English Street

Precinct Structure Plan

November 2015

METROPOLITAN PLANNING AUTHORITY

PLANS

TABLES

FIGURES

CONTENTS

Plan 1 - Regional Context Plan

English Street Precinct Structure Plan

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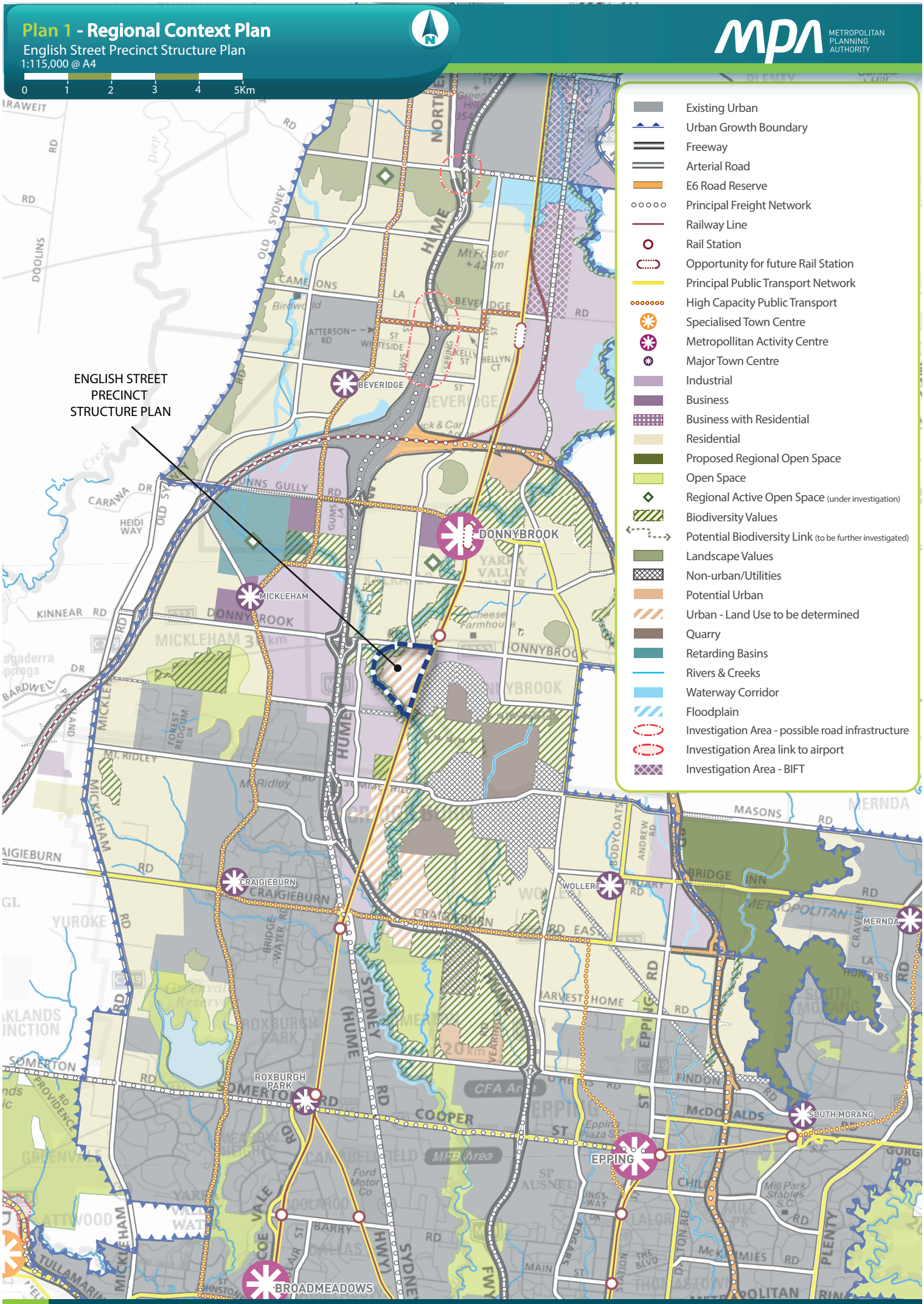

1.0 INTRODUCTION

The English Street Precinct Structure Plan (the PSP) has been prepared by the Metropolitan Planning Authority (MPA) with the assistance of the City of Whittlesea, Government agencies, service authorities and major stakeholders.

The PSP is a long-term plan for urban development. It describes how the land is expected to be developed, and how and where services are planned to support development.

The PSP is a set of decisions about how the land is to be developed. The PSP:

- Sets out plans to guide the delivery of quality urban environments in accordance with the Victorian Government guidelines.
- Enables the transition of non-urban land to urban land.
- Sets the vision for how the land should be developed and the outcomes to be achieved.
- Outlines the projects required to ensure that future residents, visitors and workers within the area can be provided with timely access to services and transport necessary to support a quality and affordable lifestyle, with access to local jobs.
- Sets out objectives, requirements and guidelines for land use, development and subdivision.
- Provides Government agencies, the Council, developers, investors and local communities with certainty about future development.
- Addresses the requirements of the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999) through Federal approval of the *Biodiversity Conservation Strategy and Sub Regional Species Strategies for Melbourne's Growth Areas* (September 2013)*.

*On September 2013 an approval under the Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act) was issued by the Commonwealth Minister for Environment, Heritage and Water. The approval applies to all actions associated with urban development in growth corridors in the expanded Melbourne 2010 Urban Growth Boundary as described in page 4 in the Biodiversity Conservation Strategy for Melbourne's Growth Corridors (Department of Environment, Land, Water & Planning, 2013). The commonwealth approval has effect until 31 December 2060. The approval is subject to conditions specified at Annexure 1 of the approval. Provided the conditions of the EPBC Act approval are satisfied individual assessment and approval under the EPBC Act is not required.

The PSP is informed by:

- The *State Planning Policy Framework* set out in the *Whittlesea Planning Scheme*;
- The *Growth Corridor Plans: Managing Melbourne's Growth* (Growth Areas Authority, June 2012);
- The *Local Planning Policy Framework* of the *Whittlesea Planning Scheme*;
- The *Biodiversity Conservation Strategy* and *Sub Regional Species Strategies for Melbourne's Growth Areas* (Department of Environment and Primary industries, June 2013); and
- The *Precinct Structure Planning Guidelines*.

The following planning documents have been developed in parallel with the PSP to inform and direct the future planning and development of the Precinct:

- The *English Street Development Contributions Plan* (DCP) requires development proponents to make a contribution toward infrastructure required to support the development of the Precinct.
- The *Craigieburn North Employment Area Precinct Structure Plan* and *Craigieburn North Employment Area Development Contributions Plan*.
- *The Craigieburn North Employment Area and English Street Background Report* (Background Report).

1.1 How to read this document

This PSP guides land use and development where a planning permit is required under the Urban Growth Zone (Clause 37.07 of the Whittlesea Planning Scheme), or any other provision of the planning scheme that references this structure plan.

A planning application and a planning permit must implement the outcomes of the PSP. The outcomes are expressed as the VISION AND OBJECTIVES.

Each element of the PSP contains requirements and guidelines as relevant.

Plan 2 - Precinct Features Plan

English Street Precinct Structure Plan

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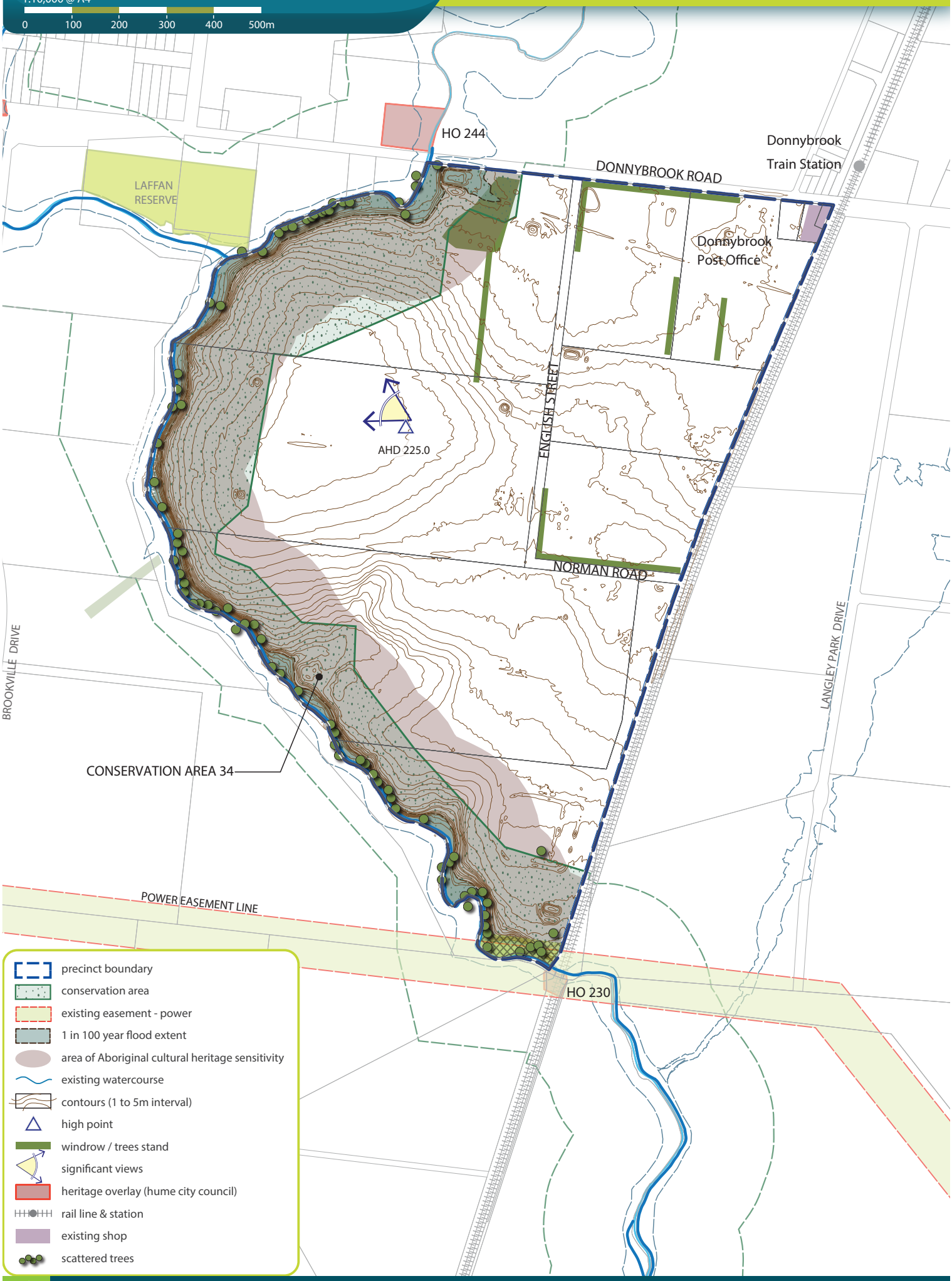

REQUIREMENTS must be adhered to in developing the land. Where they are not demonstrated in a permit application, requirements will usually be included as a condition on a planning permit whether or not they take the same wording as in the structure plan. A requirement may reference a plan, table or figure in the structure plan.

GUIDELINES express how discretion will be exercised by the Responsible Authority in certain matters that require a planning permit. If the Responsible Authority is satisfied that an application for an alternative to a guideline implements the outcomes, the Responsible Authority may consider the alternative. A guideline may include or reference a plan, table or figure in the PSP.

Meeting these requirements and guidelines will implement the outcomes of the PSP.

Development must also comply with other Acts and approvals where relevant e.g. the *Environment Protection* and *Biodiversity Conservation Act* 1999 in the case of biodiversity or the *Aboriginal Heritage Act 2006* in the case of cultural heritage, amongst others.

Not every aspect of the land's use, development or subdivision of land is addressed in this structure plan. A Responsible Authority may manage development and issue permits as relevant under its general discretion.

1.2 Land to which this PSP applies

The PSP applies to approximately 143 hectares of the land shown on Plan 2. The PSP area is generally bound by the Merri Creek to the west and south, Donnybrook Road to the north; and the Sydney-Melbourne rail line to the east.

The Precinct is located approximately 28 kilometres north of Melbourne's Central Business District. The site is strategically located south of Donnybrook township on Donnybrook Road and close to the existing Donnybrook train station on the Melbourne-Sydney rail line. The approved Lockerbie Precinct Structure Plan lies immediately north of the Precinct and includes the Lockerbie Principal Town Centre (PTC), the major centre planned to service the region. The Craigieburn North Employment Area Precinct (PSP 25.1) lies immediately south and west of the Precinct across Merri Creek.

The site is relatively flat, with a small rise in the central north. The site drains to the west and south-west into Merri Creek, which defines the western and southern boundary of the site. A small, defined valley drains the South West of the Precinct.

The Precinct has been largely cleared for agriculture; however there are areas of remnant Plains Grassy Woodlands and Golden Sun Moth habitat across the east and south-west of the Precinct. Plains Grassy Woodland patches are recorded in several locations across the Precinct. The Biodiversity Conservation Strategy (BCS) identifies the Merri Creek Growling Grass Frog (GGF) reserve (No. 34) along the extent of Merri Creek in the Precinct up to 200 metres from the Creek line. The GGF reserve contains remnant riparian vegetation and nationally significant habitat for the threatened GGF.

Stands of introduced vegetation and windrows are evident along the Norman Road reserve and surrounding the farmhouse south-west of the English Street and Donnybrook Road intersection. Plan 2 identifies the key features of the land.

The land budget summary for the precinct is at Table 7.

1.3 Development Contributions Plan

Development proponents within the English Street Precinct will be bound by the English Street Development Contributions Plan (the DCP). The DCP sets out requirements for infrastructure funding across the English Street Precinct.

Once complete, the DCP will be a separate document incorporated in the Whittlesea Planning Scheme.

A DCP has also been prepared for the abutting Craigieburn North Employment Area, in the Hume City Council; the Craigieburn North Employment Area DCP. Although it constitutes a separate DCP, the Craigieburn North Employment Area DCP shares a major DCP project with the English Street DCP, the Merri Creek road bridge.

Development proponents wishing to commence works prior to incorporation of this DCP can enter into agreements with the City of Whittlesea under Section 173 of the Planning and Environment Act 1987 to expedite contributions.

1.4 Background Information

Detailed background information on the Precinct is available, including the local and metropolitan context, history, biodiversity, landform and topography, land contamination, targeted aboriginal cultural values inspection, integrated water management, transport, economic and retail provision, open space and community infrastructure requirements. This information is summarised in the Craigieburn North Employment Area and English Street Precinct Background Report and has informed the preparation of the PSP.

Plan 3 - Future Urban Structure

English Street Precinct Structure Plan

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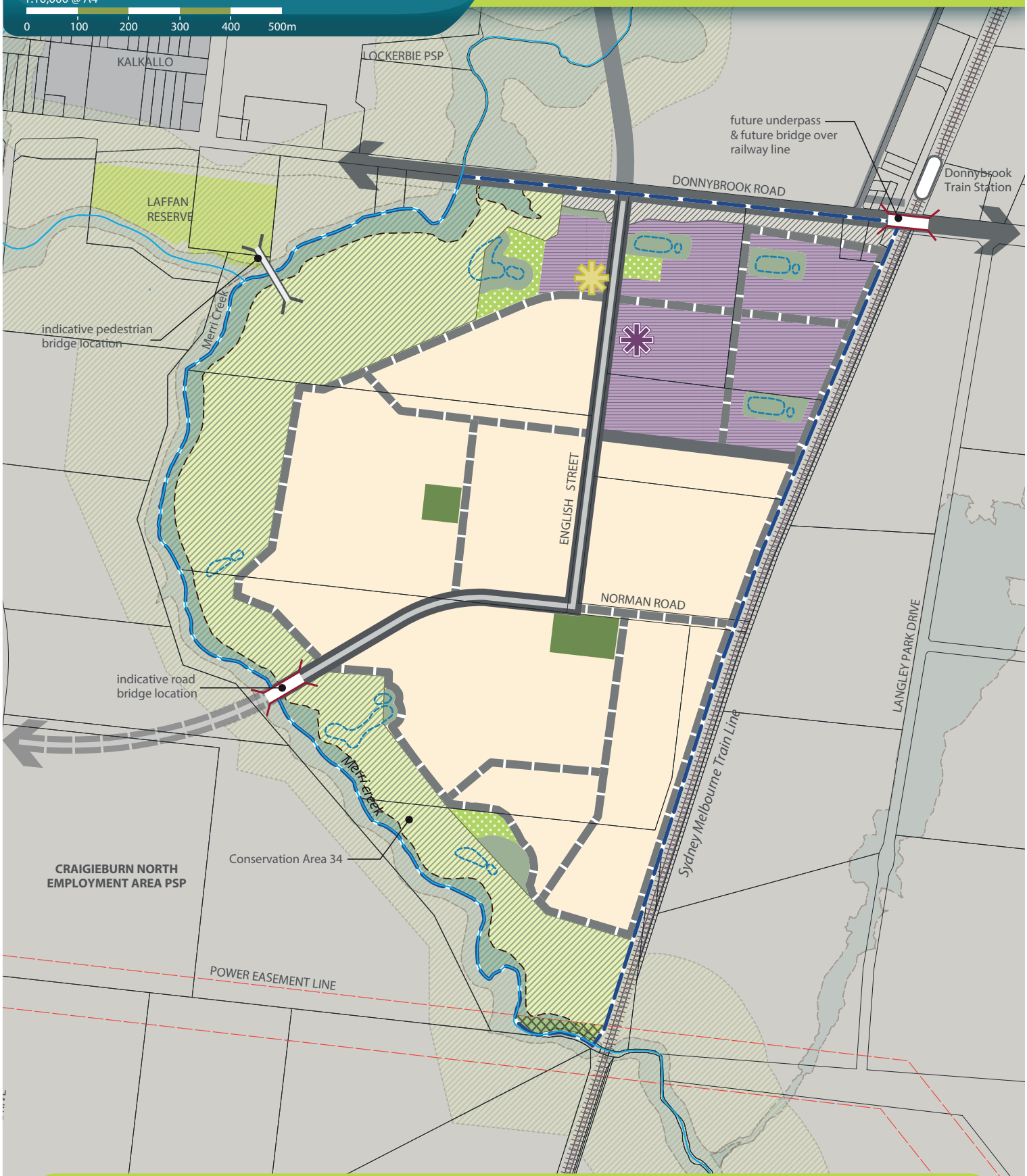

- precinct boundary
- residential
- commercial precinct
- credited open space
- waterway / drainage reserve
- power transmission easement (encumbered)
- existing train station
- conservation area
- 1 in 100 flood level
- secondary arterial road
- connector street
- donnybrook road
- public acquisition overlay (PAO)
- watercourse
- local access street
- road bridge
- pedestrian bridge
- community facility
- potential local convenience centre

2.0 OUTCOMES

2.1 Vision

The English Street precinct will be a well-presented, high-quality, business and residential area. Development of the precinct will create a diverse mix of commercial offices, local convenience retail uses, community assets and residential dwellings. This will promote self-sufficiency for the precinct in meeting local daily needs. It will also strengthen the retail and commercial offering in the existing Donnybrook township. Residential and business development will capitalise on the precinct's proximity to Donnybrook Train Station.

The road network will enhance connections between the precinct and surrounding communities. The existing English Street road alignment will be upgraded and provide for a signalised intersection with Donnybrook Road, and connection to the Lockerbie precinct to the north. A new bridge connection to the south-west across Merri Creek, will connect the precinct westwards to the wider Northern corridor road network, including a potential new half-diamond freeway interchange and bridge at the Hume Freeway. This will strengthen connections to Melbourne as well as to the Folkstone and Merrifield Employment Areas and residential communities to the west. These links will also promote integration with the Principal Public Transport Network (PPTN), including direct links to the Donnybrook Train Station.

The precinct will develop as an attractive and integrated mixed-use development, placing strong emphasis on consistent and high quality landscaping. Development will also respond to the many interfaces that characterise the area; particularly the Sydney-Melbourne train line, Merri Creek, the planned Donnybrook Road overpass, and industrial uses to the east and west of the precinct.

Merri Creek provides a key conservation and landscape asset for the precinct; meanwhile acting as a continuous corridor supporting environmental, heritage and recreation value. The creek corridor will be preserved and revegetated for the Growling Grass Frog (GGF) in accordance with the Biodiversity Conservation Strategy and the Sub-Regional Strategy for the GGF. As well as providing improved habitat for the GGF, the Merri Creek corridor supports a range of other biodiversity values that will be protected and enhanced, and will bestow local amenity through native plantings and provide informal recreation opportunities through the provision of linear trails and passive park areas.

Local active recreation opportunities for workers and residents in English Street will be provided by Laffan Reserve in the abutting Craigieburn North Employment precinct. As Laffan reserve is situated in the Hume City Council municipal area, the English Street PSP will not require the provision of sporting reserve land on site. Rather, funds from the precinct will be used to contribute to the upgrade of that reserve as well as providing a new pedestrian connection across Merri Creek.

Plan 3 demonstrates the Future Urban Structure for the precinct.

2.2 Objectives

The following objectives describe the desired outcomes of the precinct's development, and guide the implementation of the vision.

	OBJECTIVES
Image and Character	
O1	Create an attractive urban environment through the provision of well-designed and integrated housing, local services and businesses, well-designed roads, landscaping, attractive open spaces and park networks.
O2	Enhance the presentation of the precinct to Donnybrook Road by encouraging high quality commercial buildings and development fronting the road.
O3	Promote a diversity in dwellings built in the precinct to meet the needs of the future resident population.
O4	Create a high-value, indigenous landscape corridor along Merri Creek and beyond.
O5	Encourage high quality built form that demonstrates environmentally sustainable design principles.
O6	Promote the retention of existing trees and windrows to add established character to the area.
O7	To protect areas of sensitivity for Aboriginal heritage.
O8	To protect natural landforms and geological features.

Employment and Town Centres	
O9	Develop diverse local employment opportunities to meet the needs of existing and future residential populations.
O10	Encourage the provision of local community infrastructure, including convenience retail, to meet the daily needs of residents within the precinct, without compromising the functions and roles of surrounding existing and planned activity centres.
Open Space, Natural Systems & Community Facilities	
O11	Provide an integrated and accessible public open space network for local residents and workers that offers access to sporting reserves and local parks linked via pedestrian and cycling trail networks.
O12	Encourage a range of private and public community assets to promote local self-sufficiency within in the precinct.
O13	To create a peaceful, passive open space quality in the creek parkland and valley.
O14	To provide a linear open space link, including the provision of a shared pedestrian and cycle use path along one side of the waterway corridor.
O15	To provide for links, views and access from surrounding areas to the creek and open space.
O16	To provide for a range of recreational uses in the corridor that are consistent with the environmental and open space objectives for each area or activity node.
O17	Plan sensitive urban interfaces to Merri Creek.
O18	Retain, protect and enhance the environs of the Merri Creek, and plan urban interfaces sensitively.
O19	To create an urban landscape that integrates with the existing biodiversity, cultural heritage, drainage and landscape values within the precinct and along the conservation area.
O20	To restore and revitalise the creeks and adjoining open space to a more natural and ecologically diverse environment.
O21	To ensure the health and vitality of the natural systems of the creek and its associated open space.
O22	To protect and enhance the diversity, integrity and health of the local native riparian, escarpment and plains vegetation associated with the creek.
O23	To ensure the suitability of the riparian, escarpment and plains vegetation habitat and instream habitats for local native animals.
O24	To improve the water quality of the creek.
O25	To provide for the retention, restoration and revegetation of local native species.
O26	To protect and enhance the natural and visual character of the waterway corridor.
O27	To ensure that the scenic qualities and visual character of the waterway corridor are not compromised by the inappropriate siting of buildings, the placement of fill, or lack of screening vegetation.
O28	To restore those sections of the waterway corridor which have been modified to create artificial bed, banks and landforms to a more natural, visually attractive and ecologically diverse landscape.
Biodiversity, Threatened Species & Bushfire Management	
O29	Create and retain high-quality habitat for the Growling Grass Frog along the Merri Creek corridor, and support other environmental habitat values.
O30	Plan for the long-term conservation and enhancement of areas of biodiversity.
O31	Ensure that bushfire protection measures are considered in the layout and design of development and the local street network.

Transport & Movement	
O32	Provide strong external connections to the surrounding road network to foster accessibility of the precinct.
O33	Create a road network that is legible and permeable and facilitates efficient and direct pedestrian, cyclist, public transport and vehicle movement.
O34	Create a road and pedestrian and cycle path network that maximises connections to the existing Donnybrook train station.
O35	Provide alternatives to the use of private vehicles through the creation of direct links to jobs for pedestrians, cyclists and the public transport system.
Integrated Water Management & Utilities	
O36	To deliver an integrated and resilient water management system that reduces reliance on reticulated potable water, increases the re-use of alternative water, minimises flood risk, ensures the environmental health of waterways and bays, protects public health, delivers affordable essential water services and contributes toward a liveable and green urban environment.
O37	To sustain flood, regional drainage and waterway function to enable appropriate beneficial land use and water-based activities to be undertaken.
O38	To provide flood management and water quality protection through works which seek to mimic natural systems and produce more natural-looking stream form.
Precinct Infrastructure Plan & Staging	
O39	Provide all lots, to the satisfaction of the relevant authority, with potable water, electricity, reticulated sewerage, drainage, gas and telecommunications.
O40	Install essential services in a way that does not impede the ability to plant canopy trees in streets and along easements.
O41	Ensure that development staging is co-ordinated with the delivery of key local and state infrastructure.

Plan 4 - Image and Character

English Street Precinct Structure Plan

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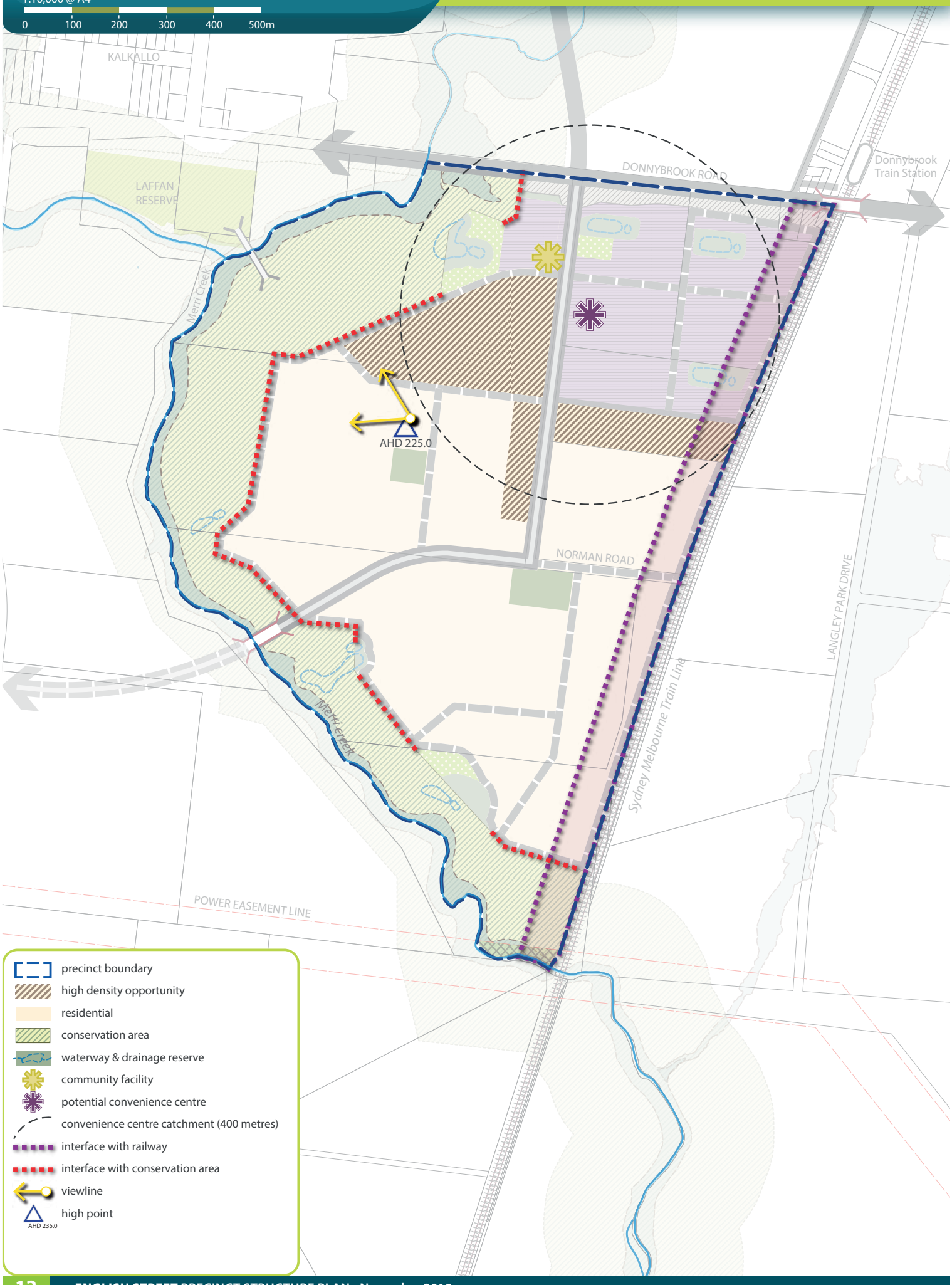


3.0 IMPLEMENTATION

3.1 Image, character, heritage & housing

3.1.1 Image & character

	IMAGE AND CHARACTER REQUIREMENTS
R1	Street trees must be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity, unless otherwise agreed by the responsible authority, at an average of: **Average Interval** — **Tree Size** 8 – 10 metres — Small trees (less than 10 metres) 10 – 12 metres — Medium trees (10 – 15 metres) 10 – 15 metres — Large trees (15 metres or greater)
R2	Street tree planting must use locally appropriate species and be consistent with any guidance provided on the relevant cross section within this Precinct Structure Plan unless otherwise approved by the responsible authority.
R3	Where a street frontage to a park is not provided, lots must provide for a 4 metre "Paper Road" to the satisfaction of the responsible authority.
	IMAGE AND CHARACTER GUIDELINES
G1	Street networks within subdivisions should be designed to maximise the number of connections and direct views to waterways and public open spaces.
G2	Significant elements of the landscape and built form should be used as focal points for view lines along streets.
G3	Retained windrows and significant trees should be reserved within the public domain, including parks and road reserves, unless otherwise agreed by the responsible authority.

3.1.2 Housing

	HOUSING REQUIREMENTS
R4	Planning permit applications must demonstrate how a development proposal will deliver a diversity of housing.
R5	Lots must front (in order of priority where a lot fronts multiple elements): • Conservation areas. • Waterways and public open space. • Local access streets. • The railway line. • Arterial roads. • Connector streets.
R6	Subdivision applications must include indicative layouts for any lots identified for the future development of medium density, high density, or integrated housing to suitably demonstrate: • Potential dwelling yield. • Active interfaces with adjacent streets, open space and waterways. • Safe and effective internal vehicle and pedestrian circulation. • Indicative treatments for sensitive interfaces – as identified in Plan 4. • Well-articulated built form and facilitate passive surveillance from windows, balconies and pedestrian access points.
R7	Development abutting any conservation area must be in accordance with Figure 2, other than in exceptional circumstances where it must be to the satisfaction of the Department of Environment, Land, Water and Planning. Side and back fences must not be the property interface to the conservation area.
R8	Development of lots abutting the Sydney-Melbourne railway line must provide for the outcomes illustrated in Figure 3 unless to the satisfaction of the responsible authority.
R9	A use or development that contains a bedroom and is located on land that is within 80m of the railway track, or in the opinion of the responsible authority is to be impacted by noise from the train operations on the Sydney-Melbourne railway line, must be designed to ensure that internal noise levels in bedrooms is less than 85dB LAMAX and 60dB Leq9h (night).

	HOUSING GUIDELINES
G4	Subdivision of land should create an overall average density greater than 15.4 dwellings/NDH. Where a subdivision proposal represents a single stage or limited number of stages, proponents should demonstrate how the subdivision will contribute to the eventual satisfaction of this guidance.
G5	Subdivisions should, for each stage, cater for the provision of three or more dwelling types, as listed in Table 1, as appropriate, or demonstrate an alternative lot range that achieves the housing diversity objectives.
G6	Subdivision of land within 800 metres walkable catchment of the Donnybrook Train Station or designated public transport routes should create a range of lot sizes suitable for medium or high density housing types listed in Table 1. An indicative area is shown on Plan 3 where this may be appropriate.
G7	Specialised housing forms, such as retirement living or aged care should be: • Integrated into the wider urban structure. • Located in close proximity to community hubs. • Accessible by public transport. • Not present as a barrier to movement through the surrounding road network.
G8	Streets should be the primary interface between development and the Growling Grass Frog Conservation Area. Any residential lots with a direct frontage to this area should only be considered in exceptional circumstances. In these instances where streets are not provided between conservation areas and residential lots, they should be sufficiently set back from the waterway corridor to allow for the provision of both shared path and fire access to the front of those lots to the satisfaction of DELWP and the responsible authority.

Table 1 Housing Type by Lot Size

INDICATIVE HOUSING TYPE	TYPICAL LOT SIZE (M^2)		
	Less than 300m^2	301m2 to 600m^2	More than 600m^2
Small Lot Housing including townhouses and attached, semi-detached and detached houses	✓		
Dual occupancies, duplexes	✓	✓	✓
Detached houses		✓	✓
Multi-unit housing sites including terraces, row houses and villas		✓	✓
Walk up flats and Apartments			✓

3.2 Town centres & employment

3.2.1 Town centres

Table 2 Proposed Town Centre Hierarchy – English Street Precinct

Note: This table includes centres external to the Precinct area.

TOWN CENTRE	RETAIL FLOOR SPACE	COMMERCIAL FLOOR SPACE	LOCATION AND ANCILLARY USES
Lockerbie Principal Town Centre (External to the Precinct)	80,000 m2	40-50,000 m2	Located in the abutting Lockerbie Precinct, PSP 1066. Should provide a principle regional focus for a full range of community uses, business, and residential.
Lockerbie South Town Centre (External to the Precinct)	8,000 m2	5,000 m2	Located to service residents in Lockerbie and Kalkallo. Co-located with a State Primary School, non-government primary school, community facility and passive and active reserves.
English Street Local Convenience Centre (Potential)	1,500 m2	-	Located south of the intersection of Donnybrook Road and English Street to service the convenience needs of the English Street residents.
Merrifield Major Town Centre (External to the Precinct)	None specified	None specified	4km west of the English Street precinct along Donnybrook Road. Will provide a range of local and regional level retail, entertainment, commercial, civic, education, recreation and community services. Located adjacent to the Merrifield employment precinct.

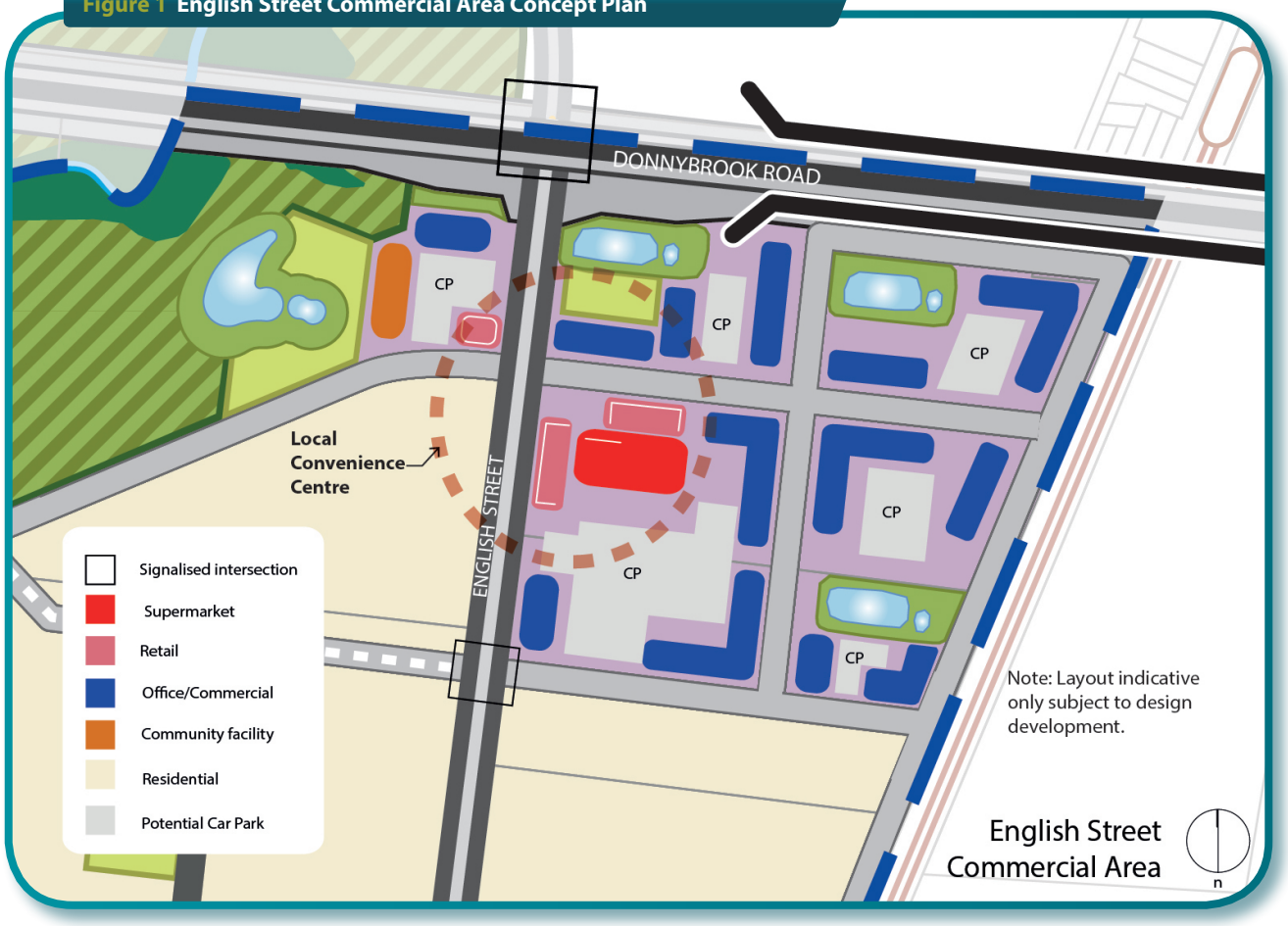
Table 3 Anticipated Employment Creation in the English Street Precinct

LAND USE	NUMBER	MEASURE	EST. JOBS
Council Community Facility	1	at 10 jobs per facility	10
Convenience Retail	1	at 5 jobs per centre	5
Commercial Area	40	jobs per hectare	764
Home Based Business	1199	at 0.05 jobs per dwelling	60
Total			**839**

3.2.2 Local Convenience Centre

	LOCAL CONVENIENCE CENTRE REQUIREMENTS
R10	A Local Convenience Centre may be developed proximate to the location shown on Plan 3 and must be consistent with the guidance provided in relation to the hierarchy of centres in Table 2.
R11	A Local Convenience Centre must have direct vehicular access to a local access street.
R12	Subdivision, use and/or development within Local Convenience Centres must have regard to the draft concept plan at Figure 1 and design criteria for Local Convenience Centres outlined in Appendix 4.2, as appropriate.
R13	The design of any Local Convenience Centre must: • Provide for a mix of tenancies; • Locate any servicing infrastructure and/or car parking to the rear or centre of the allotment in a manner that protects the visual amenity of the Precinct; • Be a high visual standard and quality of developmentthat should be provided along street frontages; • Provide a fine grain mix of uses and built form; and • Be located near to the local community centre.

Figure 1 English Street Commercial Area Concept Plan



3.2.3 Employment

EMPLOYMENT REQUIREMENTS	
The following requirements apply to areas shown as Commercial on Plans 3 & 4.	
R14	Active building frontages and customer pedestrian entrances must be provided to all highest order public streets, residential areas, waterways, open space and local conservation reserves as shown on Figure 1 to create visual interest and provide passive surveillance over the public realm unless to the satisfaction of the responsible authority.
R15	Building design and interface treatment in commercial areas shown on Plan 3 must minimise negative impacts on the amenity of adjacent residential areas to the satisfaction of the responsible authority.
R16	Key locations within the Commercial Area must incorporate features of interest into the built form and surrounding landscape, including: • Variations in built form elements (such as building heights, use of parapets, awnings, shade structures, balconies, and roof elements). • Articulation of building facades. • Variation in use of colours and materials. • Windows. • Primary pedestrian points.
R17	Vehicular access to properties fronting Donnybrook Road and English Street must be from service roads, internal loop roads and/or rear laneways. Lots fronting English Street must provide indented parking lanes to cater for on street parking.
R18	Car parking and loading facilities must be located to the side or rear of any buildings. If any visitor car parking and access areas must be located in the front setback, it must be setback a minimum of 3 metres from the street frontage to enable provision of sufficient landscape strips at the street frontage.
R19	Ancillary offices must be located at the front of the building and should include a façade addressing the street frontage of the lot and provide for improved pedestrian access.
R20	Water tanks, loading, service infrastructure, storage area, refuse and other structures (including plant and equipment) that are not part of the building must be located behind the front building line. Where this is not possible or practicable, it should be located behind constructed screening using durable and attractive materials to the satisfaction of the responsible authority.
R21	Subdivision abutting the Growling Grass Frog Conservation Area must provide for the outcomes illustrated in Figure 2. Alternatives will be considered subject to approval of the responsible authority and the Department of Environment, Land, Water and Planning.
R22	Subdivision abutting the Sydney-Melbourne Railway Line must provide for the outcomes illustrated in Figure 3.
R23	Environmentally sustainable principles and initiatives should be considered in the design of buildings, such as solar aspect, cross-flow ventilation, materials and finishes, embodied energy, use of solar hot water and on-site collection and reuse of stormwater.
R24	All public open space areas must be designed to be robust and climatically appropriate, consistent with any local street tree or open space strategies.

EMPLOYMENT GUIDELINES	
	The following guidelines apply to areas shown as Commercial on Plans 3 & 4.
G9	Subdivision, land use and development of the English Street commercial area should respond to the English Street commercial area concept shown in Figure 1.
G10	Fences and gates should be sited behind the building line, be integrated with the design of the buildings or should be visually permeable and not greater than 1.2 metres in height.
G11	Development proposals in commercial areas should take into account the Crime Prevention Through Environmental Design (CPTED) and Safer Design Guidelines.
G12	Large expanses of continuous wall visible to the street should have appropriate articulation and other elements to provide relief and visual interest, and provide appropriate landscaping to minimise visual mass.
G13	Secondary street frontages should provide opportunities to activate buildings edges such as glazed frontages that enable passive surveillance over the public realm.
G14	Car parks should be landscaped with canopy trees (minimum of one tree per 6 bays) and have adequate pedestrian paths to provide direct, dedicated access-ways from parking to building entrances.
G15	All loading areas should be provided on site and should be designed to be separated from private vehicles, pedestrian and bicycle routes.
G16	Applications for developments of 2000sqm or more of non-residential floor space should be accompanied by: • A Sustainable Design Assessment demonstrating achievement of a high level of ESD performance compared to minimum mandatory standards, and • A Green Travel Plan, both to satisfaction of the responsible authority.
G17	As required above, Sustainable Design Assessments and Sustainability Management Plans should address the following ten categories: • Energy efficiency; • Transport; • Climate change adaptation; • Integrated water management; • Waste management; • Urban ecology; • Indoor environment quality; • Building materials; • Site and ongoing building management; and • Innovation.
G18	Initiatives proposed under these categories must be supported with evidence that they meet an appropriate performance standard, and each must be reflected on other application documentation, including development drawings and implementation plans.
G19	Residential and office uses above ground floor should be proposed where practical.
G20	Built form should incorporate continuous awnings along building frontages where located in areas of high pedestrian activity.
G21	Public space including drainage/wetland areas should be landscaped and integrated with places of employment to provide rest spots with large canopy trees or man-made shelters.
G22	Development applications should provide a signage strategy incorporating all business, advertisement, directional and temporary signage in a package to ensure signage does not contribute to excessive visual clutter.
G23	Interfaces to residential or public areas should minimise amenity impact through: • Locating smaller lots and businesses with office components at sensitive interfaces, with larger lots and more industrial uses towards Donnybrook Road and the Melbourne/Sydney Rail line on the edge of the precinct; • Discouraging uses that generate high traffic volumes and utilize large vehicles; • Designing built form to present their front, rather than side or rear to residential areas; and • Minimising light spill through lighting design.

Figure 2 Growling Grass Frog Conservation Area 34 - Conservation Area Interface – Cross-section

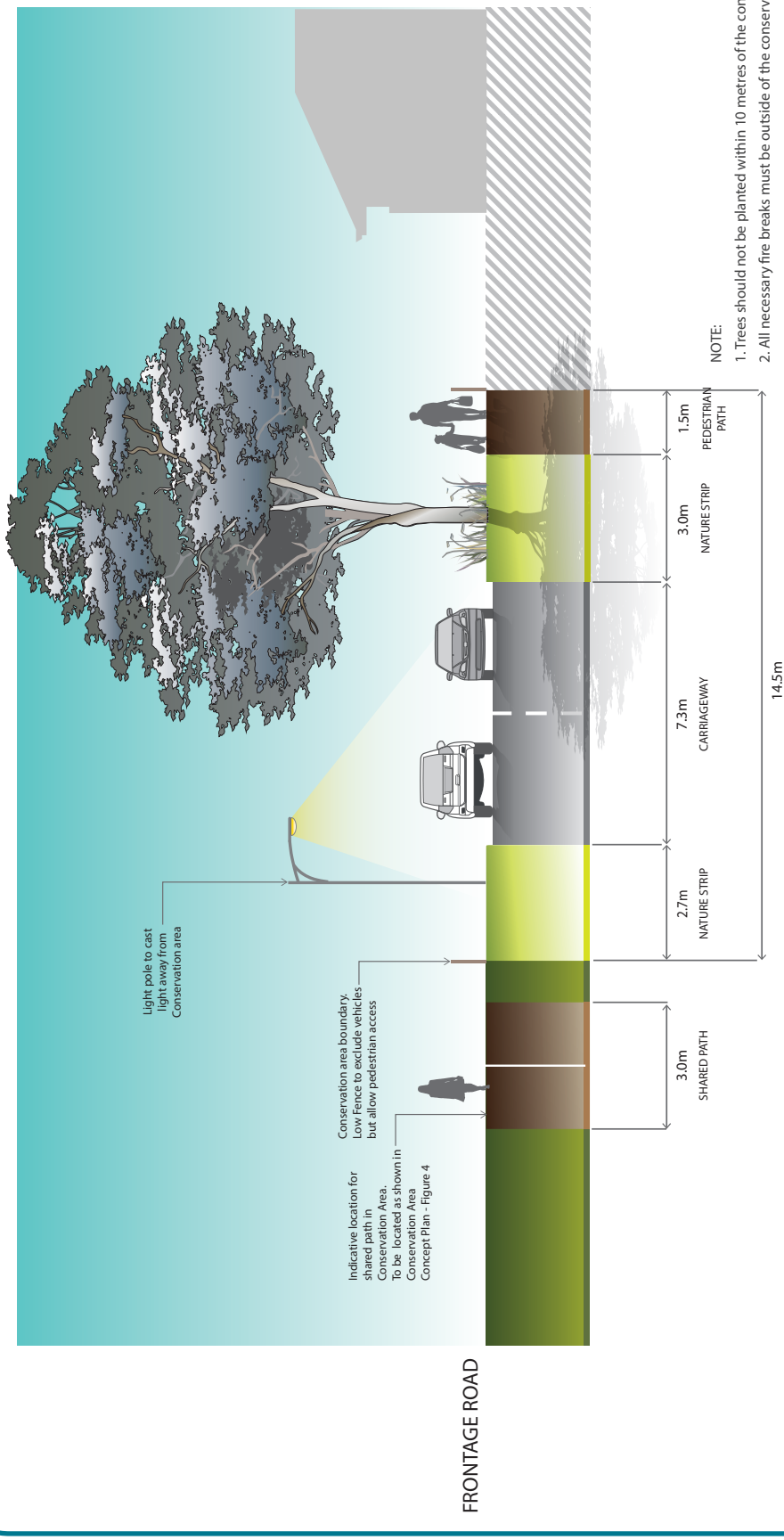
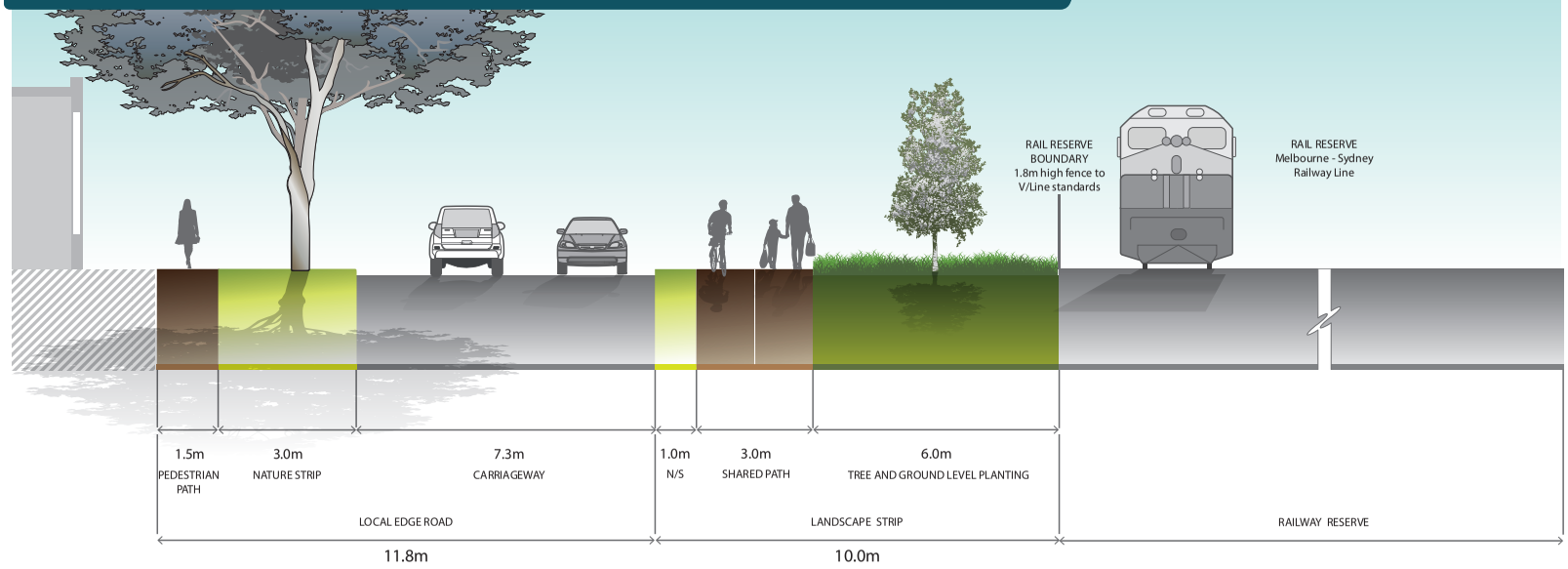
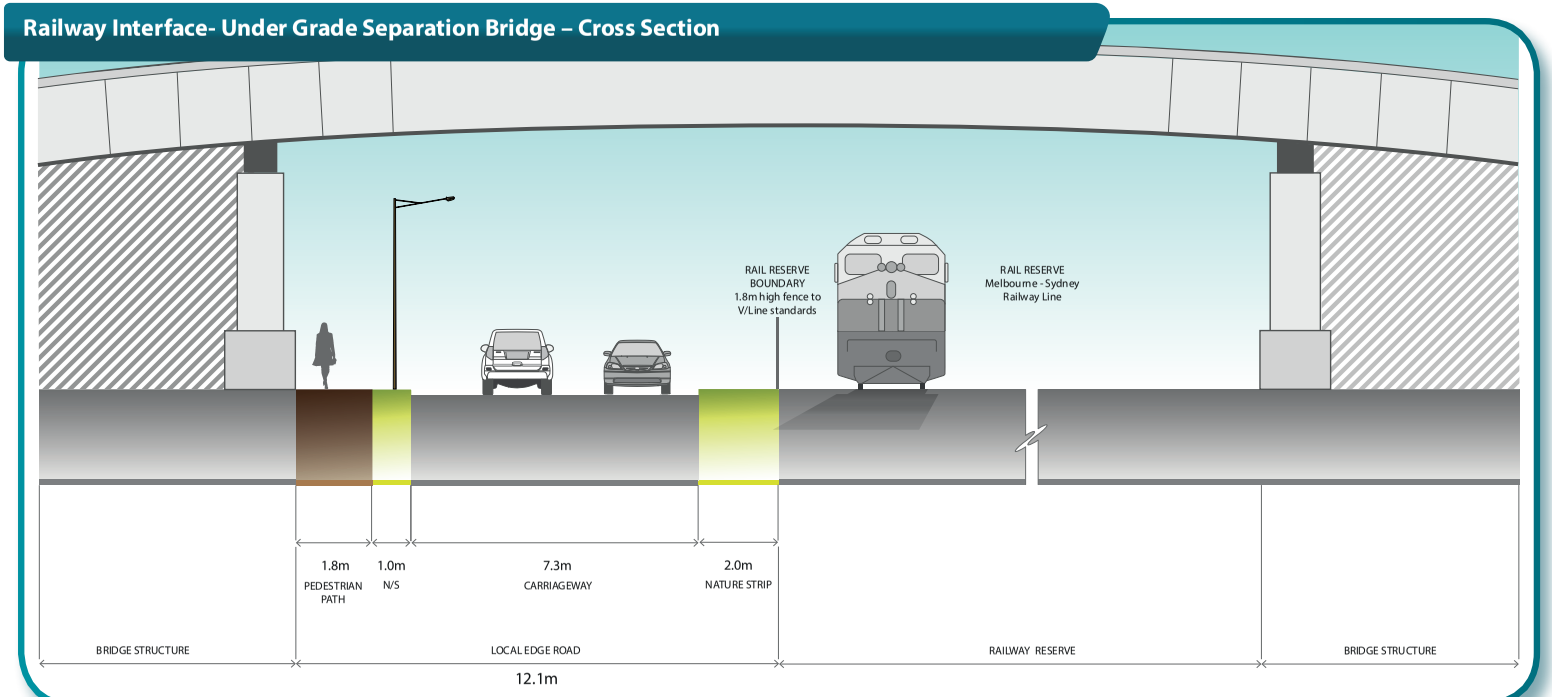


Figure 3 Railway Interface- Residential / Commercial Frontage – Cross Section



Railway Interface- Under Grade Separation Bridge – Cross Section



Plan 5 - Open Space

English Street Precinct Structure Plan

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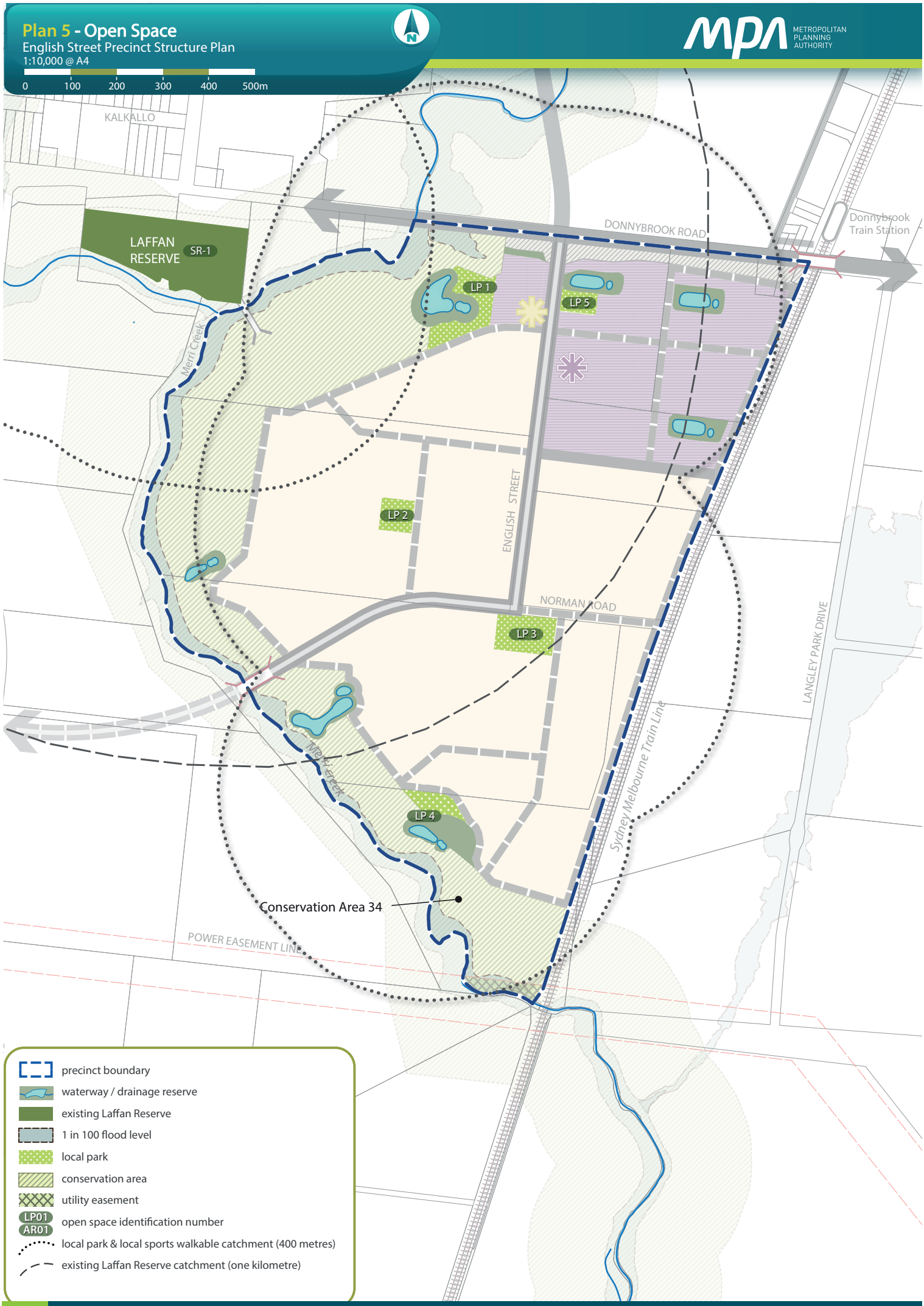

3.3 Open Space, Community Facilities & Education

Table 4 Open Space Delivery Guide

Note: This table includes active recreation reserves external to the Precinct area.

PARK ID	AREA (HA)	TYPE	LOCATION & OTHER ATTRIBUTES	RESPONSIBILITY
SR1	7.24	Laffan Reserve (in PSP 25.1) Upgrade to existing sporting reserve and facilities.	2 x soccer fields, 1 x multipurpose oval and pavilion (TBC)	HCC
LP1	0.86	Local Park	Located in the north-west, abutting the Growling Grass Frog Corridor	CoW
LP2	0.50	Local Park	Central to surrounding community	CoW
LP3	1.00	Local Park	Central to surrounding community	CoW
LP4	0.45	Local Park	Located in the south of the Precinct and abutting the Growling Grass Frog Corridor Conservation Reserve	CoW
LP5	0.35	Local Park	Central to surrounding commercial area and abutting wetland	CoW
Totals	10.40			

CoW = City of Whittlesea, HCC = Hume City Council, DELWP = Department of Environment, Land, Water & Planning

3.3.1 Local Parks

	LOCAL PARK REQUIREMENTS
R25	All parks must be located, designed and developed in accordance with the relevant description in Table 4 and any local open space strategies. The area of the park may vary so long as it remains inside the guidance for the relevant type of park. Where a park is smaller than that outlined in the table, the land must be added to another park or used to create a new park in addition to those outlined on Plan 5. Where a proposed park is larger than outlined in the table it may be accepted so long as it does not result in the removal of another park allocation.
R26	If parks interface with a drainage corridor, conservation area or encompass remnant native vegetation, the design of that open space must demonstrate that it has integrated the relevant environmental constraints and features into the design of the park.
R27	Local parks must be delivered via the Clause 52.01 passive open space contributions, as appropriate.
R28	Any fencing of open space, whether encumbered or unencumbered, must be low scale and visually permeable to facilitate public safety and surveillance.

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Local Park Open Space Contributions - Residential

	LOCAL PARK REQUIREMENTS
R29	Pursuant to the public open space contribution required by Clause 52.01 of the *Whittlesea Planning Scheme*, this provision sets out the amount of land to be contributed by each property identified as residential land in the Precinct and consequently where a cash contribution is required in lieu of land. All land owners must provide a public open space contribution equal to 3.98% of the Net Developable Area (NDA) residential upon subdivision of land in accordance with the following: • Where land is required for unencumbered open space purposes as shown on Plan 5 and specified in Table 4 and is equal to 3.98% of NDA residential, that land is to be transferred to Council at no cost. • Where no land or less than 3.98% of NDA residential is shown in Plan 5 and specified in Table 4, as required for unencumbered open space purposes, a cash contribution is to be made to Council to bring the total open space contribution to a value equal to 3.98% of NDA residential of that site. • Where land required for unencumbered open space purpose as shown on Plan 5 and specified in Table 4 is more than 3.98% of NDA residential, Council will pay an amount equivalent to the value of the additional land being provided by that proposed development. The value of land for equalisation purposes is to be assessed as an equivalent proportion of the value of the whole of the land, in accordance with Section 18 of the *Subdivision Act* 1988.

Local Park Open Space Contributions – Commercial

	LOCAL PARK REQUIREMENTS
R30	Pursuant to the public open space contribution required by Clause 52.01 of the *Whittlesea Planning Scheme*, this provision sets out the amount of land to be contributed by each property identified as commercial land in the Precinct and consequently where a cash contribution is required in lieu of land. All land owners must provide a public open space contribution equal to 1.83% of the Net Developable Area (NDA) commercial upon subdivision of land in accordance with the following: • Where land is required for unencumbered open space purposes as shown on Plan 5 and specified in Table 4 and is equal to 1.83% of NDA commercial that land is to be transferred to Council at no cost. • Where no land or less than 1.83% of NDA commercial is shown Plan 5 and specified in Table 4, as required for unencumbered open space purposes a cash contribution is to be made to Council to bring the total open space contribution to a value equal to 1.83% of NDA commercial of that site. • Where land required for unencumbered open space purpose as shown on Plan 5 and specified in Table 4 is more than 1.83% of NDA commercial, Council will pay an amount equivalent to the value of the additional land being provided by that proposed development. The value of land for equalisation purposes is to be assessed as an equivalent proportion of the value of the whole of the land, in accordance with Section 18 of the *Subdivision Act* 1988.

	LOCAL PARK GUIDELINES
G24	A range of local park types should be provided across the precinct, in accordance with the City of Whittlesea's *Play Space Planning Framework and Policy*.

3.3.2 Community Buildings

	COMMUNITY BUILDINGS REQUIREMENTS
R31	Community centres must be designed to front, and be directly accessed from, a public street with car parks located to the side and rear of the allotment.

	COMMUNITY BUILDINGS GUIDELINES
G25	Any educational, community, or civic infrastructure not shown on Plan 3 should be located within or proximate to the local convenience centre, or council community building, as appropriate.
G26	Any private childcare, medical, or similar facility should be located proximate to the local convenience centre, and within the commercial precinct.

Plan 6 - Native Vegetation Retention & Removal

English Street Precinct Structure Plan

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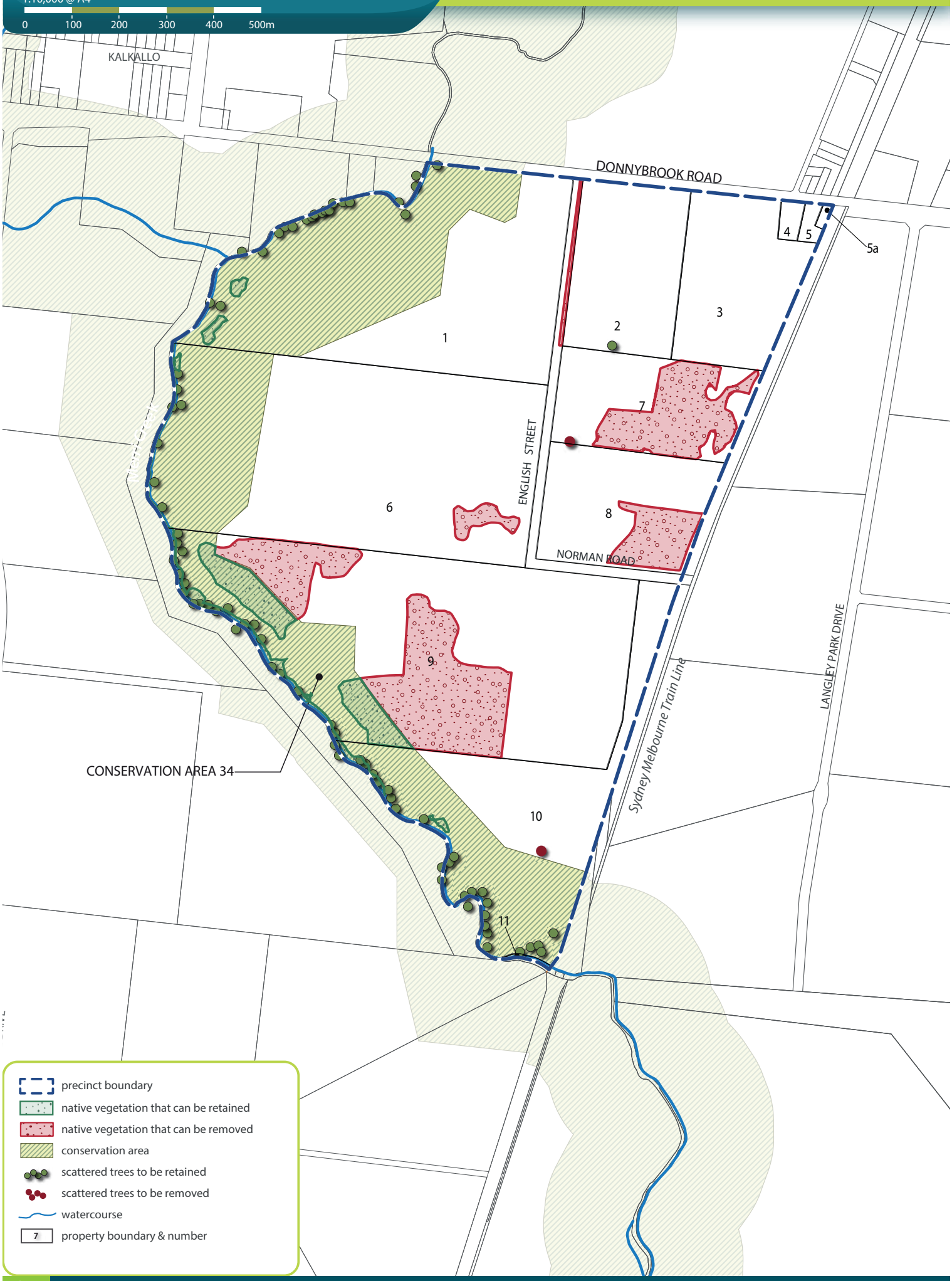

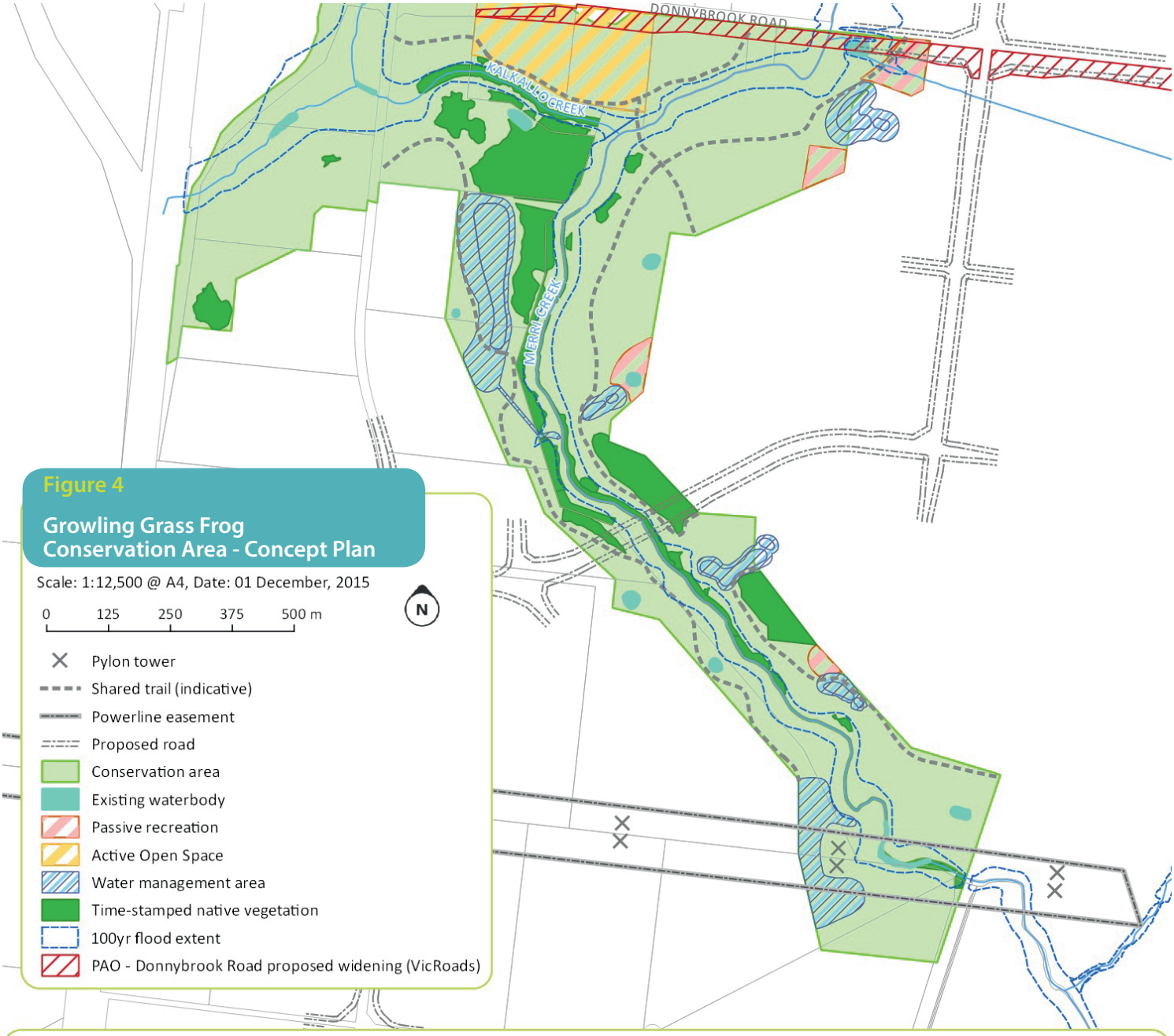

1. The conservation objectives of the conservation area are:
   a. Maintain and improve the current site quality and extent of native vegetation in the conservation area.
   b. Growling Grass Frog persists in the Conservation Area.
2. Water management locations provide for the construction and maintenance of stormwater treatment infrastructure, including retarding basins, treatment wetlands, swales, sediment ponds, bio-retention systems and outlet pipes connecting into the waterway (not shown). Maintenance activities may include works such as de-silting, spreading sediment, controlling weeds and reconstructing wetlands.
3. Passive recreation locations provide for low intensity passive recreation, where compatible with the functioning and management objectives of the conservation area. Associated infrastructure may include BBQs, picnic areas, tables, shelters, playgrounds and lighting. Passive recreation locations are likely to include some potential Growling Grass Frog habitat (e.g. grassy areas with sparse tree/shrub cover) that should be managed in accordance with the Department of Environment, Land, Water & Planning's Growling Grass Frog habitat management standards.
4. The balance of the conservation area provides for the creation, enhancement and management of habitat for the Growling Grass Frog and protects strategically important areas for the Growling Grass Frog from incompatible land-uses and infrastructure. It also provides for the protection of native vegetation.
5. Low intensity passive recreational infrastructure, such as walking paths, shared trails, boardwalks and footbridges may be sited outside passive recreation locations, where appropriately located and designed and compatible with the functioning and management objectives of the conservation area to the satisfaction of the Department of Environment, Land, Water & Planning. Where an indicative location is shown, the final location and design must be to the satisfaction of the Department of Environment, Land, Water & Planning.
6. Development or works, other than shown in this plan or associated with the conservation of the Growling Grass Frog or native vegetation, are not generally suitable within the conservation area. Any proposed development or works requires the approval of the Department of Environment, Land, Water & Planning.
7. Lighting must be designed and baffled to prevent light spill and glare into the conservation area outside the identified passive recreation areas.
8. Any planting and revegetation must be to the satisfaction of the Department of Environment, Land, Water & Planning.
9. A Fire Management Plan is to be prepared for the conservation area to the satisfaction of the Country Fire Authority.
10. Drainage from storm water treatment infrastructure must be designed to minimise impacts on biodiversity values.
11. The conservation area is to be designed and managed as a 'dog on-lead' area, in areas that are publicly accessible.
12. The active open space location provides for recreation uses associated with Laffan Reserve.
13. Woody weeds must be managed to prevent over shading or other negative impacts on the GGF habitat, to the satisfaction of the Department of Environment, Land, Water & Planning.

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3.4 Biodiversity, Threatened Species & Bushfire Management

3.4.1 Biodiversity & Threatened Species

BIODIVERSITY & THREATENED SPECIES REQUIREMENTS	
R32	Development abutting or works within any conservation area must be in accordance with the Growling Grass Frog (GGF) Conservation Area Concept Plan and the Growling Grass Frog Conservation Area Cross-Section – Conservation Interface (Figure 2) to the satisfaction of the Secretary to the Department of Environment, Land, Water and Planning (DELWP). In cases where road frontage is not able to be provided, residential or commercial development must front onto the conservation area (i.e. there should be no side or back fences abutting the conservation area).
R33	Any public paths or infrastructure located within a conservation area must be designed to avoid/ minimise disturbance to vegetation or GGF habitat. Public paths are to be generally located in accordance with the GGF Conservation Area concept plan (Figure 4) and relevant aspects of Plan 6.
R34	Public lighting must be designed and baffled to prevent light spill and glare within and adjacent to any GGF conservation area, except where agreed by the Secretary to the DELWP.
BIODIVERSITY & THREATENED SPECIES GUIDELINES	
G27	The layout and design of the waterways, wetlands and retarding basins (including the design of paths, bridges, boardwalks and the stormwater drainage system) should integrate with biodiversity and natural systems to the satisfaction of the responsible authority, Melbourne Water and DELWP.
G28	Planting in streetscapes and parks abutting waterways should make use of indigenous species to the satisfaction of Melbourne Water and the responsible authority.

3.4.2 Bushfire Management

BUSHFIRE MANAGEMENT REQUIREMENTS	
R35	Before the commencement of works for any stage of subdivision a Site Management Plan that addresses bushfire risk during, and where necessary, after construction must be submitted to and approved by the CFA and the responsible authority. The plan must specify, amongst other things: • The staging of development and the likely bushfire risks at each stage; • An area of land between the development edge and non-urban areas consistent with the separation distances specified in AS3959-2009, where bushfire risk is managed; • The measures to be undertaken by the developer to reduce the risk from fire within any surrounding rural or undeveloped landscape and protect residents and property from the threat of fire; • How adequate opportunities for access and egress will be provided for early residents, construction workers and emergency vehicles; and • In Bushfire Prone Areas (BPA), the minimum construction level under the Building Regulations is BAL 12.5. The plan must be carried out to the satisfaction of the CFA and the responsible authority.

Plan 7 - Public Transport & Path Network

English Street Precinct Structure Plan

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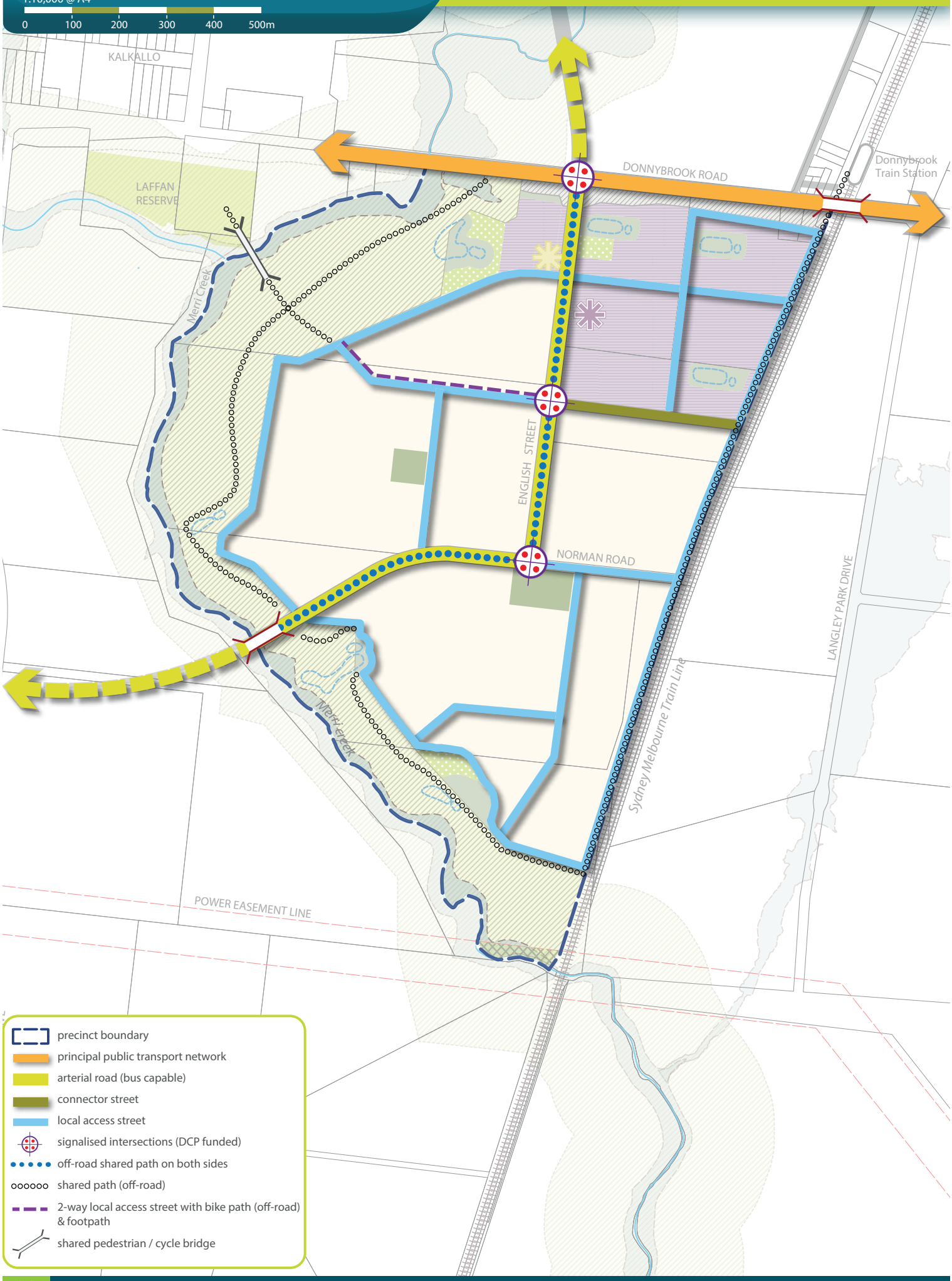

- precinct boundary
- principal public transport network
- arterial road (bus capable)
- connector street
- local access street
- signalised intersections (DCP funded)
- off-road shared path on both sides
- shared path (off-road)
- 2-way local access street with bike path (off-road) & footpath
- shared pedestrian / cycle bridge

3.5 Transport & Movement

3.5.1 Public Transport

	PUBLIC TRANSPORT REQUIREMENTS
R36	Bus stop facilities must be designed to the satisfaction of Public Transport Victoria and be an integral part of town centres and activity generating land uses such as employment areas and local convenience centres to connect with train station and other town centres.

3.5.2 Walking & Cycling

	WALKING & CYCLING REQUIREMENTS
R37	Design of all streets and arterial roads must give priority to the requirements of pedestrians and cyclists by providing: • Footpaths of at least 1.5 metres on both sides of all streets and roads unless otherwise specified by the PSP. • Shared paths or bicycle paths of 3.0 metres in width where shown on Plan 7 or as shown on the relevant cross-sections in Appendix 4.3 or as specified by another requirement in the PSP. • Safe and convenient crossing points of connector roads and local streets at all intersections and on key desire lines as well as crossing of creeks and waterways. • Safe pedestrian crossings of arterial roads at all intersections, at key desire lines, and on regular intervals appropriate to the function of the road and public transport provision. • Pedestrian priority crossings on all slip lanes. • Safe and convenient transition between on- and off-road bicycle networks. • Passive surveillance opportunities. • Lighting. All to the satisfaction of the coordinating roads authority and the responsible authority.
R38	Shared and pedestrian paths along waterways must: • Be delivered by development proponents consistent with the network shown on Plan 7. • Be above 1:10 year flood level with any crossing of the waterway designed to maintain hydraulic function of the waterway. • Shared paths identified on Plan 7 are to be constructed with a concrete surface. • Where a shared path is to be delivered on one side of a minor waterway as outlined in Plan 7, a path is also to be delivered on the other side of the waterway but may be constructed to a lesser standard. All to the satisfaction of the Melbourne Water and the responsible authority.
R39	Bicycle parking facilities including way finding signage are to be provided by development proponents in convenient locations at key destinations such as parks and the local convenience centre.

	WALKING & CYCLING GUIDELINES
G29	Location of walkways or pedestrian and cycle paths in addition to those described through the standard cross sections should consider the need for appropriate lighting and passive surveillance.
G30	Lighting should be installed along shared, pedestrian, and cycle paths linking to key destinations, unless otherwise agreed by the responsible authority.

Plan 8 - Street Network

English Street Precinct Structure Plan

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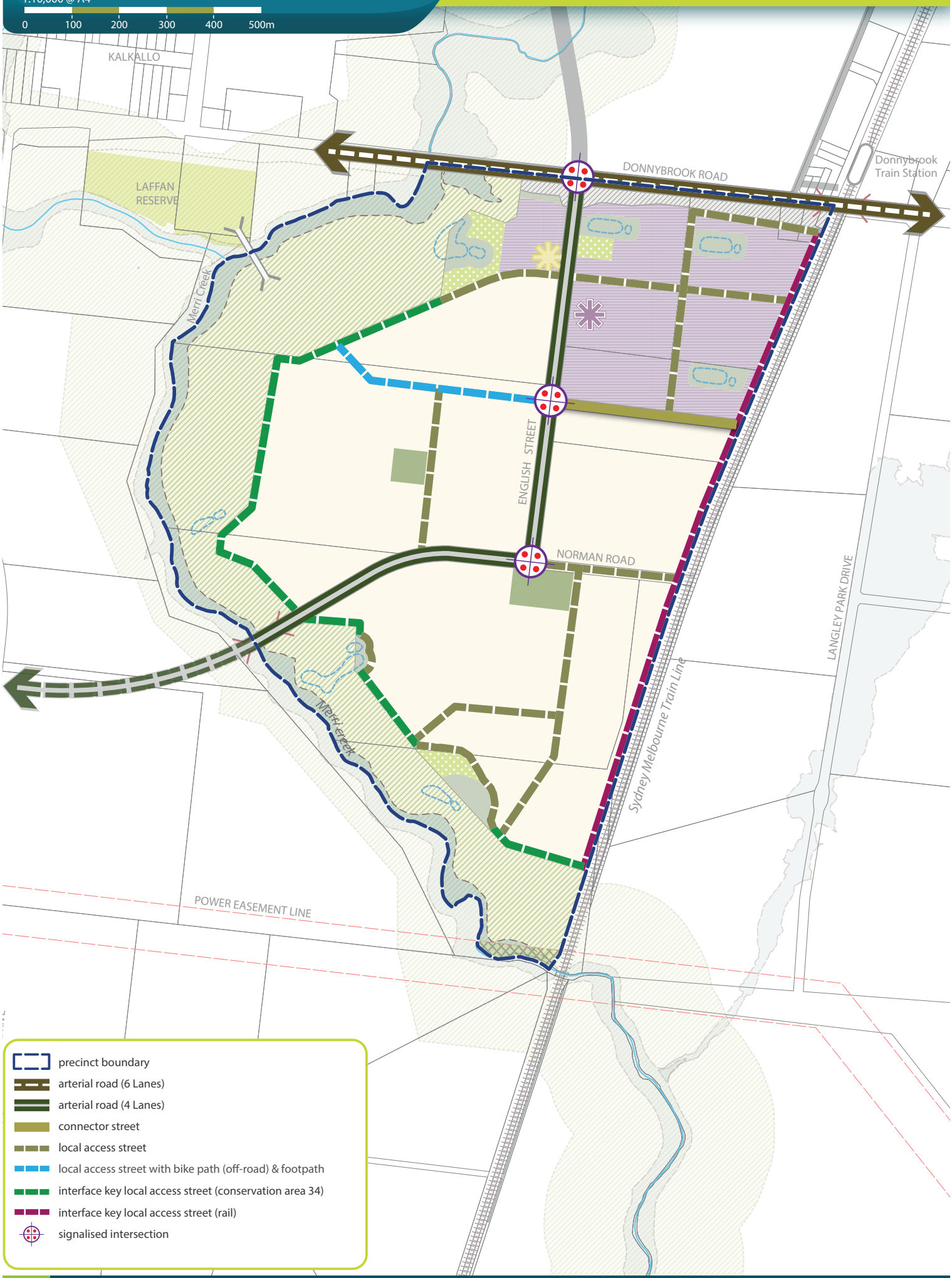

3.5.3 Road Network

ROAD NETWORK REQUIREMENTS	
R40	Staging of subdivisions must provide for the timely connection of: • Essential infrastructure (services/utilities). • Road links between properties. • Road links to the connector and arterial road network. • Pedestrian and cyclist links to the off-road pedestrian and bicycle network.
R41	Approximately 30% of local streets (including connector streets) within a subdivision must apply an alternative cross section to the 'standard' cross section for these streets outlined in Appendix 4.3 (as shown in Plan 8). Examples of potential variations are provided in Appendix 4.3, however others are encouraged, including but not limited to: • Varied street tree placement, • Varied footpath or carriageway placement, • Introduction of elements to create a boulevard effect, • Varied carriageway or parking bay pavement material, and • Differing tree outstand treatments. For the purposes of this requirement, changes to street tree species between or within streets does not constitute a variation. Alternative cross sections must ensure that: • Minimum required carriageway dimensions are maintained to ensure safe and efficient operation of emergency vehicles on all streets as well as buses on connector streets. • The performance characteristics of standard cross sections as they relate to pedestrian and cycle use are maintained. • Relevant minimum road reserve widths for the type of street (illustrated in Appendix 4.3) are maintained. Alternative cross sections treatments must maintain the relevant minimum road reserve widths illustrated in Appendix 4.3.
R42	Streets must be constructed to property boundaries where an inter-parcel connection is intended or indicated in the structure plan, by any date or stage of development required or approved by the responsible authority.
R43	Vehicle access to lots fronting arterial roads must be provided from a service road, local internal road or rear lane only, to the satisfaction of the coordinating road authority.
R44	Configuration of vehicle access to lots must ensure that there is sufficient separation between crossovers to allow for a minimum of one on-street car park for every two residential lots.
ROAD NETWORK GUIDELINES	
G31	Street layouts should provide multiple convenient routes to major destinations such as the local convenience centre and the arterial road network, generally in accordance with Plan 8.
G32	Street block lengths should not exceed 240 metres to ensure a permeable and low speed environment for pedestrians, cyclists and vehicles is achieved.
G33	Culs-de-sac should be discouraged as they detract from convenient pedestrian and vehicular connections.
G34	Slip lanes should be avoided in areas of high pedestrian activity and only be provided at the intersection of Donnybrook Road and English Street, to the satisfaction of the coordinating road authority.
G35	The frequency of vehicular crossovers on widened verges (a verge in excess of six metres) should be minimised through the use of a combination of: • Rear loaded lots with laneway access. • Vehicular access from the side of a lot. • Combined or grouped crossovers. • Increased lot widths.

Plan 9 - Integrated Water Management

English Street Precinct Structure Plan

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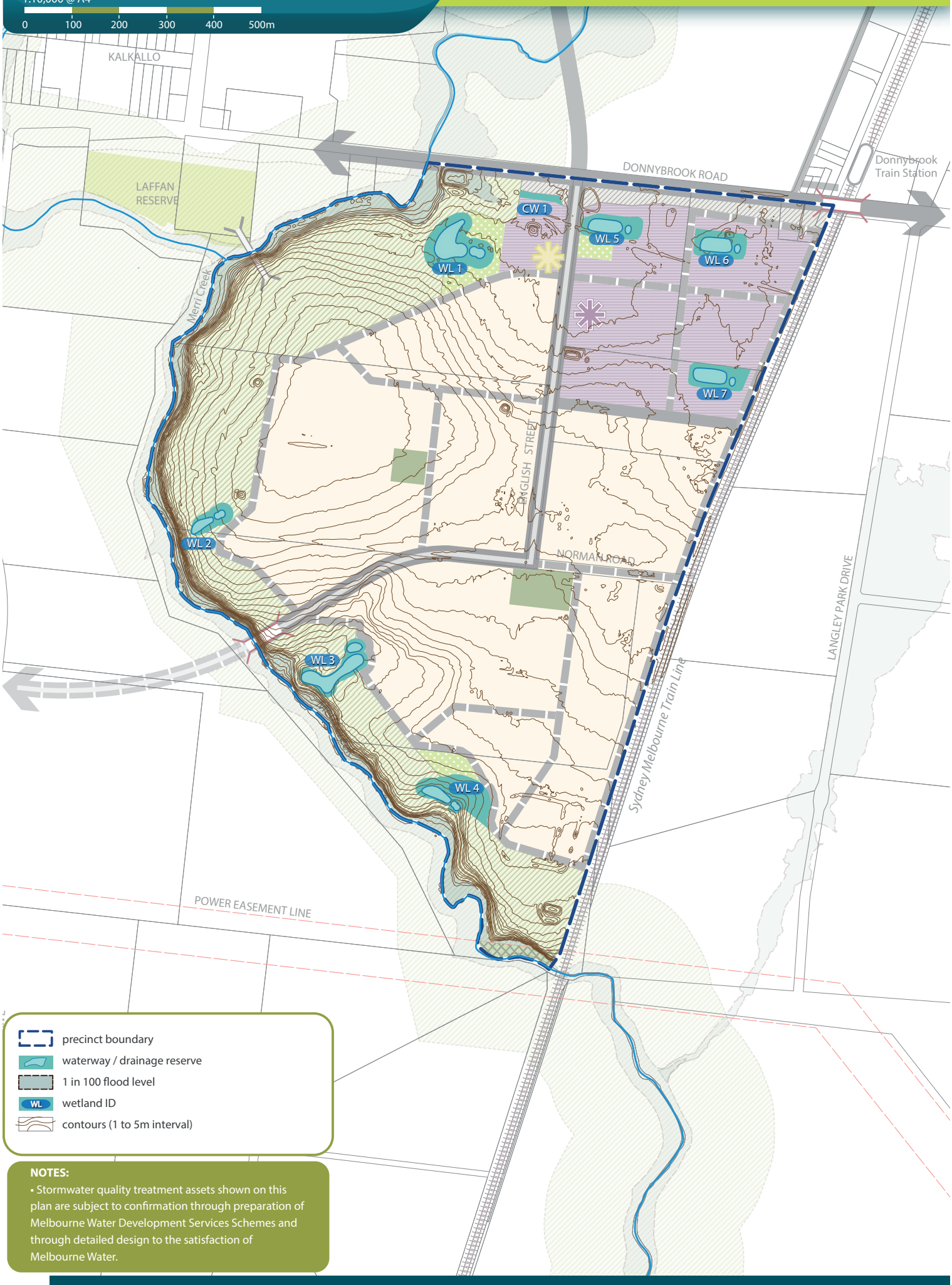
METROPOLITAN PLANNING AUTHORITY



- precinct boundary
- waterway / drainage reserve
- 1 in 100 flood level
- WL — wetland ID
- contours (1 to 5m interval)

NOTES:

• Stormwater quality treatment assets shown on this plan are subject to confirmation through preparation of Melbourne Water Development Services Schemes and through detailed design to the satisfaction of Melbourne Water.

3.6 Integrated Water Management & Utilities

3.6.1 Integrated Water Management

	INTEGRATED WATER MANAGEMENT REQUIREMENTS
R45	Stormwater runoff from the development must meet or exceed the performance objectives of the Best Practice Environmental Management Guidelines for urban stormwater management (as amended or superseded) prior to discharge to receiving waterways and as outlined on Plan 9 unless otherwise approved by Melbourne Water and the responsible authority.
R46	Final design of constructed waterways, waterway corridors, retarding basins, wetlands, water sensitive urban design features and associated paths, boardwalks, bridges, and planting, must be to the satisfaction of Melbourne Water and the responsible authority.
R47	Development staging must provide for the delivery of ultimate waterway and drainage infrastructure, including stormwater quality treatment listed in Table 5. Where this is not possible, development proposals must demonstrate how any interim solution adequately manages and treats stormwater generated from the development and how this will enable delivery of an ultimate drainage solution, to the satisfaction of Melbourne Water and the responsible authority.
R48	Subdivision applications must demonstrate how: • Waterways and integrated water management design enables land to be used for multiple recreation and environmental purposes. • Overland flow paths and piping within road reserves will be connected and integrated across property / parcel boundaries. • Freeboard requirements for overland flow paths will be adequately contained within road reserves, all to the satisfaction of Melbourne Water and the responsible authority.
R49	Stormwater conveyance and treatment must be designed in accordance with the relevant drainage strategy to the satisfaction of Melbourne Water and the responsible authority.
	INTEGRATED WATER MANAGEMENT GUIDELINES
G36	The design and layout of roads, road reserves, and public open space should optimise water use efficiency and long-term viability of vegetation and public uses through the use of WSUD initiatives, such as rain gardens and / or locally treated storm water for irrigation to contribute to a sustainable and green urban environment.
G37	Where practical, and where primary waterway, conservation or recreation functions are not adversely affected, land required for integrated water management initiatives (such as stormwater harvesting, aquifer storage and recharge, sewer mining) should be incorporated within the Precinct open space system as depicted on Plan 5.
G38	Development should reduce reliance on potable water by increasing the utilization of fit-for-purpose alternative water sources such as storm water, rain water and recycled water.
G39	Development should have regard to relevant policies and strategies being implemented by the responsible authority, Melbourne Water and retail water authority, including an approved Integrated Water Management Plan.
G40	Integrated water management systems should be design to: • Support and enhance habitat values for local flora and fauna species. • Enable future harvesting and/or treatment and re-use of stormwater.

Plan 10 - Utilities

English Street Precinct Structure Plan

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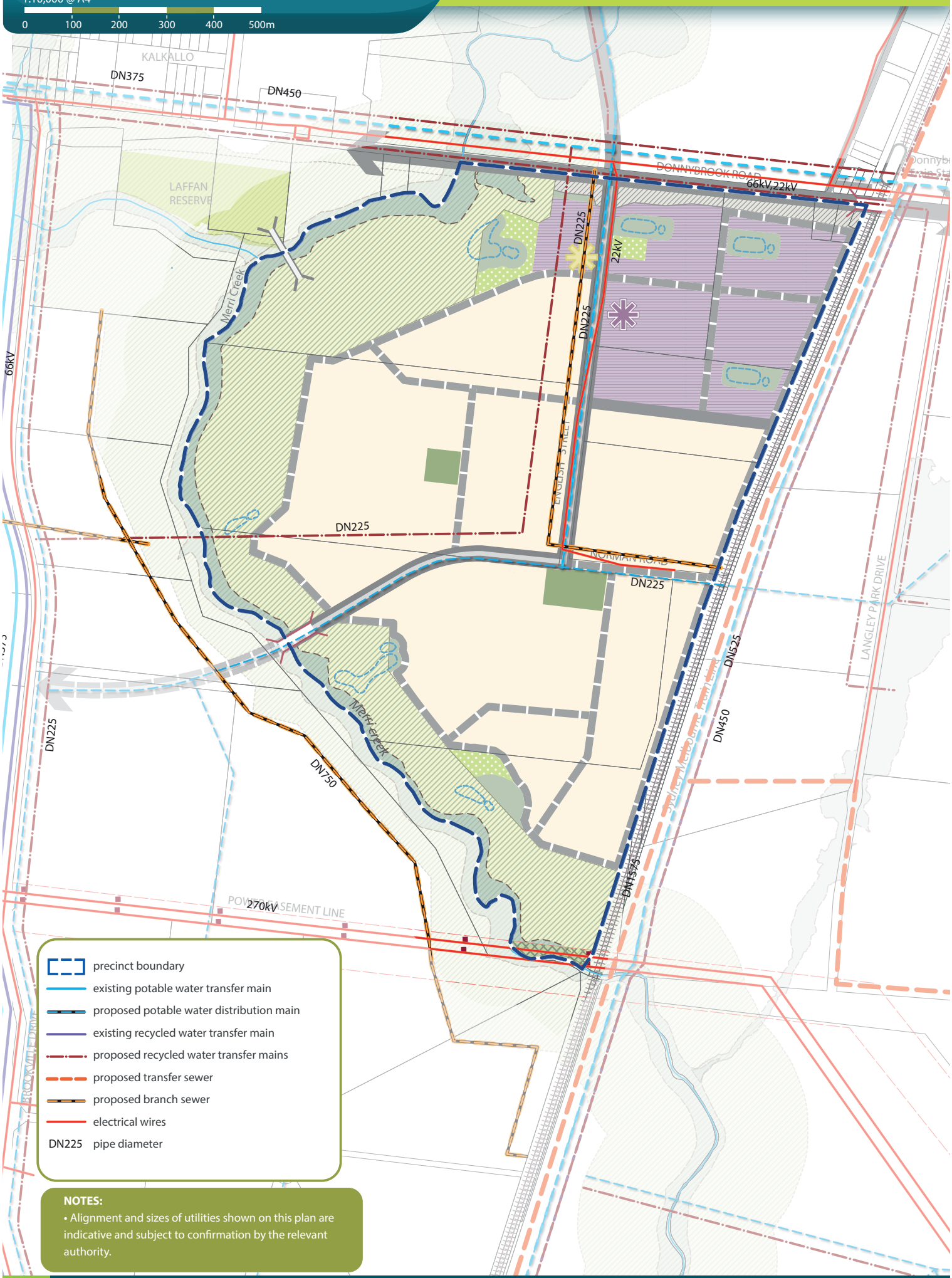


NOTES:

- Alignment and sizes of utilities shown on this plan are indicative and subject to confirmation by the relevant authority.

Table 5 English Street Stormwater Drainage and Water Quality Treatment Infrastructure – Drainage Development Services Scheme

ID	ASSET TYPE / DESCRIPTION	LOCATION	TOTAL ESTIMATED AREA (HA)	AREA OUTSIDE GGF CONSERVATION (HA)	MAINTENANCE RESPONSIBILITY
WL1	Wetland 1	North west of precinct abutting and within Conservation area	1.26	0.76	CoW
WL2	Wetland 2	West of precinct, within Conservation area	0.40	0.00	CoW
WL3	Wetland 3	South west of precinct abutting and within Conservation area	0.75	0.15	CoW
WL4	Wetland 4	South west of precinct abutting and within Conservation area	0.40	0.53	CoW
CW1	Constructed Waterway (encumbered 30m wide)	North west of precinct abutting Donnybrook Road	0.28	0.12	CoW
WL5	Wetland 5	Within commercial area	0.60	0.60	CoW
WL6	Wetland 6	Within commercial area	0.61	0.61	CoW
WL7	Wetland 7	Within commercial area	0.61	0.61	CoW
Totals			4.91	3.39	

CoW = City of Whittlesea

The areas identified in this table are subject to change/confirmation during the detailed design stage, to the satisfaction of Melbourne Water, the department of Environment, Land, Water and Planning, and the Responsible Authority.

3.6.2 Utilities

	UTILITIES REQUIREMENTS
R50	Trunk services are to be placed along the general alignments shown on Plan 10, subject to any refinements as advised by the relevant servicing authorities.
R51	Delivery of underground services must be coordinated, located, and bundled (utilising common trenching) to facilitate the planting of trees and other vegetation within road verges.
R52	All existing above ground electricity cables of less than 66kV voltage must be placed underground as part of the upgrade of existing roads.
R53	All new electricity supply infrastructure (excluding substations and cables of a voltage greater than 66kV) must be provided underground.
R54	Where existing above ground electricity cables of 66kV voltage are retained along road ways, underground conduits are to be provided as part of the upgrade of these roads to allow for future undergrounding of the electricity supply.
R55	Above ground utilities must be identified at the subdivision design stage to ensure effective integration with the surrounding neighbourhood and to minimise amenity impacts, and be designed to the satisfaction of the relevant authority. Where that infrastructure is intended to be located in public open space, the land required to accommodate that infrastructure will not be counted as contribution to POS requirements classified under Clause 52.01 or the English Street Development Contributions Plan.
R56	Utilities must be placed outside any conservation areas shown on Plan 6, where practicable. Utilities must be placed outside of natural waterway corridors or on the outer edges these corridors to avoid disturbance to existing waterway values, native vegetation, significant landform features and heritage sites, to the satisfaction of Melbourne Water and the responsible authority.
	UTILITIES GUIDELINES
G41	Above ground utilities should be located outside of key view lines and screened with vegetation, as appropriate.
G42	Design and placement of underground services in new or upgraded streets should utilise the service placement guidelines outlined in Appendix 4.3.
G43	Utility easements to the rear of lots should only be provided where there is no practical alternative.
G44	Existing above ground 66kV electricity cables should be removed and placed underground as part of the upgrade of existing roads.

3.7 Precinct Infrastructure Plan & Staging

3.7.1 Precinct Infrastructure Plan

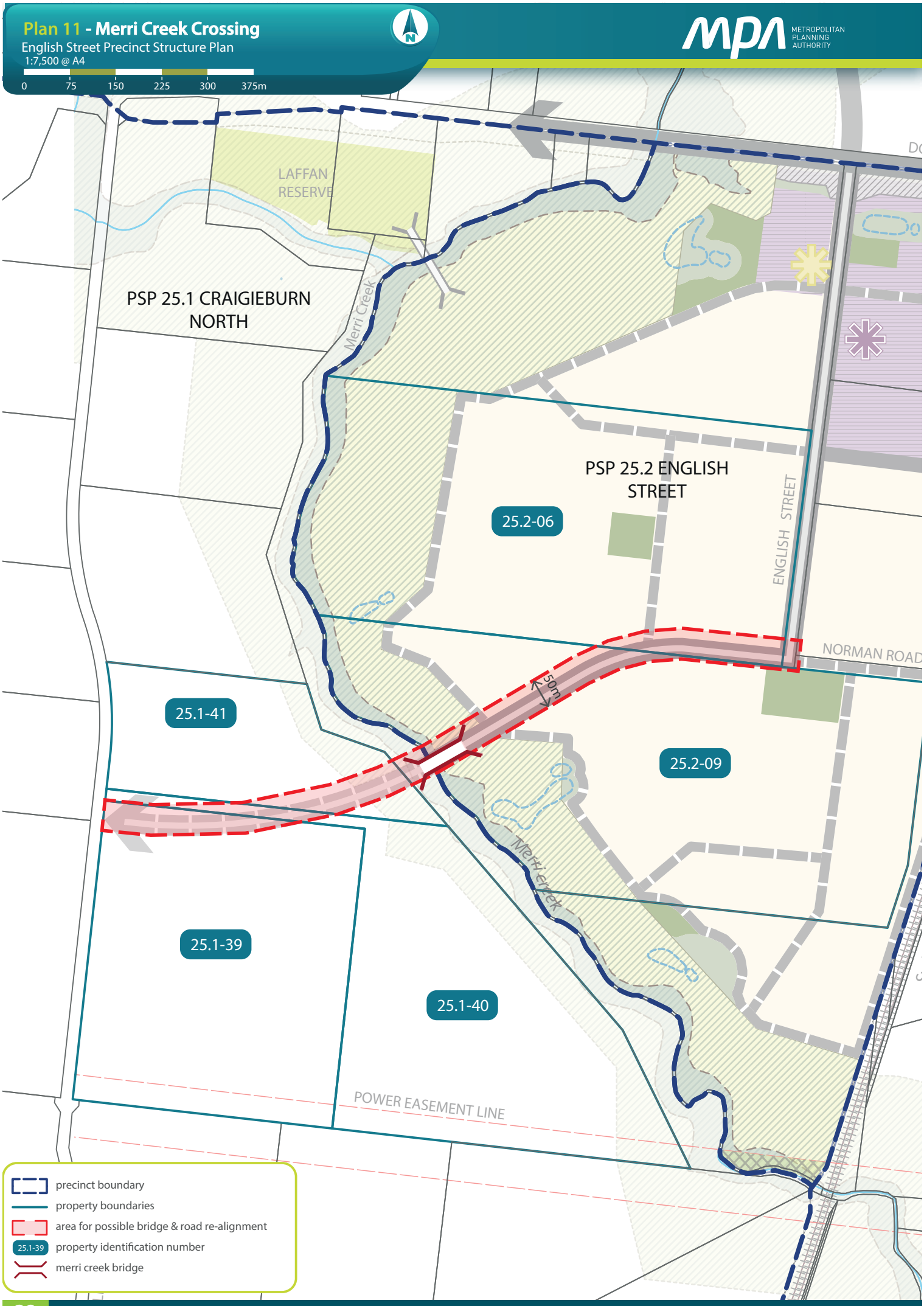
Table 6 Precinct Infrastructure Plan

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING S, M, L	INCLUDED IN DCP	DCP REFERENCE NO.
Road Projects						
Road	Donnybrook Road	6 lane arterial road (ultimate) – land (minimum 41m).	VicRoads	M	No	N/A
Road	English Street –Donnybrook Road to Norman Road Intersection. Reconstruction and extension to Merri Creek.	Purchase of land from 20m to 34m wide 4 lane arterial road (ultimate treatment) and construction of 2-lane carriageway (interim) excluding intersections.	City of Whittlesea	S M	Yes (interim) No (ultimate)	RD-25.2-1
Road	English Street – Intersection Norman Road Intersection to Merri Creek	Purchase of land for 4 lane arterial road 34m wide (ultimate treatment) and construction of a 2-lane carriageway (interim treatment), excluding intersections.	City of Whittlesea	S M	Yes (interim) No (ultimate)	RD-25.2-2
Intersection Projects						
Intersection	Donnybrook Road /English Street	Purchase of land for intersection (ultimate treatment) and construction of arterial to arterial 4-way signalised intersection (interim treatment)	VicRoads and City of Whittlesea	S M	Yes (interim) No (ultimate)	IN-25.2-1
Intersection	English Street / Mid-block	Purchase of land for intersection (ultimate treatment) and construction of arterial to connector street 4-way intersection	City of Whittlesea	M L	Yes (interim) No (ultimate)	IN-25.2-4
Intersection	English Street / Norman Road	Purchase of land for intersection (ultimate treatment) and construction of arterial to access road signalised 3-way intersection (interim treatment)	City of Whittlesea	M L	Yes (interim) No (ultimate)	IN-25.2-2
Bridge Projects						
Bridge	Donnybrook Road overpass of Sydney-Melbourne railway line.	Bridge over the railway line to provide for grade separation.	VicRoads	L	No	N/A
Bridge	Merri Creek Road Bridge	4-lane bridge crossing of Merri Creek (ultimate) and construction of a 2 lane road bridge (interim).	Hume City Council and City of Whittlesea	M L	Yes (interim) No (ultimate)	BR-25.2-1
Bridge	Merri Creek Pedestrian Bridge	Construction of a pedestrian bridge	Hume City Council and City of Whittlesea	M	Yes	BR-25.2-2

CATEGORY	TITLE	DESCRIPTION	LEAD AGENCY	TIMING S, M, L	INCLUDED IN DCP	DCP REFERENCE NO.
Community Centre	English Street Level 1 Community Activity Centre	Construction of two maternal and Child Health consulting rooms and flexible activity rooms.	City of Whittlesea	S	Yes	CB-25.2-1
Sports Facilities	Laffan Reserve (HCC)	Contribution to upgrade of Sporting Ovals	Hume City Council	M	Yes	SR-25.2-1
Sports Facilities	Laffan Reserve (HCC)	Contribution to upgrade of Pavilion.	Hume City Council	M	Yes	SR-25.2-2
Sports Facilities	Donnybrook Sporting Reserve (South-west)	Cash-in-lieu of land equivalent to 6% of total NDA-R for active sports fields.	City of Whittlesea	L	Yes	SR-25.2-3
Kindergarten Provision	Kindergarten Provision	Cash-in-lieu of equivalent cost of construction of one kindergarten room	City of Whittlesea	M	Yes	CB-25.2-2

3.7.2 Development Staging

DEVELOPMENT STAGING REQUIREMENTS	
R57	Subdivision of affected land on lots marked within the 'area for possible bridge and road re-alignment' identified in Plan 11 adjacent to the future bridge crossing of the Merri Creek is not permitted until the exact location for bridge abutments has been confirmed through a geotechnical assessment and a Cultural Heritage Management Plan (CHMP), or unless otherwise agreed by the responsible authority and the City of Hume.
R58	Development staging must provide for the timely provision and delivery of: • Arterial road reservations. • Street links between properties, constructed to the property boundary. • Connection of the on- and off-road pedestrian and bicycle network.
DEVELOPMENT STAGING GUIDELINES	
G45	Staging will be determined largely by the development proposals on land within the precinct and the availability of infrastructure services. Within this context, the following should be achieved: • Development staging should, to the extent practicable, be integrated with adjoining developments, including the timely provision of connecting roads and walking/cycling paths; and • Access to each new lot must be via a sealed road.


Plan 11 - Merri Creek Crossing
English Street Precinct Structure Plan
1:7,500 @ A4
0
75
150
225
300
375m
N
METROPOLITAN PLANNING AUTHORITY
LAFFAN RESERVE
PSP 25.1 CRAIGIEBURN NORTH
Merri Creek
PSP 25.2 ENGLISH STREET
25.2-06
ENGLISH STREET
NORMAN ROAD
50m
25.1-41
25.2-09
Merri Creek
25.1-39
25.1-40
POWER EASEMENT LINE
precinct boundary
property boundaries
area for possible bridge & road re-alignment
25.1-39 property identification number
merri creek bridge

3.7.3 Subdivision Works

SUBDIVISION WORKS REQUIREMENTS	
R59	Subdivision of land within the precinct must provide and meet the total cost of delivering the following infrastructure: • Connector roads and local streets. • Local bus stop infrastructure (where locations have been agreed in writing by Public Transport Victoria). • Landscaping of all existing and future roads and local streets. • Intersection works and traffic management measures along arterial roads, connector streets, and local streets (except those included in the English Street Development Contributions Plan (DCP) . • Council approved fencing and landscaping (where required) along arterial roads. • Fencing along the rail corridor to the satisfaction of Public Transport Victoria (PTV) • Local shared, pedestrian and bicycle paths along local arterial roads, connector roads, utilities easements, local streets, waterways and within local parks including bridges, intersections, and barrier crossing points (except those included in the DCP). • Bicycle parking. • Appropriately scaled lighting along all roads, major shared and pedestrian paths, and traversing public open space. • Basic improvements to local parks and open space (refer open space delivery below). • Local drainage system. • Local street or pedestrian path crossings of waterways unless included in the DCP or outlined as the responsibility of another agency in the Precinct Infrastructure Plan. • Construction of shared paths along waterways and in local parks. • Infrastructure as required by utility service providers including water, sewerage, drainage (except where the item is funded through a Development Services Scheme), electricity, gas, and telecommunications.
R60	**OPEN SPACE DELIVERY** All local parks (where not otherwise provided via the DCP) must be finished to a standard that satisfies the requirements of the responsible authority prior to the transfer of the public open space, including: • Removal of all existing and disused structures, foundations, pipelines, and stockpiles. • Clearing of rubbish and weeds, levelled, topsoiled and grassed with warm climate grass (unless conservation reserve requirements dictate otherwise). • Provision of water tapping, potable and recycled water connection points. • Implementation of Tree Protection Zones (TPZs) for existing trees to be retained to the satisfaction of the responsible authority. • Planting of trees and shrubs. • Provision of vehicular exclusion devices (fence, bollards, or other suitable method) and maintenance access points. • Construction of shared paths in waterways and open space and connections to them. • Installation of toilet blocks and facilities. • Installation of park furniture including barbeques, shelters, furniture, seating spaced at regular intervals, rubbish bins, local scale playground equipment, local scale play areas, and appropriate paving to support these facilities, consistent with the type of public open space listed in the open space delivery guide (Table 4).
SUBDIVISION WORKS GUIDELINES	
G46	The early delivery of community facilities, local parks and playgrounds is encouraged within each neighbourhood and may be delivered in stages to the satisfaction of the Responsible Authority.

Plan 12 - Land Use Budget

English Street Precinct Structure Plan

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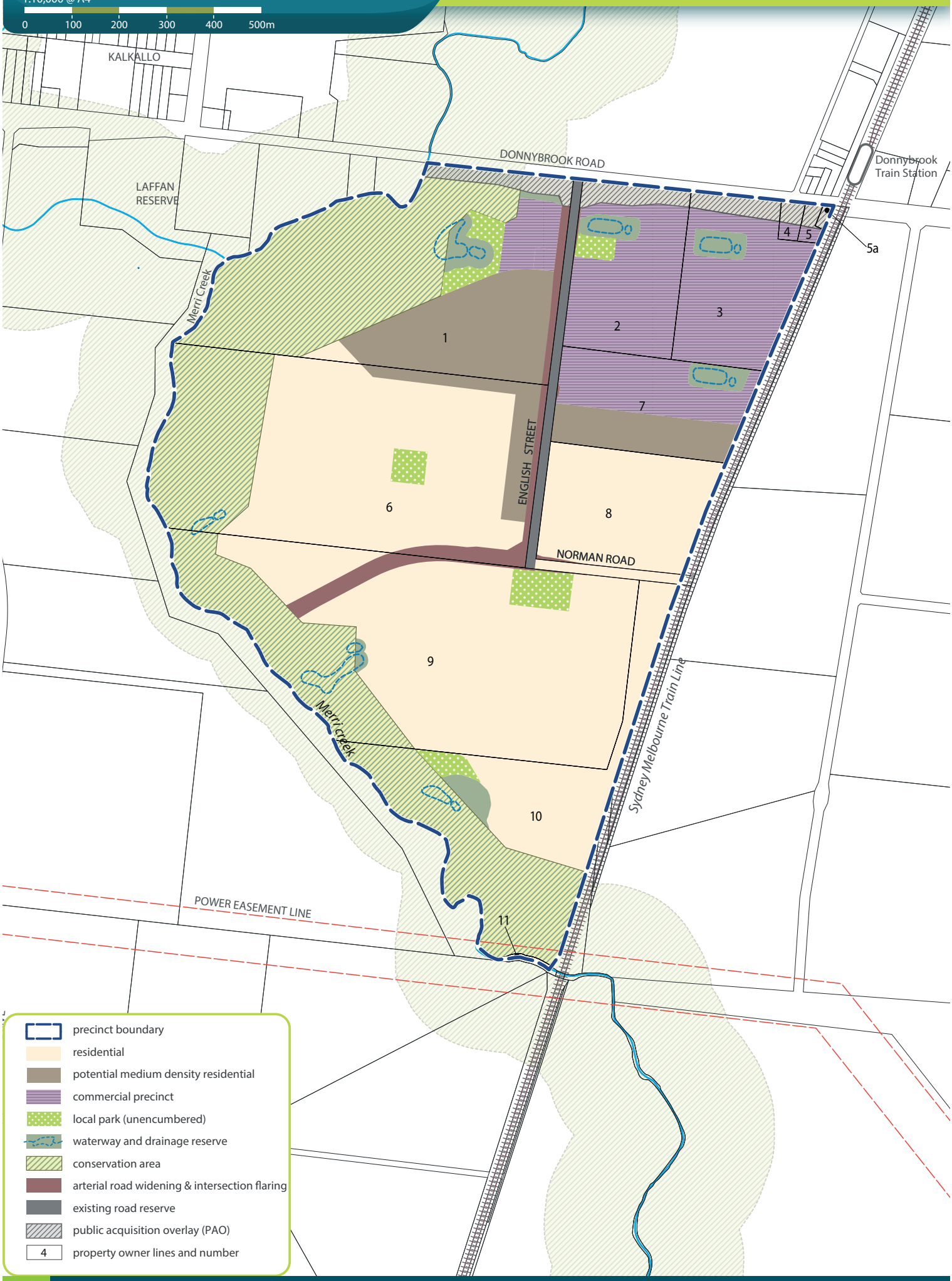


4.0 APPENDICES

4.1 Land Budget

The area of Net Developable Area (NDA) is established by deducting the land requirements for major roads, servicing, community facilities and open space from the overall Precinct area. The estimated NDA for the Precinct is 89.8. Ha representing approximately 63% of the PSP area.
The land budget shows that the PSP achieves a yield of 1,200 dwellings assuming a rate of 15.4 dwellings per hectare residential and 25 dwellings per hectare medium density residential.
See Plan 12: Land Use Budget and Table 7 Summary Land Use Budget. A detailed property specific land use budget is in Table 8.

Table 7 Summary land use budget

DESCRIPTION	HECTARES	% OF PRECINCT	% OF NDA
TOTAL PRECINCT AREA (ha)	**143.02**	**100.0%**	
TRANSPORT			
Donnybrook Road PAO (6 Lane Arterial Rd)	3.35	2.34%	3.73%
Future English Street 4 Lane Arterial Road - Widening / Intersection Flaring (DCP land)	3.10	2.17%	3.45%
Existing Road Reserve - (English Street / Norman Road)	2.31	1.61%	2.57%
Sub-total	8.75	6.12%	9.75%
COMMUNITY FACILITIES			
Community Facilities	0.20	0.14%	0.22%
Subtotal	0.20	0.14%	0.22%
OPEN SPACE			
SERVICE OPEN SPACE			
Waterway / Drainage Line / Wetland / Retarding	3.39	2.37%	3.77%
Conservation Area	37.72	26.37%	42.00%
Sub-total	41.10	28.74%	45.77%
CREDITED OPEN SPACE			
Local Parks - Residential	2.81	1.97%	3.13%
Local Parks - Commercial	0.35	0.24%	0.39%
Subtotal	3.16	2.21%	3.52%
TOTALS OPEN SPACE	44.27	30.95%	49.30%
NET DEVELOPABLE AREA (NDA) HA	**89.80**	**62.79%**	**100.00%**
NET DEVELOPABLE AREA - RESIDENTIAL NDA-R (DCP MCA 1)	**70.70**	**49.44%**	**78.74%**
NET DEVELOPABLE AREA - COMMERCIAL NDA-C (DCP MCA 2)	**19.09**	**13.35%**	**21.26%**

CREDITED OPEN SPACE SUMMARY (CL 52.01)			CL 52.01 AMOUNT
RESIDENTIAL OPEN SPACE	**HA**		**% OF NDA-R**
Local Parks	2.81		3.98%
COMMERCIAL OPEN SPACE	**HA**		**% OF NDA-C**
Local Parks	0.35		1.83%

ANTICIPATED DWELLING YIELD	NDA -R (HA)	DWELL / NDHA-R	LOTS / DWELLINGS
Yield - Conventional Density	59.27	15.4	914
Yield - Medium Density	11.43	25.0	286
Dwellings - TOTAL	70.70	16.97	1200

Table 8 Property Specific Land Use Budget

PROPERTY NUMBER	TOTAL AREA (HECTARES)	TRANSPORT (ROADS AND INTERSECTIONS)			COMMUNITY	ENCUMBERED LAND AVAILABLE FOR RECREATION		UNENCUMBERED LAND AVAILABLE FOR RECREATION		NET DEVELOPABLE AREA (HA)	NET DEVT AREA % OF PROPERTY (HA)	NET DEVELOPABLE AREA - RESIDENTIAL (HA)	NET DEVELOPABLE AREA - EMPLOYMENT (HA)
		DONNYBROOK ROAD PAO (6 LANE ARTERIAL RD)	FUTURE ENGLISH STREET 4 LANE ARTERIAL ROAD - WIDENING / INTERSECTION FLARING (DCP IAND)	EXISTING ROAD RESERVE	COMMUNITY FACILITIES	WATERWAY / DRAINAGE LINE / WETLAND / RETARDING	CONSERVATION AREA	LOCAL PARKS - RESIDENTIAL	LOCAL PARKS - COMMERCIAL				
PROPERTY													
25.2 - 1R	23.99	0.62	0.44	0.00	0.20	0.76	13.80	0.86		7.30	30.43%	7.30	0.00
25.2 - 1C	2.16	0.47	0.17	0.00	0.00	0.12	0.00	0.00		1.40	64.69%	0.00	1.40
25.2 - 2	8.21	0.98	0.04	0.00	0.00	0.60	0.00		0.35	6.25	76.03%	0.00	6.25
25.2 - 3	8.19	0.77	0.00	0.00	0.00	0.61	0.00	0.00		6.81	83.13%	0.00	6.81
25.2 - 4	0.38	0.23	0.00	0.00	0.00	0.00	0.00	0.00		0.15	40.26%	0.00	0.15
25.2 - 5	0.32	0.17	0.00	0.00	0.00	0.00	0.00	0.00		0.15	46.47%	0.00	0.15
25.2 - 5A	0.11	0.11	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00%	0.00	0.00
25.2 - 6	30.89	0.00	1.26	0.00	0.00	0.00	7.79	0.50		21.33	69.06%	21.33	0.00
25.2 - 7R	3.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00		3.15	99.91%	3.15	0.00
25.2 - 7C	4.96	0.00	0.01	0.00	0.00	0.61	0.00	0.00		4.34	87.45%	0.00	4.34
25.2 - 8	8.41	0.00	0.07	0.00	0.00	0.00	0.00	0.00		8.35	99.21%	8.35	0.00
25.2 - 9	33.26	0.00	1.10	0.00	0.00	0.15	7.34	1.00		23.67	71.17%	23.67	0.00
25.2 - 10	16.09	0.00	0.00	0.00	0.00	0.53	8.20	0.45		6.90	42.90%	6.90	0.00
25.2 - 11	0.59	0.01	0.00	0.00	0.00	0.00	0.58	0.00		0.00	0.00%	0.00	0.00
Sub-total	140.71	3.35	3.10	0.00	0.20	3.39	37.72	2.81	0.35	89.80	63.82%	70.70	19.09
PUBLIC LAND													
English Street	1.65	0.00	0.00	1.65	0.00	0.00	0.00			0.00	0.00%		
Norman Road	0.66	0.00	0.00	0.66	0.00	0.00	0.00			0.00	0.00%		
Sub-total	2.31	0.00	0.00	2.31	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	143.02	3.35	3.10	2.31	0.20	3.39	37.72	2.81	0.35	89.80	62.79%	70.70	19.09

Property Specific Land Use Budget cont.

PROPERTY NUMBER	YIELD - CONVENTIONAL DENSITY			YIELD - MEDIUM DENSITY			YIELD - TOTALS PER NDHA-R		
	NDHA-R	DWELL / NDHA-R	DWELLINGS	NDHA-R	DWELL / NDHA-R	DWELLINGS	NDHA-R	DWELL / NDHA-R	DWELLINGS
25.2 - 1R	0.30	15.40	5.00	7.00	25.00	175.00	7.30	24.66	180.00
25.2 - 1C	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
25.2 - 2	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
25.2 - 3	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
25.2 - 4	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
25.2 - 5	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
25.2 - 5A	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
25.2 - 6	20.05	15.40	309.00	1.28	25.00	32.00	21.33	15.98	341.00
25.2 - 7R	0.00	15.40	0.00	3.15	25.00	79.00	3.15	25.05	79.00
25.2 - 7C	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
25.2 - 8	8.35	15.40	129.00	0.00	25.00	0.00	8.35	15.46	129.00
25.2 - 9	23.67	15.40	365.00	0.00	25.00	0.00	23.67	15.42	365.00
25.2 - 10	6.90	15.40	106.00	0.00	25.00	0.00	6.90	15.36	106.00
25.2 - 11	0.00	15.40	0.00	0.00	25.00	0.00	0.00		0.00
Sub-total	59.27	15.42	914	11.43	25.01	286	70.70	16.97	1200

*The densities contained within Table 8 are indicative only. They should not be treated as prescriptive requirements. Actual dwelling densities will be determined at Planning permit stage.

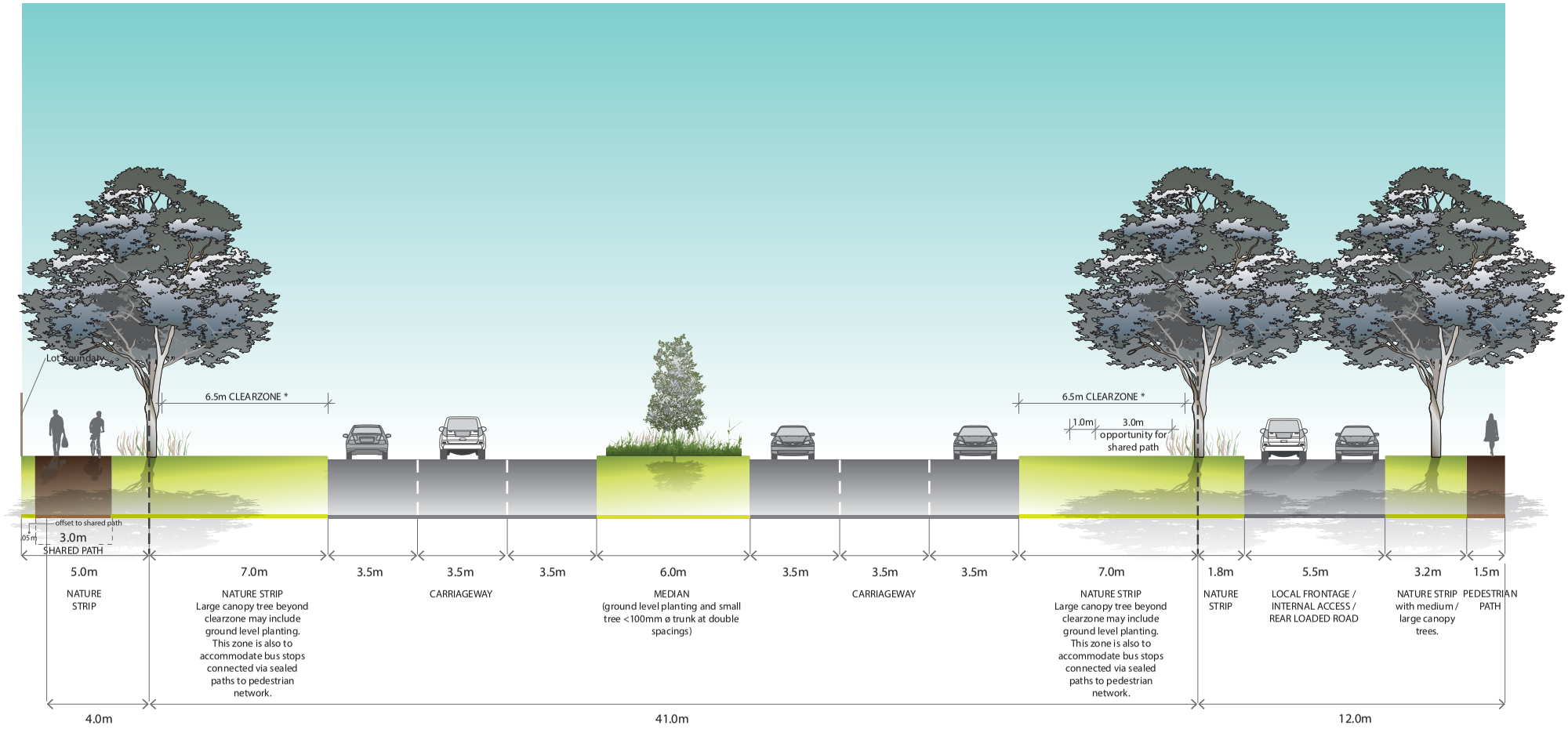
4.2 Local Convenience Centre – Design Criteria

PRINCIPLES	GUIDELINES
Principle 1 Provide smaller neighbourhoods with a viable Local Convenience Centre which offers accessible services to the surrounding community.	• Local Convenience Centres should be planned in conjunction with Local Town Centres in order to deliver a fine grain distribution of town centres within the region. • Local Convenience Centres should be planned for neighbourhoods that contain less than 8,000 people and are located more than 1km away from a Local Town Centre or higher order town centre. • Locate Local Convenience Centres in locations which are central to the residential community they serve and that provide exposure to passing traffic. • Where appropriate, locate Local Convenience Centres in attractive settings and incorporate natural or cultural landscape features such creeks and waterways, linear open space, pedestrian and cycle links and areas of high aesthetic value.
Principle 2 Provide a range of local services and facilities which are appropriate to the Local Convenience Centre location and the catchment that it serves.	• Land uses should be located generally in accordance with the locations and general land use terms identified on the Local Convenience Centre Concept Plan. • The design of the Local Convenience Centre should facilitate development with a high degree of community interaction and provide an appropriate mix of retail, commercial and community facilities to suit the catchment that the Local Convenience Centre serves. • The design of the Local Convenience Centre should also encourage a pattern of smaller scale individual tenancies and land ownership patterns within the Local Town Centre to attract investment and encourage greater diversity and opportunities for local business investment. • Active building frontages should address the primary street frontage to maximise exposure to passing trade, and promote pedestrian interaction.
Principle 3 Design the Local Convenience Centre to be pedestrian friendly and accessible by all modes including public transport, while enabling private vehicle access. The Local Convenience Centre should be easily, directly and safely accessible for pedestrians, cyclists, public transport modes, private vehicles, service and delivery vehicles with priority given to pedestrian movement, amenity, convenience and safety.	• Public transport infrastructure/facilities should be planned for commuter friendly/convenient locations adjacent to the Local Convenience Centre. • Bus stops should be provided in accordance with the Public Transport Victoria Public Transport Guidelines for Land Use and Development, to the satisfaction of the Public Transport Victoria. • Bicycle parking should be provided within the street network and public spaces in highly visible locations and close to pedestrian desire lines and key destinations. • The design of buildings within the Local Convenience Centre should have a relationship with and should interface to the public street network. • Car parking areas should be located centrally to the site and to the rear and or side of street based retail frontages. • Car parking areas should be designated to ensure passive surveillance and public safety through adequate positioning and lighting. • Car parking areas should be designed to provide dedicated pedestrian routes and areas of landscaping. • On street car parking should be provided either as parallel or angle parking to encourage short stay parking. • Car parking ingress and egress crossovers should be grouped and limited. • Car parking ingress or egress and car parking areas accommodating heavy vehicle movements should be designed to limit the pedestrian/vehicle conflict. • Streets, public spaces and car parks should be well lit to Australian standards and with pedestrian friendly (generally white) light. Lighting should be designed to avoid unnecessary spill to the side or above.
Principle 4 Create a sense of place with high quality engaging urban design.	• Development should complement and enhance the character of the surrounding area by responding appropriately to key visual cues associated with the topography of the Local Convenience Centre location and its surrounds. • The Local Convenience Centre design should seek to minimise amenity and noise impacts resulting from the mix of uses by maintaining separation and transitional areas between retail and housing activities, such as open space, road networks and community facilities. • The design of each building should contribute to a cohesive and legible character for the Local Convenience Centre as a whole. • Sites in prominent locations (such as at key intersections, surrounding public spaces and terminating key view lines and vistas) should be identified for significant buildings or landmark structures. • The design of building frontages should incorporate the use of a consistent covered walkway or verandah to provide for weather protection. • The built form should define the primary street frontage and be aligned with the property boundary.

	• Street facades and all visible side or rear facades should be visually rich, interesting and well articulated and be finished in suitable materials and colours that contribute to the character of the Local Convenience Centre. • Materials and design elements should be compatible with the environment and landscape character of the broader precinct. • If a supermarket is proposed, the supermarket should have a frontage that directly address the primary street frontage so that the use integrates with and promotes activity within the public realm. • Supermarkets with a frontage to the primary street frontage should use clear glazing to allow view lines into the store from the street. (Planning permits for buildings and works should condition against the use of white washed windows, excessive window advertising and obtrusive internal shelving or 'false walls' offset from the glazing). • Secondary access to a supermarket from car parking areas should be considered where it facilitates convenient trolley access and does not diminish the role of the primary access from the primary street frontage. • The design and siting of supermarkets should provide an appropriate response to the entire public domain. This includes but is not limited to car parking areas, predominantly routes and streets. • Retail uses along street frontages should generally include access points at regular intervals to encourage activity along the length of the street. • Retail and commercial buildings within the Local Convenience Centre should generally be built to the property line. • Public spaces should be oriented to capture north sun and protect from prevailing winds and weather. • Landscaping of all interface areas should be of a high standard as an important element to complement the built form design. • Urban art should be incorporated into the design of the public realm. • Street furniture should be located in areas that are highly visible and close to or adjoining pedestrian desire lines/gathering spaces and designed to add visual interest to the Local Convenience Centre. • Wrapping of car parking edges with built form, to improve street interface, should be maximised. • Car parking areas should provide for appropriate landscaping with planting of canopy trees and dedicated pedestrian thoroughfares. • Screening of centralised waste collection points should minimise amenity impacts with adjoining areas and users of the centre. • Where service areas are accessible from car parks, they should present a well designed and secure facade to public areas. • Mechanical plant and service structure roofs should be included within roof lines or otherwise hidden from view.

Principle 5
 	
Promote localisation, sustainability and adaptability.
	• The Local Convenience Centre should promote the localisation of services which will contribute to a reduction of travel distance to access local services and less dependence on the car.
	• The Local Convenience Centre should be designed to be sympathetic to its natural surrounds by:
	  • Investigating the use of energy efficient design and construction methods for all buildings;
	  • Including Water Sensitive Urban Design principles such as integrated stormwater retention and reuse (e.g. toilet flushing and landscape irrigation);
	  • Promoting safe and direct accessibility and mobility within and to and from the Local Convenience Centre;
	  • Including options for shade and shelter through a combination of landscape and built form treatments;
	  • Ensuring buildings are naturally ventilated to reduce the reliance on plant equipment for heating and cooling;
	  • Promoting passive solar orientation in the configuration and distribution of built form and public spaces;
	  • Grouping waste collection points to maximise opportunities for recycling and reuse;
	  • Promoting solar energy for water and space heating, electricity generation and internal and external lighting; and
	  • Investigating other opportunities for the built form to reduce greenhouse gas emissions associated with the occupation and the ongoing use of buildings.
	• Encourage building design which can be adapted to accommodate a variety of uses over time.

4.3 Standard Street Cross-Sections



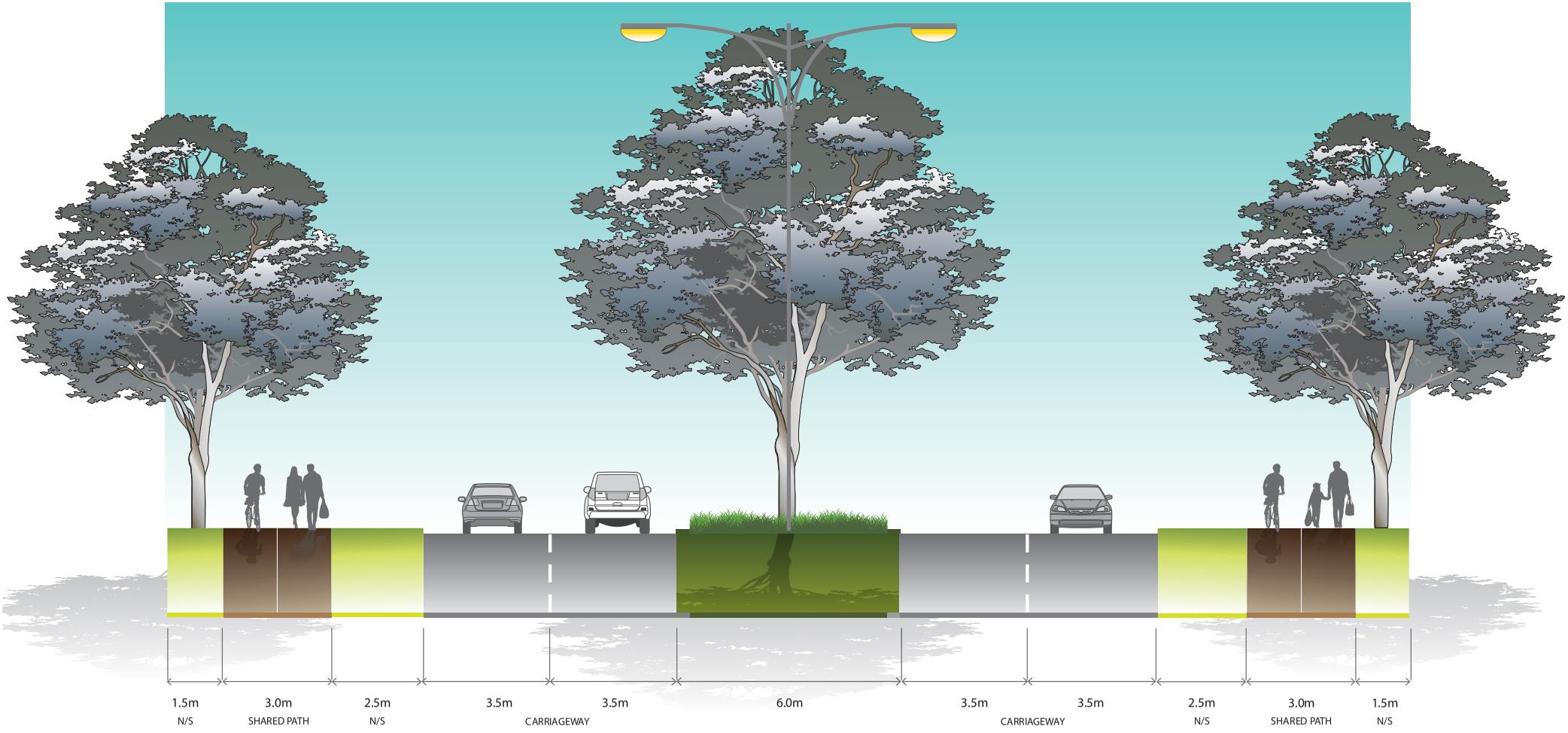
Donnybrook Road 6 lane Arterial Road (41m) - ultimate
English Street Precinct Cross Section

MPA METROPOLITAN PLANNING AUTHORITY

v140716

NOTES:

- Includes typical residential frontage roads each side.
- Investigation and use of physical barriers such as wire rope fencing is encouraged to enable more extensive canopy tree planting.
- * Clear zone assumes 80 Km/h speed limit > 5,000 VPD.
- Reservation width will be affected by clear zone and service infrastructure clearance requirements.



English Street Ultimate - 4 lane Arterial (34m)

English Street Precinct Cross Section

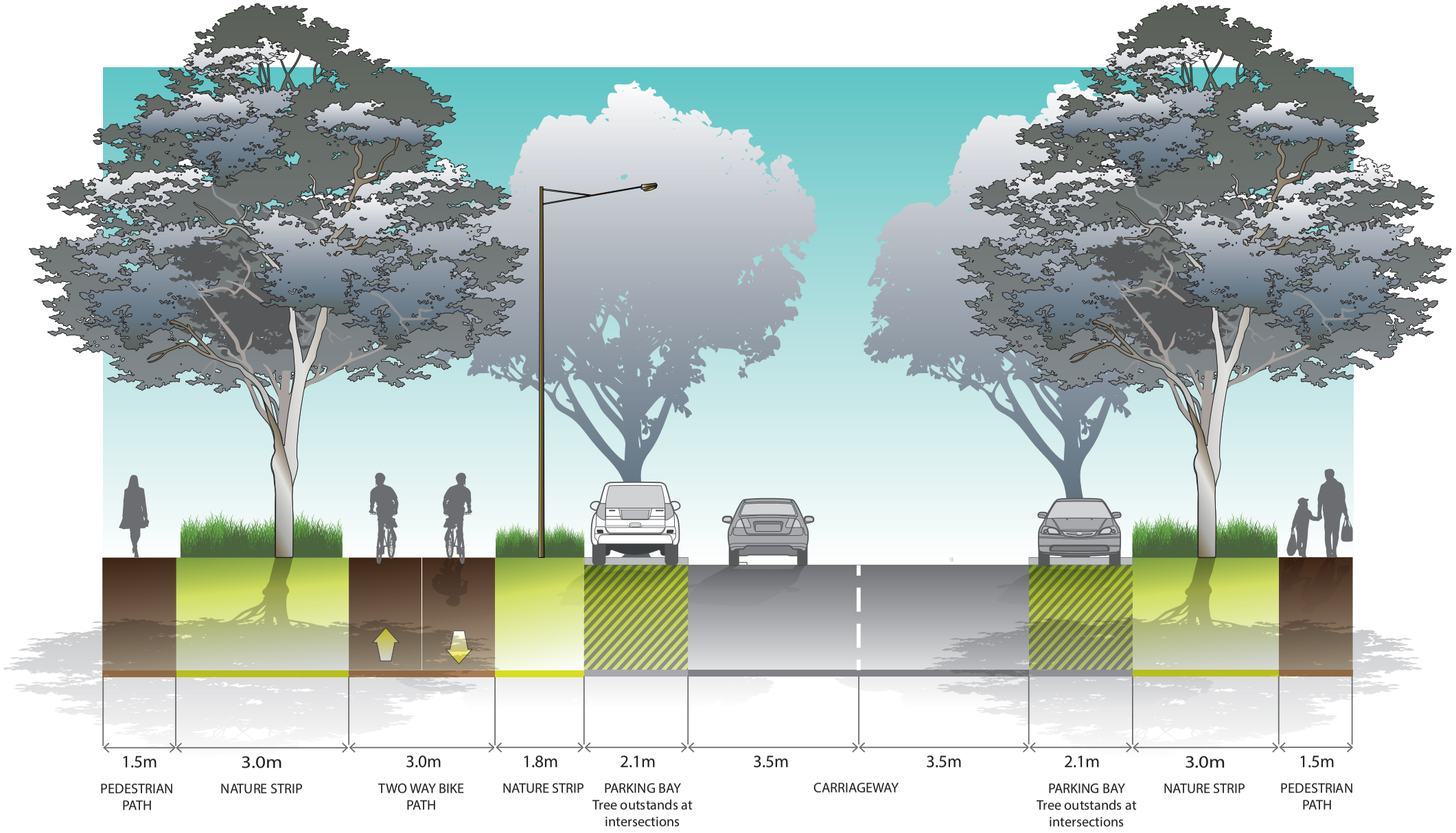
MPA METROPOLITAN PLANNING AUTHORITY

v140723

English Street Interim - 2 lane Secondary Arterial (34m)

English Street Precinct Cross Section

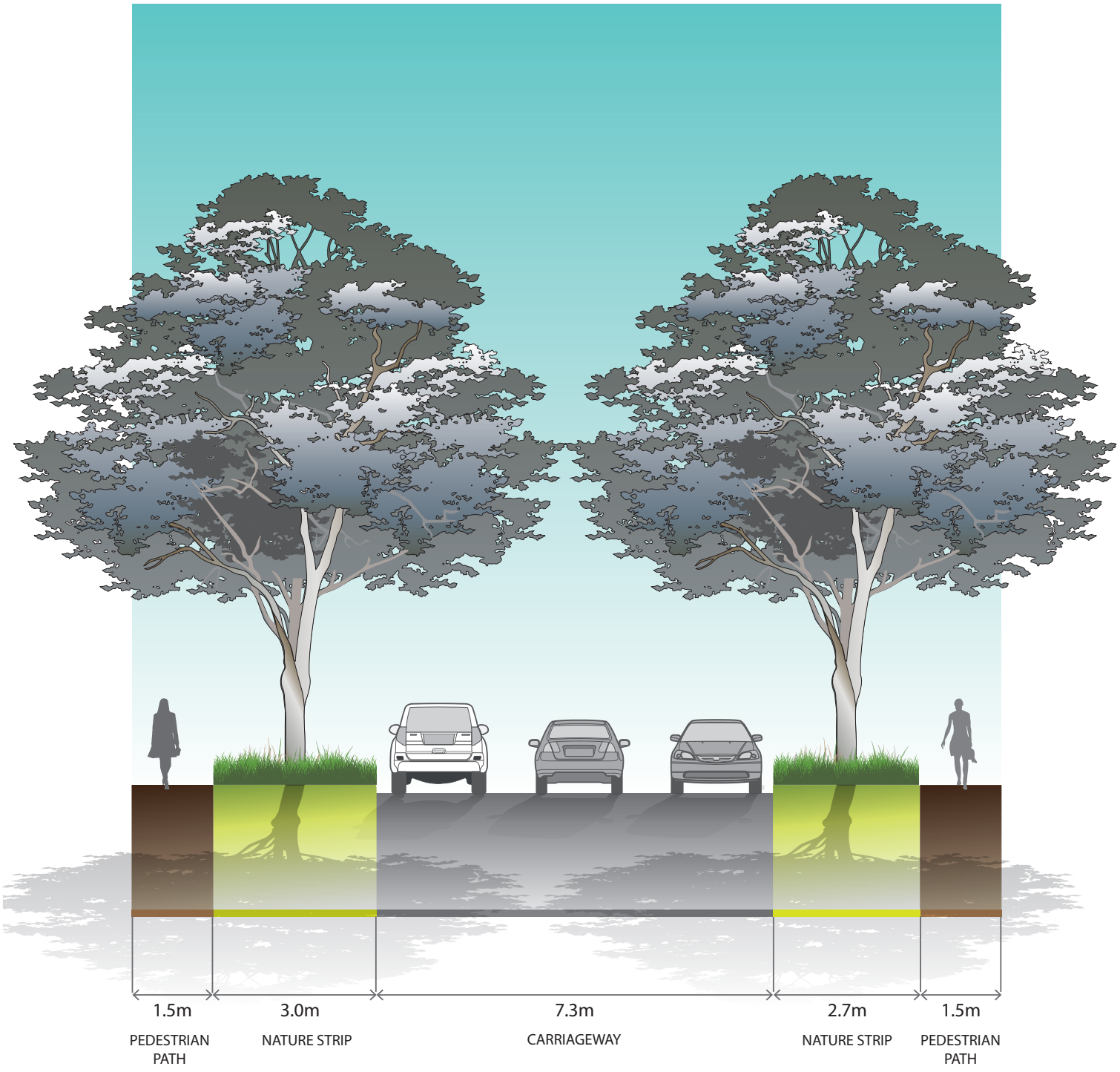
MPA METROPOLITAN PLANNING AUTHORITY



Residential Connector Street (25.5m) 2 Way Bike Path Typically 3000 - 7000 VPD

English Street Precinct Cross Section

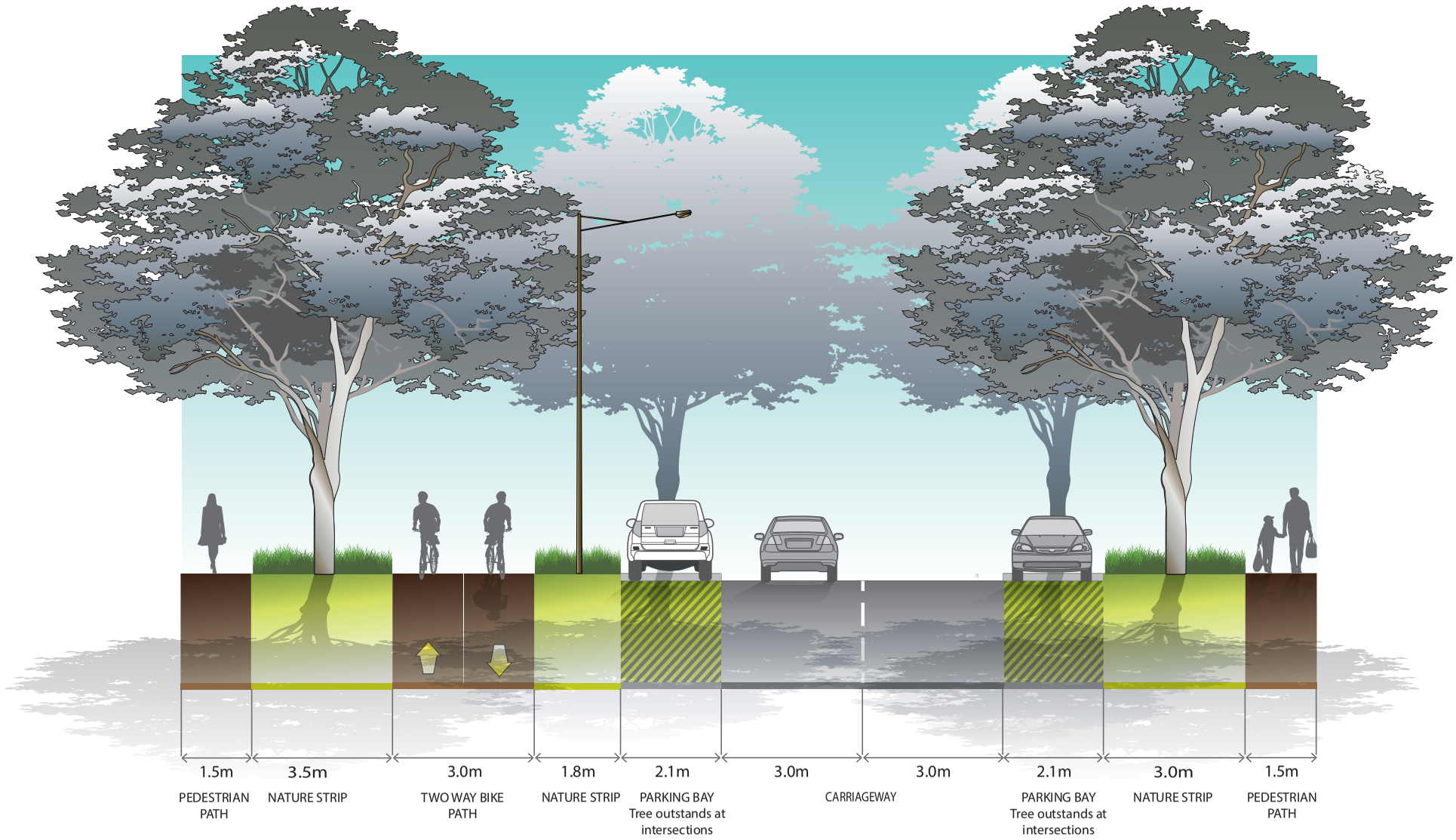
MPA METROPOLITAN PLANNING AUTHORITY



Local Access Level 1 (16m) 16m<2000 VPD

English Street Precinct Cross Section

v140716



Local Access Street Level 2 (24m) with 2 way bike path 2000-3000 VPD

MPA METROPOLITAN PLANNING AUTHORITY

NOTES:

- Minimum street tree mature height 15 metres
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Where roads abut school drop-off zones and thoroughfares, grassed nature strip should be replaced with pavement. Canopy tree planting must in incorporated into any additional pavement.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

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4.4 Service Placement Guidelines

STANDARD ROAD CROSS SECTIONS

Figures 003 and 004 in the *Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)* outline placement of services for a typical residential street environment. This approach is appropriate for the majority of the 'standard' road cross sections outlined in Appendix 4.3 containing grassed nature strips, footpaths and road pavements.

NON-STANDARD ROAD CROSS SECTIONS

To achieve greater diversity of streetscape outcomes in Melbourne's growth areas, which enhances character and amenity of these new urban areas, non-standard road cross sections are required. Non-standard road cross sections will also be necessary to address local needs, such as fully sealed verges for high pedestrian traffic areas in town centres and opposite schools. This PSP contains suggested non-standard 'variation' road cross sections, however other non-standard outcomes are encouraged.

For non-standard road cross sections where service placement guidance outlined in Figure 003 and 004 in the *Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)* is not applicable, the following service placement guidelines will apply.

	UNDER PEDESTRIAN PAVEMENT	UNDER NATURE STRIPS	DIRECTLY UNDER TREES[1]	UNDER KERB	UNDER ROAD PAVEMENT	WITHIN ALLOTMENTS	NOTES
SEWER	Preferred	Possible	Possible	No	Possible	Possible[3]	
POTABLE WATER	Possible[4]	Preferred	Preferred	No	No	No	Can be placed in combined trench with gas
RECYCLED WATER	Possible[4]	Preferred	Preferred	No	No	No	
GAS	Possible[4]	Preferred	Preferred	No	No	No	Can be placed in combined trench with potable water
ELECTRICITY	Preferred[4]	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
FTTH/TELCO	Preferred[4]	Possible	Possible	No	No	No	Pits to be placed either fully in footpath or nature strip
DRAINAGE	Possible	Possible	Possible	Preferred	Preferred	Possible[3]	
TRUNK SERVICES	Possible	Possible	Possible	Possible	Preferred	No	

NOTES

1 Trees are not to be placed directly over property service connections

2 Placement of services under road pavement is to be considered when service cannot be accommodated elsewhere in road reserve. Placement of services beneath edge of road pavement/parking bays is preferable to within traffic lanes

3 Where allotment size/frontage width allows adequate room to access and work on a pipe

4 Where connections to properties are within a pit in the pedestrian pavement/footpath

GENERAL PRINCIPLES FOR SERVICE PLACEMENT

- Place gas and water on one side of road, electricity on the opposite side
- Place water supply on the high side of road
- Place services that need connection to adjacent properties closer to these properties
- Place trunk services further away from adjacent properties
- Place services that relate to the road carriageway (eg. drainage, street light electricity supply) closer to the road carriageway
- Maintain appropriate services clearances and overlap these clearances wherever possible

METROPOLITAN
PLANNING
AUTHORITY