Spring Creek

Precinct Structure Plan

Surf COAST SHIRE

April 2016

CONTENTS

1.0 INTRODUCTION 5

1.1 Role of the Precinct Structure Plan 5
1.2 How to read this document 7
1.3 Land to which this PSP applies 7
1.4 Background information 7
1.5 Supporting documents 7
1.6 Monitoring & review 7

2.0 OUTCOMES 9

2.1 Vision 9
2.2 Objectives 9
2.3 Summary land use budget 11

3.0 IMPLEMENTATION 13

3.1 Image, character & housing 13
3.2 Neighbourhood centre, convenience centres & emploment 16
3.3 Open space & community facilities 19
3.4 Biodiversity, cultural heritage & bushfire management 22
3.5 Transport & movement 25
3.6 Integrated water cycle management & utilities 29
3.7 Infrastructure delivery & development staging 33

4.0 APPENDICES 39

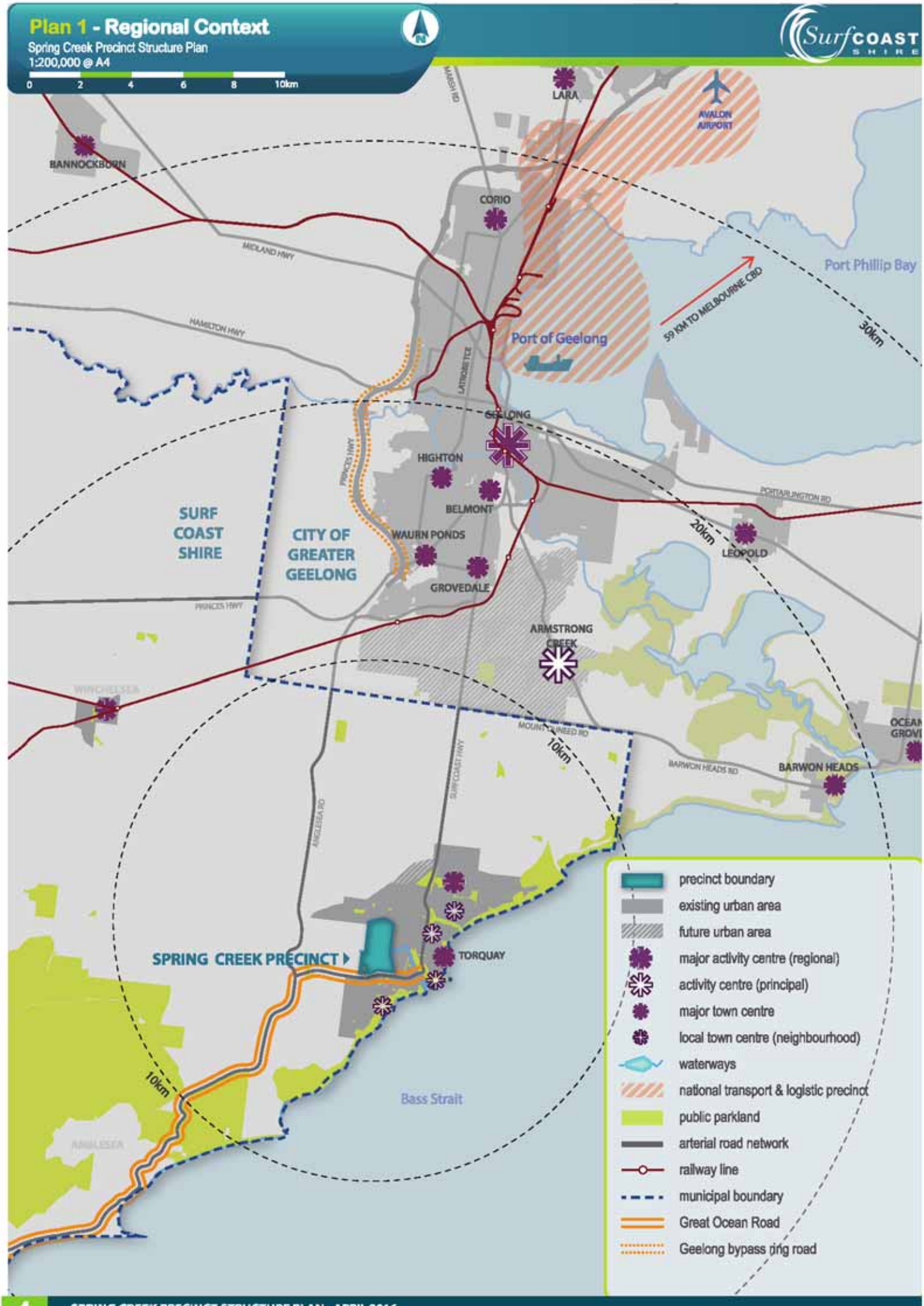
Appendix A: Detailed land use budget 39
Appendix B: Neighbourhood centre design principles 40
Appendix C: Open space delivery guidelines 44
Appendix D: Street cross sections 46
Appendix E: Service placement guidelines 58
Appendix F: Sustainability principles 59
Appendix G: Kangaroo management principles 61

PLANS

Plan 1	Regional Context	4
Plan 2	Precinct Features	6
Plan 3	Future Urban Structure	8
Plan 4	Land Use Budget	10
Plan 5	Neighbourhood Character & Housing	12
Plan 6	Open Space & Community Facilities	18
Plan 7	Road Network Public Transport & Trail	24
Plan 8	Integrated Water Management	28
Plan 9	Utilities	32

TABLES

Table 1: Summary land use budget	11
Table 2: Residential design controls	14
Table 3: Anticipated employment creation in the precinct	17
Table 4: Open space delivery guide	20
Table 5: Stormwater drainage & water quality treatment infrastructure	32
Table 6: Precinct Infrastructure Plan	36
Table 7: Property-specific land use budget	39


Plan 1 - Regional Context
Spring Creek Precinct Structure Plan
1:200,000 @ A4
0 2 4 6 8 10km
Surf COAST SHIRE
LARA
AVALON AIRPORT
BANNOCKBURN
CORIO
MIDLAND HWY
HAMILTON HWY
Port Phillip Bay
59 KM TO MELBOURNE CBD
30km
Port of Geelong
GEELONG
HIGHTON
BELMONT
PRINCES HWY
SURF COAST SHIRE
CITY OF GREATER GEELONG
WAURN PONDS
GROVEDALE
20km
LEOPOLD
ARMSTRONG CREEK
10km
BARWON HEADS
SPRING CREEK PRECINCT
TORQUAY
ANGLESEA RD
SURF COAST HWY
Bass Strait
precinct boundary
existing urban area
future urban area
major activity centre (regional)
activity centre (principal)
major town centre
local town centre (neighbourhood)
waterways
national transport & logistic precinct
public parkland
arterial road network
railway line
municipal boundary
Great Ocean Road
Geelong bypass ring road

1.0 INTRODUCTION

Torquay-Jan Juc has experienced significant population growth over the past 10 years and will continue to grow due to its location on the Surf Coast, just 20 minutes south of Geelong and 90 minutes south-west of central Melbourne.

It is important that, in accommodating Torquay-Jan Juc's continuing growth, strategic planning and development celebrates and protects the town's valued coastal character, attractive landscape and enviable lifestyle.

The Spring Creek Precinct Structure Plan (PSP) provides the strategic framework to accommodate a proportion of the Torquay Jan-Juc's anticipated growth, from 13,000 to 25,000-30,000 residents over the next 25 years, through the construction of approximately 1,800 dwellings to accommodate more than 4,500 people.

1.1 Role of the Precinct Structure Plan

The Spring Creek Precinct Structure Plan (the PSP) has been prepared by Surf Coast Shire Council (Council) with assistance from the Metropolitan Planning Authority (MPA) and in consultation with government agencies, service authorities and key stakeholders.

The PSP is a long-term plan which provides direction for urban development. It describes how land is expected to be used and developed, and identifies how and where community infrastructure and services are planned to support development.

The PSP:

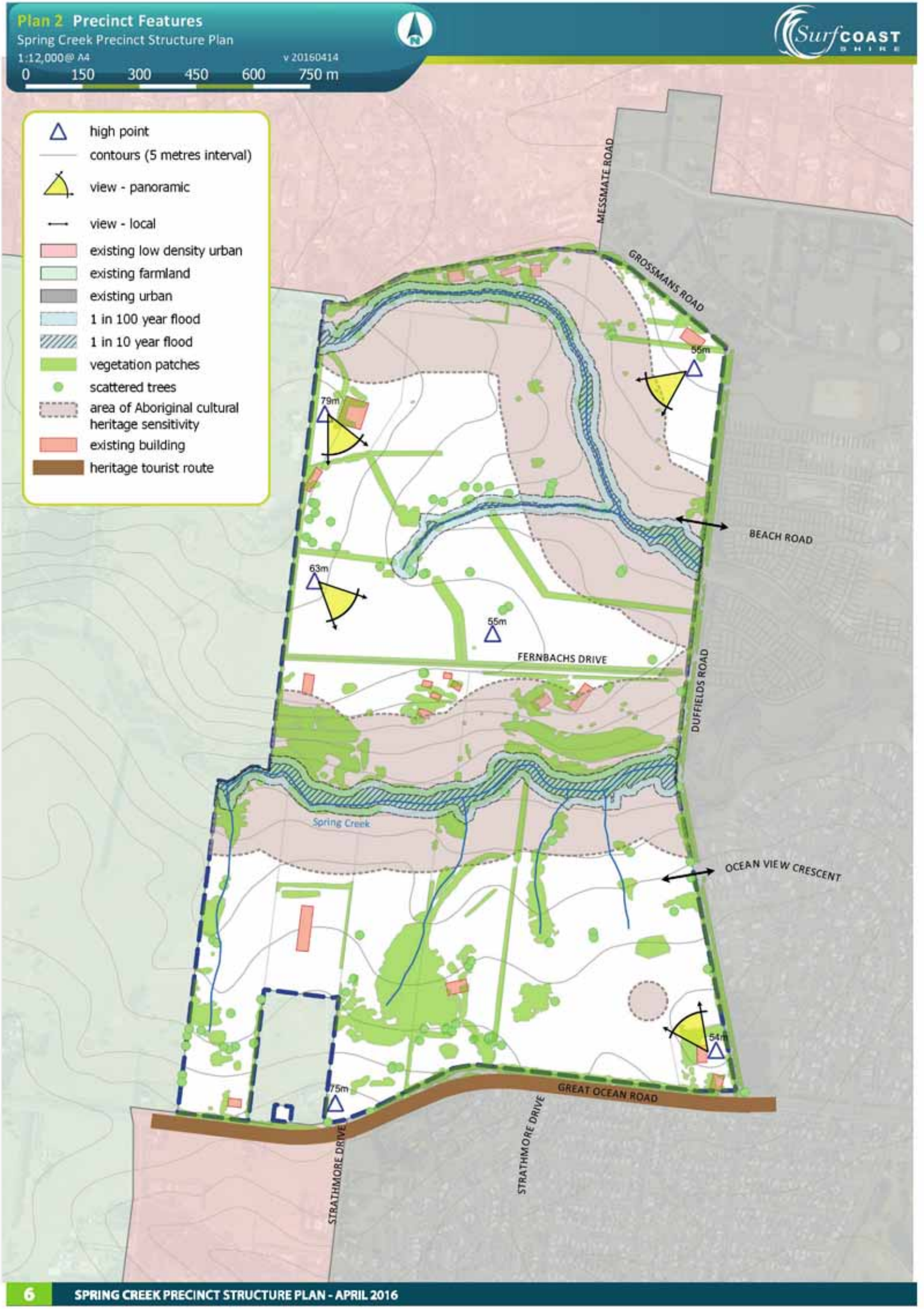
- Guides the delivery of a quality urban environment in accordance with Victorian Government policies and guidelines
- Enables the transition of non-urban land to urban land
- Sets out the vision for how the land should be developed and the outcomes achieved
- Outlines projects required to ensure future residents, visitors and workers within the area are provided with timely access to services and transport infrastructure necessary to support a sustainable lifestyle
- Seeks the protection and enhancement of identified biodiversity assets in the precinct
- Seeks the protection of identified heritage values in the precinct
- Sets out objectives, requirements and guidelines for future land use, development and subdivision
- Provides government agencies, Council, service providers, developers, investors and local communities with certainty about future development within the Spring Creek precinct.

The PSP is informed by:

- The State and Local Planning Policy Framework of the Surf Coast Planning Scheme
- *Plan Melbourne* (Victorian Government, 2014)
- *Precinct Structure Planning Guidelines* (Growth Areas Authority 2009, revised 2013)
- *G21 Regional Growth Plan* (Geelong Region Alliance, 2013)
- *The Sustainable Futures Plan Torquay Jan Juc 2040* (Surf Coast Shire, 2014)
- *Open Space Strategy 2016-2026* (Surf Coast Shire, 2016).

The following planning documents have been developed in parallel with the PSP or referred to, to inform and direct future planning and development in the precinct:

- Spring Creek Background Report, as described in section 1.4 of the PSP
- Torquay-Jan Juc Development Contributions Plan (DCP) (this document will be updated and may include the PSP area).


Plan 2 Precinct Features
Spring Creek Precinct Structure Plan
1:12,000@ A4
v 20160414
0 150 300 450 600 750 m
high point
contours (5 metres interval)
view - panoramic
view - local
existing low density urban
existing farmland
existing urban
1 in 100 year flood
1 in 10 year flood
vegetation patches
scattered trees
area of Aboriginal cultural heritage sensitivity
existing building
heritage tourist route
MESSMATE ROAD
GROSSMANS ROAD
BEACH ROAD
FERNBACHS DRIVE
DUFFIELDS ROAD
OCEAN VIEW CRESCENT
GREAT OCEAN ROAD
STRATHMORE DRIVE
STRATHMORE DRIVE
Spring Creek
79m
56m
63m
55m
54m
75m

1.2 How to read this document

The PSP guides land use and development where a planning permit is required under the Urban Growth Zone or another provision in the Surf Coast Planning Scheme that references the PSP.

A planning application and planning permit must implement the outcomes sought by the PSP, as guided by the vision and objectives of the PSP.

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

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 PSP. A requirement may reference a plan, table or figure in the PSP.

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 reference a plan, table or figure in the PSP.

Conditions that must be included in a planning permit are outlined in Schedule 1 to Clause 37.07 Urban Growth Zone (UGZ1) in the Surf Coast Planning Scheme.

Meeting these requirements, guidelines and conditions 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 use, development or subdivision of land is addressed in this PSP. A responsible authority may manage development and issue permits as relevant under its general discretion.

1.3 Land to which this PSP applies

The PSP applies to approximately 245 hectares of land extending generally one kilometre west of Duffields Road. The precinct is bounded by Grossmans Road to the north, Duffields Road to the east, Great Ocean Road to the south and rural land to the west. The precinct is illustrated on Plan 2 of the PSP and on Surf Coast Planning Scheme maps as UGZ1.

1.4 Background information

The Spring Creek Background Report provides detailed background information relating to the precinct, including its local and regional context, history, landform and topography, biodiversity, drainage, open space, transport infrastructure and community facilities. The report also summarises various technical studies that have informed the preparation of the PSP.

1.5 Supporting documents

1.5.1 Spring Creek Native Vegetation Precinct Plan

The *Spring Creek Native Vegetation Precinct Plan* (NVPP) has been prepared concurrently with the PSP to enable native vegetation matters to be considered in a coordinated manner across the precinct, consistent with the requirements of Clause 52.16 of the Surf Coast Planning Scheme. The NVPP identifies:

- Native vegetation which may be removed without a planning permit
- Native vegetation which cannot be removed without a planning permit
- The offset that must be provided to remove affected native vegetation
- Conditions that must be met in relation to vegetation that is to be protected.

1.5.2 Development Contributions Plan

Development proponents within the precinct will be bound by a Development Contributions Plan (DCP). A DCP sets out the requirements for development proponents to make contributions towards infrastructure required to support development, as a separate document to the PSP and also incorporated into the Surf Coast Planning Scheme.

A DCP for the precinct is yet to be prepared. Once complete, a DCP will be implemented through Schedule 3 to Clause 45.06 Development Contributions Plan Overlay (DCPO) in the Surf Coast Planning Scheme. Development proponents in the PSP area seeking to commence works prior to the incorporation of a DCP can enter into an agreement with Surf Coast Shire under section 173 of the *Planning and Enviornment Act 1987*.

1.6 Monitoring & Review

Council will monitor the implementation of the PSP. The effectiveness of the PSP will be evaluated regularly, at least every five years. The PSP may be revised and updated following the review, which may trigger a review of the DCP and NVPP.

Plan 3 Future Urban Structure

Spring Creek Precinct Structure Plan

1:12,000@ A4 v 20160413

0 150 300 450 600 750 m

2.0 OUTCOMES

2.1 Vision

Spring Creek will be an attractive, liveable and sustainable neighbourhood that will integrate with the landscape character of the Spring Creek valley and the established and emerging character of surrounding areas.

Local parks and reserves will be situated along the natural waterway and drainage corridors and will offer diverse recreational opportunities as part of an integrated open space network. Significant biodiversity assets, including stands of Bellarine Yellow Gums, are planned for protection within conservation and open space reserves. Shared paths for walking and cycling will be incorporated into the open space network. Landscaping along the precinct's edge will serve the dual purpose of protecting native vegetation and softening views from external roads.

A range of housing densities will respond to the topography and sensitive interfaces, including the Spring Creek riparian corridor and rural land to the west.

Daily service and convenience needs of residents within and surrounding the precinct will be met by a new neighbourhood centre planned to include a supermarket, specialty shops, cafes and commercial services. A multi-use community centre with associated facilities will support the resident population.

Pedestrian friendly streets will offer safe and convenient connections between the neighbourhood centre, open spaces, community facilities, the non-government school and other external destinations. The street pattern and the dedicated walking and cycling paths create an accessible neighbourhood, where residents have viable transport alternatives.

2.2 Objectives

Development of the Spring Creek PSP area is guided by a set of key objectives.

	OBJECTIVES
IMAGE, CHARACTER & HOUSING	
O1	Provide an attractive, liveable and sustainable urban environment consistent with Torquay-Jan Juc's coastal character.
O2	Promote the coastal-rural character of Surf Coast Shire by responding to significant landscape elements.
O3	Respond appropriately to the existing topography and natural and built features.
O4	Protect and reinforce key vistas and vantage points.
O5	Provide for a range of residential densities that reduce along Spring Creek and Grossmans Road, near rural land, and increase around the commercial centre.
NEIGHBOURHOOD CENTRE, CONVENIENCE CENTRES & EMPLOYMENT	
O6	Provide access to services and facilities that meet the day-to-day needs of the local community through a well-located and designed neighbourhood centre and other local convenience centres.
OPEN SPACE & COMMUNITY FACILITIES	
O7	Ensure residents have convenient access to the open space network.
O8	Provide community facilities to support the existing and new residents.
BIODIVERSITY, CULTURAL HERITAGE & BUSHFIRE MANAGEMENT	
O9	Preserve and enhance areas with significant cultural and biodiversity value, including patches of remnant vegetation, roadside vegetation, creek and drainage corridors, and cultural heritage.
O10	Protect and integrate the Spring Creek riparian corridor as a significant public use and landscape feature of the region.
TRANSPORT AND MOVEMENT	
O11	Deliver a permeable movement network of attractive streetscapes which connect residential, community and commercial uses and encourage walking and cycling.
O12	Encourage environmentally sustainable urban form and development that incorporates best practice sustainable design principles and techniques.
INTEGRATED WATER CYCLE MANAGEMENT & UTILITIES	
O13	Deliver an integrated water management system that reduces reliance on reticulated potable water, increases the re-use of alternative water, minimises flood risk, ensures waterway health, and contributes towards a sustainable and green urban environment.
INFRASTRUCTURE DELIVERY (& DEVELOPMENT STAGING)	
O14	Co-ordinate development sequencing and staging with the delivery of key infrastructure.


Plan 4 Land Use Budget
Spring Creek Precinct Structure Plan
1:12,000@ A4
v 20160413
0 150 300 450 600 750 m
PSP boundary
intersection flaring
conservation reserve
waterway & drainage reserve
open space
encumbered land (slope 1 in 3)
residential (lot size 500-600m sq)
residential (lot size 600-900m sq)
residential (lot size 1500-2000m sq)
local community facility
neighbourhood centre
MESSMATE ROAD
GROSSMANS ROAD
BEACH ROAD
DUFFIELDS ROAD
OCEAN VIEW CRESCENT
GREAT OCEAN ROAD
STRATHMORE DRIVE
STRATHMORE DRIVE
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21

2.3 Summary land use budget

The land budget in Table 1 sets out the amount of land to be allocated for each land use within the precinct, as illustrated on Plan 4.

The Net Developable Area (NDA) is established by deducting the land requirements for community facilities, public and private education facilities, arterial roads and open space (local parks and reserves) from the total precinct area. The NDAR for the precinct is 184.48 hectares which equates to 75 per cent of the PSP area.

The land budget shows that the PSP will yield 1,781 lots with an average density of approximately 10 dwellings per net developable hectare.

An average household size of 2.54 persons for conventional density housing (based on Victoria in Future 2015), is used to estimate the future population of the PSP area. On this basis, the future population of the PSP is estimated to be 4,524 residents.

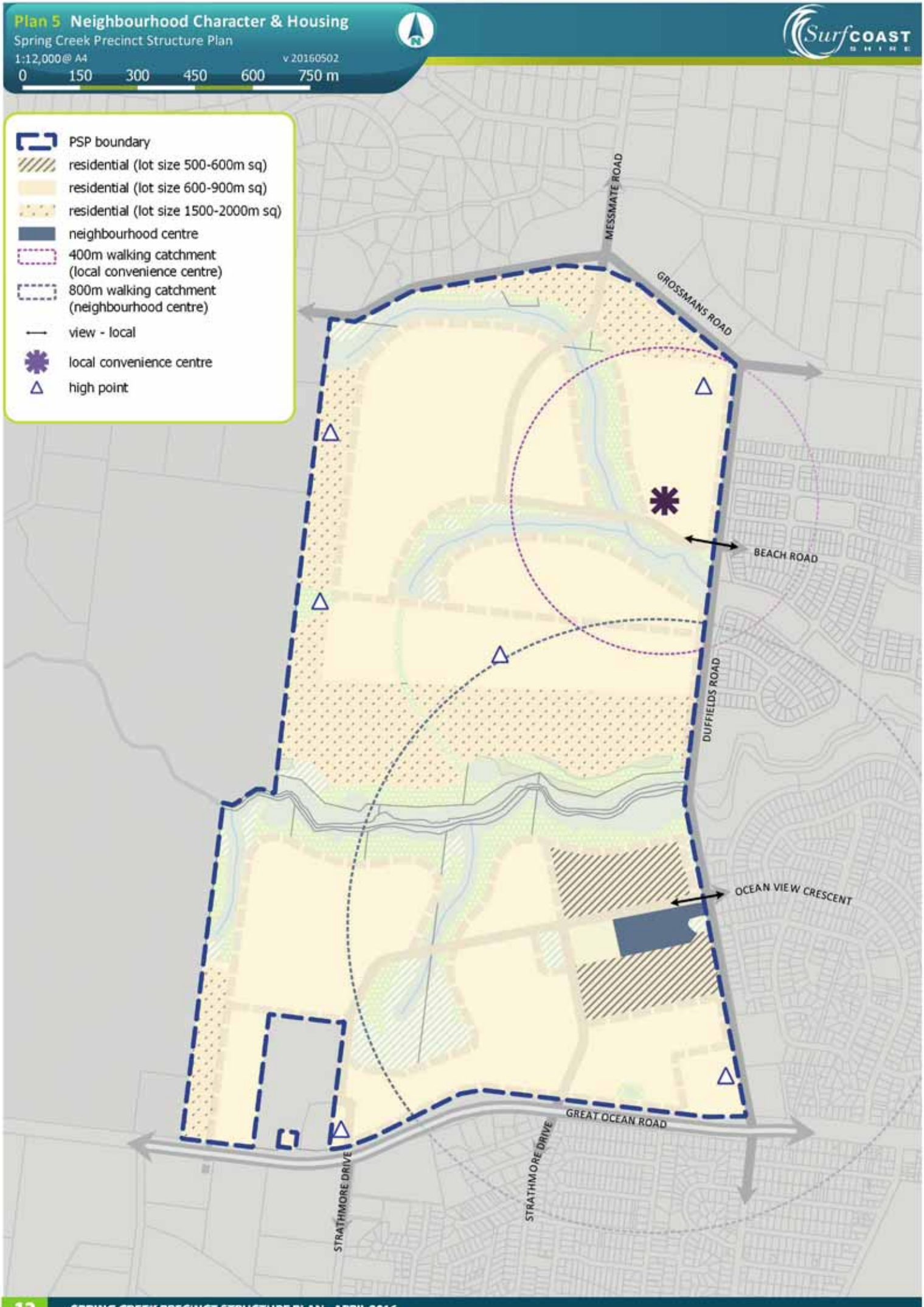
The PSP is also expected to yield 371 permanent jobs for future residents.

A detailed property-specific land use budget is provided at Appendix A.

Table 1 Summary land use budget

DESCRIPTION	SPRING CREEK PSP 1240		
	HECTARES	% OF TOTAL PRECINCT	% OF NDA
TOTAL PRECINCT AREA (HA)	**245.96**		
TRANSPORT			
Intersection flaring (DCP land)	0.95	0.39%	0.51%
Sub-total transport	0.95	0.4%	0.51%
COMMUNITY & EDUCATION			
Local community facility (DCP land)	1.20	0.49%	0.64%
Sub-total community & education	1.20	0.5%	0.6%
OPEN SPACE			
SERVICE OPEN SPACE			
Conservation reserve	9.70	3.94%	5.20%
Waterway and drainage reserve	28.06	11.41%	15.04%
Other	1.21	0.49%	0.65%
Sub-total Service open space	38.97	15.84%	20.89%
CREDITED OPEN SPACE			
Local network park (via Cl 52.01)	18.26	7.4%	9.79%
Sub-total credited open space	18.26	7.4%	9.79%
TOTAL ALL OPEN SPACE	57.23	23.3%	30.67%
NET DEVELOPABLE AREA - RESIDENTIAL (NDAR) Ha	**184.48**	**75.00%**	
NET DEVELOPABLE AREA - EMPLOYMENT (NDAE) Ha	**2.10**		

DESCRIPTION	SPRING CREEK PSP 1240		
	NDA (Ha)	Dwell / NDHa	Dwellings
Residential Density Lot Size 500-600m2	**10.26**	**14.50**	**149**
Residential Density Lot Size 600-900m2	**136.19**	**10.70**	**1,457**
Residential Density Lot Size 1500-2000m2	**38.03**	**4.60**	**175**
TOTAL NET DEVELOPABLE AREA - (NDAR) Ha	**184.48**		**1,781**


Plan 5 Neighbourhood Character & Housing
Spring Creek Precinct Structure Plan
1:12,000 @ A4
v 20160502
0 150 300 450 600 750 m
PSP boundary
residential (lot size 500-600m sq)
residential (lot size 600-900m sq)
residential (lot size 1500-2000m sq)
neighbourhood centre
400m walking catchment (local convenience centre)
800m walking catchment (neighbourhood centre)
view - local
local convenience centre
high point
MESSMATE ROAD
GROSSMANS ROAD
BEACH ROAD
DUFFIELDS ROAD
OCEAN VIEW CRESCENT
GREAT OCEAN ROAD
STRATHMORE DRIVE
STRATHMORE DRIVE

3.0 IMPLEMENTATION

3.1 Image, character & housing

3.1.1 Image & character

	REQUIREMENTS
R1	Subdivision must respond to the natural topography by minimising the extent of modification to existing ground levels and the risk of erosion through consideration of: • Alignment of roads and streets • Orientation and size of lots • Location and design of open space.
R2	Street trees must be provided on both sides of all roads and streets (excluding laneways) at regular intervals appropriate to tree size at maturity and not exceeding the average intervals below unless otherwise agreed by the responsible authority. AVERAGE INTERVAL: 8 – 10 metres; MATURE TREE SIZE: Small tree (less than 10 metres canopy) AVERAGE INTERVAL: 10 – 12 metres; MATURE TREE SIZE: Medium tree (10 – 15 metres canopy)
R3	Tree planting in streets, civic spaces and the open space network must: • Use species appropriate for the local soil conditions and land capability • Complement the existing native and indigenous landscape of the Precinct, including suitable exotic species where appropriate • Be planted in adequate, modified, improved and non-contaminated soil to support longevity and optimum growth • Be generally consistent with the Surf Coast Indigenous Planting Guide for Urban Coastal Areas 2003 and any guidance provided on the relevant cross section in Appendix D. All to the satisfaction of the responsible authority.
	GUIDELINES
G1	Street networks should be designed to maximise public views to the open space network, high points, the neighbourhood centre and significant landscape features internal and external to the precinct.
G2	Public views and vistas should be protected and enhanced through the design of the road network, location of public spaces and siting of buildings.
G3	Existing vegetation should be retained within the public domain, including in open space and road reserves, where practicable.
G4	Where significant vegetation is retained on private land, lots may be larger than identified on Plan 5 to minimise vegetation removal.
G5	Street trees should be used consistently across neighbourhoods to enhance use, local character and amenity, as well as reinforce the movement hierarchy.
G6	Trees in streets and parks should be larger species wherever space allows, to facilitate continuous canopy cover and increased shade opportunities.
G7	Trees in conservation reserves should contribute to habitat for indigenous fauna species, in particular arboreal animals and birds.
G8	Front and side fences abutting open space areas should be visually permeable and not more than one metre in height forward of the front wall of the dwelling.
G9	A consistent suite of lighting and furniture should be used across neighbourhoods, appropriate to the type and role of street or public space, unless otherwise approved by the responsible authority.
G10	Any vertical retaining structures in public places (with the exception of those that are part of building walls) should be no more than one metre in height, unless otherwise agreed by the responsible authority.
G11	Built form should add to character by providing an attractive street address that encourages passive surveillance and visual interest.
G12	Building design on steeper sites should follow land contours and consider alternatives to slab-on-ground construction.

G13	Building design should respond to topographical context and reduce negative visual bulk impacts on ridgelines by staggering form along land contours and using stabilising structures that avoid large blank walls.
G14	Building design should be compatible with and reflect the natural features of the precinct.

3.1.2 Housing

	REQUIREMENTS
R4	Residential subdivisions must deliver a range of lot sizes that: • Are capable of accommodating a variety of housing sizes • Achieve good solar orientation • Recognise site specific constraints and opportunities, such as vegetation and topography.
R5	Dwellings must not back onto: • Waterway and drainage reserves or the open space network • Conservation reserves • Utility easements that are co-located with the open space network • Arterial roads and connector streets. The siding of dwellings to waterway and drainage reserves, open space, conservation reserves and primary street frontages must be kept to a minimum.
R6	Dwellings must not directly abut waterways and drainage reserves, open space, conservation reserves or arterial roads. Service roads, paper roads or internal access streets must be provided to dwellings fronting open space, conservation reserves or arterial roads.
R7	Dwellings adjoining the open space network must provide active and engaging edges for passive surveillance opportunities and positive visual amenity.
	GUIDELINES
G15	Dwellings should provide a positive address to abutting community centres and schools.
G16	Specialised housing forms such as lifestyle communities, retirement living or aged care facilities should be located in close proximity to the neighbourhood centre and be accessible by public transport, where available.
G17	Lot sizes outlined in Table 2 should also respond to slope with larger lots on steeper land (greater than 10 per cent slope grade) and smaller lots in flatter areas (less than 10 per cent slope grade) to avoid excessive earthworks.

Table 2 Residential design controls

CHARACTER AREAS	500 SQUARE METRES - 600 SQUARE METRES	1500 SQUARE METRES - 2000 SQUARE METRES	600 SQUARE METRES - 900 SQUARE METRES
Location	• Surrounding the neighbourhood centre and community facility	• Western settlement boundary interface • Grossmans Road interface • Spring Creek (north) interface	• All other residential areas
RDC-1			
Dwellings per lot	Only one dwelling must be constructed on a lot.		

CHARACTER AREAS	500 SQUARE METRES - 600 SQUARE METRES	1500 SQUARE METRES - 2000 SQUARE METRES	600 SQUARE METRES - 900 SQUARE METRES
RDC-2			
Lot size	500 square metres – 600 square metres	1,500 square metres – 2,000 square metres	600 square metres – 900 square metres
RDC-3			
Dwelling setbacks As measured from the relevant lot boundary to the closest dwelling wall. Porches, pergolas and verandas that are less than 3.6 metres high and eaves may encroach not more than 2.5 metres into the setbacks of this standard.	**Minimum front setback:** 6.0 metres **Minimum side setback:** 4.0 metres from a side street where the site is on a corner	**Minimum front setback:** 6.0 metres **Minimum side setback:** 4.0 metres from a side street where the site is on a corner	**Minimum front setback:** 6.0 metres **Minimum side setback:** 4.0 metres from a side street where the site is on a corner
RDC-4			
Side and rear setback of dwellings To create a sense of space and separation between buildings, including within multi-dwelling developments	In addition to the requirements of clauses 54.04-2 and 55.04-2: • A new wall should not be located on a side or rear boundary. *Garages and carports excepted where only one wall is on a boundary.*	From a boundary shared with rural land: 20 metres From a rear boundary shared with public open space: 20 metres From a side boundary shared with public open space: 9.0 metres *No building may be constructed within these setbacks.*	In addition to the requirements of clauses 54.04-2 and 55.04-2: • A new wall should not be located on a side or rear boundary
RDC-5			
Site coverage	The area of a lot covered by buildings must not exceed 35 per cent.		
RDC-6			
Significant trees	At least 50 per cent of a lot must be available for the planting of vegetation (excludes driveways and tennis courts of all surface types).		
RDC-7			
Garage setbacks and frontage (including carports)	**Minimum front setback:** A garage or carport must be set back from the street at least one metre further than the wall of the dwelling (excluding porches, porticos, verandahs, pergolas, blade walls, decks, balconies, columns, piers and the like). **Garage frontage:** Garage openings facing the front of a lot must occupy no more than 40 per cent of the width of the lot frontage.		
RDC-8			
Driveways and crossovers	Driveways must not exceed a width of three metres at the property boundary and only one vehicle crossover per lot is permitted.		

CHARACTER AREAS	500 SQUARE METRES - 600 SQUARE METRES	1500 SQUARE METRES - 2000 SQUARE METRES	600 SQUARE METRES - 900 SQUARE METRES
RDC-9			
Front fencing and gates Defined as fencing between the front dwelling wall and the street.	**Prohibited** except where required on a side boundary abutting public open space. Where a dwelling on a corner lot faces public open space (including pedestrian links) the shared side boundary fencing that is forward of the front wall of the dwelling must be no more than one metre in height and at least 75 per cent visually permeable.	A fence forward of the front wall of a dwelling, other than post and wire is prohibited.	**Prohibited** except where required on a side boundary abutting public open space. Where a dwelling on a corner lot faces public open space (including pedestrian links) the shared side boundary fencing that is forward of the front wall of the dwelling must be no more than one metre in height and at least 75 per cent visually permeable.
RDC-10			
Side fencing to public places Defined as fencing behind the front dwelling wall and that faces a public reserve or public open space.	Must be at least 25 per cent permeable	Must not exceed 1.5 metres in height and must be of post and wire construction	Must be at least 25 per cent permeable
RDC-11			
Materials and finishes	Colours should be neutral and muted and assist in visually blending the building with the surrounding natural landscape. The use of zincalume and other highly reflective materials is prohibited.		
RDC-12			
Retaining structures	The extent of cut and fill should be minimised to reduce the need for extensive retaining walls. Any retaining walls should be: • Staggered, with a minimum one metre distance between each wall to allow for landscaping between walls • No more than one metre in height • Positioned on a lot with sufficient setback from boundaries to accommodate appropriate drainage behind the wall.		

3.2 Neighbourhood centre, convenience centres & employment

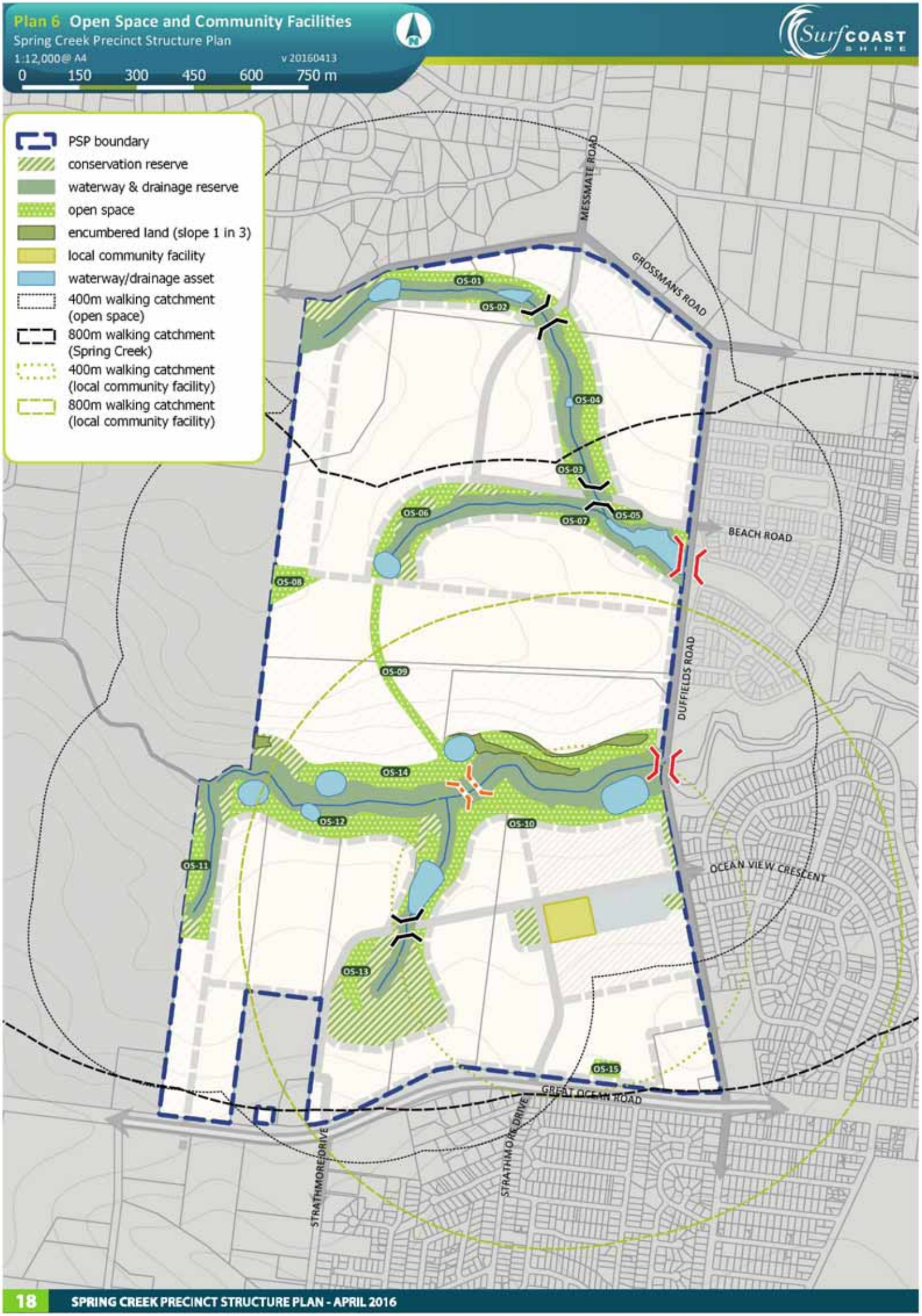
The Spring Creek Neighbourhood Centre, co-located with the Spring Creek Community Facility will support the convenience and service needs of the Spring Creek and wider communities whilst recognising the primacy of the Torquay Major Activity Centre in central Torquay.

Early delivery of essential services will provide important economic support for the locale while longer term expansion will allow the neighbourhood centre to grow with the Spring Creek community. The centre will offer a hub for social interaction that is currently lacking in the immediate area.

	REQUIREMENTS
R8	A concept plan must be approved by the responsible authority for the neighbourhood centre. The concept plan must respond to the principles outlined in Appendix B and Appendix F to the satisfaction of the responsible authority. The plan must: • Address the relevant guidelines prepared by the Victorian Government and Surf Coast Shire Council • Demonstrate how the neighbourhood centre provides for a range of compatible commercial, residential and community uses • Provide staging and indicative timing of the development • Incorporate public transport services into the design of the centre • Provide opportunities for higher density housing in accordance with Table 2 • Locate and design car parking areas to manage negative amenity impacts • Locate and design service areas for deliveries and waste disposal including access for larger vehicles with measures that minimise impacts on adjoining areas • Address interim management of the land required for longer term expansion so that the land is not kept in an unattractive or neglected state for long periods.
R9	The subdivision, use or development of land within the neighbourhood centre must be generally in accordance with an approved concept plan and any relevant planning and design guidelines approved by the responsible authority.
R10	The neighbourhood centre must be located as illustrated on Plan 5, unless otherwise agreed by the responsible authority.
R11	Development within the neighbourhood centre must consider crime prevention through environmental design (CPTED) principles and the *Safer Design Guidelines* (Department of Sustainability and Environment, June 2005).
R12	Buildings within the neighbourhood centre must provide: • Primary access to tenancies from the connector street • Positive and active frontages to the adjoining street network • Service and loading areas that manage amenity impacts the surrounding residential area.
R13	Local convenience centres must be located on and positively address a connector street.
R14	Local convenience centres must consider the relationship and interface with surrounding uses.
	GUIDELINES
G18	Car parking and loading facilities should be located to the side or rear of any buildings.
G19	Water tanks, service infrastructure, plant material and other like structures should be located behind the building line or, where this is not possible, include constructed screening using durable and attractive materials to provide a positive external interface.

Table 3 Anticipated employment creation in the precinct

LAND USE	MEASURE	JOBS	QTY IN PRECINCT	ESTIMATED JOBS
Community centre	Jobs/centre	10	1	10
Retail	Jobs/30 square metres	1	5,000 square metres	167
Office/commercial	Jobs/20 square metres	1	2,100 square metres	105
Home-based business	Jobs/dwelling	0.05	1,781 dwellings	89
TOTAL				371


Plan 6 Open Space and Community Facilities
Spring Creek Precinct Structure Plan
1:12,000@ A4
v 20160413
0 150 300 450 600 750 m
PSP boundary
conservation reserve
waterway & drainage reserve
open space
encumbered land (slope 1 in 3)
local community facility
waterway/drainage asset
400m walking catchment (open space)
800m walking catchment (Spring Creek)
400m walking catchment (local community facility)
800m walking catchment (local community facility)
MESSMATE ROAD
GROSSMANS ROAD
BEACH ROAD
DUFFIELDS ROAD
OCEAN VIEW CRESCENT
GREAT OCEAN ROAD
STRATHMORE DRIVE
STRATHMORE DRIVE
OS-01
OS-02
OS-03
OS-04
OS-05
OS-06
OS-07
OS-08
OS-09
OS-10
OS-11
OS-12
OS-13
OS-14
OS-15

3.3 Open space & community facilities

3.3.1 Open space

	REQUIREMENTS
R15	Further to the public open space contribution required by Clause 52.01 of the Surf Coast Planning Scheme, this provision sets out the amount of land to be contributed by each property in the precinct and consequently where cash contribution is required in lieu of land. For the purposes of Clause 52.01, a linear open space and trails or parkland and garden in the PSP is public open space. All owners must provide a public open space contribution equal to 10 per cent of the net developable area (NDA) upon subdivision of land in accordance with the following: • Where land on the lot is required for unencumbered public open space purposes as illustrated on Plan 6 and specified in Appendix A is equal to 10 per cent of the lot's NDA that land is to be transferred to Council at no cost • Where no land or land on the lot less than 10 per cent of NDA is required for unencumbered public open space purposes as illustrated on Plan 6 and specified in Appendix A, a cash contribution is to be made to Council to bring the lot's total public open space contribution to a value equal to 10 per cent of NDA • Where land on the lot is required for unencumbered public open space purposes as illustrated on Plan 6 and specified in Appendix A is more than 10 per cent of the lot's NDA, Council may pay an amount equivalent to the value of the additional land being provided by that proposed development. Refer to the Appendix A for detailed individual property open space land areas and percentages specified by the PSP. The responsible authority may alter the distribution of public open space as shown on Plan 6 provided the relevant vision and objectives of the document are met. A subdivider may provide additional public open space in a subdivision to the satisfaction of the responsible authority. There is no onus on the responsible authority or any other party to provide compensation for public open space provided above that required by Clause 52.01 and this PSP. The value of land for equalisation purposes is to be assessed as an equivalent proportion of the value of the whole land, in accordance with Section 18 of the Subdivision Act.
R16	All public open space must be designed, constructed and managed to: • Respond to the existing topography • Comply with universal access principles • Respond to any relevant masterplan • Suit local climate and soil conditions • Be consistent with any local street tree or open space strategies • Minimise water requirements • Facilitate the conservation of areas of significant vegetation and fauna habitat • Limit bushfire risk All to the satisfaction of the responsible authority.
R17	Where a local park spans across multiple properties, the first development proponent to lodge a subdivision application must prepare a master plan for the entire park to the satisfaction of the responsible authority or unless otherwise agreed by the responsible authority.
R18	Waterway and drainage reserves must be integrated into the open space system.
R19	Design and layout of waterway and drainage reserves and other encumbered open space must maximise the potential for the integration of informal recreation uses and wetlands where this does not conflict with the primary function of the land.

R20	Fencing of open space (other than conservation reserves), where required, must: • Be low scale and permeable to facilitate access, public safety and surveillance • Include gates as required at key access points • Be no greater than one metre in height • Be designed to guide appropriate movement and access • Be constructed using materials that complement that open space setting All to the satisfaction of the responsible authority.
	GUIDELINES
G20	Open space should be the focal point for neighbourhoods and each should have a distinct character and provide a sense of place.
G21	Open space should be sized, shaped and designed to support a range of structured and unstructured recreational activities suitable to its classification in Appendix C.
G22	Existing vegetation should be protected and enhanced through open space networks to manage habitat and movement corridors for wildlife and provide opportunities for shade and shelter.
G23	Planting within and adjacent to waterways and drainage reserves, water bodies and conservation reserves should use indigenous species of local provenance.
G24	Crime prevention through environmental design (CPTED) principles and *Safer Design Guidelines for Victoria* should guide the design of open spaces and associated infrastructure.
G25	All public open space should be delivered generally in accordance with Plan 6 and Table 4 unless otherwise agreed by the responsible authority. The area of the open space (linear open space and trails and parklands and gardens) may vary so long as it is not less than one hectare and remains within the area range for its size category. Where a parkland or garden is smaller than that outlined in the table, the land must be added to another park. 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.
G26	Open spaces along waterways and drainage reserves should provide opportunities for informal recreation and kick-out areas.

Table 4 Open space delivery guide

OPEN SPACE ID	AREA (HECTARES)	TYPE	LOCATION AND OTHER ATTRIBUTES	MANAGEMENT RESPONSIBILITY
OS-01	0.89	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-02	0.15	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-03	0.43	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-04	1.67	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-05	0.31	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-06	1.02	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-07	0.45	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-08	0.68	Parklands and gardens	Neighbourhood park	Surf Coast Shire
OS-09	0.96	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-10	3.35	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-11	0.81	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire

OPEN SPACE ID	AREA (HECTARES)	TYPE	LOCATION AND OTHER ATTRIBUTES	MANAGEMENT RESPONSIBILITY
OS-12	2.73	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-13	0.76	Parklands and gardens	Neighbourhood park	Surf Coast Shire
OS-14	2.24	Linear open spaces and trails	Linear neighbourhood and landscape links	Surf Coast Shire
OS-15	0.20	Parklands and gardens	Neighbourhood park	Surf Coast Shire

3.3.2 Community & education facilities

	REQUIREMENTS
R21	Schools and community centres must be designed to front and be directly accessed from a public street with off-street car parks located away from the main building entry.
R22	Community and education facilities must have safe and convenient access for pedestrians and cyclists.
	GUIDELINES
G27	Community facilities should be planned and designed to meet the changing needs of the community by providing for a range of uses.
G28	Community facilities should be co-located and where possible integrated with the neighbourhood centre and local convenience centres as appropriate.
G29	Community facilities, schools and active recreation reserves that are co-located should be designed to maximise efficiency of land through the sharing of car parking and other complementary infrastructure.
G30	School sites should be provided with three street frontages, where practicable.
G31	Childcare, medical or similar facilities should be located proximate within the neighbourhood centre.
G32	The location of key entries to community facilities should allow for safe and convenient pedestrian and cyclist access for all ages and abilities.

3.4 Biodiversity, cultural heritage & bushfire management

3.4.1 Biodiversity

	REQUIREMENTS
R23	Native vegetation must be retained as described in the NVPP.
R24	Planting of conservation reserves and waterways must be with indigenous species of local provenance that support the enhancement of the relevant Ecological Vegetation Class (EVC).
R25	Buffer zones on each side of Spring Creek must achieve a minimum width of 75 metres measured from the 1 in 10 year flood level.
	GUIDELINES
G33	Subdivision and development should maximise the retention of significant scattered trees in particular Bellarine Yellow Gums.
G34	Existing trees, including shelter belts, should be incorporated into the open space and road network where practical.
G35	Maximise the integration of the linear open space network and conservation reserves where these are located adjacent or nearby each other.
G36	Buffer zones along waterways and conservation reserves should achieve a minimum width of: • 50 metres on each side of the northern tributaries, measured from the 1 in 10 year flood level • 20 metres, measured from the centreline, on each side of other waterways illustrated on Plan 6. The widths of buffers may be varied having regard to environmental assets and topography to the satisfaction of the responsible authority.
G37	The environmental qualities of waterway and drainage reserves should be enhanced through appropriate restoration and rehabilitation works including revegetation, weed removal, pest animal control, and erosion and sediment control, amongst others. Revegetation must use indigenous vegetation based on the species composition of the relevant Ecological Vegetation Class and should be complementary to any specific biodiversity management objectives. Waterway rehabilitation, protection and construction guidelines and strategies provided by the catchment management authority should be used to guide waterway revegetation and restoration works, unless otherwise agreed by the catchment management authority or responsible authority.
G38	Fencing of conservation reserves, where required, should be low scale, have a maximum height of one metre and be 200 millimetres clear from ground level to facilitate the movement of wildlife to the satisfaction of the responsible authority.
G39	Design of fencing around conservation reserves should be timber post with timber beams, wire or chain to the satisfaction of the responsible authority.

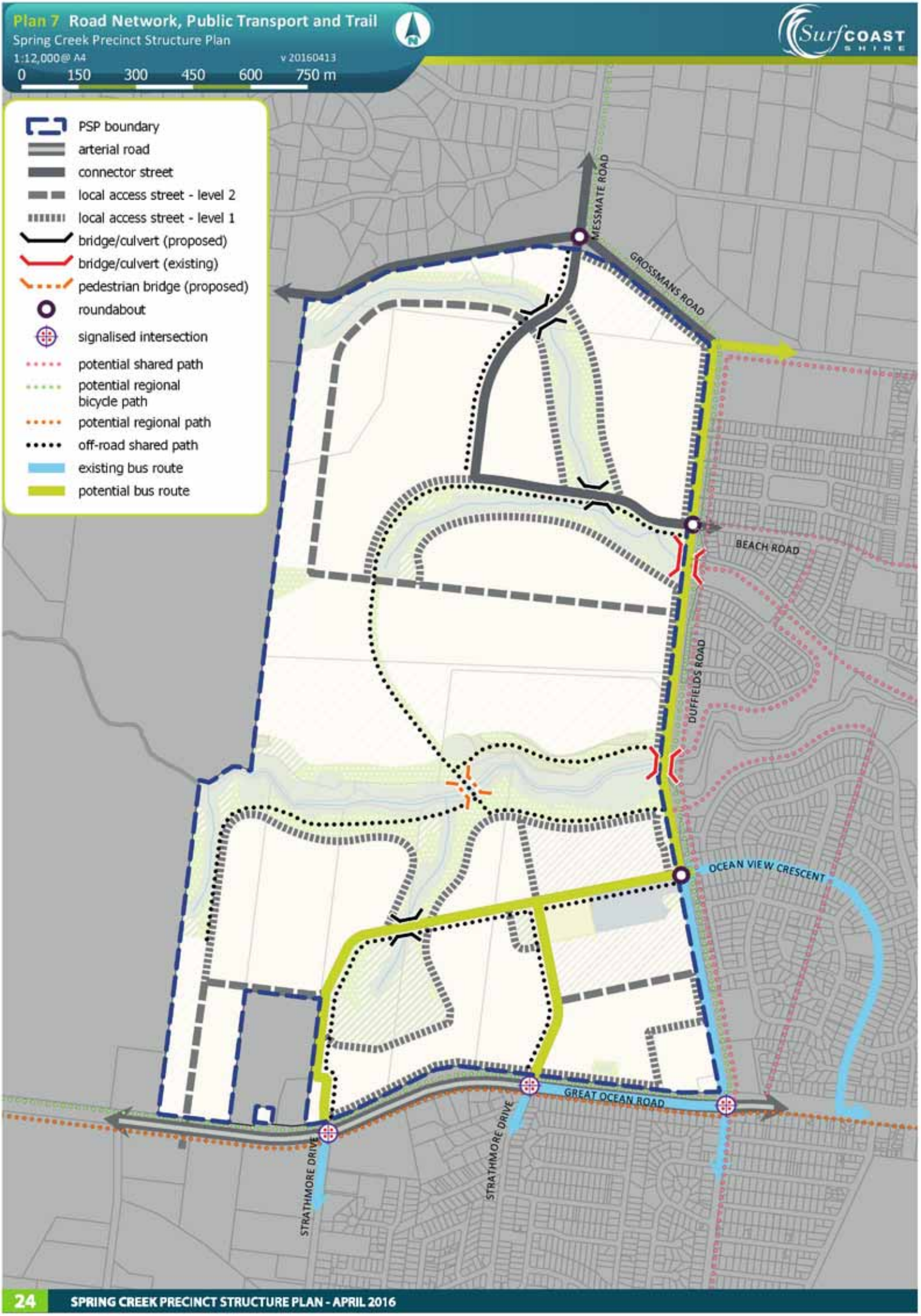
3.4.2 Cultural heritage

	GUIDELINES
G40	Cultural heritage places should be incorporated into the open space network to the satisfaction of the responsible authority in consultation with the Registered Aboriginal Party.

3.4.3 Bushfire management

	REQUIREMENTS
R26	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 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 • The reticulated fire hydrant service plan, with calculated pressure and flows available during peak demand. The plan must be carried out to the satisfaction of the responsible authority.

R27	For the purposes of Clause 56.06-7, the requirements of the relevant fire authority, unless otherwise approved by the CFA, are:
	• Constructed roads must be a minimum of 7.3 metres trafficable width where cars park on both sides, or:
	  • A minimum of 5.4 metres in trafficable width where cars may park on one side only
	  • A minimum of 3.5 metres in trafficable width with no parking and 0.5 metres clearance to structures on either side, and if this width applies, there must be passing bays at least 20 metres long, 6 metres wide, and located not more than 200 metres apart
	• Roads must be constructed so that they are capable of accommodating a vehicle of 15 tonnes for the trafficable road width
	• The average grade of a road must be no more than 1 in 7 (14.4 per cent or 8.1 degrees)
	• The steepest grade on a road must be no more than 1 in 5 (20 per cent or 11.3 degrees) with this grade continuing for no more than 50 metres at any one point
	• Dips in a road must have no more than a 1 in 8 grade (12.5 per cent or 7.1 degrees) entry and exit angle
	• Constructed dead end roads more than 60 metres in length from the nearest intersection must have a turning circle with a minimum radius of 8 metres (including roll-over curbs if they are provided).


Plan 7 Road Network, Public Transport and Trail
Spring Creek Precinct Structure Plan
1:12,000@ A4
v 20160413
0 150 300 450 600 750 m
PSP boundary
arterial road
connector street
local access street - level 2
local access street - level 1
bridge/culvert (proposed)
bridge/culvert (existing)
pedestrian bridge (proposed)
roundabout
signalised intersection
potential shared path
potential regional bicycle path
potential regional path
off-road shared path
existing bus route
potential bus route
MESSMATE ROAD
GROSSMANS ROAD
BEACH ROAD
DUFFIELDS ROAD
OCEAN VIEW CRESCENT
GREAT OCEAN ROAD
STRATHMORE DRIVE
STRATHMORE DRIVE

3.5 Transport & movement

3.5.1 Road network

	REQUIREMENTS
R28	Subdivision layouts must provide: • A permeable local street network • Convenient pedestrian, cyclist and vehicle access to open space and points of interest and destinations • Integration with neighbouring properties.
R29	Vehicle access to lots fronting Great Ocean Road and Duffields Road must be provided from a service road, local internal loop road or rear lane, to the satisfaction of the coordinating road authority.
R30	Access to Great Ocean Road must be provided only as illustrated on Plan 7 unless otherwise agreed by the coordinating roads authority.
R31	Development must positively address all waterways and open space through the use of frontage roads to the satisfaction of the responsible authority.
R32	Subdivision layouts must provide convenient and direct access to neighbouring properties where that neighbouring property does not otherwise have access to the road network.
R33	Where a street crosses a waterway and drainage reserve on Plan 7, the development proponent of that land must construct a bridge/culvert street crossing prior to the issue of statement of compliance for the initial stage of subdivision on the opposite side of the waterway, whether or not that opposite residential subdivision is contiguous with the waterway and drainage reserve.
R34	Roundabouts, where required at cross road intersections, must be designed to slow vehicles, provide for pedestrian visibility and safety, and ensure connectivity and continuity of shared paths and bicycle paths.
R35	Road networks and street types must be designed and developed in accordance with the street cross sections in Appendix D, unless otherwise agreed by the coordinating road authority.
R36	Where utilised, alternative street cross sections such as illustrated in Appendix D must ensure that: • Minimum required carriageway dimensions are maintained to ensure safe and efficient operation of emergency vehicles on all streets and buses on connector roads • The performance characteristics of standard street cross sections, as they relate to pedestrian and cycling use, are maintained.
R37	Connector streets or local access streets abutting schools must be designed to achieve slow vehicle speeds and provide parking bays and designated pedestrian crossing points as required by the coordinating roads authority.
R38	Configuration of vehicle access to lots from a public street must ensure there is sufficient separation between vehicle crossovers to allow for a minimum of one on-street car park for every two residential lots.
R39	Tree planting along declared arterial roads must accord with applicable policy of the coordinating roads authority and be to the satisfaction of the coordinating roads authority.
R40	Alignment of pathways must achieve Disability Discrimination Act compliance or universal access requirements where practicable.
	GUIDELINES
G41	Street network design should consider local area traffic management principles to provide a safe road network for all users.
G42	Intersections of connector streets and arterial roads should be designed to facilitate the safe and convenient movement of all transport modes.
G43	Vehicle access to lots fronting Grossmans Road should be provided from a service road, local internal loop road or rear lane, to the satisfaction of the coordinating roads authority.
G44	Where existing vegetation is to be retained in a street, reserve widths should be widened at key locations to avoid adverse impacts on that vegetation through the construction of footpaths, services and drainage.
G45	Slip lanes should only be provided at intersections of connector streets and arterial roads where they are necessitated by high traffic volumes, to the satisfaction of the coordinating roads authority.
G46	Street blocks should not exceed a length of 240 metres and a width of 120 metres to ensure a permeable and low speed environment for pedestrians, cyclists and vehicles is achieved.
G47	Cul-de-sacs should be avoided and should not detract from convenient pedestrian and vehicular connections.

THIS PAGE HAS BEEN LEFT
INTENTIONALLY BLANK

3.5.2 Walking & cycling

	REQUIREMENTS
R41	The pedestrian and cyclist network must be connected and continuous, providing safe, accessible and convenient pathways and key destinations.
R42	The pedestrian and bicycle bridge across Spring Creek must be provided as shown on Plan 7 unless otherwise agreed by the catchment management authority and responsible authority.
R43	Shared paths must be provided on both sides of Spring Creek, connecting with existing or proposed shared paths to the east of Duffields Road.
R44	Where a pedestrian and cyclist network crosses a waterway and drainage reserve on Plan 7 the developer(s) must construct a pedestrian and cyclist bridge prior to the issue of statement of compliance for the first stage of residential subdivision on the second side of the waterway to be developed, whether or not that residential subdivision on the second side is contiguous with the waterway.
R45	Alignment of the off-road bicycle path must be designed for cyclists to travel up to 30 kilometres per hour to the satisfaction of the responsible authority.
R46	Design of all streets and arterial roads must give priority to the requirements of pedestrians and cyclists by providing: • Footpaths at least 1.5 metres wide on both sides of all streets and roads, unless otherwise specified by the PSP or approved by the responsible authority • Shared paths or bicycle paths where shown on Plan 7, must be a minimum of three metres in width unless otherwise specified by the coordinating roads authority • Safe and convenient crossing points of connector street and local access streets at all intersections, key desire lines and locations of high activity (e.g. neighbourhood centre, local convenience centres, schools and open space) • Pedestrian priority crossings on all slip lanes • Safe and convenient transition between on- and off-road bicycle networks. All to the satisfaction of the coordinating roads authority and the responsible authority.
R47	Shared, pedestrian and bicycle paths along waterway and drainage reserves must be: • Delivered by development proponents consistent with the network shown on Plan 7 • Above 1 in 10 year flood level and a crossing of the waterway designed to be above 1 in 100 year flood level to maintain hydraulic function of the waterway • Constructed of concrete or to a standard that satisfies the requirements of the responsible authority. All to the satisfaction of the responsible authority.
R48	Bicycle parking facilities must be provided by development proponents in convenient locations at key destinations such as the neighbourhood centre, local convenience centres, community centre and open space (linear open spaces and trails and parklands and gardens).
	GUIDELINES
G48	Location of pedestrian and bicycle paths should provide opportunities for passive surveillance.
G49	Lighting should be installed along shared, pedestrian and bicycle paths linking areas of high pedestrian activity, unless otherwise approved by the responsible authority.

3.5.3 Public transport

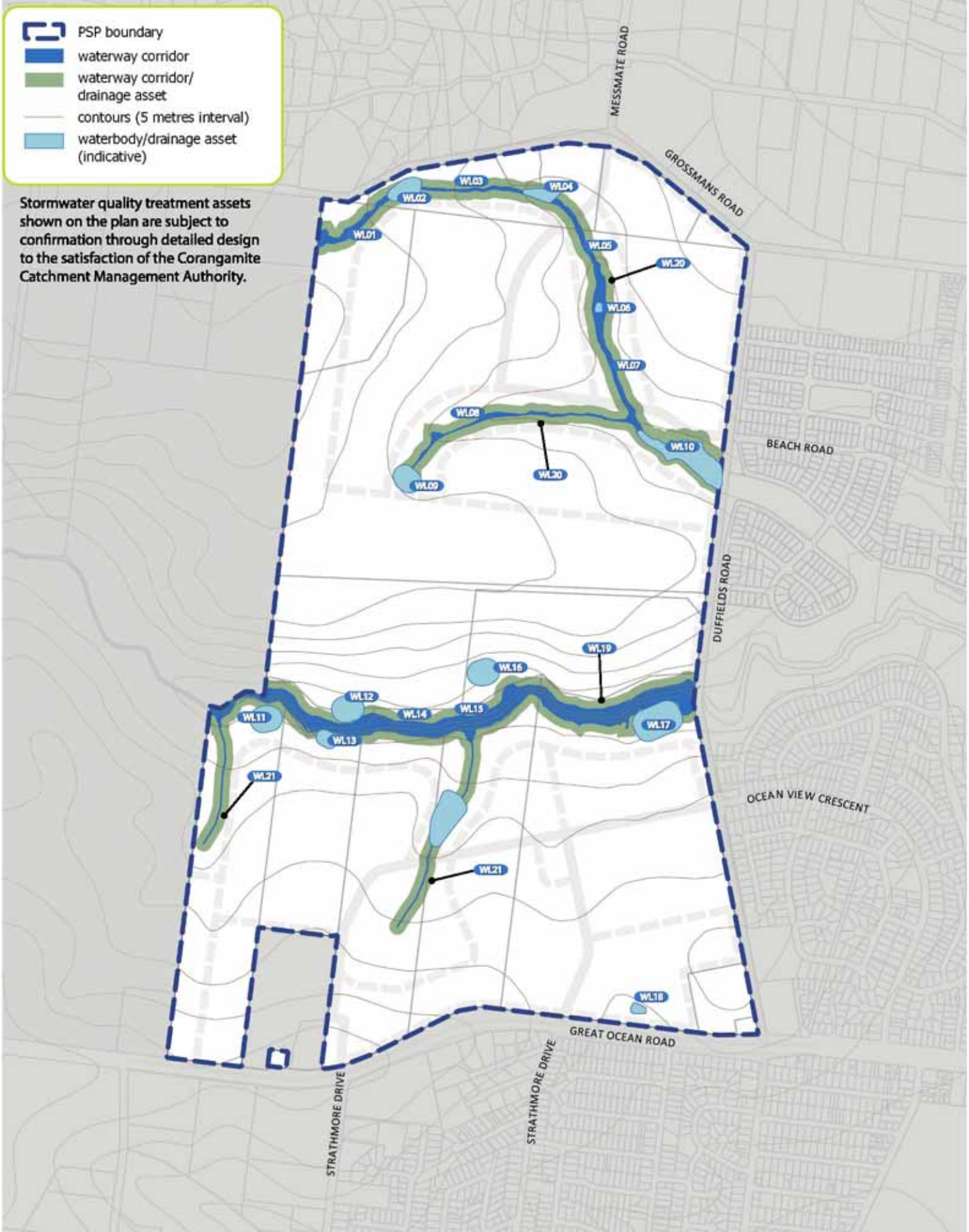
	REQUIREMENTS
R49	A road nominated on Plan 7 as a bus capable road must be constructed (including partial construction where relevant) in accordance with the corresponding street cross section in the PSP.
R50	Any roundabouts on roads shown as 'bus capable' on Plan 7 must be constructed to accommodate ultra-low-floor buses in accordance with the *Public Transport Guidelines for Land Use and Development.*
R51	Bus stop facilities must be designed as an integral part of the neighbourhood centre and other activity generating land uses such as schools and community centres.

Plan 8 Integrated Water Management

Spring Creek Precinct Structure Plan

1:12,000@ A4 v 20160411

0 150 300 450 600 750 m



Stormwater quality treatment assets shown on the plan are subject to confirmation through detailed design to the satisfaction of the Corangamite Catchment Management Authority.

3.6 Integrated water cycle management & utilities

3.6.1 Integrated water cycle management

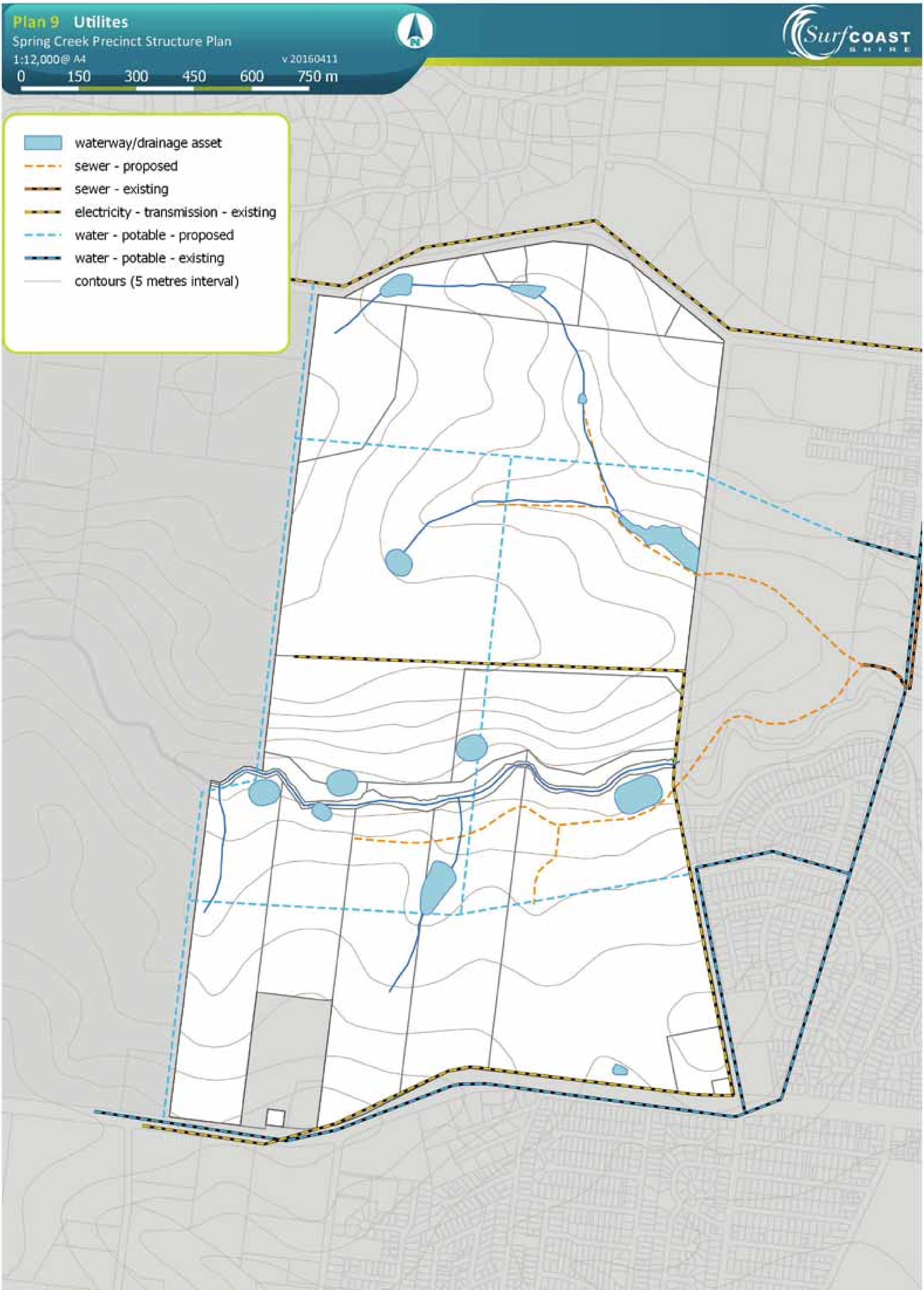
	REQUIREMENTS
R52	The stormwater management system must be designed in accordance with Plan 8 unless otherwise approved by the responsible authority.
R53	Development must meet or exceed CSIRO Best Practice Environmental Management Guidelines for Urban Stormwater prior to discharge to receiving waterways, unless otherwise approved by the catchment management authority and the responsible authority.
R54	Where works are proposed within waterway and drainage reserves for stormwater retardation and treatment facilities, works must: • Not impact on the natural function of the waterway • Not adversely impact on areas identified as conservation reserves • Minimise earthworks and impact on existing landform of the waterway • Provide revegetation with locally indigenous vegetation based on the species composition of the relevant Ecological Vegetation Class.
R55	Final design and boundary of waterway and drainage reserves, retarding basins, stormwater quality treatment infrastructure and associated paths, boardwalks, bridges and planting must be to the satisfaction of the responsible authority and the catchment management authority where required.
R56	Development staging must provide for the delivery of ultimate waterway and drainage infrastructure, including stormwater quality treatment. 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, all to the satisfaction of the catchment management authority and the responsible authority.
	GUIDELINES
G50	Development should have regard to relevant policies and strategies being implemented by the responsible authority, the catchment management authority, water retail authority, including any approved Integrated Water Management Plan.
G51	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 overland flow paths, Water Sensitive Urban Design (WSUD) initiatives and/or locally treated stormwater for irrigation to contribute to a sustainable and green urban environment.
G52	Where practicable, development should include integrated water management initiatives to reduce reliance on potable water and increase the utilisation of storm and waste water, contributing to a sustainable and green urban environment.
G53	Where practical, integrated water management systems should be designed to: • Maximise habitat values for local flora and fauna species • Enable future harvesting and/or treatment and re-use of stormwater.
G54	Where practicable, 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) should be incorporated within the open space system shown on Plan 6, to the satisfaction of the catchment management authority and responsible authority.
G55	Development should reduce reliance on potable water by increasing the utilisation of fit-for-purpose alternative water sources such as storm water, rain water and recycled water where available.

THIS PAGE HAS BEEN LEFT
INTENTIONALLY BLANK

Table 5 Stormwater drainage & water quality treatment infrastructure

ID	DESCRIPTION	LOCATION	PROP. NO	LAND AREA/ WIDTH	RESPONSIBILITY
WL01	Waterway	225 &195 Grossmans Road	1 and 3	0.478 hectares	Surf Coast Shire
WL02	Sediment and retarding basin	195 Grossmans Road	3	0.37 hectares	Surf Coast Shire
WL03	Waterway	195 Grossmans Road	3	0.23 hectares	Surf Coast Shire
WL04	Pond and retarding basin	195 Grossmans Road	3	0.212 hectares	Surf Coast Shire
WL05	Waterway	195 Grossmans Road & 80 Duffields Road	3 and 6	0.60 hectares	Surf Coast Shire
WL06	Sediment basin and pond	80 Duffields Road	6	0.05 hectares	Surf Coast Shire
WL07	Waterway	80 Duffields Road	6	0.49 hectares	Surf Coast Shire
WL08	Waterway	80 Duffields Road	6	0.44 hectares	Surf Coast Shire
WL09	Retarding basin	80 Duffields Road	6	0.37 hectares	Surf Coast Shire
WL10	Sediment basin	80 Duffields Road	6	1.05 hectares	Surf Coast Shire
WL11	Retarding basin and pond	260 Great Ocean Road	9	0.43 hectares	Surf Coast Shire
WL12	Sediment basin, retarding basin and pond	90 Duffields Road	7	0.43 hectares	Surf Coast Shire
WL13	Sediment basin, retarding basin and piped outlet to Spring Creek	248 Great Ocean Road	10	0.18 hectares	Surf Coast Shire
WL14	Waterway	Spring Creek	Spring Creek	4.60 hectares	Corangamite Catchment Management Authority
WL15	Sediment basin, floating treatment wetland, retarding basin and piped outlet	200 and 220 Great Ocean Road	13 and 12	0.78 hectares	Surf Coast Shire
WL16	Sediment basin, retarding basin and pond	100 Duffields Road	8	0.43 hectares	Surf Coast Shire
WL17	Sediment basin, floating treatment wetland and retarding basin	140 Duffields Road	14	0.90 hectares	Surf Coast Shire
WL18	Bioretention basin and storage	140 Duffields Road	14	0.08 hectares	Surf Coast Shire
WL19	Waterway corridor Spring Creek	Measured from 1 in 10 year flood level	Various	20 metres	Surf Coast Shire
WL20	Waterway corridor northern tributaries	Measured from 1 in 10 year flood level	Various	20 metres	Surf Coast Shire
WL21	Waterway corridor southern tributaries	Measured from centreline	Various	20 metres	Surf Coast Shire

Note: *The areas and corridor widths identified in this table are subject to refinement during detailed design to the satisfaction of the Corangamite Catchment Management Authority and the responsible authority.*


0 150 300 450 600 750 m
waterway/drainage asset
sewer - proposed
sewer - existing
electricity - transmission - existing
water - potable - proposed
water - potable - existing
contours (5 metres interval)
Surf COAST SHIRE

3.6.2 Utilities

	REQUIREMENTS
R57	Delivery of underground services must be coordinated, located and bundled (utilising common trenching where possible) to facilitate tree and vegetation planting within road verges.
R58	Above-ground utilities, such as sewer pump stations, must be identified at the subdivision design stage to enable their appropriate integration into the subdivision layout and minimise any adverse amenity impacts.
R59	All new electricity supply infrastructure (excluding substations and cables of a voltage 66 kilovolts or greater) must be provided underground.
R60	Utilities must be placed outside any areas shown as 'retained native vegetation' in the NVPP.
R61	Utilities must be placed outside of natural waterway corridors or the outer edges of these corridors to avoid disturbance to existing native vegetation, significant landform features and heritage sites, to the satisfaction of the catchment management authority and responsible authority. Where the location of that infrastructure in the open space network is unavoidable, the land required to accommodate that infrastructure (including screening buffers constructed to the satisfaction of the responsible authority) will not be counted as contributing to the open space requirements classified under Clause 52.01 or within a DCP.
R62	Nature strips must be wide enough, and service conduits located so as to accommodate street trees and their likely root zone at maturity.
	GUIDELINES
G56	Existing above ground electricity cables should be removed and re-routed underground as part of a subdivision (excluding cables greater than 66 kilovolts).
G57	Above-ground utilities should be located outside of prominent view lines and screened with vegetation.
G58	Design and placement of underground services in new or upgraded streets should utilise the service placement guidelines outlined in Appendix E.
G59	Utility easements to the rear of lots should only be provided where there is no practical alternative.
G60	Development should seek to generate and utilise electricity from renewable sources.

3.7 Infrastructure delivery & development staging

3.7.1 Infrastructure delivery (subdivision works by developers)

	REQUIREMENTS
R63	Subdivision of land within the precinct must provide and meet the total cost of delivering the following infrastructure: • Connector streets and local streets • Tree planting and landscaping in existing and future roads and streets • Intersection works and traffic management measures along arterial roads, connector streets and local streets (except those included in the DCP) • Council approved fencing and landscaping along arterial roads, where required • Local bus stop infrastructure in locations agreed in writing by Public Transport Victoria • Local shared, pedestrian and bicycle paths along local roads, local streets, connector streets, utilities easements, waterways and within open space including bridges, intersections, barrier and waterway crossings (except those included in the DCP or outlined as the responsibility of an agency) • Appropriately scaled lighting along all roads, shared or pedestrian paths and traversing the open space network • Bicycle paths and parking • Basic improvements to open space (linear open spaces and trails and parklands and gardens) • Local drainage system • Infrastructure as required by utility services providers including water, sewerage, drainage, electricity, gas and telecommunications. Where these are not included in the DCP, they must be funded through an alternative mechanism or outlined as the responsibility of another agency in the Precinct Infrastructure Plan.

R64	All public open space (where not otherwise provided via a 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 but not limited to: • Remediation of identified contaminated areas appropriate to the intended beneficial use • Remediation, stabilisation and rehabilitation of areas identified as potential landslip hazards and/or with slopes above 1 in 10, appropriate to the intended beneficial use • Removal of all existing disused structures, foundations, pipelines, stockpiles, rocks, rubbish and environmental weeds • Surfaces levelled, topsoiled and grassed with drought resistant grass • Provision of water tapping, potable and recycled water connection points • Sewer, gas, water and electricity points provided as relevant • Trees and other plantings completed in accordance with an approved plan • Vehicle exclusion devices (fence, bollards or other suitable methods) and maintenance access points • Construction of shared pedestrian and bicycle paths to a minimum width of three metres around the perimeter of the reserve and connecting to the surrounding path network • Installation of park furniture, including barbeques, shelters, drinking fountains, rubbish bins, local-scale play areas and appropriate paving to support these facilities, consistent with the type of open space listed in Appendix C • Fencing of allotment boundaries which abut open space.
R65	Work in conservation reserves and public open spaces containing identified significant vegetation to be retained must be planned having regard to the NVPP to the satisfaction of the responsible authority. All work must be completed to the satisfaction of the responsible authority prior to the transfer of the land. In addition to the standard requirements in Appendix C, the improvements must include: • The listed requirements for public open space • Revegetation of degraded areas to achieve biodiversity objectives in accordance with an approved plan • Perimeter fencing • Provision of internal pathways appropriate to the use of the reserve. All to the satisfaction of the responsible authority or the relevant service provider.
R66	Where a street has already been constructed or approved for construction to a property boundary, subsequent development must connect with that street to adopt a consistent street cross section until a suitable transition can occur.
R67	Any heritage site or heritage conservation area to be vested in the relevant authority must be done so in a standard that satisfies the requirements of that authority. Works required prior to the transfer include, but may not be limited to: • Clearing of rubbish and weeds • Essential repairs to and stabilisation of any structures • Any fencing required to ensure the safety of the public. Any works must be consistent with any relevant Cultural Heritage Management Plan and Conservation Management Plan.
R68	Each new lot must be: • Accessed via a sealed road constructed to a standard to the satisfaction of the responsible authority • Sewered • Connected to a potable water supply • Connected to electricty • Connected to telecommunications facilities • Drained. All to the satisfaction of the responsible authority or relevant service provider.

3.7.2 Development staging

	REQUIREMENTS
R69	Development staging must provide for the early delivery of: • Arterial road reservations • Connector streets • Street links between properties, constructed to the property boundary • Connection of the on- and off-road pedestrian and bicycle network • Open space, playgrounds and other community facilities • Conservation reserves, which must be fenced in accordance with an approved plan.
R70	Where there is a need for works to satisfy the above requirements, those works must be undertaken at the full cost of the development proponent. Works may constitute Works In Kind for projects included in the DCP, however Council is not obliged to satisfy any liability until contributions sufficient to cover the cost of that liability have been received and projects deemed to be of a higher priority in the DCP have been fully funded or constructed.
R71	Streets must be constructed to property boundaries where an inter-parcel connection is intended or indicated in the PSP, by any date or stage of development required or approved by the responsible authority.
	GUIDELINES
G61	Development staging will be largely determined by the ability to appropriately access and service land and the availability of infrastructure services. Development applications should demonstrate how the development will: • Integrate with adjoining developments, including the practical and timely provision of road and path connections • Provide open space and amenity to new residents in the early stage of the development, where relevant • Deliver any necessary trunk service extensions, including confirmation of the agreed approach and timing by the relevant service provider.
G62	Where not directly adjoining existing development, new development should provide for onward connections to existing walking and cycling paths to facilitate access to the neighbourhood centre and nearby facilities.

3.7.3 Precinct Infrastructure Plan

The Precinct Infrastructure Plan (PIP) at Table 6 sets out the infrastructure and services required to meet the needs of proposed development within the precinct. The infrastructure items and services are to be provided through a number of mechanisms including:

- Subdivision construction works by landowners/developers
- Agreements under section 173 of the Planning and Environment Act 1987
- Utility service provider requirements
- The DCP, including separate charge areas for local items
- Capital works projects by Council, State government agencies and non-government organisations
- Works In Kind (WIK) projects undertaken by developers on behalf of Council or state government agencies.

Table 6 Precinct infrastructure plan

PROJECT CATEGORY	PSP / DCP PROJECT	TITLE	PROJECT DESCRIPTION	LEAD AGENCY	INDICATIVE TIMING	INCLUDED IN DCP?
ROADS						
Road	RD08B	Duffields Road: upgrade Grossmans Road (IN07) to Great Ocean Road (IN06)	Upgrade Duffields Road including sealed shoulders between Great Ocean Road and Grossmans Road	Surf Coast Shire	M	Yes
Road	RD16	Grossmans Road: upgrade Messmate Road (IN03) to Duffields Road (IN07)	Upgrade Grossmans Road including sealed shoulder between Messmate Road and Duffields Road	Surf Coast Shire	M-L	Yes
Road	RD17	Messmate Road extension: extension from Grossmans Road (IN03) to culvert (RD18)	Construct a southern extension of Messmate Road from Grossmans Road to the culvert	Surf Coast Shire	L	Yes
Culvert/ bridge	RD18	Northern tributaries of Spring Creek northern crossing	Construct a connector street culvert/bridge crossing of northern tributary, northern crossing	Surf Coast Shire	L	Yes
Culvert/ bridge	RD19	Northern tributaries of Spring Creek southern crossing	Construct a connector street culvert/bridge crossing of northern tributary, southern crossing	Surf Coast Shire	L	Yes
Culvert/ bridge	RD20	Southern tributary of Spring Creek crossing	Construct a connector street culvert/bridge crossing of southern tributary of Spring Creek	Surf Coast Shire	L	Yes
Intersection	IN07	Intersection: Duffields Road and Grossmans Road	Construct intersection turning lanes in Duffields Road at approach to Grossmans intersection	Surf Coast Shire	M	Yes
Intersection	IN06	Intersection: Duffields Road and Great Ocean Road	Upgrade the existing intersection of Great Ocean Road and Duffields Road to include a fully controlled right turns for traffic on Great Ocean Road	Surf Coast Shire	L	Yes
Intersection	IN01	Intersection: Duffields Road and Ocean View Crescent	Upgrade the intersection of Duffields Road and Ocean View Crescent to include a western leg to the existing roundabout	Surf Coast Shire	M	Yes
Intersection	IN03	Intersection: Grossmans Road and Messmate Road	Upgrade the intersection of Grossmans Road and Messmate Road to a single lane roundabout	Surf Coast Shire	M	Yes
Intersection	IN05	Intersection: Strathmore Drive East and Great Ocean Road	Construct a signalised intersection at Strathmore Drive East connection and Great Ocean Road	Surf Coast Shire	L	Yes
Intersection	IN04	Intersection: Strathmore Drive West and Great Ocean Road	Construct a signalised intersection at Strathmore Drive West connection and Great Ocean Road	Surf Coast Shire	L	Yes
Intersection	IN02	Intersection: Duffields Road and Beach Road	Construct an intersection at Duffields Road and Beach Road with a single lane roundabout	Surf Coast Shire	M	Yes
Public transport	-	Reroute local bus route	Reroute existing local bus route within Spring Creek PSP area	PTV	L	No

PROJECT CATEGORY	PSP / DCP PROJECT	TITLE	PROJECT DESCRIPTION	LEAD AGENCY	INDICATIVE TIMING	INCLUDED IN DCP?
COMMUNITY AND INDOOR RECREATION						
Community	CY06A	Spring Creek Community Centre	Purchase 1.2 ha of land for a neighbourhood community facility in Spring Creek	Surf Coast Shire	S-M	Yes
Community	CY06B	Spring Creek Community Centre	Construction a neighbourhood community facility in Spring Creek	Surf Coast Shire	M-L	Yes
ON AND OFF-ROAD PATHWAYS (PEDESTRIAN/CYCLE)						
Pathway	PC09	Regional path: Spring Creek interface (PP1076 and PP1075)	Construct Regional Path along both sides of Spring Creek west of Duffields Road (extension of PP1076 and PP1075)	Surf Coast Shire	L	Yes
Pathway	PC10	Regional path: Great Ocean Road (PP1232)	Construct Regional Path along Great Ocean Road between Duffields Road and approximately Bells Boulevard (project PP1232)	Surf Coast Shire	L	Yes
Pathway	PC11	Spring Creek pedestrian/cycling crossing	Construct a culvert/bridge pedestrian crossing of Spring Creek	Surf Coast Shire	M	Yes

THIS PAGE HAS BEEN LEFT
INTENTIONALLY BLANK

4.0 APPENDICES

Appendix A: Detailed land use budget (property-specific)

Table 7 Property-specific land use budget

PSP PROPERTY ID	TOTAL AREA (HECTARES)	TRANSPORT						COMMUNITY & EDUCATION		SERVICE OPEN SPACE			CREDITED OPEN SPACE	TOTAL NET DEVELOPABLE AREA (HECTARES)	NET DEVELOPABLE AREA % OF PROPERTY
		DCP COMMUNITY FACILITIES						DCP COMMUNITY FACILITIES		SERVICE OPEN SPACE			LOCAL PARKS		
		IN-01	IN-02	IN-03	IN-04	IN-05	ARTERIAL ROAD - WIDENING AND INTERSECTION FLARING (DCP LAND)	CI-01	DCP COMMUNITY FACILITIES	CONSERVATION RESERVE	WATERWAY AND DRAINAGE RESERVE	OTHER	LOCAL NETWORK PARK (VIA CL 52.01)		
1	8.84	-	-	-	-	-	-	-	-	0.45	1.15	-	-	7.25	81.96%
2	0.81	-	-	-	-	-	-	-	-	0.00	0.09	-	0.19	0.53	65.09%
3	7.72	-	-	0.02	-	-	0.02	-	-	0.37	2.83	-	0.95	3.56	46.08%
4	4.07	-	-	0.07	-	-	0.07	-	-	-	-	-	0.10	3.90	95.74%
5	0.71	-	-	-	-	-	-	-	-	-	-	-	-	0.71	100.00%
6	87.26	-	0.20	-	-	-	0.20	-	-	0.86	8.37	-	4.78	73.05	83.72%
7	16.21	-	-	-	-	-	-	-	-	0.65	0.31	0.11	2.21	12.94	79.81%
8	13.10	-	-	-	-	-	-	-	-	-	0.62	1.04	1.90	9.53	72.79%
9	16.71	-	-	-	-	-	-	-	-	0.78	2.15	-	1.14	12.64	75.65%
10	9.98	-	-	-	-	-	-	-	-	-	0.39	-	0.93	8.65	86.75%
11	0.19	-	-	-	-	-	-	-	-	-	-	-	-	0.19	100.00%
12	16.41	-	-	-	0.25	-	0.25	-	-	3.24	1.29	-	1.93	9.70	59.07%
13	16.52	-	-	-	-	-	-	-	-	2.29	2.14	-	2.08	10.00	60.53%
14	38.12	0.17	-	-	-	0.25	0.42	1.20	1.20	0.93	2.29	-	1.77	31.52	82.67%
15	2.21	-	-	-	-	-	-	-	-	-	-	-	-	2.21	100.00%
16	0.21	-	-	-	-	-	-	-	-	-	-	-	-	0.21	100.00%
17	1.41	-	-	-	-	-	-	-	-	-	1.26	0.01	0.14	0.00	0.00%
18	1.41	-	-	-	-	-	-	-	-	-	1.41	-	-	0.00	0.00%
19	1.42	-	-	-	-	-	-	-	-	0.04	1.19	0.04	0.14	0.00	0.03%
20	1.29	-	-	-	-	-	-	-	-	0.09	1.20	-	0.00	0.00	0.00%
21	1.37	-	-	-	-	-	-	-	-	-	1.37	-	-	0.00	0.00%
SUB-TOTAL	**245.96**	**0.17**	**0.20**	**0.09**	**0.25**	**0.25**	**0.95**	**1.20**	**1.20**	**9.70**	**28.06**	**1.21**	**18.26**	**186.58**	**75.86%**
TOTALS PSP 1240	**245.96**	**0.17**	**0.20**	**0.09**	**0.25**	**0.25**	**0.95**	**1.20**	**1.20**	**9.70**	**28.06**	**1.21**	**18.26**	**186.58**	**75.86%**

Appendix B: Neighbourhood centre design principles

PRINCIPLES	GUIDELINES
Principle 1 Locate the centre in an attractive setting so that most people live within a walkable catchment of the centre and relate to the centre as the focus of the neighbourhood	• Ensure interface design within the neighbourhood centre considers the amenity of abutting residential uses • Appropriately locate local convenience centres along connector streets and with regard to natural or cultural landscape features, waterways, linear open space, pedestrian and cycle links and areas of high aesthetic value • Design of the neighbourhood centre should respect existing views and vistas to and from area.
Principle 2 Provide a range of local retail, business, community and other facilities including a supermarket, shops, medical and recreation uses	• Design of the neighbourhood centre should facilitate community interaction by providing a vibrant and viable mix of retail, business, recreation and community facilities • Design of the neighbourhood centre should encourage smaller scale individual tenancies and land ownership patterns to attract investment and encourage greater diversity and opportunities for local businesses • Active building frontages should address the main street and town square to maximise exposure to passing trade and promote pedestrian interaction • Shop fronts throughout the neighbourhood centre should have varying widths and floor space areas to encourage a diversity of trading opportunities • Development should provide flexible floor spaces (including floor to ceiling heights) to enable localised commercial uses to operate amongst traditional retail uses • Options for office-based businesses should be provided within the neighbourhood centre • Childcare, medical centres and specialised accommodation (e.g. aged care/nursing home,) should be located within and at the edge of the neighbourhood centre to encourage and increase activity • Car parking areas should be located central to the neighbourhood centre as well as to the rear or side of buildings • Car parking areas should be designed for flexibility and for long-term development opportunities • Locations for public toilets should be safe, accessible and within the managed area of the property.
Principle 3 Focus on a public space as the centre of community life	• A public space, which acts as the central meeting place, must be provided within the neighbourhood centre. This space may take the form of a civic square, town park, public plaza, public market place or a similar locally responsive design • Incorporation of public art in public spaces is encouraged • The public space should be located central to key uses of the neighbourhood centre to ensure it remains a dynamic and activated space • Design of the public space should ensure it's the identifiable 'centre' or 'heart' with a distinctive local character for both the neighbourhood centre and the broader residential catchment • Design of the public space should ensure it is flexible and adaptable for a range of uses. such as a thoroughfare of the centre, a resting place, for general social interaction and temporary uses (such as stalls, exhibitions and markets) • Pedestrian and cycle links should be integrated within the public space • The neighbourhood centre public space should have a minimum area of 500 square metres. Additional smaller public spaces which are integrated within the built form design, are surrounded by active frontages and facilitate high levels of pedestrian movement are also encouraged • Footpath widths within and around the public space as well as along the main street should provide for pedestrian and mobility access and include localised widening for outdoor dining and smaller gathering spaces.

PRINCIPLES	GUIDELINES
Principle 4 Include a range of housing and other forms of residential uses within and surrounding the centre	• Housing in and around the neighbourhood centre should provide opportunities for passive surveillance and activity • Housing types in and around the neighbourhood centre should cater for the cross section of the community (such as retirement living) • Specialised accommodation (such as aged/nursing care and serviced apartments) with strong pedestrian and cycle links is encouraged at the edge of neighbourhood centre • Avoid residential and commercial use interface conflicts by focusing retail operations on the main street and locating residential uses on upper levels and/or the edge of the neighbourhood centre.
Principle 5 Design the centre to be pedestrian friendly and accessible by all modes including public transport, while enabling private vehicle access	• Consider CPTED principles and Safer Design Guidelines when addressing view lines and pedestrian spaces into and throughout the centre • The neighbourhood centre should be easily, directly and safely accessible with priority given to pedestrian movement, amenity, convenience and safety • The neighbourhood centre should designate pedestrian and cycling crossing between key uses • The main street should be designed for a speed environment of 40 kilometres per hour or less. • Bicycle parking should be provided in highly visible locations and close to pedestrian desire lines and key destinations • 'Large format' buildings should not impede on movement in and around the neighbourhood centre • Key buildings should be located to direct pedestrian movement along the main street and through public spaces • Development should provide active interfaces • Provide safety in car parking areas through provision of passive surveillance and lighting. • Include dedicated pedestrian routes and landscaping areas within car parking • Encourage short-stay, on-street parking through parallel or angled spaces • Car parking crossovers should be grouped and limited • Heavy vehicle movements (i.e. loading and deliveries) should be located to the rear and or side of street-based retail frontages and designed to manage potential pedestrian/ vehicle conflict • Streets, public spaces and car parks should be well lit and with pedestrian friendly (generally white) light that avoids unnecessary spill • Public spaces should respond appropriately to the design for mobility access principles.

Principle 6
Promote localisation, sustainability and adaptability
	• The neighbourhood centre should encourage convenience uses to encourage reduced travel distances and less dependence on the car
	• Design of the neighbourhood centre should be sympathetic to its natural surrounds by including:
	  • Energy efficient design and construction methods for all buildings;
	  • Water Sensitive Urban Design principles such as integrated stormwater retention and reuse (for example, toilet flushing and landscape irrigation);
	  • Options for shade and shelter through landscape and/or built form treatments;
	  • Natural ventilation in buildings to reduce reliance on plant equipment for heating and cooling;
	  • Passive solar orientation in the configuration and distribution of built form and public spaces;
	  • Grouped waste collection points to maximise opportunities for recycling and reuse including onsite recycling (for example, composting); and
	  • Solar energy for water and space heating, electricity generation and internal and external lighting.
	• Building design which can be adapted to accommodate a variety of uses over time
	• Inbuilt capacity for growth and change to enable adaptation and the intensification of uses as the needs of the community evolve.

PRINCIPLES	GUIDELINES

Principle 7
Create a sense of place with high quality engaging urban design
	• Achieve design excellence by incorporating contemporary building design that complements the coastal character of Torquay-Jan Juc
	• Building height should not exceed 9 metres
	• Avoid the use of blank walls or alternatively include design treatments such as appropriate art works to provide visual interest
	• Development should complement and enhance the character of the surrounding area by responding appropriately to key visual cues associated with the topography
	• Design of the neighbourhood centre should minimise amenity and noise interface impacts by providing transitional areas such as open space, road networks and community facilities
	• Each building should contribute to a cohesive and legible character for the neighbourhood centre
	• A consistent covered walkway, verandah or cantilevered awnings should be provided for weather protection
	• Built form should be built to the main street boundary with active edges, with variations to allow space for outdoor dining where appropriate
	• All visible building elevations should be visually interesting and well-articulated using materials and colours that contribute to the character of the neighbourhood centre
	• Balconies must not extend beyond the boundaries of the site and should have transparent balustrades to facilitate sunlight penetration and visual permeability
	• Use articulation, fenestration and a range of materials to break up building bulk along elevations of larger buildings
	• Key corner sites should:
	  • Anchor the corner through responses such as increased building height and scale through either two storey buildings or two storey elements (such as awnings and roof lines);
	  • Have activated edges along key street frontages
	  • Not be used and developed for single storey fast food restaurants/outlets.

PRINCIPLES	GUIDELINES

Principle 7
Create a sense of place with high quality engaging urban design
	• Supermarket and secondary anchors with main street frontages must provide access points to this street to promote activity and provide thoroughfares
	• Main street frontages must use clear glazing to permit visual permeability between the public and private realm. (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)
	• Sleeve inactive sides of supermarkets and other large format retail premises with smaller retail premises to generate active facades that create a 'high street' image of multiple shopfronts
	• Secondary access to supermarkets from car parking areas can be considered where it facilitates convenient trolley access and does not diminish the role of primary access from the main street or town square
	• Provide opportunities for outdoor dining to activate streetscapes where appropriate, particularly through the use of retractable doors onto the street
	• Orient public spaces to capture north sun and protect from prevailing winds and weather.
	• Encourage building scale and orientation to maximise winter sunlight penetration to footpaths and outdoor dining areas
	• Landscaping should be of a high standard and complement the built form
	• Urban art should be incorporated into the public realm
	• Street furniture, including drinking fountains, should be located in areas that are highly visible, close to or adjoining pedestrian desire lines/gathering spaces and designed to add visual interest
	• Wrap car parking edges with built form and landscaping to improve street interface.
	• Use constructed screening around centralised waste collection points to minimise interface amenity impacts
	• Use secure facades around service areas where accessible from car parks.
	• Mechanical plant and service structure roofs should be included within roof lines or otherwise hidden from view
	• Advertising signs should:
	  • Be limited and proportionate to the scale of the building upon which it is displayed;
	  • Not dominate the streetscape or detract from the environmental and landscape values of the precinct;
	  • Not detract from the amenity of nearby dwellings due to external or internal illumination.
	• Above verandah, pole, high wall, major promotion, panel, sky, bunting and streamer signs are discouraged.

Appendix C: Open space delivery guidelines

Linear open spaces and trails

- Provide off-road pathways, trails and coastal foreshore which primarily provide links to the broader open space network, community or activity hubs, residential areas and/or other areas of interest for pedestrians and cyclists. It includes unused road reserves and may also be established to ensure the effective functioning of natural processes and to protect flora and fauna corridors.

Parklands and gardens - local

- Provide off-road pathways, trails and coastal foreshore which primarily provide links to the broader open space network, community or activity hubs, residential areas and/or other areas of interest for pedestrians and cyclists. It includes unused road reserves and may also be established to ensure the effective functioning of natural processes and to protect flora and fauna corridors.
- Areas of 0.3 hectares to 1.5 hectares with a minimum width of 50 metres and preferred minimum size of 0.5 hectares.
- These parks contain limited infrastructure including:
  - Fencing
  - Bike rack
  - Small park sign
  - Water bubbler
  - Bench seats
  - Shaded picnic table
  - Rubbish bin.

Parklands and gardens - district/precinct

- District parklands and gardens are larger sized parks providing a range of facilities and activity spaces for recreation. These parks have facilities to cater for large groups and a wide range of users. District passive recreation parks can service several suburbs depending on population density. Ideally, district passive recreation parks are located near social infrastructure such as schools, community centres and halls
- Areas of 1.5 hectare to three hectares with a minimum width of 50 metres
- Infrastructure includes:
  - Fencing
  - Amenity block
  - Park lighting
  - Bike rack
  - Large park sign
  - Water bubblers
  - Bench seats
  - Shaded picnic tables and shelter
  - Rubbish bins
  - Barbecues.

Parklands and gardens - municipal

- Like district/precinct level parklands and gardens, municipal parklands and gardens are large and significant land parcels. These venues will be attractive to large groups, will be considered destination parks and may attract visitation from across the municipal area. Users may be expected to stay in the park for several hours
- Areas of 3.0 hectares to 10.0 hectares with a minimum width of 100 metres
- Infrastructure includes:
  - Fencing
  - Amenity block
  - Kick-about space (potentially)
  - Lighting
  - Bike rack

- Large park sign
- Small park sign
- Directional sign
- Water bubblers
- Bench seats
- Shaded picnic tables and shelters
- Rubbish bins
- Large picnic nodes with barbecues and additional shelters.

Parklands and gardens - regional/state/national

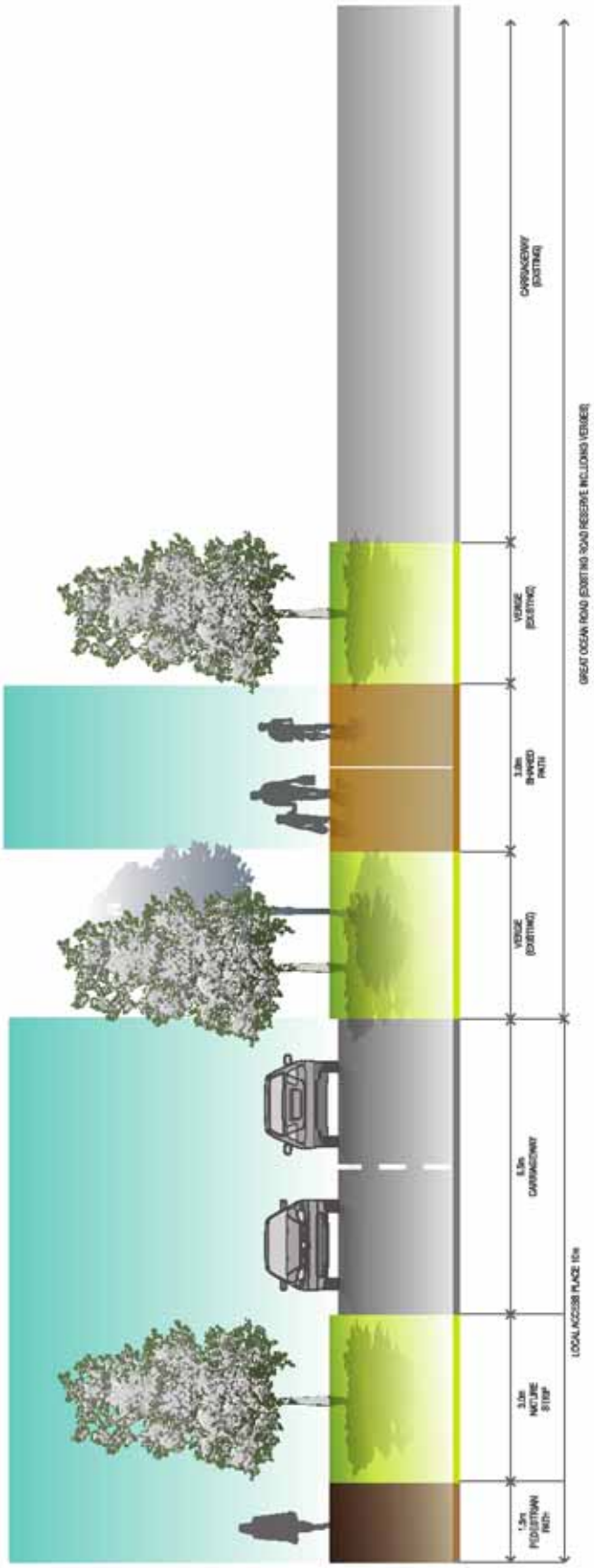
- Major recreation parks that offer a wide variety of opportunities to a broad cross-section of the Council's population and visitors. They are large, embellished for recreation, and are major destinations for residents within and outside the municipality. Regional recreation parks offer unique experiences. They are often used to host large community events and offer exciting and no cost activities for residents and visitors
- Area of more than 10 hectares
- Infrastructure includes:
  - Fencing
  - Amenity blocks
  - Environmental education centre (potentially)
  - Commercial coffee shop (potentially)
  - Kick-about space (potentially)
  - Lighting
  - Bike rack
  - Large park sign
  - Small park sign
  - Directional sign
  - Water bubblers
  - Bench seats
  - Shaded picnic tables and shelters
  - Rubbish bins
  - Large picnic nodes with barbecues and additional shelters.

Parks within the PSP area must comply with any adopted Surf Coast Shire Open Space Strategy.

Conservation reserves

- Conservation reserves identify areas of conservation and biodiversity value that are to be managed for long term ecological sustainability. Although there is an emphasis on supporting natural patterns and processes of the land through the provision of biodiversity representation, fire management and ecological restoration, conservation reserves may also provide passive recreation opportunities for local residents and visitors where their primary function is not compromised
- Infrastructure and improvements include:
  - Removal of rubbish
  - Clearing and management of environmental weeds, pests, plants and animals
  - Remediation of any contaminated and landslip areas
  - Restoration of degraded habitats and processes
  - Identify internal and external threats and recommend measures to manage these
  - Removal of any disused structures (including dams where identified)
  - Vehicle exclusion devices and fencing to the satisfaction of the responsible authority
  - Any other actions set out in an endorsed Conservation Management Plan.

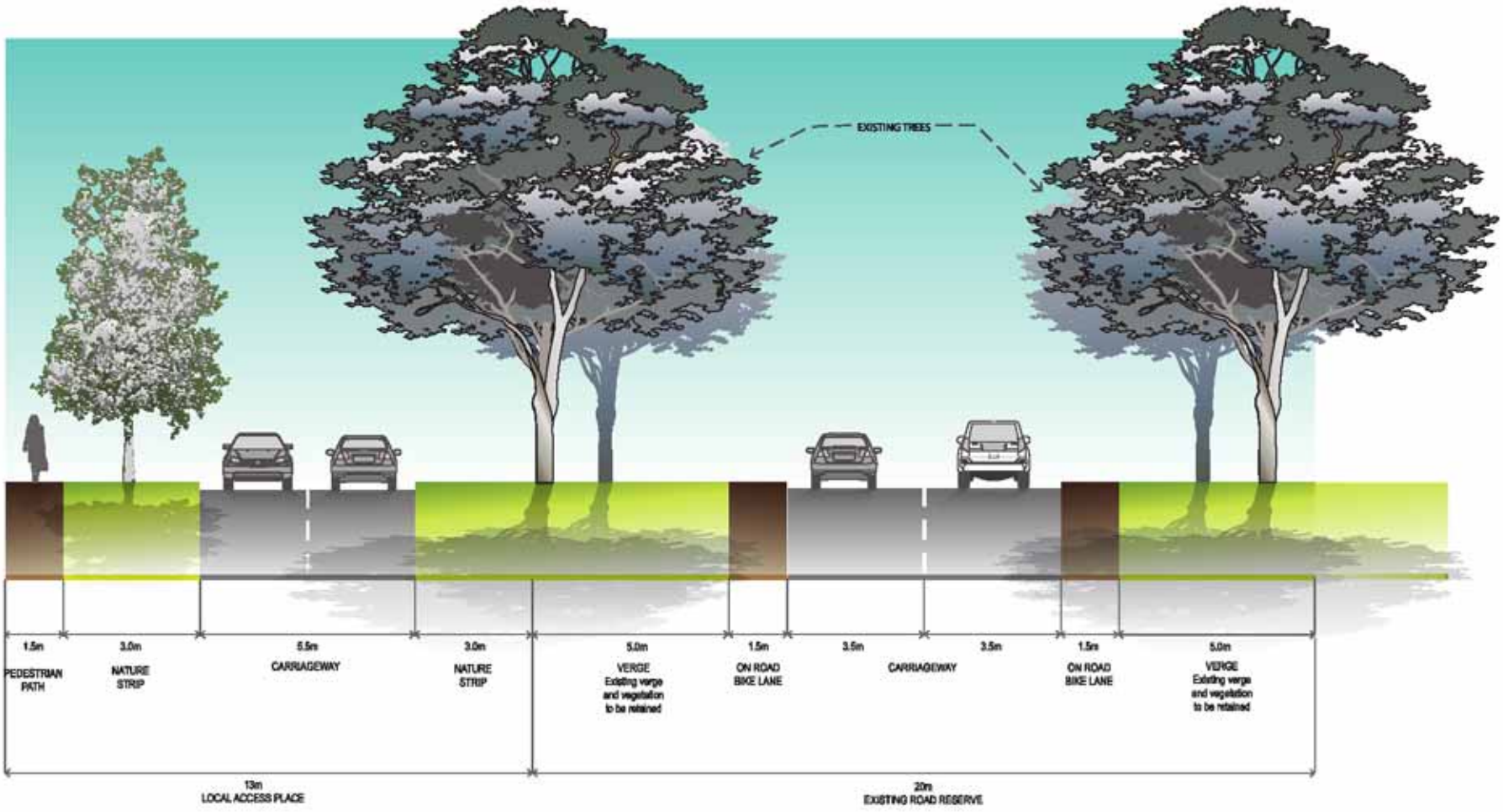
Appendix D: Street cross sections



NOTES:

- Shared path placement to be confirmed in collaboration with VicRoads and aligned to retain existing vegetation
- All kerbs are to be B2 Barrier Kerb as per Figure C06 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- A heritage impact statement may be required for any works, including the shared path, undertaken within the Great Ocean Road road reserve to determine whether a referral to the Minister for Environment may be required under the Environment Protection and Biodiversity Conservation Act 1999.

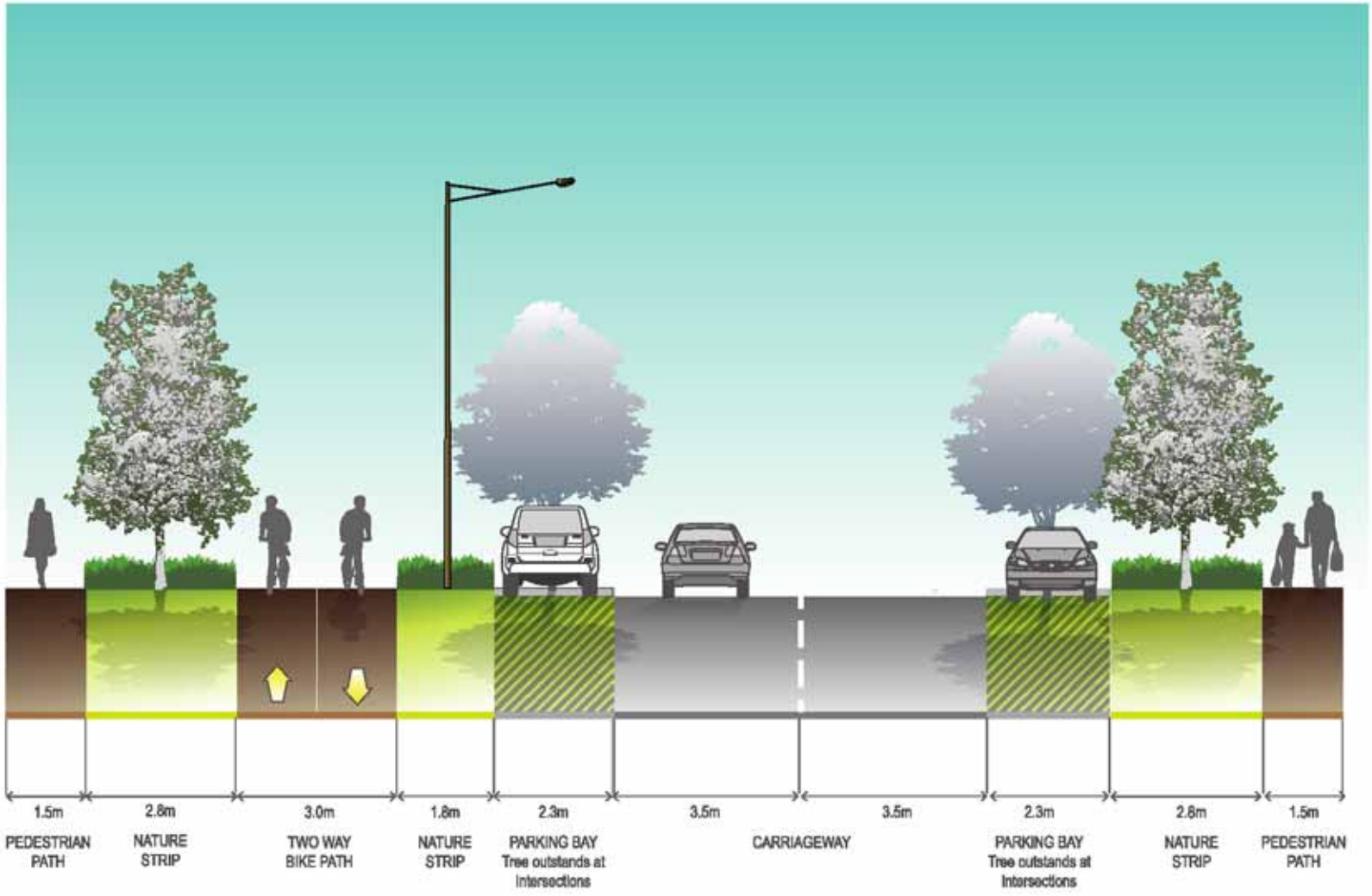
Local Access Place (10.0m)
Great Ocean Road Interface



Connector Road (20m)
Duffields Road and Grossmans Road

NOTES:

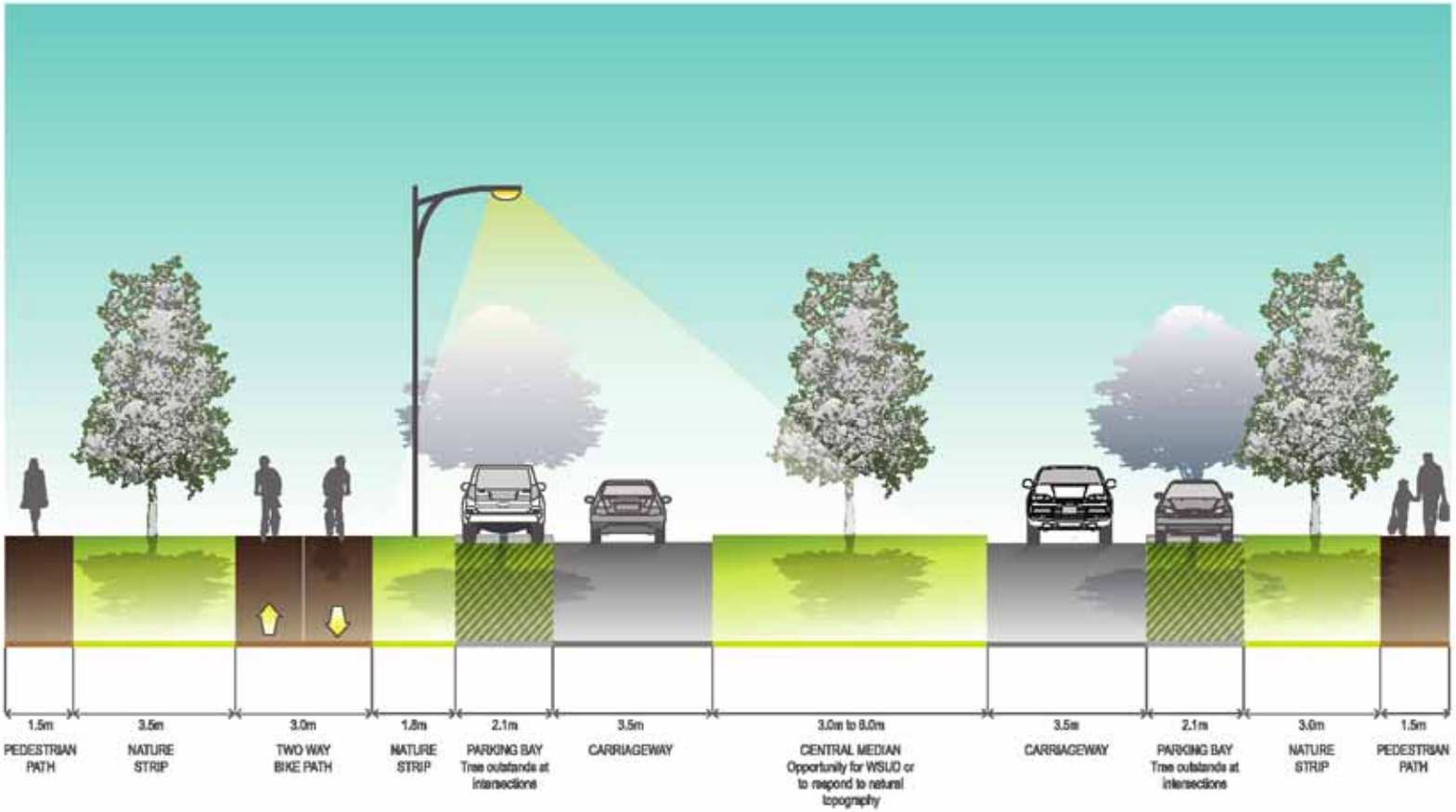
- Kerbs for Duffields Road and Grossmans Road are to be SM2 Semi-Mountable Kerb, and local frontage roads are to be B2 Barrier Kerb as per Figure 006 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)



Connector Street (25.0m)

NOTES:

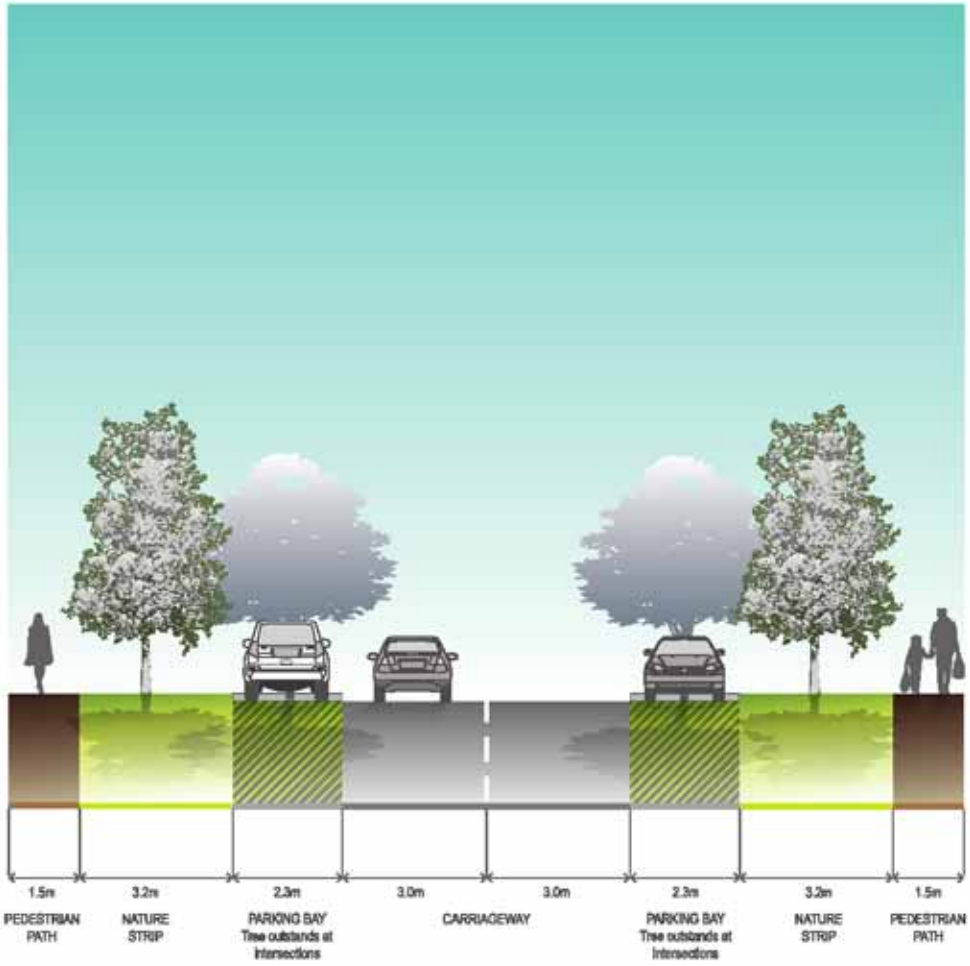
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Where roads abut school drop-off zones and thoroughfares, grassed nature strip should be replaced with pavement. Canopy tree planting must in incorporated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



NOTES:

- Include a central median with large canopy trees to create a boulevard effect or to respond to natural topography. Trees are to be centrally planted in median.
- Topsoil used in central medians is to be sandy loam, with a minimum depth of 200mm. The surface of medians is to be free-draining with a minimum cross fall of 2%, and is to be planted with warm season grasses.
- In areas where high pedestrian volumes are expected (e.g. around schools and town centres), central medians should be paved with harder wearing surfaces such as granitic sand or other pavements.
- Any garden beds in central medians are to be offset 1.5m from back of kerb.
- Kerb to central median is to be SM2 Semi-mountable kerb.
- Depending on the location of breaks in the median, provide intermediate pedestrian crossing points to accommodate mid-block crossings.
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

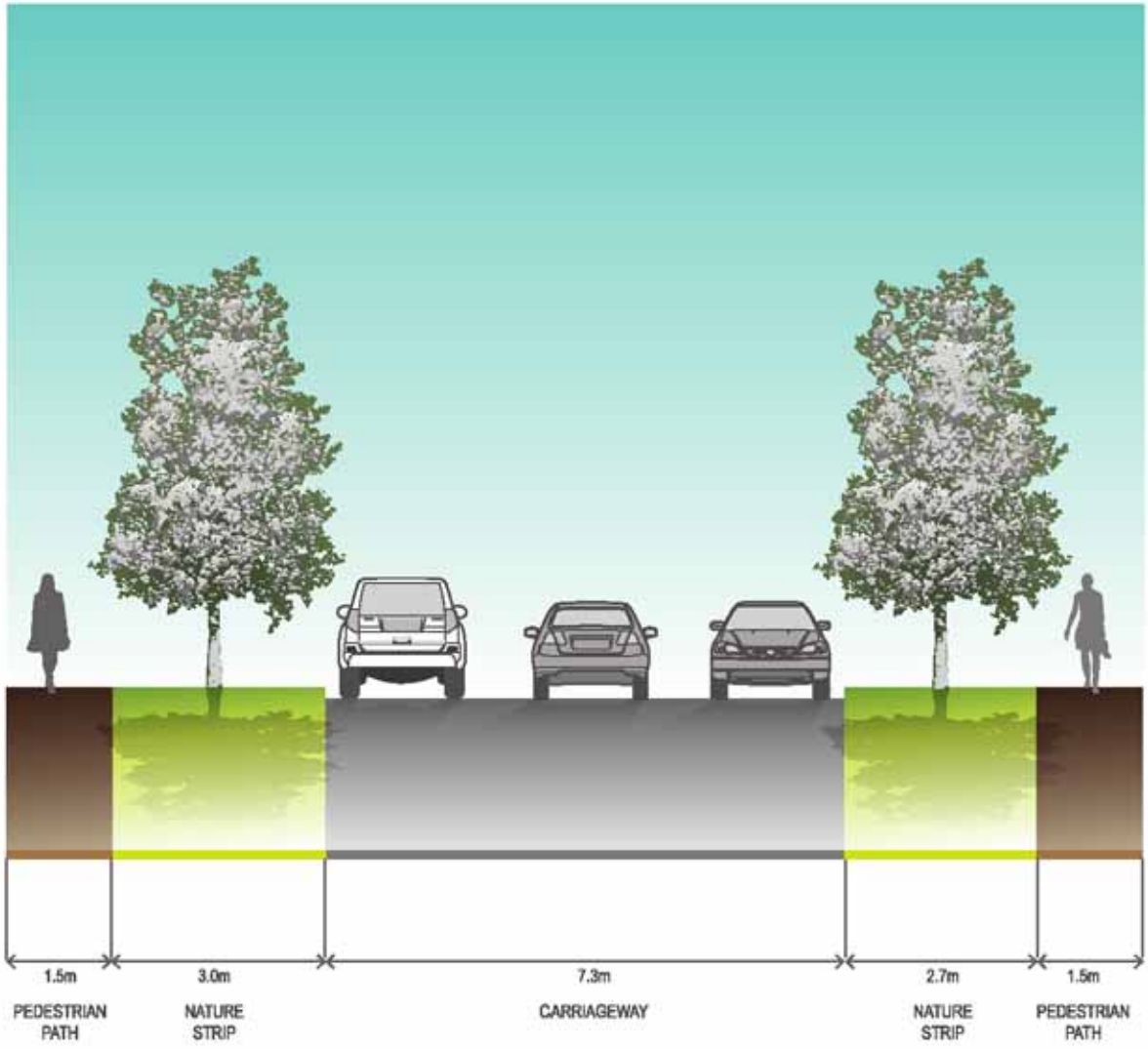
Connector Street (28.5 - 31.5m)
Boulevard Variation



Local Access Street Level 2 (20.0m)

NOTES:

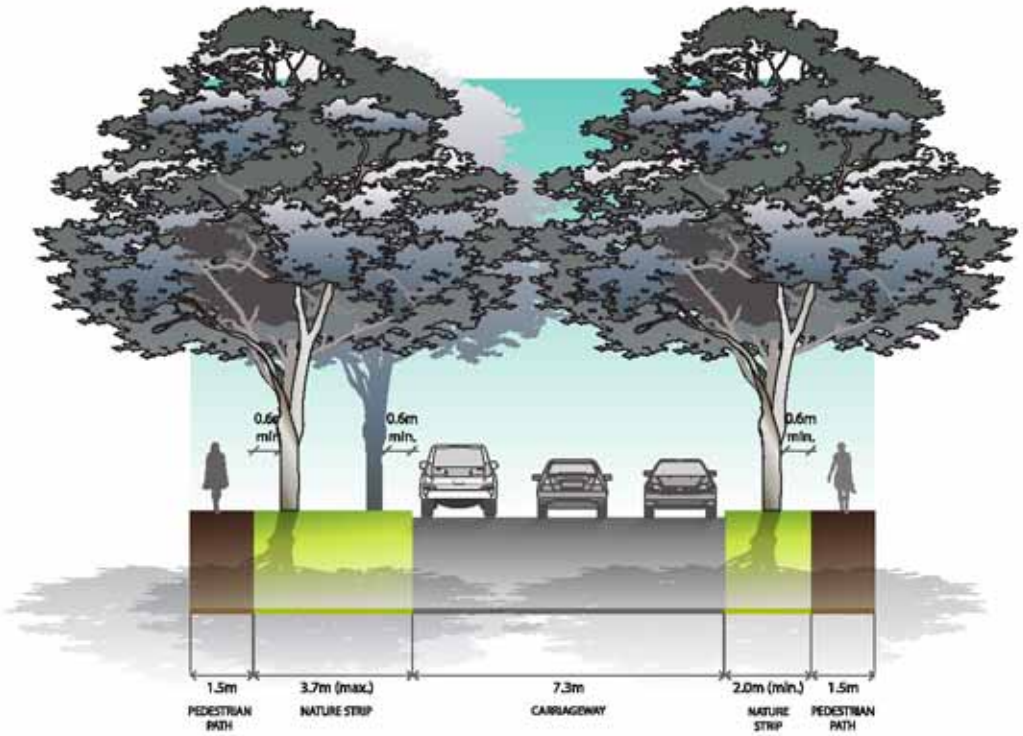
- All kerbs are to be B2 Barrier Kerb as per Figure 008 in Engineering Design and Construction Manual for Subdivision in Growth Areas (April 2011)
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

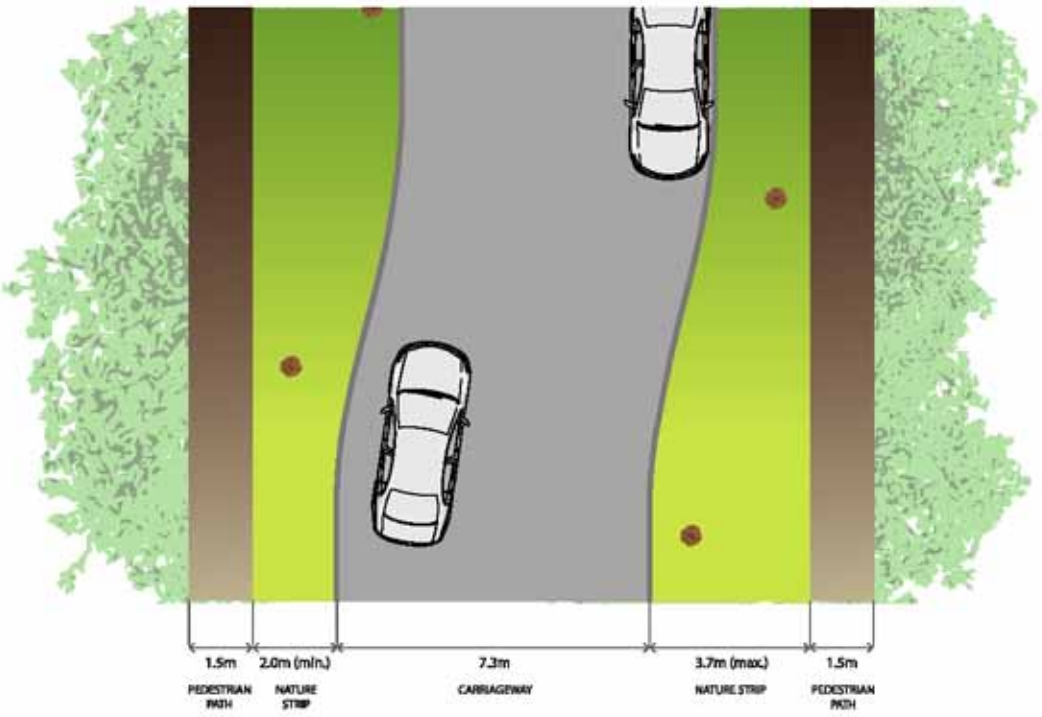


Local Access Street Level 1 (16.0m)

NOTES:

- 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)
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.

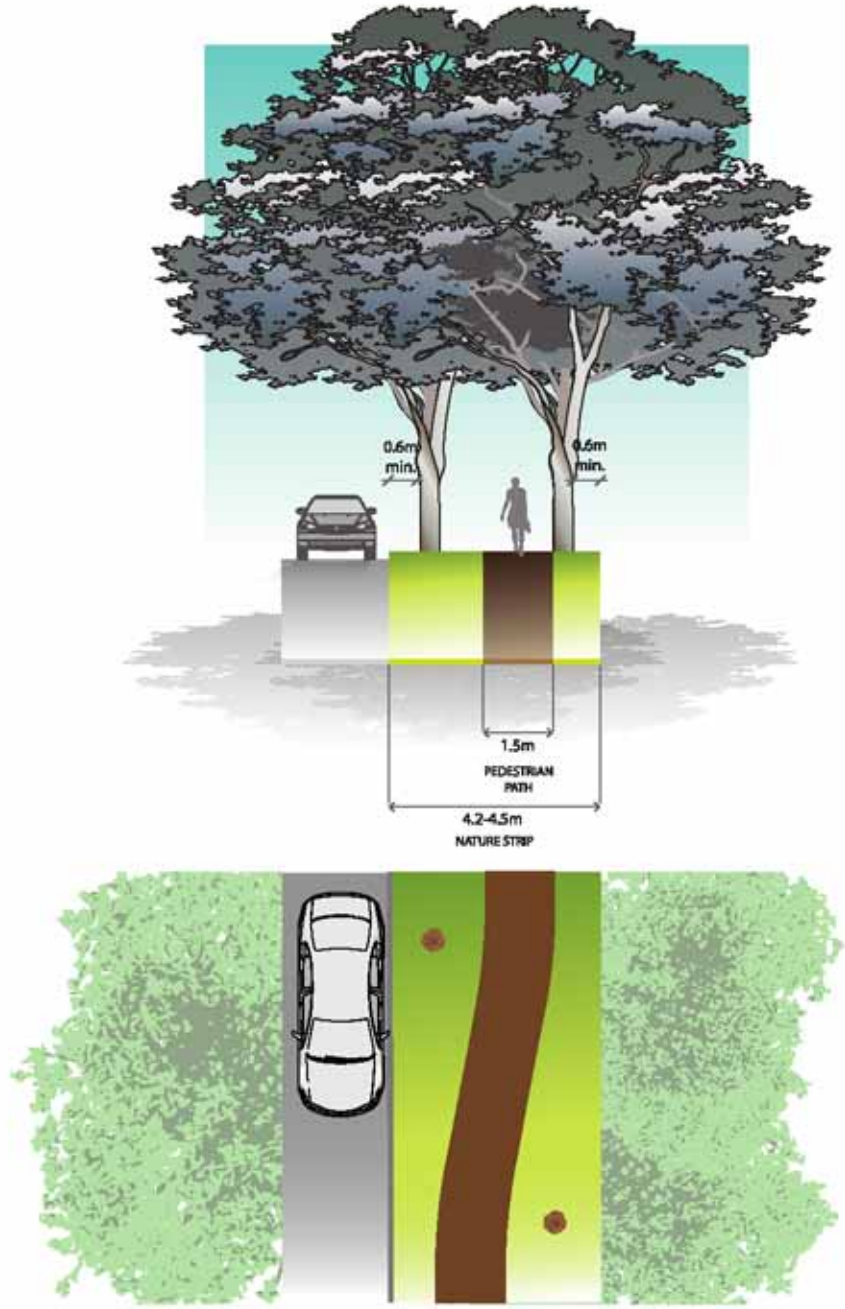




Local Access Street Level 1 (16.0m)
Variation - Varying nature strip widths / meandering carriageway

NOTES:

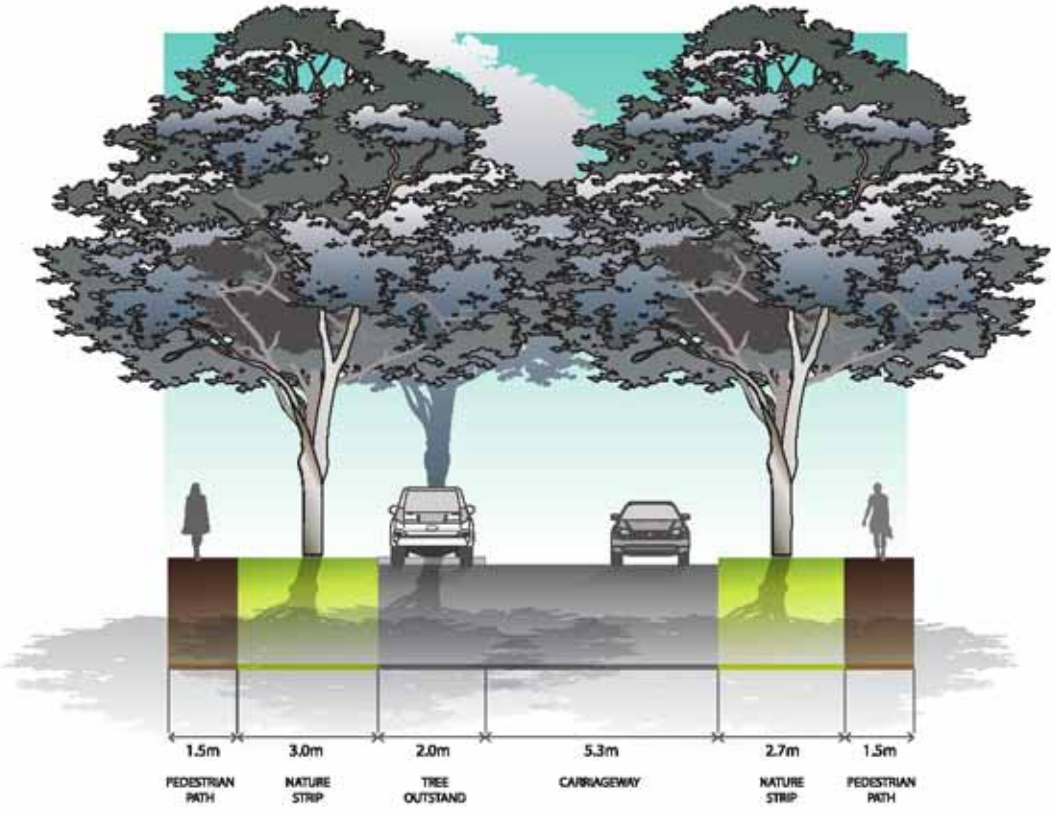
- Varying carriageway placement in road reserve
- Tree placement adjusts in response to carriageway location

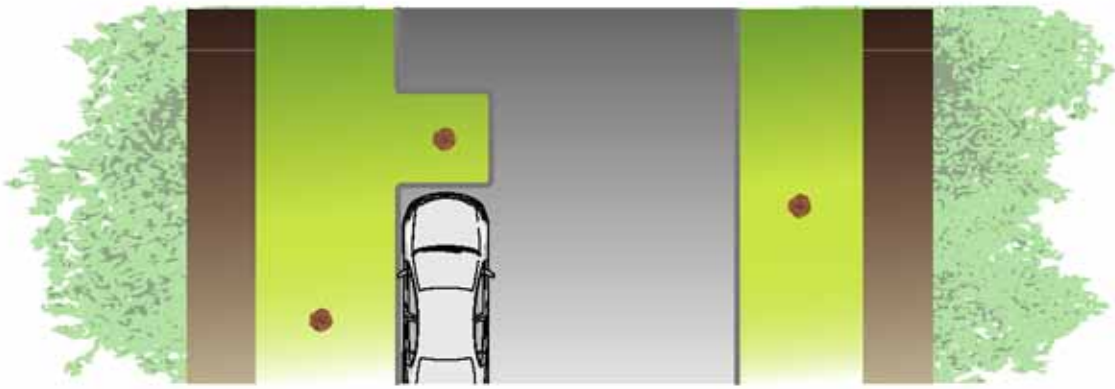


Local Access Street Level 1 (16.0m)
Variation - Meandering footpath in nature strip

NOTES:

- Footpath in varying locations in nature strip
- Tree placement adjusts in response to footpath location
- Minimum offset of footpath 1.0m from back of kerb and 0.6m from tree trunks
- Design of meandering footpath is to consider bin placement on nature strips, access to letter boxes for mail delivery, interface with driveways, definition of front allotment boundary and accommodation of bus stops

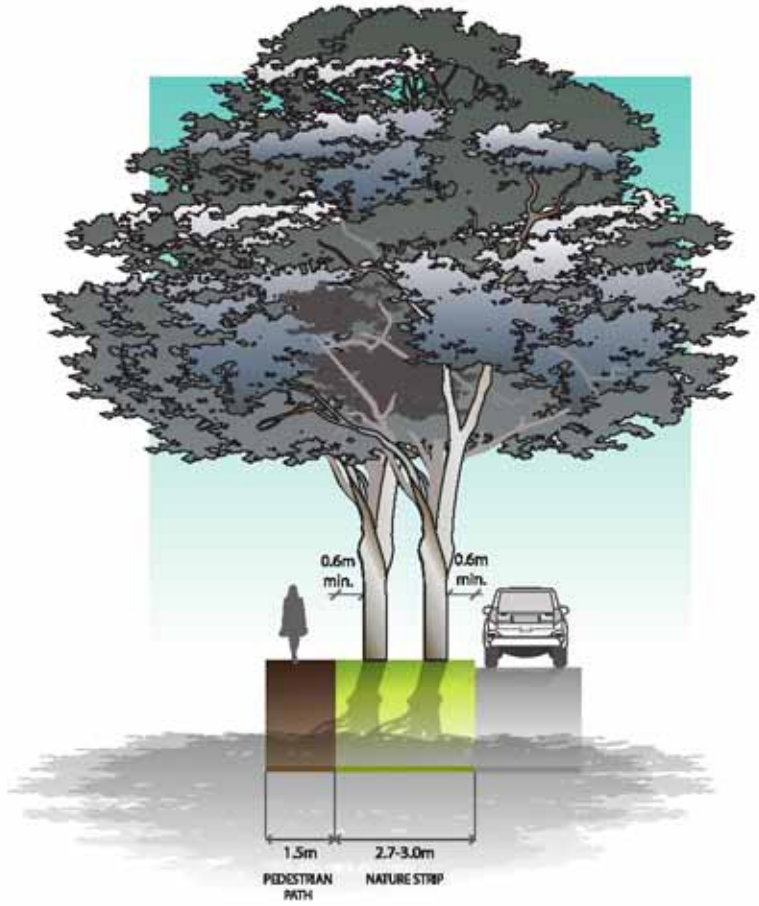


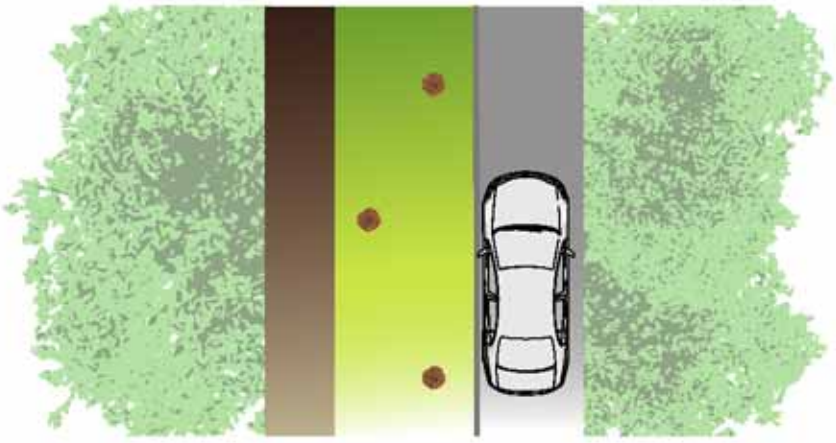


Local Access Street Level 1 (16.0m)
Variation - Tree outstands

NOTES:

- Include tree outstands at approx 50 – 100m centres on one side only
- Road design to ensure passage of emergency vehicles is accommodated
- Functional layout of the kerb outstands to be to the satisfaction of the responsible authority

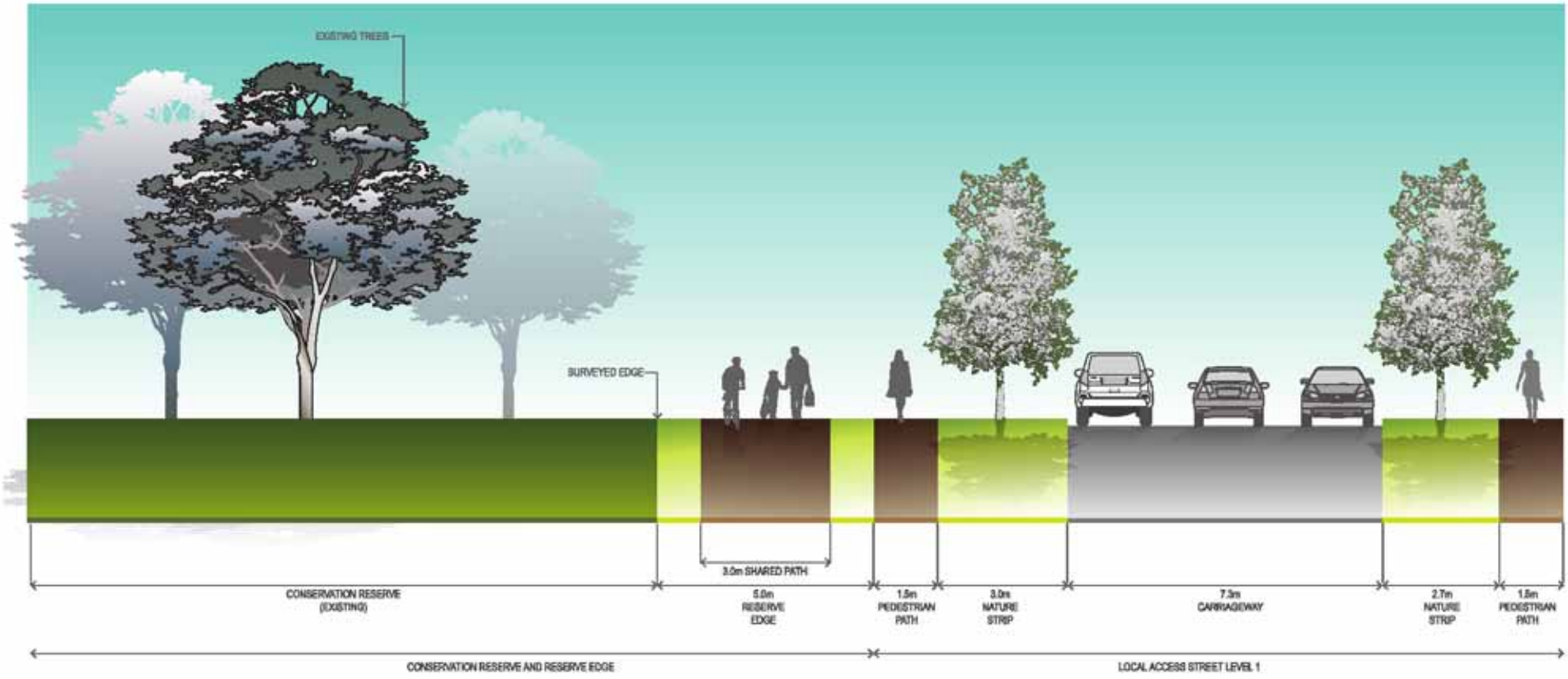




Local Access Street Level 1 (16.0m)
Variation - Varying tree placement in nature strip

NOTES:

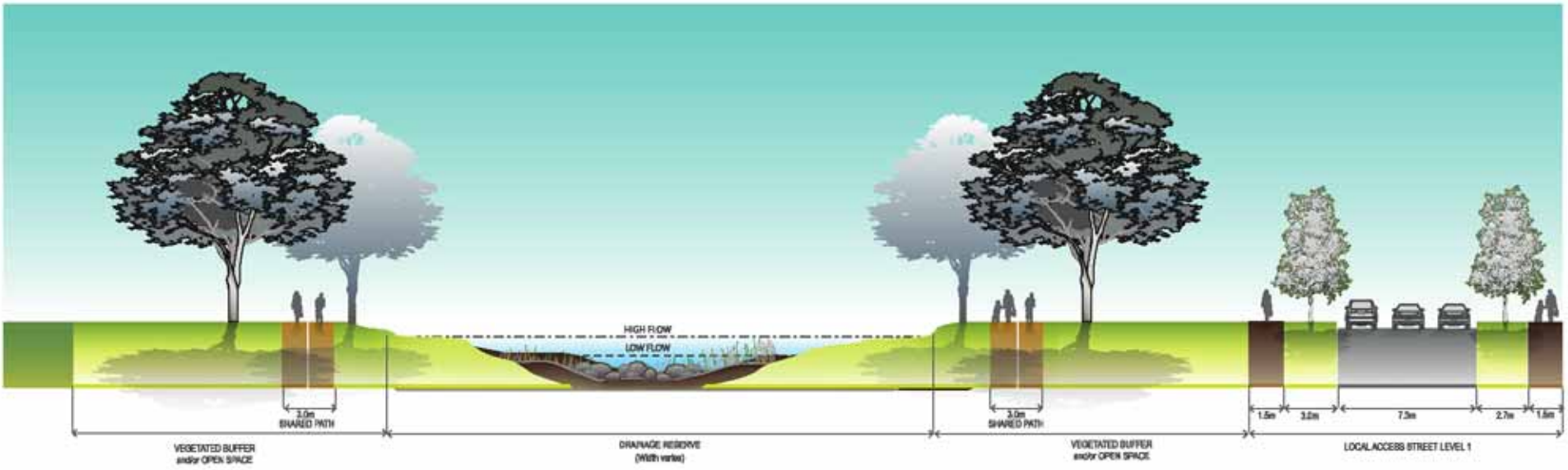
- Tree planting in varying locations in nature strip, in groups or clusters
- Minimum offset of tree trunks 0.6m from back of kerb and footpath edge



Local Access Street Level 1 (21.0m) Conservation Reserve Interface

NOTES:

- 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)
- Verge widths may be reduced where roads abut open space with the consent of the responsible authority.



Local Access Street Level 1 (16.0m)
Drainage/Waterway Corridor Interface

NOTES:

- Waterway widths are to be consistent with Plan 8 and subject to approval from the Corangamite Catchment Management Authority.
- Shared path placement is shown for local access street interfaces for indicative purposes. The shared path network is shown on Plan 7.

Appendix E: Service placement guidelines

<table>
<tr><th>PRINCIPLES</th><th>GUIDELINES</th></tr>
<tr><td>Standard road cross sections</td><td>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 D containing grassed nature strips, footpaths and road pavements.</td></tr>
<tr><td>Non-standard road cross sections</td><td>To achieve greater diversity of streetscape outcomes in the precinct, which enhances character and amenity of the new urban area, 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.
<table>
<tr><th></th><th>UNDER PEDESTRIAN PAVEMENT</th><th>UNDER NATURE STRIPS</th><th>DIRECTLY UNDER TREES [1]</th><th>UNDER KERB</th><th>UNDER ROAD PAVEMENT [2]</th><th>WITHIN ALLOTMENTS</th><th>NOTES</th></tr>
<tr><td>SEWER</td><td>Preferred</td><td>Possible</td><td>Possible</td><td>No</td><td>Possible</td><td>Possible</td><td></td></tr>
<tr><td>POTABLE WATER</td><td>Possible [4]</td><td>Preferred</td><td>Preferred</td><td>No</td><td>No</td><td>No</td><td>Can be placed in combined trench with gas</td></tr>
<tr><td>RECYCLED WATER</td><td>Possible [4]</td><td>Preferred</td><td>Preferred</td><td>No</td><td>No</td><td>No</td><td></td></tr>
<tr><td>GAS</td><td>Possible [4]</td><td>Preferred</td><td>Preferred</td><td>No</td><td>No</td><td>No</td><td>Can be placed in combined trench with potable water</td></tr>
<tr><td>ELECTRICITY</td><td>Possible [4]</td><td>Preferred</td><td>Preferred</td><td>No</td><td>No</td><td>No</td><td>Pits to be placed either fully in footpath or nature strip</td></tr>
<tr><td>FTTH / TELCO</td><td>Possible [4]</td><td>Preferred</td><td>Preferred</td><td>No</td><td>No</td><td>No</td><td>Pits to be placed either fully in footpath or nature strip</td></tr>
<tr><td>DRAINAGE</td><td>Possible</td><td>Possible</td><td>Possible</td><td>Preferred</td><td>Preferred</td><td>Possible [3]</td><td></td></tr>
<tr><td>TRUNK SERVICES</td><td>Possible</td><td>Possible</td><td>Possible</td><td>Possible</td><td>Preferred</td><td>No</td><td></td></tr>
</table>
Table 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.</td></tr>
<tr><td>General principles for service placement</td><td>• 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 (for example, drainage, street light electricity supply) closer to the road carriageway
• Maintain appropriate services clearances and overlap these clearances wherever possible.</td></tr>
</table>

Appendix F: Sustainability principles

	PRINCIPLES
P	Accreditation through a recognised peak representative body for sustainability is encouraged.
P	Development should demonstrate an appropriate balance between environmental, economic and social outcomes suitable for an urban context.
P	Development, including subdivision, should protect, enhance and integrate environmental values.
P	Rehabilitation of sites with degraded environmental or landscape condition is strongly encouraged.
P	The inclusion of productive gardens in public space, including shared spaces and community gardens, is strongly encouraged.
P	Recycling, reducing and reusing of construction material is encouraged.
P	Avoid pollution of natural waterways and remediate damaged caused by urban development.
P	Optimise energy reduction through climate responsive design, lot and building orientation, optimal glazing and shading, as well as reduced reliance on mechanical heating, ventilation, cooling and lighting systems.
P	Achieve environmental best practice methods of operation of commercial, community and retail development, including waste recycling, water-wise use and reuse, and more renewable sources of power.
P	Include solar panels, wind turbines and other energy sources where practical. Design and siting of these structures should minimise amenity or landscape impacts.
P	Use resource-efficient design, material selection and construction techniques to minimise negative environmental impacts.
P	Use environmentally responsible materials and construction methods to lower environmental impacts.
P	Minimise water consumption through landscaping design that includes indigenous and drought tolerant plant species, recycled materials and water re-use and recycling.
P	Establish priority walking and cycling routes within and/or to: • The neighbourhood centre • Local convenience centres • Community facilities • Existing or planned pathways within wider Torquay Jan-Juc network
P	Use light emitting diode (LED) lighting (or other sustainable lighting) for street lights.
P	Strongly encourage the generation and use of electricity from renewable sources.
P	Incorporate dual plumbing for recycled water supply for toilet flushing and garden watering where available.

THIS PAGE HAS BEEN LEFT
INTENTIONALLY BLANK

Appendix G: Kangaroo management principles

Eastern Grey Kangaroos (EGKs) are known to occur within the Spring Creek PSP area. All native wildlife in Victoria, including EGKs, are protected under the Wildlife Act 1975.

Management principles

Staged development

Staged development is the primary management tool used to minimise impacts to public safety and EGK in peri-urban areas.

On-Ground preventative actions

On-ground preventative principles assist to minimise opportunities for EGKs to enter construction sites. Preventative actions include:

Temporary exclusion fencing

- Construction fencing should include kangaroo-proof features to discourage EGKs from jumping over, digging under or pushing through it. Exclusion fencing should:
- Be chain-link
- Not be ring locked (entanglement hazard)
- Be high-tensile, heavy galvanised wire
- Be at least 1.8 metres high
- Have no barbs, loose or open wires
- Be completely free of holes and gaps in, and under, the fence to stop EGKs trying to escape and to stop them being injured
- Be embedded, have a secured mesh apron, be graded using crushed rock or concrete below to prevent gaps
- Be coloured with tape or equivalent to increase visibility
- Be angled in the direction of approach to limit space immediately before to limit vertical jump
- Be monitored to establish the presence of EGKs: on the day of installation, the day after installation and at regular intervals thereafter.

Removing attractants

Slashing of biomass, such as edible grasses and herbs, around construction sites will prevent foraging EGKs from approaching. Slashing should be undertaken regularly. Exclusion fencing around water bodies also prevents EGKs from approaching construction sites.

Response principles

Eastern Grey Kangaroos in construction zones

The following actions should be considered if an EGK is found within a construction zone:

- Monitor the EGK and let it leave on its own accord
- Do not herd the EGK: it is an offence under the Wildlife Act 1975. Herding can stress, confuse and cause erratic behaviour in animals, with potential to result in injury to people and animals
- Ascertain how the EGK entered the construction zone and secure entry point
- Contact a licenced Wildlife Shelter or DELWP on 136 186 if EGK is injured.


Surf COAST
SHIRE