less traffic than Sevenoaks Street will be further reviewed in the Integrated Transport Strategy (ITS).

The following table shows the current road widths for all roads in the LSP area:

Current road widths					
Less than 6 metres	7.4 metres		9 metres	22 metres	30 metres
Dora Street	Stockman Way (perpendicular to railway)	Balaka Street	Stockman Way (parallel to railway)	Railway Parade	Sevenoaks Street
Sydney Street	Mallard Way (perpendicular to railway)	Walton Street	Mallard Way (parallel to railway)		
Godwit Street	Mills Street	Edward Street	George Way (West of railway)		
	Channon Street	George Street	Wharf Street		
	Hamilton Street	Centre Street	Renou Street		
	Prince Street	Treasure Road			
	Fitzroy Street	Wellington Street			

COLOUR LEGEND:	
	Access roads
	Local distributor road
	District 'B' distributor road
	Important regional road

Plan 12 - Current road hierarchy



5.1.2 Issues and future changes

The local road network has a low degree of attractiveness due to the varying intensity of development that is not related to location or a desirable urban framework.

The LSP will provide for a comfortable environment for pedestrians, cyclists, cars and public transport. As development occurs, the ideal road sections are outlined in the images below which are illustrative street sections for a 7.0 metre road and for a 9 metre road. All Local and District Distributor Roads should allow for a 1.5 metre footpath on either side of the carriageway and ideally all the 9.0 metre roads would be widened to add parking embayment to both sides of the carriageway.

Image 9: Access Street – Diagram of physical determinants for width (Liveable Neighbourhoods)

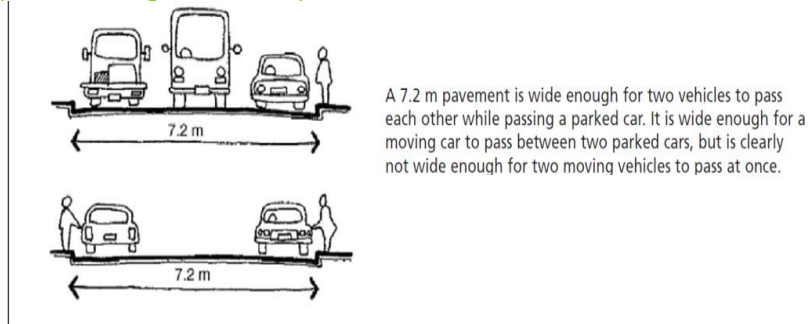


Figure 11: Diagram of physical determinants for the width of pavements in access streets

Image 10 - Suggestion for the 7 metre road section

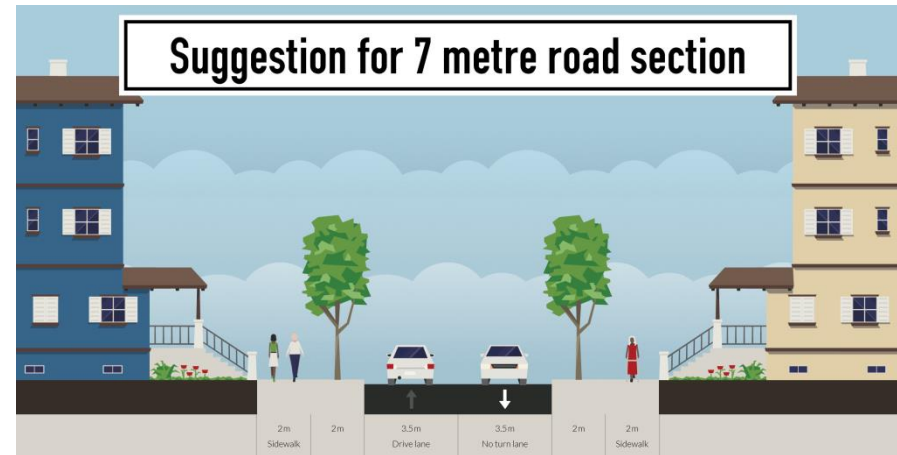
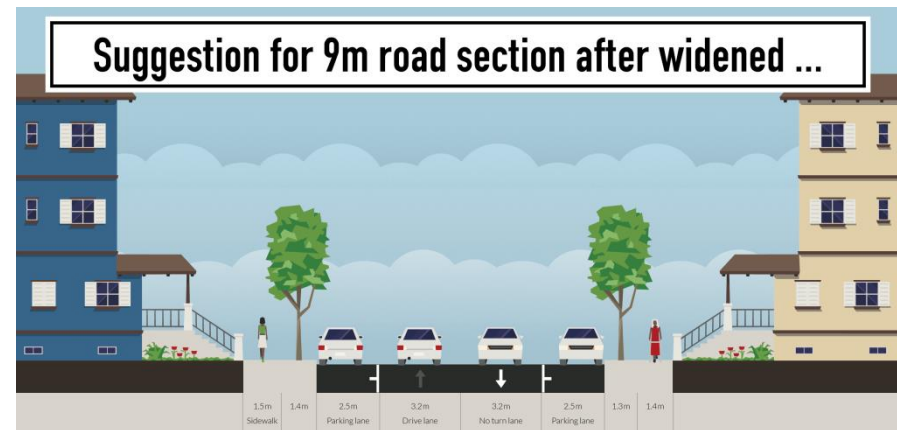


Image 11 - Suggestion for the current 9.0 metre road section after widened to 11.5 metres



FINAL QUEENS PARK STRUCTURE PLAN

Current road works and traffic management provisions are being assessed in order to improve connectivity and movement in the area. All indicative location of suggested improvements are shown in Plan 11.

Current road works

Sevenoaks Street has already had partial improvements made from Station Street to Mallard Way. This has resulted in a four lane road with a dividing median. These works will continue along Sevenoaks Street between Mallard Way and Ewing Street to create two lanes in each direction. Public utility services are currently being relocated to accommodate the works.

The local government will review the current Road Hierarchy Plan subsequent the endorsement of the ITS and the following issues will be considered in this process:

Proximity of Canning City Centre

In order to improve connectivity and the traffic flow between Queens Park and Cannington, Lake Street and Carousel Road (both located in the Canning City Centre) may be extended near Cannington Leisureplex to connect traffic to/from Wharf Street as shown in Plan 12 as part of Canning City Centre Structure Plan.

Traffic management

Once the detailed ITS is complete, further traffic modelling may be undertaken targeting the specific area of the Queens Park LSP to confirm those additional changes would be necessary. Moreover, all changes will be subject to specific public consultation.

The local government plans to improve traffic conditions in the area that will cater for present and future demands in the context of raised residential density, and may assess the following issues (also represented in Plan 12):

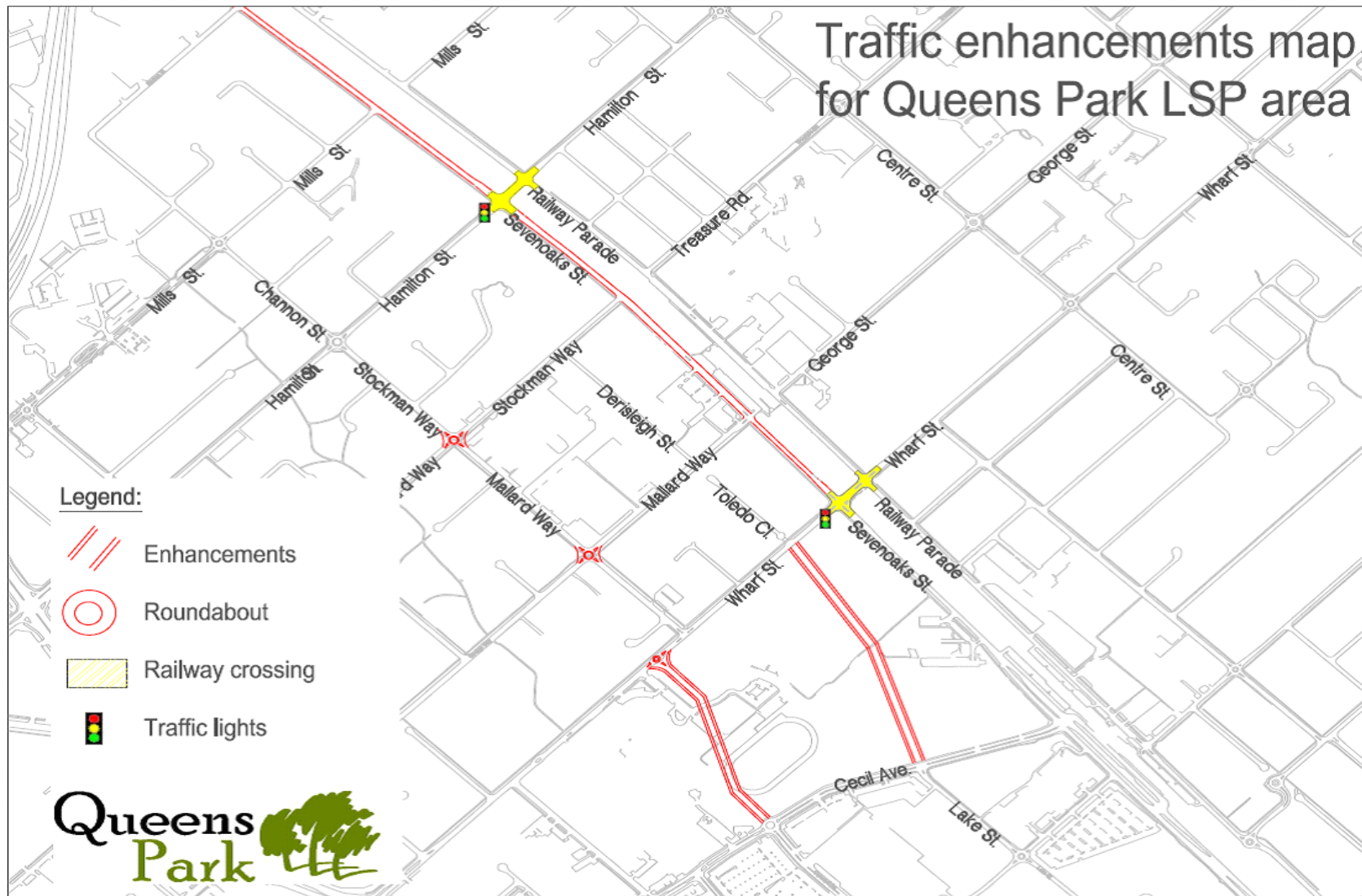
- The diagonal closure at the intersection of Mallard Way and Stockman Way may be replaced by a roundabout to improve connectivity depending on further studies; and
- The diagonal closure at the intersection of Mallard Way and George Way may be replaced by a roundabout to improve connectivity depending on further studies.

Future road works

The following road works will also be assessed as part of the City of Canning ITS:

- The intersection between Hamilton Street and Sevenoaks Street that is currently at grade level needs to be improved. Ultimately, grade separation may be a future solution. The land needed for any improvement in this intersection has already been acquired;
- Gerard Street will connect to Welshpool Road to the north and to Albany Highway to the south to improve connectivity; and
- The crossing of Wharf Street and the railway (Sevenoaks Street and Railway Parade) represents a concern surrounding the length of time that traffic halts due to the high flow of trains at these intersections. No land has been acquired at this intersection in order to improve or grade-separate it. Ultimately, there may be need for closure of this crossing in the future, however further detailed studies will be done as part of the ITS.

Plan 13 - Traffic enhancements map showing indicative location of access Streets



FINAL QUEENS PARK STRUCTURE PLAN

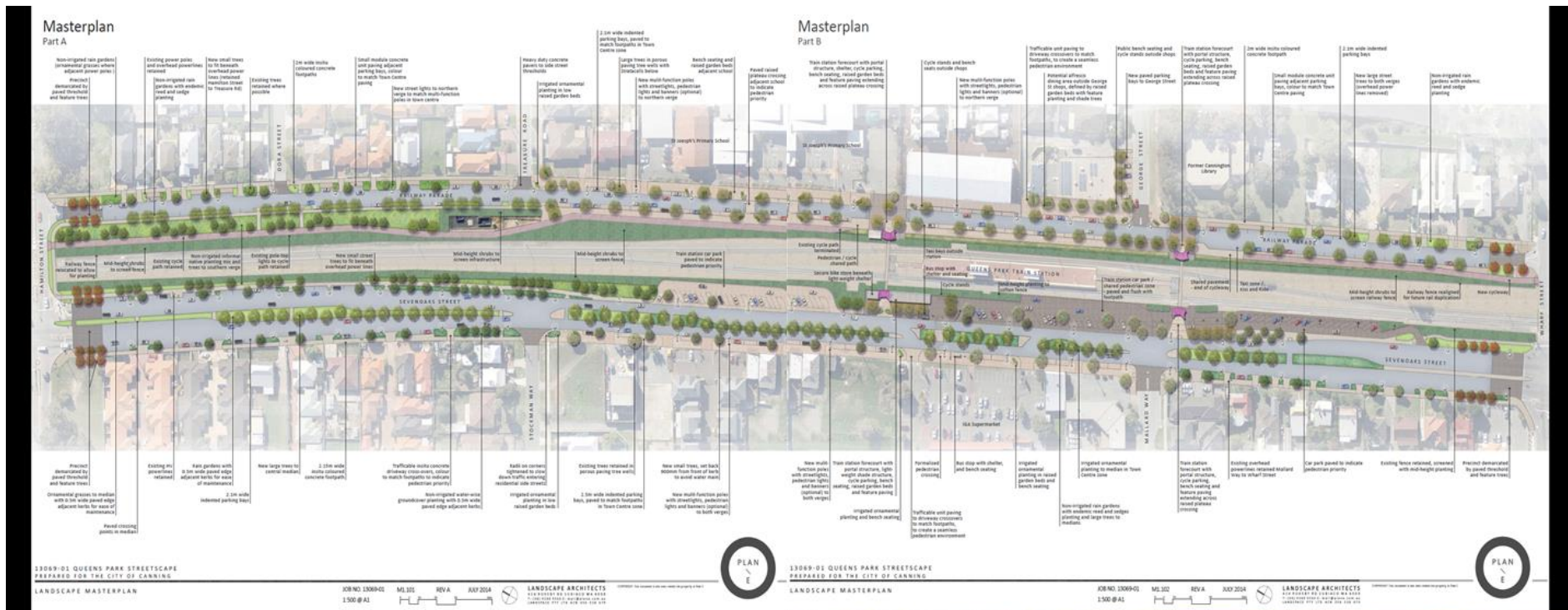
Neighbourhood Centre Streets will be created along Sevenoaks Street and Railway Parade in the Railway Precinct. The streetscape project took into account the type of high activity mixed use developments which are predicted. Also, main street developments with alfresco dining and related activities were considered to shape the new streets in order to limit the number of cars, traffic volumes and associated congestion.

Developments within the Railway (Core) Precinct will have a minimum 3 storey height and allow for an activated ground floor. Buildings are to be constructed to the street boundary.

Outside the Railway Precinct (Core), residential land use is mandatory and the setback is to be used for landscaping purposes. For more details, see "Clause 4 –Development Requirements" in Part 1 of this LSP.

The streetscape plan illustrated below is based on the masterplan developed by Plan-e to allow for more sedate traffic movement providing for street tree planting, a shared path, and on street parking where appropriate. The full Streetscape Plan is in the Appendices.

Image 12 – Streetscape Plan (by Plan-e)



5.2 Cyclists and Pedestrians

The bicycle network in the LSP area will be reviewed once this LSP is endorsed.

5.2.1 Existing network

There are cycling facilities within the Queens Park Train Station which are represented in the current Bike Plan (Plan 13) by off and on road cycle paths. The area is also fully served by footpaths. The current wide roads provide important district road functions; however, the pedestrian and cyclist environment could be improved. There are limited opportunities for pedestrian and cyclists to cross the railway.

5.2.2 Issues and Future changes

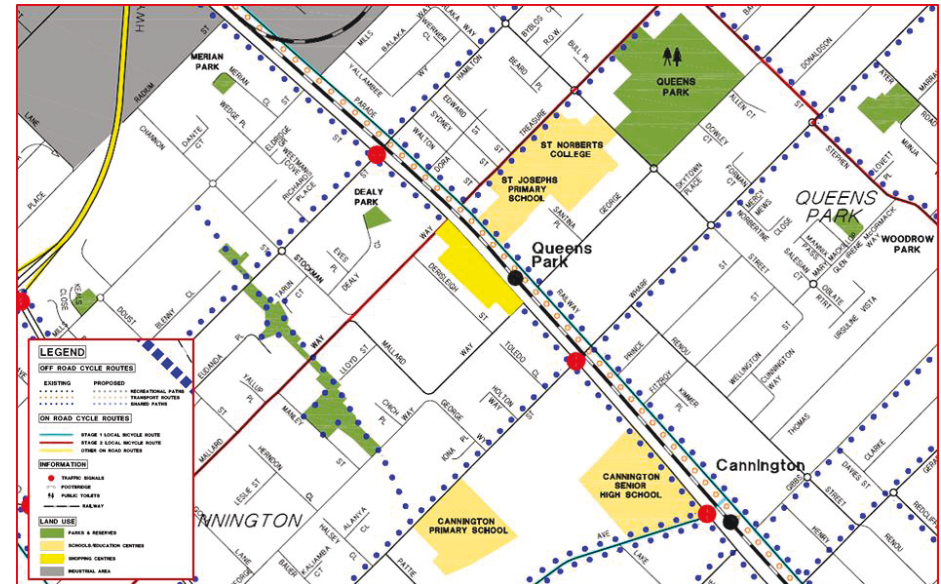
Considering the extra number of dwellings and population that the LSP facilitates, it would be appropriate to improve the character of the roads in order to:

- Improve the quality and impression of the area;
- Promote comfortable pedestrian and cycling environments; and
- Promote the identity of Queens Park.

In this context the local government will work towards reviewing the Bike Plan and developing a streetscape design for Sevenoaks Street and Railway Parade in the core area of the LSP.

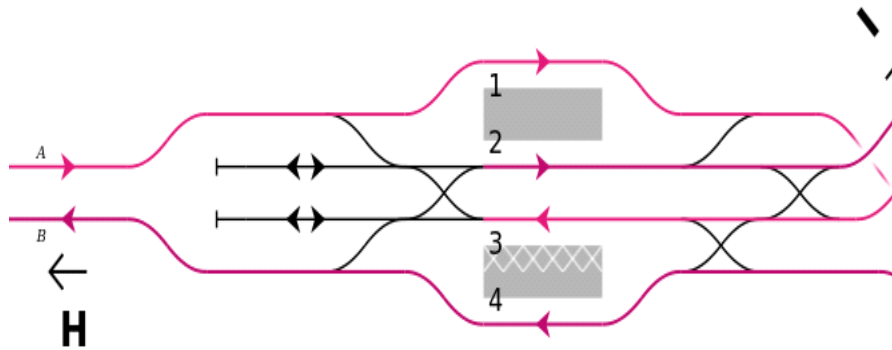
An on road cycling facility will be identified as part of the ITS which will reaffirm or complement the current Bike Plan. The bicycle network will be reviewed accordingly once this LSP is endorsed.

Plan 14 - Current Bike Plan zoomed into Queens Park LSP area



FINAL QUEENS PARK STRUCTURE PLAN

Image 13 - 4-track train station



- [Future changes in bus routes](#)

Overall, the bus network may also change according to demand. If in the future, the extension of Gerard Street connects Albany Highway to Welshpool Road, a bus route may be included or shifted to this route.

5.4 Parking

Parking is allowed in most of the streets throughout the Queens Park LSP area however some changes may be considered for the future, considering the higher densities in the area.

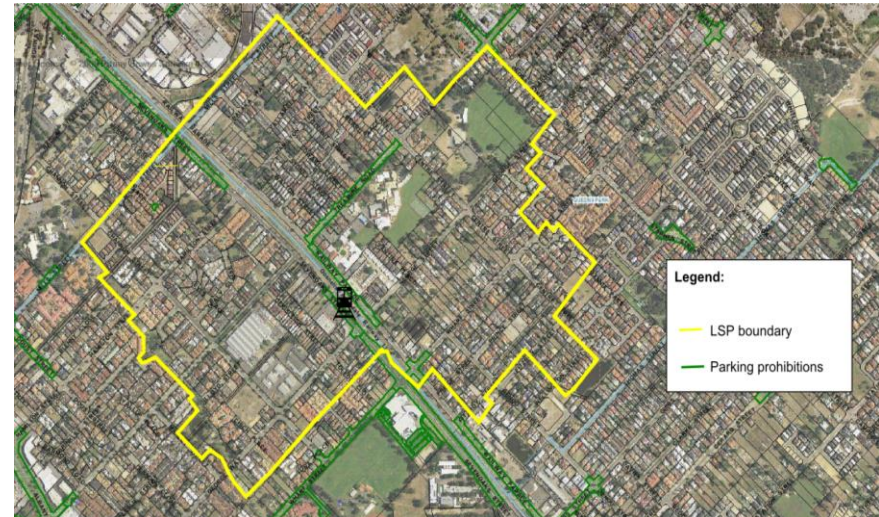
Parking restrictions currently apply along parts of Railway Parade, Sevenoaks Street, Wharf Street and Treasure Road as shown in Plan 15.

Due to higher densities in the area, possible changes for the Queens Park LSP area may be:

- Street widening to fit parking embayments on both sides of the 9.0 metre carriageway streets (Image 11); and

- Cash-in-lieu collected to fund future public car parking infrastructure.

Plan 16 - Parking prohibition



The Queens Park neighbourhood centre will mainly cater for local residents' daily needs.

Future development may result in a potential reduction in parking demands due to various factors associated with transit oriented development, high activity and neighbourhood centre developments.

The types of high activity mixed use development that are typically located within easy walking distance of public transport are predicated on shared trips between the various uses. Typically once the residential component increases there is greater allowance for activity to take place without the need for a vehicle trip. Main street developments are designed to a human scale with alfresco dining areas and open spaces to make the pedestrian experience more interesting and enjoyable. In order to create and maintain a human scale it is necessary to limit the direct impact of the vast number

of cars in the area and thus traffic volumes and associated congestion should be limited as far as possible.

Reciprocal arrangements to provide for visitor parking in the area during the transition to a more dense population could be accepted by the local government to facilitate the establishment of commercial activities in the Railway Precinct.

6 Major services and infrastructure

All lots within the development area are served with reticulated potable water supply delivered by a piped system and fully covered by sewerage.

As part of the Queens Park LSP the major services were analysed to ensure a coordinated approach to the delivery of service infrastructure across the LSP area and to guide the preparation of this LSP and subsequent developments in the area. Generally, the Queens Park LSP area is well serviced with regard to water, wastewater headworks, power lines and other infrastructure. The water, sewer, main drainage plan from Water Corporation is in the “Appendix 2” in the appendices of this LSP.

6.1 Sewer

The LSP area currently is fully served by a reticulated gravity sewer system. The existing system consists of the following:

- Gravity sewer lines serving all existing lots in the area. Typically pipe sizes are 300mm and over;
- The major pump stations serving the City are Cannington and Lynwood which pump via a DN700 main into the Cannington Main Sewer. The LSP area is split into pump stations (Kewdale and Cannington) that pump into the Cannington Main Sewer;

- The RC discharge line would only operate in an emergency situation;
- Kewdale Section 1 Main Sewer in Treasure Road and Stockman Way. There are small reticulation mains connected to this, which may need upgrading.

All sewerage infrastructure is owned and managed by the Water Corporation.

The need to upgrade reticulation mains on the Kewdale Section 1 Main Sewer may be avoided by collecting and treating the grey water component of wastewater. Treated grey water may be used for non-potable uses including watering of POS and flushing of toilets. In doing so, money spent on upgrading the sewer reticulation pipes can be used to fund a local treatment system for grey water. Inclusion of a localised treatment system for grey water has the added benefits of:

- Better water cycle management
- Quality of water fit for purpose usage of water
- Reliable of source of water for non-potable uses

6.2 Water Supply

All lots within the development area are served with reticulated potable water supply delivered by a piped system which exists within existing road reserves in accordance with minimum Water Corporation criteria regarding quality and pressure. All water supply assets are owned and managed by the Water Corporation. The LSP area is served from the Canning and Serpentine Trunk Mains and the Kewdale-South Perth branch.

Reticulation mains of 610mm diameter in Treasure Road and Stockman Way are small and may need assessment for upgrading as new reticulation pipes to be connected from the trunk mains will not be permitted by the Water Corporation. The 1065mm trunk main in Railway

Parade and 915mm trunk main in Sevenoaks Street feed the 610mm mains.

Water Corporation water and wastewater infrastructure

The Water Corporation has made a commitment to service development and population targets specified in Directions 2031. Work required to determine what water distribution and sewerage upgrades may be required to service the growing population will be undertaken by the Water Corporation as specific development requirements are defined, typically at Structure Plan stage. In this case, the local government predicts a future dwelling increase of approximately 3200 dwellings.

Generally the Water Corporation will schedule necessary upgrades to main pipe network as 'headworks' upgrades (DN300 and above) and the developer will be required to undertake necessary reticulation upgrades. Where significant development is proposed in specific locations coordination and funding of upgrades may be recouped through developer contributions mechanisms.

Water Management

Local water management is a key component to water cycle management and should consider the integration of water supply, sewerage and storm water while considering water-sensitive urban design principles. The local government's Local Water Management Strategy (LWMS) has informed this LSP in accordance with the requirements of State Planning Policy 2.9: Water Resources and Better Urban Water Management (WAPC, 2006).

Water use

To reduce the annual water consumption in the development, in particular potable scheme water consumption, it will be necessary to be efficient in the use of water, and to use water that is fit-for purpose and appropriately sourced. Efficient water use will be encouraged by following

recommendations outlined in the water sustainability principle and within "Clause 4 –Development Requirements" for the LSP area. Fit-for-purpose water sources to be adopted will be scheme water, groundwater, and wastewater reuse for landscape irrigation.

6.3 Stormwater management

- Existing main drainage system

The Queens Park LSP area is served by a network of Water Corporation main drains and connecting City of Canning drains which cover the entire area. There are three Water Corporation main drainage catchments present within the boundaries of the site, these are: *Cockram St Main Drain*; *Wharf St Main Drain* and *Mills St Main Drain*.

The northern part of the LSP area (north east of Sevenoaks Street) is served by the Cockram Street Main Drain and there are three compensating basins located in the area on this system, one of which is located within the core of the potential redevelopment area. Substantial water quality and aesthetic improvements are possible at these basins and this should be considered as a part of the redevelopment of this part of the LSP area.

The Wharf Street Main Drain serves the area south west of Sevenoaks Street and includes two compensating basins located along the south western boundary of the LSP area. These basins have been modified recently to improve water quality outcomes and are surrounded by interconnecting public open spaces. There is also a section of open drain along the boundary of existing light industrial lots where substantial improvements could potentially be made to environmental and aesthetic outcomes as a part of redevelopment in this area.

There is a small section of the Mills Street Main Drain and its catchment along the north eastern boundary of the LSP area. There are no compensating basins in this section of the catchment although there is a

FINAL QUEENS PARK STRUCTURE PLAN

section of open drain where improvements could potentially be made to environmental and aesthetic outcomes as a part of development in the area. Current drainage requirements for developments in the LSP area are represented in Plan 16.

- Capacity review

A capacity review of the Cockram Street and Wharf Street Main Drains has been undertaken in the Arterial Drainage Plan (Appendix 7) including consideration of the proposed redevelopment and intensification within the Queens Park LSP area.

It has been identified that the existing drainage system needs to be improved to allow for redevelopment of the Queens Park LSP area. The local government is working collectively with the Water Corporation to review priorities and catchment based solutions due to the proposed increase in density and runoff. Land may need to be acquired in the identified locations as per Appendix 7.

The proposed improvements to the Arterial Drainage Plan (Plan 21) include:

- Increase capacity (not necessarily size) in existing basins: Railway Parade Basin and Queens Park Basin;
- Construction of new basins: Treasure Road Basin and St. Norberts College Basin; and
- Upgrades to pipework and construction of an urban stream in the Mallard Way Precinct.

All those improvements are subject to an agreement with the Water Corporation.

Requirements for development: If catchment based solutions are not provided, developments within the Queens Park LSP area will be required

to maintain pre-development discharge flows and quality, and be protected from flooding in the 100-year ARI event. To this extent, the following storm water management measures are proposed:

- Treating the first flush of the storm using source control;
- Conveyance of the minor storm event to the outlet via pit and pipe; and
- Protection of properties against the major storm events.

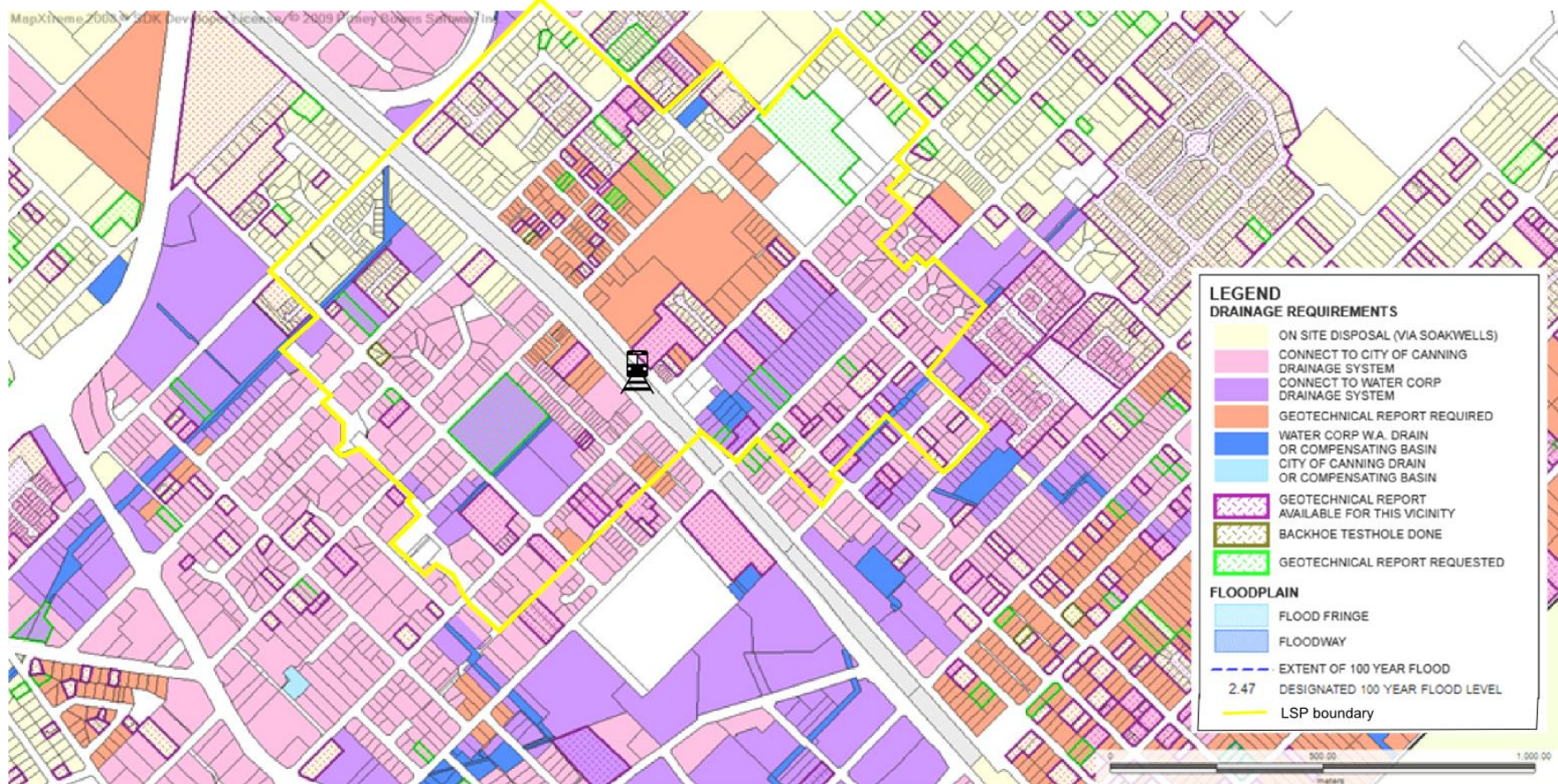
Groundwater management

As previously discussed, groundwater is shallow throughout the LSP area but is managed by the existing drainage system. Management of groundwater quality should be a key focus to improve water quality within the drainage system and thereby reduce the negative impacts of groundwater and nutrient exports from the LSP area. Developments within the LSP area are required to incorporate the following strategies to contribute to improving groundwater quality:

- Soil amendment (where the tested phosphorous retention index is less than 10 within all storm water infiltration areas and public open space);
- Infiltration will not be promoted in areas of known soil contamination; and
- Where possible reduce the dependence on groundwater for watering of POS and use alternate sources of water for this purpose. Increasing salinity has been identified as an issue in the City's groundwater aquifers due to reduced recharge and over abstraction.

FINAL QUEENS PARK STRUCTURE PLAN

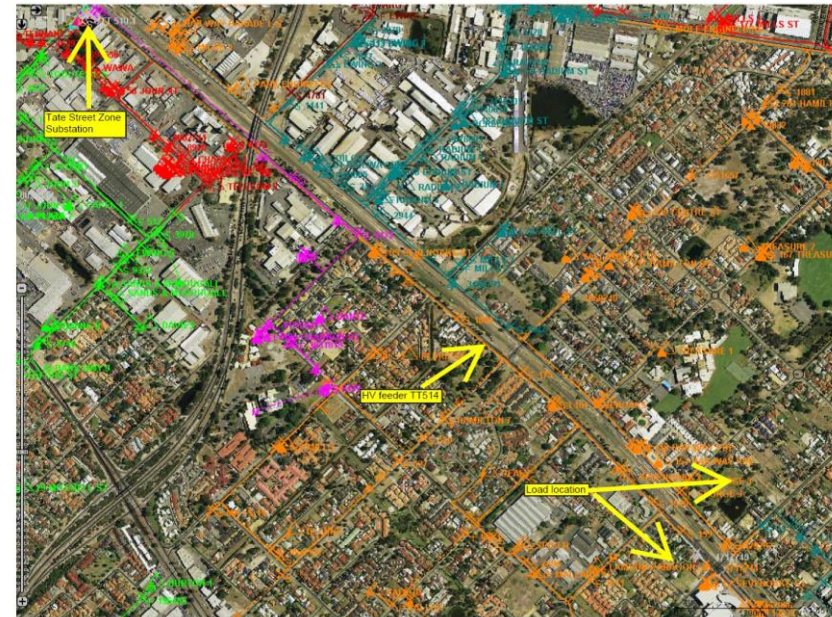
Plan 17 - Drainage requirements



6.4 Power

Western Power has carried out a feasibility study looking at how the development may be served with power supply staged through to the ultimate development from a distribution point of view. Western Power has analysed the first stage of load increase at this stage. The studies show that the load increase of 483 KVA can be connected to HV feeder TT514, which means a total of 1410 dwellings in the area estimated for 2016. Western power has also confirmed that Tate Street substation has enough capacity to supply all the stages of the development. For future stages, once a formal application to Western Power has been lodged, further in-depth study and analysis will be required to determine if any reinforcement works are necessary. For stage 1 of the development (up to 2016), no reinforcement is required to supply the 483 KVA load. However, additional costs for protection setting change and appropriate switchgear also needs to be taken into account.

Plan 18 - Existing 22kV around the LSP area



6.5 Telecommunications

Telecommunication system exists to a reasonable level in the area. The National Broadband Network (NBN) would be involved in the provision of telecommunications for the development area. Current policy is that for developments greater than 100 dwellings the NBN will provide optic fibre cabling to each dwelling.

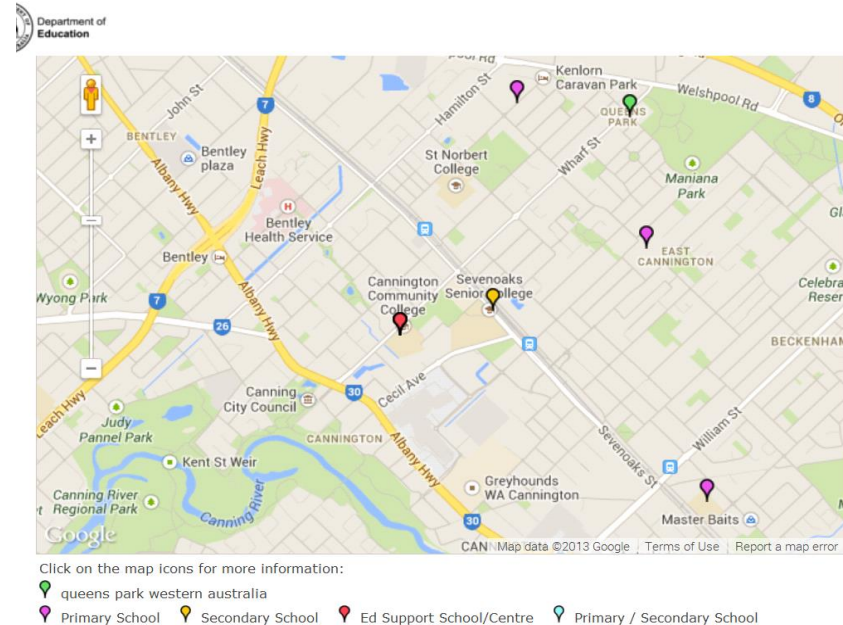
7. Education facilities

The area is well served by 9 education facilities within 1km distance from the train station (Plan 18). They are:

- Cannington Community College (primary and secondary)
- Queens Park Primary School (primary)
- Gibbs Primary School (primary)
- Sevenoaks Senior College (secondary)
- Cannington Community Education Support Centre (education support)
- Good Start Early Learning (childcare centre)
- St. Joseph's Catholic Primary School (primary and secondary)
- St. Norberts College (secondary)
- East Cannington Out of School (childcare centre)

Based on its calculations the Department of Education has determined that the current local primary schools, Queens Park Primary School, Cannington Community College (which this development is located within the catchment boundaries) will accommodate the anticipated student yield from the proposed development.

Plan 19 - Education Facilities



8. Activity Centres and employment

The retail floorspace in Queens Park is well within the threshold required to meet the future (Directions 2031) demand for its catchment.

It is anticipated that 6,000 sqm of retail floorspace will be added within the Queens Park LSP area by 2031. The current retail floorspace is approximately 900 sqm, bringing the total to roughly 7,000 sqm by 2031. The projected turnover (\$) in the Queens Park LSP area will support between 5,300 and 8,480 sqm of retail floorspace (again, by 2031). The projected turnover is generally based on the population within the catchment and what that population would be expected to spend at a

given centre based on its attractiveness. With approximately 7,000 sqm of retail floorspace projected in Queens Park by 2031 it sits comfortably between the minimum and maximum supportable floorspace (5,300 and 8,480 sqm).

The future retail floorspace is considered in the City of Canning Local Commercial and Activity Centre Strategy (LCACS).

9. Funding arrangements

There are currently two Guided Development Schemes in the LSP area, Town Planning Scheme No. 21 and Town Planning Scheme No. 17A.

The financial contributions from the Guided Development Schemes are converted into acquisition of POS that are well defined in the Scheme Text and Maps. The financial contributions in excess of that required for the purchase of POS within Town Planning Schemes No. 21 and No. 17A may be used for further improvement of POS in accordance with the provisions

of the Guided Development Schemes. If further upgrades to the Infrastructure are required in the future (i.e: undergrounding of power lines), the City may pursue a Special Area Rate or Developer Contribution Plan to fund upgrades.

10. Implementation

Part One of this document sets out a framework to implement the Queens Park LSP by aligning the LSP intent and vision the statutory planning framework.

The LSP establishes planning mechanisms required to guide private and public investments to transform the area beyond its present condition. Scheme amendment No.208 will rezone the area accordingly and provide the planning framework to empower the Queens Park LSP.

FINAL QUEENS PARK STRUCTURE PLAN

Plan 21 – Urban Streams identified in the Arterial Drainage Plan

City of Canning - Arterial drainage plan for Canning City Centre & Queens Park precincts
Figure 17 - preferred ultimate scenario, proposed upgrades



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Data source: Landgate, DAW, DPE, Create City of Perth, Projection: MGA55 Zone 50.

Scale 1: 15,000 @ A3
0 600 m





Illustrative perspective of Queens Park Train Station from Railway Parade

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Illustrative perspective of Queens Park Train Station from Railway Parade

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Illustrative perspective Sevenoaks Street: awnings and retain on ground floor

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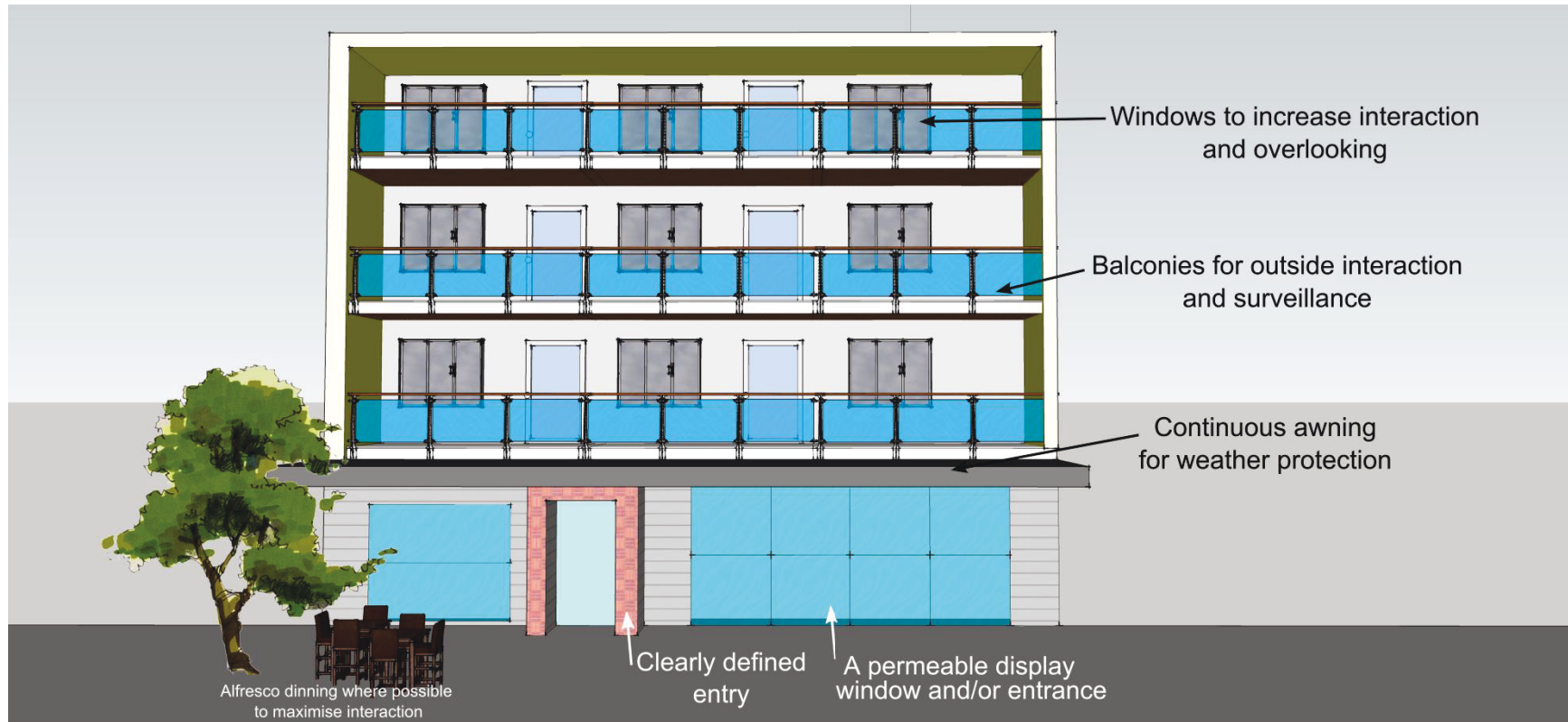
Illustrative perspective of Queens Park residential development in the Residential precinct

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Illustrative perspective of Railway Parade: awnings and retail on ground floor

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Illustrative perspective of mixed use building façade.

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Glossary of Terms/ Definitions

The following glossary outlines the intended meaning of some terms as used in this document. The meanings in as simple language as possible without diluting the meaning, and are not intended to be comprehensive or to define every technical dimension of the terms.

Activation	To make a place full of life. To facilitate, stimulate and accelerate creation of activity and liveliness, such as in terms of economic, social and physical activity.
Activity Centre	Community focal points, including activities such as commercial, retail, higher density housing, entertainment, tourism, civic/community, higher education, and medical services.
Accessible housing	Construction of housing to enable independent living for persons with disabilities.
Activated Use	Businesses such as shops and cafes with visible entrances, glazing etc that promote integration with the public realm.
Affordable housing	Housing that low income households can afford. Housing cost (eg. rent) that can be paid from a household’s income in addition to also meeting the cost of other basic needs such as food, clothing, transport, medical care and education. Affordable housing is typically targeted at low income households which are most sensitive to housing costs.
At grade	At the same level as surrounding ground levels.
Building envelope	A defined area within which a building should be contained. A building envelope may be 2 or 3 dimensional.
Built Form	The position, shape, size, height, style and

FINAL QUEENS PARK STRUCTURE PLAN

	appearance of buildings.
CBD	Central Business District, usually of the capital city.
Collaboration	Working together to produce or create something, especially in a joint intellectual effort.
Commercialisation	To take action intended to generate financial profit.
Consumer Services	Services to help non-business people with products they have. The formulation, deformation, technical consulting, repair and testing of any tangible personal property for sale and that is used for personal, family, or household for non-business purposes.
Communal Open Space	The R-Codes define communal open space as open space set aside for the recreational use of the occupants of the dwellings in a common development and does not include driveways or car parking areas. Communal open space is expected to include outdoor areas that promote gathering and social interaction and may in some instances be accessible to the public. It does not include primary external circulation areas for vehicles or pedestrians (such as driveways and footpaths) however a seating niche or small gathering space within a circulation area is acceptable. A minimum dimension is applicable for the main (largest) component.
Corner Element	An architectural feature or element which is only part of the building that addresses the corner and has a special or distinctive character or treatment that is visually distinguishable from the main facades of the building. The element is only part of a building and not the entire building itself.
CPTED principles	Crime Prevention through Environmental Design principles.

Governance	A system to control and have power over something. The act, process, or power of consistent leadership, exercise of power, management, cohesive policies, guidance, processes and accountability for a given area of responsibility.
Green Building	Buildings that have reduced environmental impact. Buildings including measures to reduce the use of resources such as energy and water use, and waste production. The Green Building Council of Australia has a comprehensive, national, voluntary environmental rating system that evaluates the environmental design and construction of buildings and communities.
Greenfield areas	Areas not previously developed for urban purposes.
'heat island' effect	Where a land area is significantly warmer than its surrounds, usually due to urban development that removes natural shade, uses materials which effectively retain heat and generates heat.
Heavy rail	passenger rail cars that are the heaviest weight, carry the most passengers, can travel fast speeds and, compared too light rail, accelerate and decelerate slowly due to their weight. Always segregated from vehicles and pedestrians.
Improvement Plans and Schemes	Legal documents the Western Australian Planning Commission can create to plan for, control and establish development and land use instead of Lcoal Planning Schemes.
Incentivisation	The practise of building a system or an arrangement of good reasons, promotion, motivation and/or inducements for desired action.
Integrated Transport Strategy - ITS	A transport plan prepared by a single local government or groupings of local governments to address local or sub-regional transport issues in

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	their areas of jurisdiction. Integrated transport plans are useful tools for the comprehensive analysis of existing and future transport system requirements within an area.
Knowledge intensive	Businesses that use or produce great amounts of knowledge. Enterprises which require a significant input of highly intellectual labour or knowledge to produce their output, product or service, and/or enterprises that's output, product or service is highly intellectual labour or knowledge.
Legibility	The ability for people clearly to find their way around a place.
Local Planning Schemes, Local Schemes, Town Planning Schemes 'TPS'	A legal document administered by local governments to manage land use and development within a defined scheme area.
Local Planning Strategy	A document created by local governments setting out the future land use planning intentions for a local government area.
Localisation economy	(Also known as Agglomeration economies) The benefits to businesses of locating close to similar businesses. The advantages to a collective system of the same type of enterprises of being located together in a densely populated area. Advantages may include completion between multiple local suppliers, greater labour specialisation, proximity to a large market, lower transport costs and functional linkages to other related enterprises.
Masterplanning	The process of formulating a comprehensive long term plan.
Metropolitan Region Scheme	A legal document setting out the broad land use zones and reserves for the entire Perth metropolitan

'MRS'	region.
Mobility	The ability to move from one location to another.
Modal split	The division of journeys according to the means of travel.
Modal Shift	A change in the modal split.
Place	An area with definite or indefinite boundaries, usually in urban design terms referring to a distinct identifiable area.
Place making	A system for making a place better. The organisation of actions to improve the quality of a place to the benefit of its residents and visitors, usually concerned with public spaces. Often involves ongoing management until the place and its community are self-sustaining.
Plot Ratio	Plot ratio for developments is assessed based on the definition of plot ratio in the Residential Design Codes.
Public Open Space 'POS'	POS Tool defines public open space (POS) as all land reserved for the provision of green space and natural environments (e.g. parks, reserves, bushland) that is freely accessible and intended for use for recreation purposes (active or passive) by the general public.
Public realm	Any areas and buildings that are open to access by the general public, and include areas that are visible to the public from such areas.
Rapid transit	Public transport services and routes designed to carry high volumes of passengers over short to medium distances in a short time.
R-Codes - Residential Design Codes	The R-Codes provide the basis for controlling the siting and design of residential development throughout Western Australia.

FINAL QUEENS PARK STRUCTURE PLAN

Sense of place	An identifiable set of traits of a place which define the place and its uniqueness.
Setbacks	The distance between a building and a lot boundary, usually measures at right angles to the boundary.
'shoulder' bike lanes	Cycle lanes located on the outer extremities of a road pavement.
Spatial	Of, relating to, involving, or having the nature of space.
Special Control Area - SCA	Mechanism of town planning schemes to deal with a wide range of planning and environmental issues has been proposed by many local governments and state government agencies.
Specialised Centre	Centres focused primarily on regionally significant economic or institutional activities that generate many work and visitor trips, which therefore require a high level of transport accessibility. These centres may also include other activities, particularly knowledge-based businesses that complement the primary function.
Statutory Planning	The making of legal land use plans and approval of subdivision and development. Processes concerned with fulfilling legal requirements of land use planning laws such as the creation and amendment of Local Planning Schemes, structure plans, and approvals to subdivision and development applications.
Strategic	Careful focus on achieving favourable results for the essential or highly important overall long term interests and aims.
Street Interface	The meeting of and relationship between a public street and a building or development.
Suburban	Traits of a suburb, usually being low density residential development in the outer areas of a city

	that is largely reliant of private car use.
'Town and gown'	The relationship between the two distinct populations with a university town; "town" being the non-academic population/residents and "gown" being the students and university staff.
Transit Oriented Development (TOD)	Development around train stations that increases use of public transport. Locating moderate to high-intensity commercial, mixed use, community and residential development close to train stations and/or high-frequency bus routes to encourage public transport use over private vehicles.
Travel Management, Travel Plan	Actions to reduce car use and increase alternatives to car use. A package of measures, initiatives and promotions aimed at reducing single occupant travel by car (and associated emissions) by developing and encouraging alternatives and more travel choices like teleworking, walking, cycling, public transport and carpooling.
Typology, Typologies	A logical grouping of types, according to common elements, form, character and/or arrangement of those elements. A typology may serve as a model, such as models for urban form.
Urban design	The practice of arranging the elements of urban areas to create places with distinct beauty and identity that are functional, attractive, and sustainable. Urban design principally addresses the public realm and relationships between people and places, movement and urban form, and nature and buildings at the scale of groups of buildings and streets but also extends to whole neighbourhoods and districts, and even entire cities.
Urban fabric, Urban form	The design and layout of the structural elements of an urban area or city. The structural elements

FINAL QUEENS PARK STRUCTURE PLAN

	include natural features, open spaces, transport/road systems, infrastructure, streets, land uses, built form, and the like.
Urbanisation economy	The advantages to a collective system of enterprises of being located in an concentrated urban area. Advantages may include proximity to a market, labour supply, good communications, and financial and commercial services.
Walkability	A measure of how suitable, attractive and pleasant a place or route is for walking. Hence an alternative term is “pedestrian friendly”. Factors influencing walkability include the presence or absence and quality of footpaths, protection from the weather, shade, landscaping, physical and personal safety, wayfinding, interesting activities along routes, safe road crossings and the like.
Walkable catchment	The area within a specified walking distance along publicly accessible pedestrian routes from a given place. The distances is usually 400m or 800m from an activity centre or a public transport stop or station.
Western Australian Planning Commission - WAPC	The WAPC is the statutory authority with statewide responsibilities for urban, rural and regional land use planning and land development matters. The WAPC responds to the strategic direction of government and is responsible for the strategic planning of the State.
Way finding	Sensory cues to help people know where to go through a place to get from where they are to their desired destination. Wayfinding is assisted by maps, signage, graphical clues, landmarks, objects, pathways, landscaping, arrangement of spaces and other similar sensory cues.

Grain	The arrangement, direction, texture or pattern of fibres or small parts.
Elevation	A scale drawing of the side, front, rear or one vertical plane of something such as a building.
Feeder Bus, transit	A public transport service which is primarily intended to bring passengers to a railway station from surrounding areas.
High Frequency (transport)	A public transport service which departs every 15 minutes or less.
Multiplier effect	Where an increase in one thing leads to a greater increase in something else. For example, where a job is created, it leads to the creation of multiple other jobs.
Amenity	The things about a place that make it desirable, pleasant, enjoyable, useful, convenient, comfortable and valuable. Amenity can be tangible such as a facility, or intangible such as the sense of security, proximity to something, sense of community, or climate.
Regeneration, Transformation	The action of renewing a place, usually involving a change for improvement, and includes physical elements such as roads and buildings and intangible elements such as community.
Intensity, Intensification	In relation to development, usually translates to higher density residential development and more economic activity in the same space or place.

Table of figures Index

Tables	Table 1: Structure Plan Summary Table	pg6
	Table 2: Preferred uses in each precinct	Pg15
	Table 3: Key development provisions for developments in the Railway (Core) Precinct	pg17
	Table 4: Key development provisions for developments outside the Railway (Core) Precinct	pg27
	Table 5: Site issues, condition, constraints and remedies	pg47
	Table 6: POS within Queens Park LSP area	pg55
Pages	Image 1- What does the LSP try to achieve?	Pg11
	Image 2 - Aboriginal register site 3633	pg54
	Image 3 - Potential site for a community garden	pg58
	Image 4 – Outcome example for the Railway (Core) Precinct: multiple dwellings	pg63
	Image 5 - Outcome example for the Railway (Frame) Precinct: Multiple dwellings	pg63
	Image 6 - Outcome example for the Railway (Frame) Precinct: multiple dwelling	pg63
	Image 7 - Outcome example for the Residential Precinct: multiple dwelling	pg63
	Image 8 - Outcome example for the Residential Precinct: multiple dwelling	pg63
	Image 9 - Access Street – Diagram of physical determinants for width (Liveable neighbourhoods)	pg66
	Image 10 - Suggestion for the 7 metre road section	pg66
	Image 11 - Suggestion for the current 9.0 metre road section after widened to 11.5 metres	pg66
	Image 12 – Streetscape plan (by Plan-e)	pg69
	Image 13 - 4-track train station	pg72

Plans	Plan 1 - Local Structure Plan	pg14
	Plan 2 - Landholdings requiring a LDP	Pg29
	Plan 3 - Private interface and hierarchy of frontages and movement improvement	pg35
	Plan 4 - 800 metre walking distance from Queens Park train station	pg38
	Plan 5 - The location of the LSP site in relation to the area and region	pg39
	Plan 6 - Activity Centres Hierarchy	pg44
	Plan 7 - The integration between Queens Park LSP and Canning City Centre Structure Plan	pg46
	Plan 8 - City of Canning Environment Management Strategy (EMS)	pg50
	Plan 9 - Existing footprint in the LSP area	pg55
	Plan 10 - POS and reserves distribution	pg56
	Plan 11 - Landmark sites	pg59
	Plan 12 - Current road hierarchy	pg65
	Plan 13 - Traffic enhancements map showing indicative location of access streets	pg68
	Plan 14 - Current Bike Plan zoomed into Queens Park LSP area	pg70
	Plan 15 - Current bus routes	pg71
	Plan 16 - Parking prohibition	pg72
	Plan 17 - Drainage requirements	pg76
	Plan 18 - Existing 22kV around the LSP area	pg77
	Plan 19 - Education Facilities	pg78
	Plan 20 – LSP area in TPS40	pg80
	Plan 21 – Urban Streams identified in the Arterial Drainage Plan	pg81

Appendices

Appendix number	Document
1	Queens Park Local Structure Plan Intramaps addresses
2	Supporting studies - Western Power and Water Corporation
3	Community consultation outcomes
4	Final Local Housing strategy map - September 2014
5	LCACS Draft Chapter 3 - Floorspace demand assessment
6	City of Canning Water Management Strategy
7	Arterial Drainage Plan (Draft)
8	Environmental Management Strategy
9	Supportive guidance for development
10	Queens Park Streetscapes Plan-e
11	Ordinary Council Meeting (February 2015)
12	GIS files