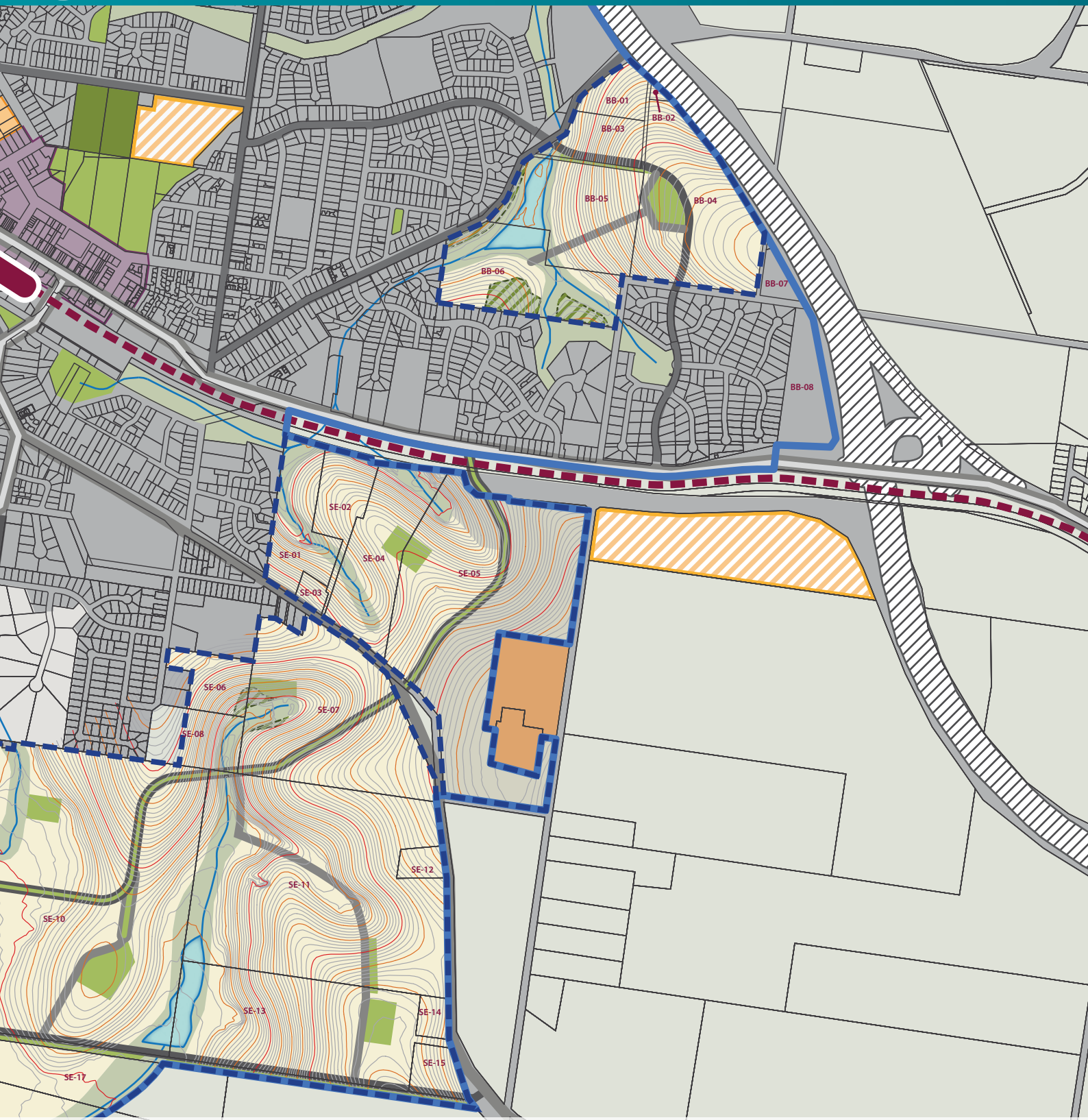


- township boundary
- precinct boundary
- existing urban area
- existing low density area
- town centre
- residential
- low density residential
- business & industry
- farm zone
- community facility
- government primary school (existing or potential)
- government secondary school (existing or potential)
- non-government school (existing or potential)
- private open space facility
- neighbourhood park
- sporting reserve
- drainage reserve (encumbered)
- vegetation reserve (encumbered)
- utility site or easement
- waterway & retention basin
- neighbourhood centre
- village convenience centre
- arterial road
- connector street
- connector boulevard
- connector street existing
- access street
- access boulevard
- potential future link street

plan 14_future urban structure details_south east (part two) & buln buln
drouin precinct structure plan

0 100 200 300 400 500 N

LOCAL DESIGN CONSIDERATIONS: SOUTH-EAST (PART 2) & BULN BULN

- Retain existing vegetation and maintain rural character of town gateway along Larder Road.
- Retain significant vegetation along Buln Buln Road.
- Allow for appropriate integration with existing and new neighbouring development.
- Present soft residential interface to Princes Freeway.
- Ensure development addresses prominent sections of the township boundary as illustrated on Plan 3.

APPENDIX B - Land budget

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 (active and passive) from the total precinct area. The NDA for the Drouin Precinct is 672 hectares which equates to approximately 80-per-cent of the PSP area.

The land budget shows that the PSP will yield 7,418 lots with an average density of approximately 11 dwellings per Residential Net Developable Hectare (NDAR).

An average household size of 2.4 persons for conventional density housing (based on Victoria in Future 2012), is used to estimate the future population of the PSP area. On this basis, the future population of the PSP is estimated at 17,8-00 residents.

The PSP is also expected to yield 2,100 jobs for future residents.

See Plans 10-13: Future Urban Structure details, Table 12 Summary Land Use Budget and Table 13 Property-specific land Use budget.

NOTES:

The detailed land budget included in this Appendix clearly sets out the NDA for every property included in the PSP. The NDA will not be amended to respond to minor changes to land budgets that may result from the subdivision process for any other reason than those stated above, unless the variation is agreed to by Responsible Authority.

Table 12 Summary land budget

DESCRIPTION	HECTARES	% OF TOTAL PRE-CINCT	% OF NDA
TOTAL PRECINCT AREA (ha)	843.24	100.0%	
TRANSPORT			
Arterial road intersection flaring	0.09	0.01%	0.01%
OPEN SPACE			
ENCUMBERED LAND AVAILABLE FOR RECREATION			
Waterways & drainage	97.87	11.61%	14.57%
Areas for the protection of native vegetation	15.21	1.80%	2.26%
Utility easements	5.22	0.62%	0.78%
SUB-TOTAL	118.30	14.03%	17.61%
UNENCUMBERED LAND			
Sporting reserves	17.36	2.06%	2.58%
Neighbourhood parks	28.78	3.41%	4.28%
SUB-TOTAL	46.14	5.47%	6.87%
EDUCATION			
Schools - government	7.00	0.83%	1.04%
Schools - non-government	0.00	0.00%	0.00%
Community centres	0.80	0.10%	0.12%
SUB-TOTAL	7.00	0.83%	1.04%
TOTAL	171.53	20.34%	25.54%
NET DEVELOPABLE AREA (NDA)	671.70	79.66%	100.0%

DESCRIPTION	HECTARES		
EMPLOYMENT			
Business & industry	31.61		
NET DEVELOPABLE AREA (EMPLOYMENT) (NDAE)	31.61		
RESIDENTIAL		DWELL / NDAR	DWELLINGS
Residential	607.20	12.00	7,286
Low-density residential	32.89	4.00	132
NET DEVELOPABLE AREA (RESIDENTIAL) (NDAR)	640.09	11.59	7,418

DESCRIPTION	HECTARES	% OF TOTAL PRECINCT	% OF NDA
RESIDENTIAL UNENCUMBERED OPEN SPACE AS % OF NDAR			% OF NDAR
Active open space	17.36	2.06%	2.71%
Passive open space	28.78	3.41%	4.50%
EMPLOYMENT UNENCUMBERED OPEN SPACE AS % OF NDAE			% OF NDAE
Passive open space	0.00	0.00%	0.00%

Table 13 Property-specific land-budget

PROPERTY ID	TOTAL AREA WITHIN PSP (HECTARES)	ENCUMBERED LAND (Available for recreation)			TOTAL DEVELOPABLE AREA	INFRASTRUCTURE REQUIREMENTS						NET DEVELOPABLE AREA (NDA) (Hectares)				KEY PERCENTAGES			
		Waterway corridors & drainage assets	Native vegeation retention	Utility sites & easements		Arterial road intersections	Neighbourhood parks	Sporting reserves	Schools (government)	Schools (non-government)	Community facilities		Business & industry	Low-density residential	Standard residential	NDA as % of total area within PSP	Sporting reserves as % of NDA	Neighbourhood parks as % of NDA	Total open space as % of NDA
NW-01	26.21	6.26	1.45	1.28	17.22		3.40	1.13				12.68		5.41	7.27	48.39%	8.94%	26.83%	35.77%
NW-02	7.14		1.86	0.69	4.59							4.59			4.59	64.26%	0.00%	0.00%	0.00%
NW-03	14.95	1.62			13.33		0.52	3.65				9.17			9.17	61.31%	39.82%	5.62%	45.44%
NW-04	12.60	3.24	0.23		9.12							9.12			9.12	72.43%	0.00%	0.00%	0.00%
NW-05	24.64	5.55			19.09		0.18	1.42				17.49			17.49	70.99%	8.10%	1.03%	9.13%
NW-06	2.59	0.59			2.00			0.10				1.90			1.90	73.36%	5.35%	0.00%	5.35%
NW-07	2.26				2.26							2.26			2.26	100.00%	0.00%	0.00%	0.00%
NW-08	12.26	0.74			11.52		0.44					11.08			11.08	90.41%	0.00%	3.97%	3.97%
NW-09	8.25				8.25		0.66					7.59			7.59	92.00%	0.00%	8.70%	8.70%
NW-10	4.92	1.89			3.03							3.03			3.03	61.61%	0.00%	0.00%	0.00%
NW-11	20.29				20.29		0.30					19.99			19.99	98.51%	0.00%	1.51%	1.51%
NW-12	6.58			0.40	6.18		0.30					5.88			5.88	89.38%	0.00%	5.08%	5.08%
NW-13	12.07	3.65			8.42							8.42			8.42	69.79%	0.00%	0.00%	0.00%
NW-13a	0.50				0.50							0.50			0.50	100.00%	0.00%	0.00%	0.00%
NW-14	42.89	5.22			37.67		1.93		3.50		0.40	31.83			31.83	74.21%	0.00%	6.08%	6.08%
NW-15	13.44				13.44		0.42					13.02			13.02	96.87%	0.00%	3.23%	3.23%
NW-16	0.60				0.60							0.60			0.60	100.00%	0.00%	0.00%	0.00%
NW-17	18.55	1.94			16.61							16.61			16.61	89.52%	0.00%	0.00%	0.00%
NW-18	0.13				0.13							0.13	0.13		0.00	100.00%	0.00%	0.00%	0.00%
NW-19	7.62		1.06		6.56							6.56	6.56		0.00	86.11%	0.00%	0.00%	0.00%
NW-20	8.19		0.73		7.47							7.47	7.47		0.00	91.14%	0.00%	0.00%	0.00%
NW-21	3.40				3.40							3.40	3.40		0.00	100.00%	0.00%	0.00%	0.00%
NW-22	4.62				4.62							4.62	4.62		0.00	100.00%	0.00%	0.00%	0.00%

PROPERTY ID	TOTAL AREA WITHIN PSP (HECTARES)	ENCUMBERED LAND (Available for recreation)			TOTAL DEVELOPABLE AREA	INFRASTRUCTURE REQUIREMENTS						NET DEVELOPABLE AREA (NDA) (Hectares)				KEY PERCENTAGES			
		Waterway corridors & drainage assets	Native vegetation retention	Utility sites & easements		Arterial road intersections	Neighbourhood parks	Sporting reserves	Schools (government)	Schools (non-government)	Community facilities		Business & industry	Low-density residential	Standard residential	NDA as % of total area within PSP	Sporting reserves as % of NDA	Neighbourhood parks as % of NDA	Total open space as % of NDA
NW-23	4.76				4.76							4.76	4.76		0.00	100.00%	0.00%	0.00%	0.00%
NW-24	3.86				3.86							3.86	3.86		0.00	100.00%	0.00%	0.00%	0.00%
R1	1.05				1.05							1.05			1.05	100.00%	0.00%	0.00%	0.00%
R2	3.51	0.41		0.04	3.05							3.05			3.05	87.06%	0.00%	0.00%	0.00%
R3	0.81				0.81							0.81	0.81		0.00	100.00%	0.00%	0.00%	0.00%
Total	268.70	31.11	5.32	2.41	229.85	0.00	8.15	6.30	3.50	0.00	0.40	211.49	31.61	5.41	174.47	78.71%	2.98%	3.85%	6.83%
GH-01	16.33	3.47			12.85							12.85			12.85	78.73%	0.00%	0.00%	0.00%
GH-02	5.45	0.94			4.52							4.52			4.52	82.82%	0.00%	0.00%	0.00%
GH-03	5.36	1.04			4.33							4.33			4.33	80.67%	0.00%	0.00%	0.00%
GH-04	6.59				6.59							6.59			6.59	100.00%	0.00%	0.00%	0.00%
GH-05	6.36				6.36							6.36			6.36	100.00%	0.00%	0.00%	0.00%
GH-06	2.72				2.72							2.72			2.72	100.00%	0.00%	0.00%	0.00%
GH-07	6.50				6.50		1.75					4.75			4.75	73.08%	0.00%	36.83%	36.83%
GH-08	4.88				4.88							4.88			4.88	100.00%	0.00%	0.00%	0.00%
GH-09	2.05				2.05							2.05			2.05	100.00%	0.00%	0.00%	0.00%
GH-10	10.99				10.99		0.91					10.07			10.07	91.68%	0.00%	9.08%	9.08%
GH-11	20.31	0.20			20.11							20.11			20.11	99.00%	0.00%	0.00%	0.00%
R4	0.72				0.72							0.72			0.72	100.00%	0.00%	0.00%	0.00%
R5	2.77	0.11			2.66		1.34					1.32		1.32	0.00	47.59%	0.00%	102.10%	102.10%
R6	3.24				3.24							3.24			3.24	100.00%	0.00%	0.00%	0.00%
	94.27	5.75	0.00	0.00	88.51	0.00	4.01	0.00	0.00	0.00	0.00	84.50		1.32	83.18	89.64%	0.00%	4.74%	4.74%

PROPERTY ID	TOTAL AREA WITHIN PSP (HECTARES)	ENCUMBERED LAND (Available for recreation)			TOTAL DEVELOPABLE AREA	INFRASTRUCTURE REQUIREMENTS						NET DEVELOPABLE AREA (NDA) (Hectares)				KEY PERCENTAGES			
		Waterway corridors & drainage assets	Native vegeation retention	Utility sites & easements		Arterial road intersections	Neighbourhood parks	Sporting reserves	Schools (government)	Schools (non-government)	Community facilities		Business & industry	Low-density residential	Standard residential	NDA as % of total area within PSP	Sporting reserves as % of NDA	Neighbourhood parks as % of NDA	Total open space as % of NDA
SE-01	6.02	2.08			3.94							3.94			3.94	65.48%	0.00%	0.00%	0.00%
SE-02	3.81	0.33			3.47							3.47			3.47	91.22%	0.00%	0.00%	0.00%
SE-03	0.71				0.71							0.71			0.71	100.00%	0.00%	0.00%	0.00%
SE-04	9.16	1.76			7.39		0.47					6.93		0.29	6.64	75.63%	0.00%	6.75%	6.75%
SE-05	32.11	0.38			31.73	0.01	0.53					31.19		22.63	8.56	97.11%	0.00%	1.71%	1.71%
SE-06	3.24	0.04	0.20		3.00							3.00			3.00	92.59%	0.00%	0.00%	0.00%
SE-07	20.49	0.98	0.42		19.09		0.70					18.39			18.39	89.77%	0.00%	3.81%	3.81%
SE-08	2.81	0.89	0.00		1.91							1.91			1.91	68.19%	0.00%	0.00%	0.00%
SE-09	26.35				26.35		1.10					25.25			25.25	95.81%	0.00%	4.37%	4.37%
SE-10	57.36	8.38			48.98		2.21					46.78			46.78	81.55%	0.00%	4.71%	4.71%
SE-11	39.58	4.01			35.57		0.50					35.07			35.07	88.61%	0.00%	1.43%	1.43%
SE-12	1.17				1.17							1.17			1.17	100.00%	0.00%	0.00%	0.00%
SE-13	19.93	2.01			17.92		1.24					16.68			16.68	83.68%	0.00%	7.42%	7.42%
SE-14	1.05				1.05							1.05			1.05	100.00%	0.00%	0.00%	0.00%
SE-15	2.02				2.02							2.02			2.02	100.00%	0.00%	0.00%	0.00%
SE-16	34.51	6.51	0.08		27.92		0.45		3.38		0.40	23.69			23.69	68.66%	0.00%	1.90%	1.90%
SE-16A	0.14				0.14				0.12			0.02			0.02	14.15%	0.00%	0.00%	0.00%
SE-16B	0.01				0.01				0.00			0.00			0.00	60.00%	0.00%	0.00%	0.00%
SE-17	7.41	2.51			4.90							4.90			4.90	66.14%	0.00%	0.00%	0.00%
SE-18	10.77	6.64			4.12							4.12			4.12	38.28%	0.00%	0.00%	0.00%
SE-19	40.20	11.91		0.17	28.12		0.14	11.06				16.92			16.92	42.09%	65.35%	0.83%	66.18%
SE-19A	0.16				0.16		0.05					0.12			0.12	71.89%	0.00%	39.10%	39.10%
SE-20	39.35	0.53	2.18	0.61	36.03		2.25					33.78			33.78	85.84%	0.00%	6.67%	6.67%
SE-21	20.77		0.25	0.73	19.79							19.79			19.79	95.29%	0.00%	0.00%	0.00%
SE-22	4.03				4.03							4.03			4.03	100.00%	0.00%	0.00%	0.00%

PROPERTY ID	TOTAL AREA WITHIN PSP (HECTARES)	ENCUMBERED LAND (Available for recreation)			TOTAL DEVELOPABLE AREA	INFRASTRUCTURE REQUIREMENTS						NET DEVELOPABLE AREA (NDA) (Hectares)				KEY PERCENTAGES			
		Waterway corridors & drainage assets	Native vegetation retention	Utility sites & easements		Arterial road intersections	Neighbourhood parks	Sporting reserves	Schools (government)	Schools (non-government)	Community facilities		Business & industry	Low-density residential	Standard residential	NDA as % of total area within PSP	Sporting reserves as % of NDA	Neighbourhood parks as % of NDA	Total open space as % of NDA
SE-23	12.71	1.32	0.68	0.39	10.31		0.60					9.71		2.14	7.57	76.45%	0.00%	6.18%	6.18%
SE-24	3.61	0.90	0.28		2.43							2.43		2.42	0.00	67.31%	0.00%	0.00%	0.00%
SE-25	28.29	0.58	4.22	0.91	22.58		0.86					21.72			21.72	76.77%	0.00%	3.96%	3.96%
R8	3.01	0.14			2.86							2.86			2.86	95.18%	0.00%	0.00%	0.00%
R9	3.17	0.25			2.92		2.09					0.83			0.83	26.29%	0.00%	250.89%	250.89%
R10	2.70	0.21	1.58		0.91							0.91			0.91	33.83%	0.00%	0.00%	0.00%
R11	2.21	0.17			2.04		2.04					0.00			0.00	0.16%	0.00%	-	-
	438.83	52.53	9.89	2.82	373.60	0.01	15.22	11.06	3.50	0.00	0.40	343.41		27.48	315.93	78.26%	3.22%	4.43%	7.65%
BB-01	2.31				2.31							2.31			2.31	100.00%	0.00%	0.00%	0.00%
BB-02	0.20				0.20							0.20			0.20	100.00%	0.00%	0.00%	0.00%
BB-03	3.31	0.23			3.09		0.05					3.04			3.04	91.65%	0.00%	1.67%	1.67%
BB-04	14.38				14.38		1.10					13.28			13.28	92.35%	0.00%	8.28%	8.28%
BB-05	10.19	2.45	0.50		7.25							7.25			7.25	71.09%	0.00%	0.00%	0.00%
BB-06	10.47	4.36	1.34		4.77							4.77			4.77	45.54%	0.00%	0.00%	0.00%
R7	0.58	0.08	0.00		0.50		0.25					0.25			0.25	43.42%	0.00%	98.32%	98.32%
	41.44	7.11	1.84		32.49	0.00	1.40					31.09	0.00	0.00	31.09	75.03%	0.00%	4.49%	4.49%
	837.83	96.51	18.00	5.22	718.09	0.01	28.50	17.36	7.00	0.00	0.80	664.42	31.61	28.80	604.00	79.30%	2.61%	4.29%	6.90%

Table 14 APPENDIX C - Neighbourhood centre design principles

PRINCIPLE 1

Locate Neighbourhood centres in attractive settings and as the focus of the surrounding neighbourhood.

PERFORMANCE CRITERIA

- Locate neighbourhood centres in attractive settings and incorporate natural or cultural landscape features such creeks and waterways, linear open space, pedestrian and cycle links and areas of high aesthetic value.
- The design of the neighbourhood centre should respect existing views and vistas to and from the neighbourhood centre location.

PRINCIPLE 2

Focus on a public space as the centre of community life.

PERFORMANCE CRITERIA

- A public space which acts as the central meeting place within the Neighbourhood centre must be provided. This public space may take the form of a civic square, town park, foreshore park, public plaza space, public market place or a similar locally responsive option.
- The public space should be located in a position where the key uses of the neighbourhood centre are directly focuses on this public space to ensure that it is a dynamic and activated space.
- The public space should be designed to function as the identifiable 'centre' or 'heart' with a distinctive local character for both the neighbourhood centre and the broader residential catchment.
- The public space should be designed as a flexible and adaptable space so that a range of uses can occur within this space at any one time. Such uses may include people accessing their daily shopping and business needs as well as providing a space where social interaction, relaxation, celebrations and temporary uses (such as stalls, exhibitions and markets) can occur.
- The public space should be well integrated with pedestrian and cycle links around and through the neighbourhood centre.
- The main public space or town square within the neighbourhood centre should have a minimum area of 500 square metres. 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 be sufficient to provide for pedestrian and mobility access as well as provide for outdoor dining and smaller gathering spaces.

PRINCIPLE 3

Provide a range of retail, local community and other facilities within neighbourhood centres.

PERFORMANCE CRITERIA

- Land uses should be located generally in accordance with the locations and general land use terms identified in Figure 1 and 2.
- The design of the neighbourhood centre should facilitate development with a high degree of community interaction and provide a vibrant and viable mix of retail, recreation and community facilities.
- The design of the neighbourhood centre should encourage a pattern of 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 should have varying widths and floor space areas to promote a diversity of trading opportunities throughout the neighbourhood centre.
- Flexible floor spaces (including floor to ceiling heights) should be incorporated into building design to enable localised commercial uses to locate amongst the activity of the neighbourhood centre.
- Childcare, medical centres and specialised accommodation (e.g. aged care/nursing home, student accommodation, and serviced apartments) should be located within the neighbourhood centre and at the edge of the neighbourhood centre to contribute to the activity of the centre and so these uses are close to the services offered by the centre.
- Car parking areas should be located centrally to the site and to the rear and or side of street based retail frontages.
- Car parking areas should be designed to accommodate flexible uses and allow for long term development opportunities.
- Public toilets should be provided in locations which are safe and accessible and within the managed area of the property.

PRINCIPLE 4

Integrate local employment and service opportunities in a business friendly environment.

PERFORMANCE CRITERIA

- A variety of employment and business opportunities should be planned through the provision of a mix of land uses and commercial activities.
- Options for office based businesses should be provided within the neighbourhood centre.
- Services and facilities to support home based and smaller businesses are encouraged within the neighbourhood centre.
- Appropriate locations for home-office housing options which maximise the access and exposure to the activity of the neighbourhood centre should be considered as part of the design process.

PRINCIPLE 5

Include a range of medium and high density housing and other forms of residential uses within and surrounding the neighbourhood centre.

PERFORMANCE CRITERIA

- Medium and high density housing in and around the neighbourhood centre is required to provide passive surveillance, contribute to the life of the centre and to maximise the amenity of the centre.
- Medium and high density housing should establish in locations of high amenity around the neighbourhood centre and be connected to the activity of the neighbourhood centre through strong pedestrian and cycle links.
- A range of housing types for a cross section of the community (such as retirement living) should be included in and around the Neighbourhood centre.
- Specialised accommodation (such as aged/nursing care, student accommodation and serviced apartments) is encouraged at the edge of neighbourhood centres with strong pedestrian and cycle links to the central activity area of the neighbourhood centre.
- The neighbourhood centre design should avoid potential land use conflicts between residential and commercial uses by focusing on retail operations on the main street and around the town square/public space and locating residential uses predominantly at the edge of the neighbourhood centre and/or on upper levels.

PRINCIPLE 6

Promote localisation, sustainability and adaptability.

PERFORMANCE CRITERIA

- The neighbourhood centre should promote the localisation of services which will contribute to a reduction of travel distance to access local services and less dependence on the car.
- The neighbourhood centre should be designed to be sympathetic to its natural surrounds by:
  - » Investigating the use of energy efficient design and construction methods for all buildings;
  - » Including Water Sensitive Urban Design principles such as integrated stormwater retention and reuse (e.g. toilet flushing and landscape irrigation);
  - » Including options for shade and shelter through a combination of landscape and built form treatments;
  - » Ensuring buildings are naturally ventilated to reduce the reliance on plant equipment for heating and cooling;
  - » Promoting passive solar orientation in the configuration and distribution of built form and public spaces;
  - » Grouping waste collection points to maximise opportunities for recycling and reuse;
- Promoting solar energy for water and space heating, electricity generation and internal and external lighting; and
- Encourage building design which can be adapted to accommodate a variety of uses over time.
- Ensure the neighbourhood centre has an inbuilt capacity for growth and change to enable adaptation and the intensification of uses as the needs of the community evolve.

PRINCIPLE 7

Design the neighbourhood centre to be pedestrian friendly and accessible by all modes including public transport, while enabling private vehicle access.

PERFORMANCE CRITERIA

- The neighbourhood centre should be easily, directly and safely accessible for pedestrians, cyclists, public transport modes, private vehicles, service and delivery vehicles with priority given to pedestrian movement, amenity, convenience and safety.
- The neighbourhood centre should provide a permeable network of streets, walkways and public spaces that provide linkages throughout the centre and designated pedestrian crossing points.
- A speed environment of 40km/h or less should be designed for the length of the main street.
- Public transport infrastructure/facilities should be planned for commuter friendly/convenient locations within the neighbourhood centre.
- Bicycle parking should be provided within the street network and public spaces in highly visible locations and close to pedestrian desire lines and key destinations.
- Supermarkets and other 'large format' buildings should not impede on the movement of people around the neighbourhood centre.
- Key buildings within the neighbourhood centre should be located to encourage pedestrian movement along the length of the street through public spaces.
- The design of buildings within the neighbourhood centre should have a relationship with and should interface to the public street network.
- Car parking areas should be designated to ensure passive surveillance and public safety through adequate positioning and lighting.
- Car parking areas should be designed to provide dedicated pedestrian routes and areas of landscaping.
- On street car parking should be provided either as parallel or angle parking to encourage short stay parking.
- Car parking ingress and egress crossovers should be grouped and limited.
- Car parking ingress or egress and car parking areas accommodating heavy vehicle movements should be designed to limit the pedestrian/vehicle conflict.
- Heavy vehicle movements (i.e. loading and deliveries) should be located to the rear and or side of street based retail frontages
- Streets, public spaces and car parks should be well lit to Australian standards and with pedestrian friendly (generally white) light. Lighting should be designed to avoid unnecessary spill to the side or above.
- All public spaces should respond appropriately to the design for mobility access principles.

PRINCIPLE 8

Create a sense of place with high quality engaging urban design.

PERFORMANCE CRITERIA

- Development should complement and enhance the character of the surrounding area by responding appropriately to key visual cues associated with the topography of the neighbourhood centre location and its surrounds.
- The neighbourhood centre design should seek to minimise amenity and noise impacts resulting from the mix of uses by maintaining separation and transitional areas between retail and housing activities, such as open space, road networks and community facilities.
- The design of each building should contribute to a cohesive and legible character for the neighbourhood centre as a whole.
- Sites in prominent locations (such as at key intersections, surrounding public spaces and terminating key view lines and vistas) should be identified for significant buildings or landmark structures.
- The design of building frontages should incorporate the use of a consistent covered walkway or verandah to provide for weather protection.
- The built form should define the main street and be aligned with the property boundary.
- Street facades and all visible side or rear facades should be visually rich, interesting and well articulated and be finished in suitable materials and colours that contribute to the character of the neighbourhood centre.
- Corner sites, where the main street meets an intersecting connector street or arterial road should:
  - » Be designed to provide built form that anchors the main street to the intersecting road. This can be achieved through increased building height, scale and articulated frontages;
  - » Incorporate either two storey building or two storey elements (such as awnings and roof lines);
  - » Re developed to have a ground floor active frontage and active floor space component to the main street frontage; and
  - » Not be developed for standard single storey fast food outcomes.
- Any supermarket and secondary anchors should have frontages that directly address the main street and/or town square so that the use integrates with and promotes activity within the main street and public spaces/thoroughfares.
- Any supermarkets or large format retail uses with a frontage to the main street should use clear glazing to allow view lines into the store from the street. (Planning permits for buildings and works should condition against the use of white washed windows, excessive window advertising and obtrusive internal shelving or 'false walls' offset from the glazing).
- Secondary access to any supermarket from car parking areas should be considered where it facilitates convenient trolley access and does not diminish the role of primary access from the main street or town square.
- The design and siting of any supermarkets and other 'large format retail uses' should provide an appropriate response to the entire public domain. This includes but is not limited to car parking areas, predominantly routes and streets.
- Retail uses along street frontages should generally include access points at regular intervals to encourage activity along the length of the street.
- Retail and commercial buildings within the neighbourhood centre should generally be built to the property line.
- Public spaces should be oriented to capture north sun and protect from prevailing winds and weather.
- Landscaping of all interface areas should be of a high standard as an important element to complement the built form design.
- Urban art should be incorporated into the design of the public realm.
- Street furniture should be located in areas that are highly visible and close to or adjoining pedestrian desire lines/gathering spaces and designed to add visual interest to the neighbourhood centre.
- Wrapping of car parking edges with built form, to improve street interface, should be maximised.
- Car parking areas should provide for appropriate landscaping with planting of canopy trees and dedicated pedestrian thoroughfares.
- Screening of centralised waste collection points should minimise amenity impacts with adjoining areas and users of the centre.
- Where service areas are accessible from car parks, they should present a well designed and secure facade to public areas.
- Mechanical plant and service structure roofs should be included within roof lines or otherwise hidden from view.

APPENDIX D - Service Placement Guidelines

STANDARD ROAD CROSS SECTIONS

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

NON-STANDARD ROAD CROSS SECTIONS

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

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

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

NOTES

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

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

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

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

GENERAL PRINCIPLES FOR SERVICE PLACEMENT

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

APPENDIX E - Open space standards

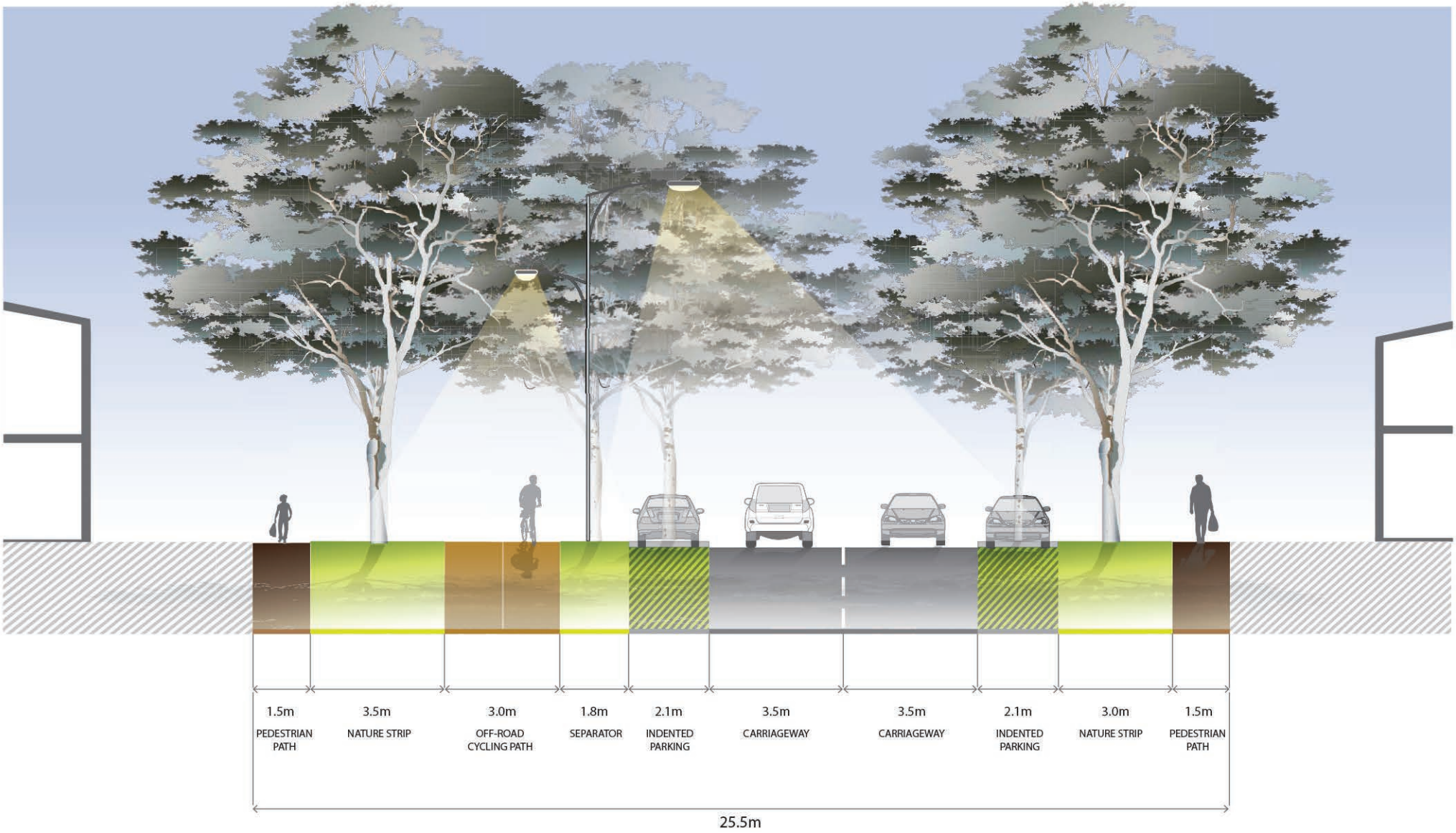
SHIRE OF BAW BAW OPEN SPACE STANDARDS

DESCRIPTION	PROVISION STANDARDS
Local Neighbourhood Park	
These parks provide passive recreation activities which are normally informal. These parks cater for residents within a comfortable walking distance and provide facilities/activities for short visits. Local neighbourhood parks incorporate landscaping, and structural elements such as seats, paths, built structures and play equipment.	Standard density residential areas: • Provide a local neighbourhood park within 400 metres walking distance of 95-per-cent of new dwellings. • Generally one hectare or greater in area, however smaller sized parks may be considered where co-located with encumbered open space such as waterways corridors and retained vegetation. • Must accommodate a minimum area of 25 x 25 metres to allow sufficient space for trees and play activities. Higher density residential areas • Additional smaller neighbourhood parks may be provided in higher density residential areas, subject to identified local needs. Industrial and commercial areas • Provision should be provided based on identified local needs.
District Neighbourhood Park	
These parks provide a mix of passive and active recreation activities, both formal and informal. These parks are designed to maximise co-location and sharing opportunities between activities and adjoining complementary facilities. District neighbourhood parks incorporate landscaping, and structural elements such as seats and paths, gathering areas, and built structures such as barbeques and shelters. These parks may also include formal active recreation facilities, such as tennis courts, lawn bowls, basketball courts and play equipment.	• Provide a district park within one kilometre walking distance of 95-per-cent of new dwellings. • Eight hectares or greater in area for new residential areas.
Sporting reserve	
These reserves primarily cater for organised sport, and provide facilities for sports such as AFL, cricket, soccer, rugby, hockey, baseball, tennis, basketball, netball etc. These reserves may provide infrastructure for passive recreation in areas not occupied by sporting facilities, such as walking/cycle paths and playgrounds.	• Provide a sporting reserve within 1 kilometre walking distance of 95-per-cent of new dwellings. • Minimum size of three hectares to accommodate one AFL/cricket oval and associated infrastructure (pavilion, car park etc) up to around 15 hectares to accommodate multiple sporting facilities.
Linear Reserve	

These parks typically comprise linear spaces that serve another purpose (such as waterway corridors, service easements, retained vegetation areas and wide road reserves) but which can also be used for a limited range of passive recreation activities. These parks are typically considered encumbered open space, given their primary function is not open space related.	• Waterway corridors, service easements, vegetation retention areas and wide road reserves are to be utilised as linear reserves wherever possible. • Shared paths and landscaping (including mature trees) are to be provided in linear reserves wherever possible.
Municipal Reserve	
Open spaces serving residents of the entire Baw Baw Shire.	• No minimum provision standards.
Regional Reserve	
Open spaces serving residents of the entire Baw Baw Shire and residents of surrounding municipalities.	• No minimum provision standards.
State Reserve	
Open spaces serving the State of Victoria.	• No minimum provision standards.

APPENDIX F - Street cross-sections

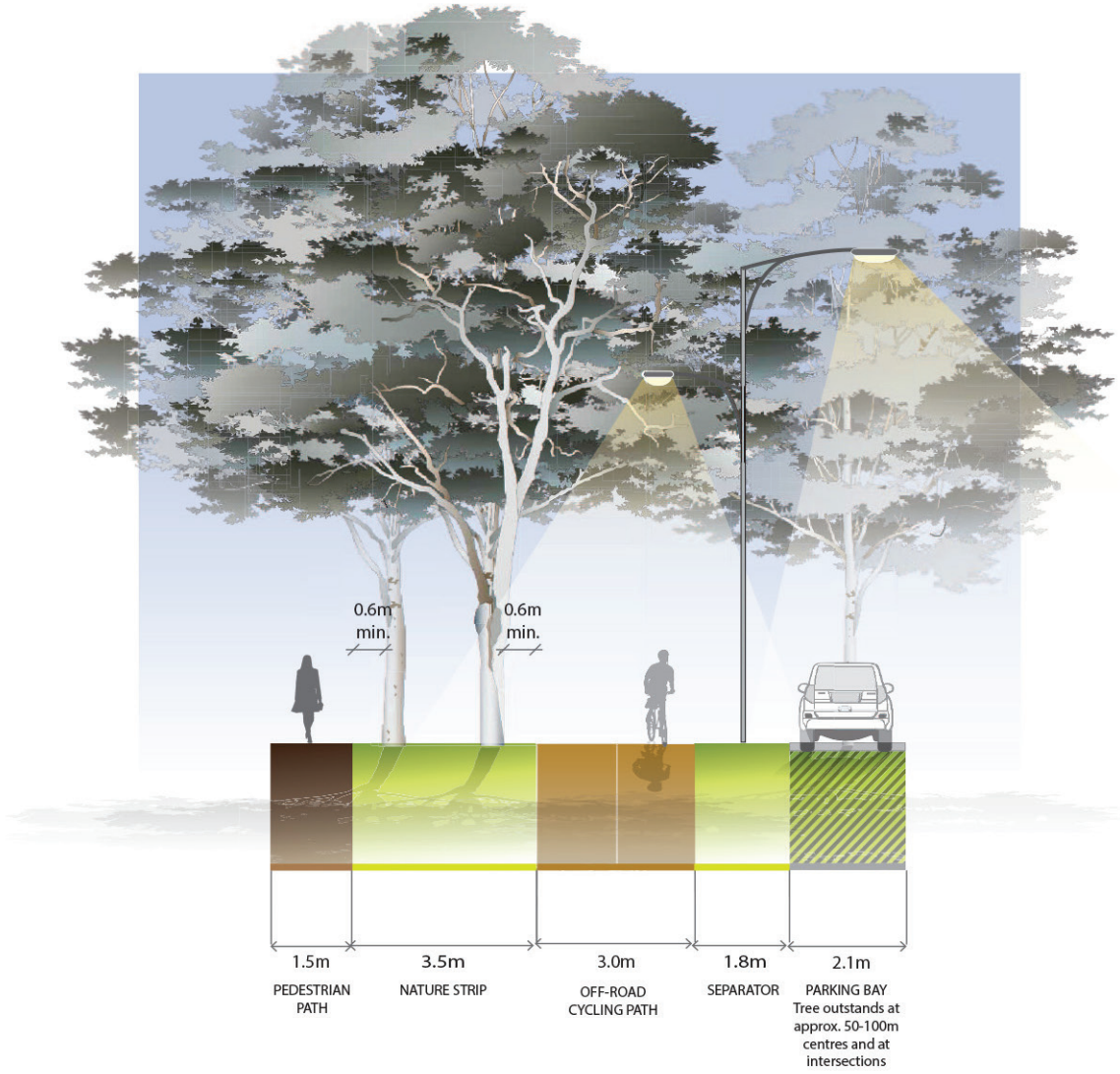
Street cross sections should be read in conjunction with Plan 7 and Table 9.

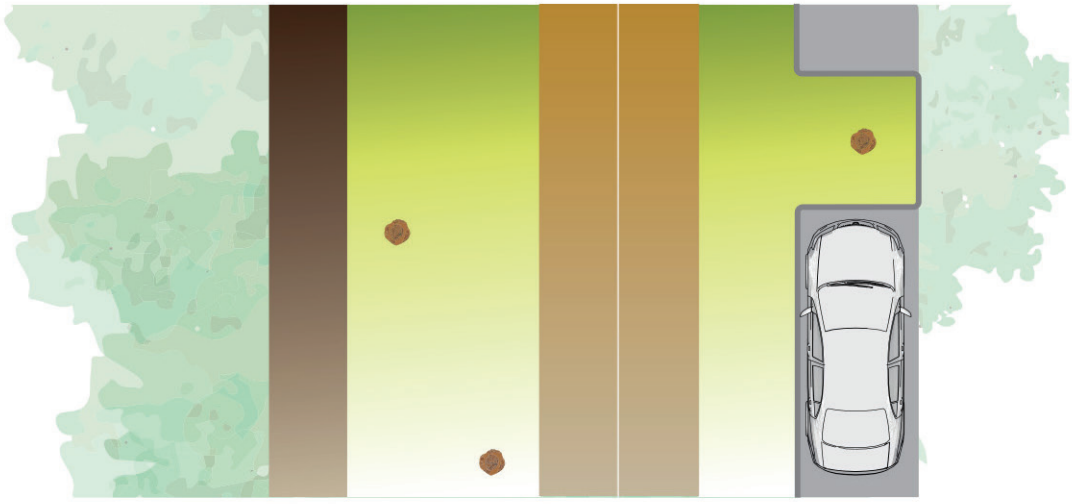


CROSS SECTION 1
Connector Street (25.5m+)
Variation 1 - Varying tree placement in nature strip

Notes:

- Street lighting design to consider illumination of cycling path - indicative street light arrangement shown.
- All kerbs are to be B2 Barrier Kerb
- Minimum street tree mature height 15 metres.
- In situations where the road has a steep embankment on one or both sides, one-way service lanes may be required to provide access to lots.
- In locations where a connector street adjoins a public open space reserve or a waterway corridor, the road reserve width can be reduced to 20 metres with paths located in the waterway or public open space reserve. This 20 metre road reserve includes carriageways, parking lanes, nature strips on both sides and a pedestrian path on one side. The selection of bicycle and pedestrian path or shared path in open space and waterway corridors is to be determined by the context.

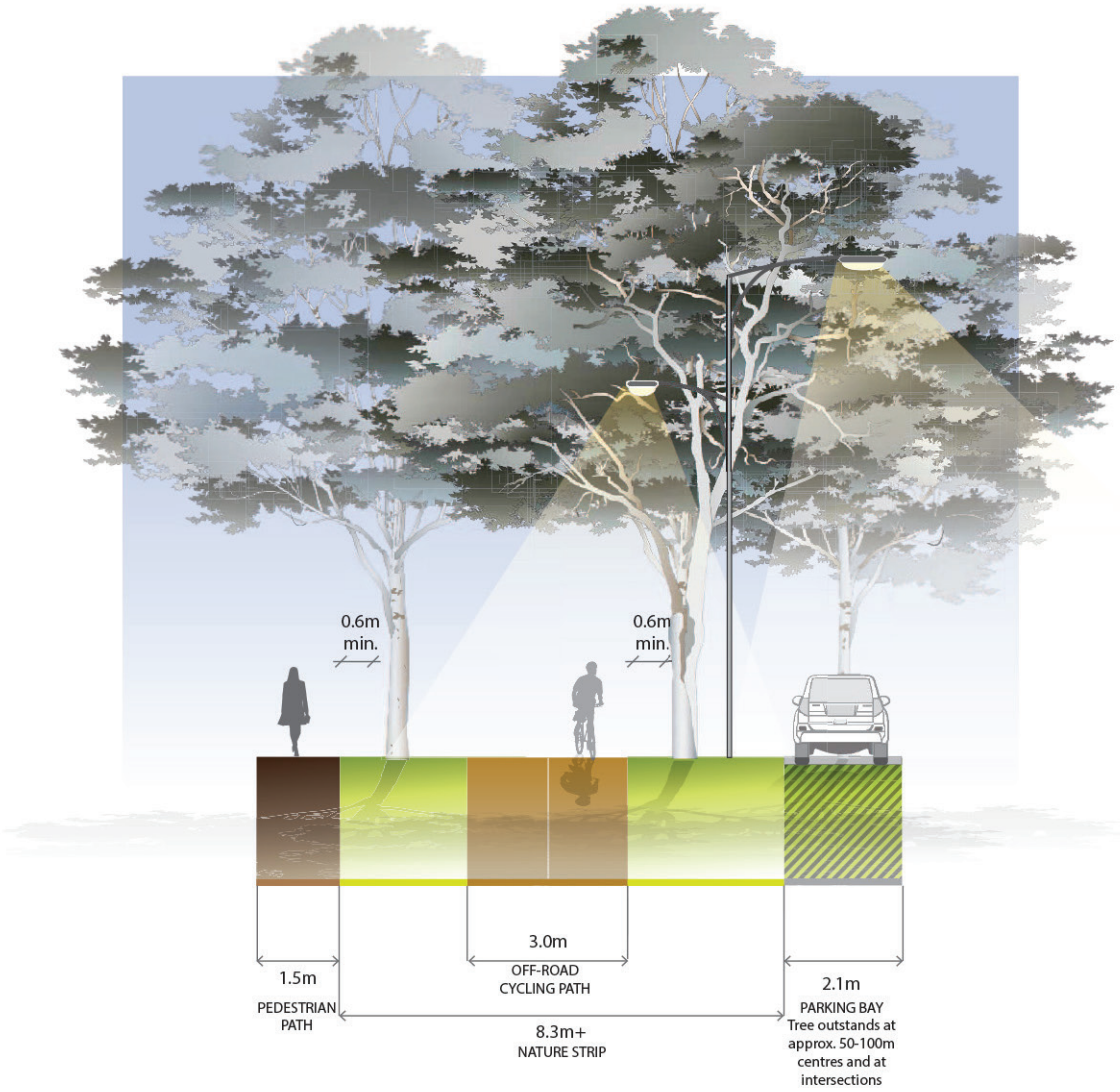


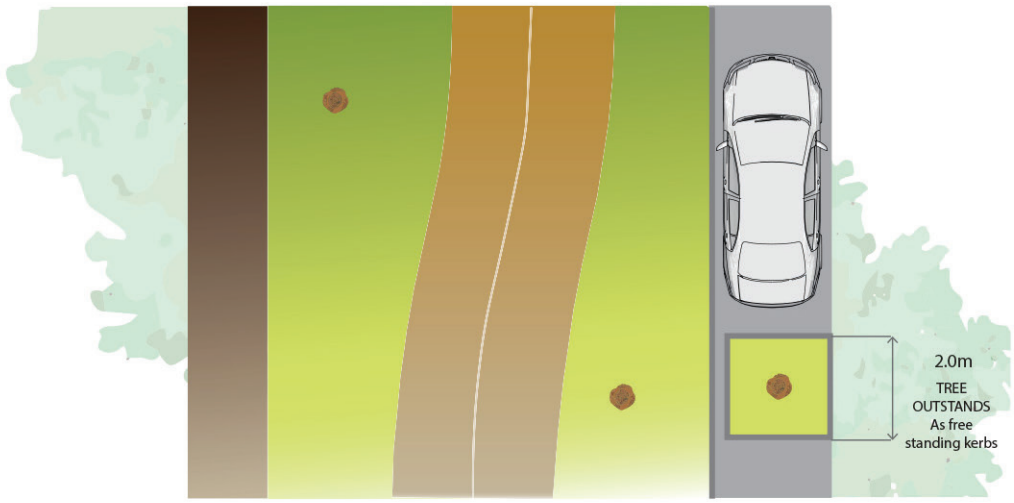


CROSS SECTION 1A
Connector Street (25.5m+)
Variation 1 - Varying tree placement in nature strip

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.
- Tree outstand with continuous extension of kerb shown
- Subject to service location.
- Subject to drainage consideration.





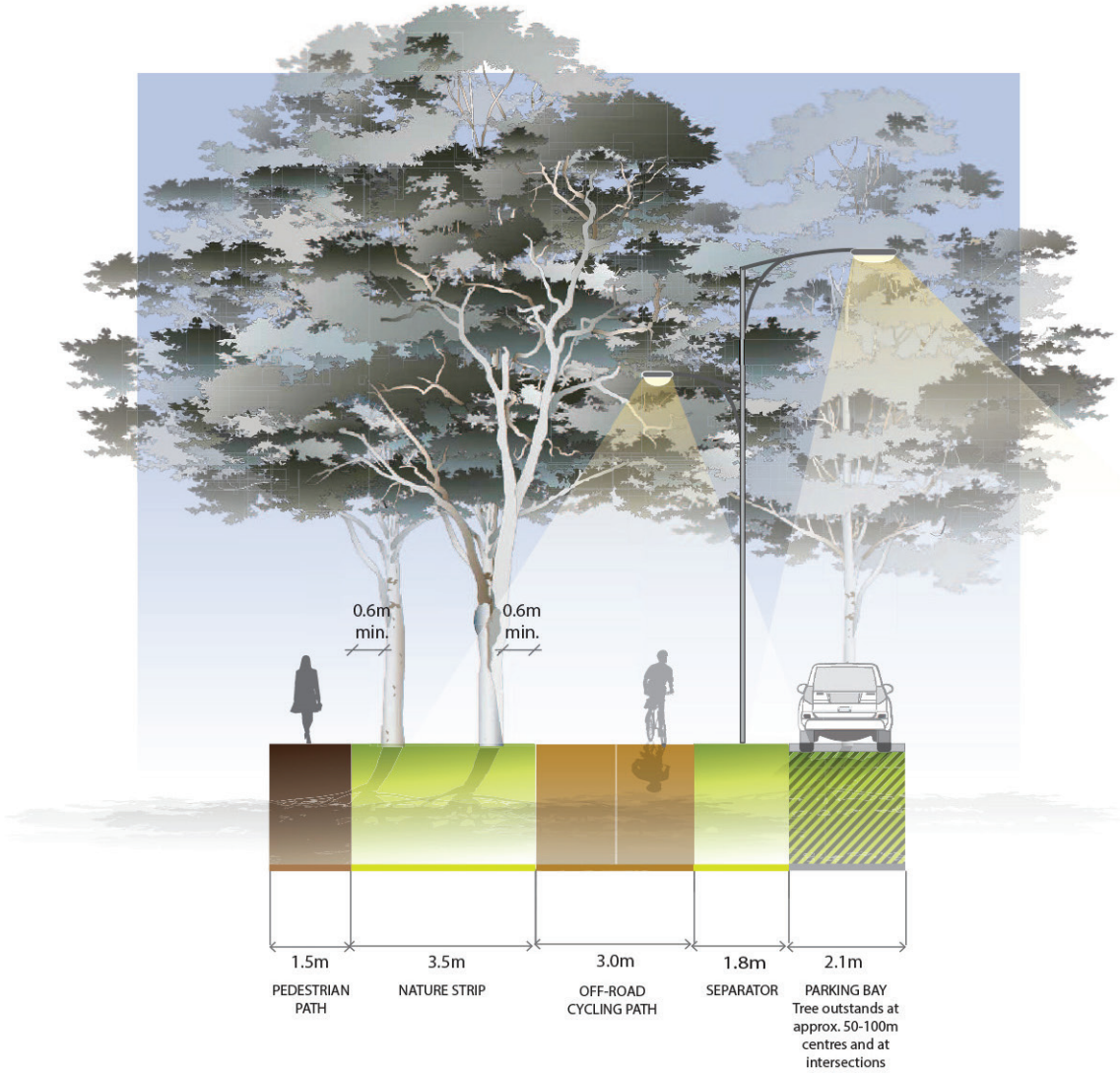
CROSS SECTION 1B

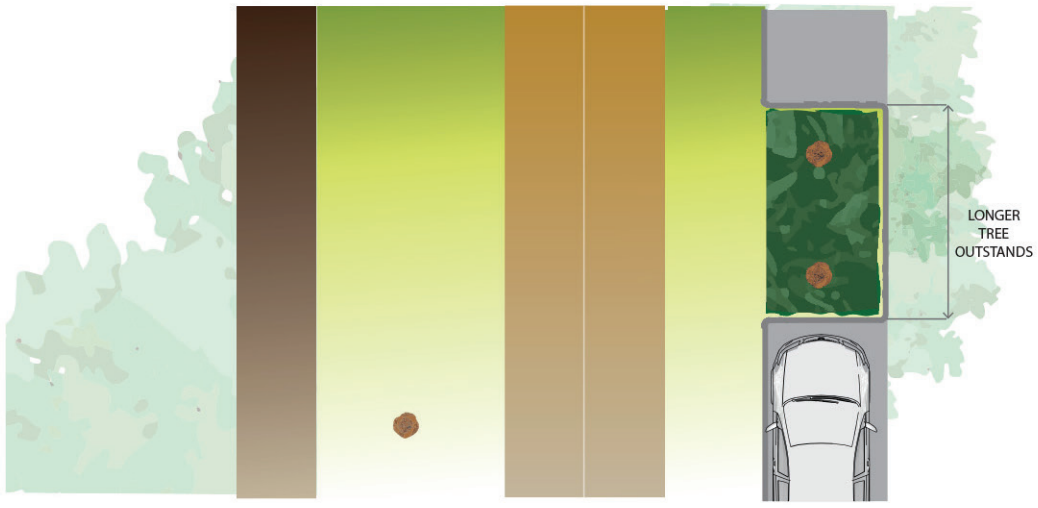
Connector Street (25.5m+)

Variation 2 - 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
- Tree outstand with separate kerb surround shown





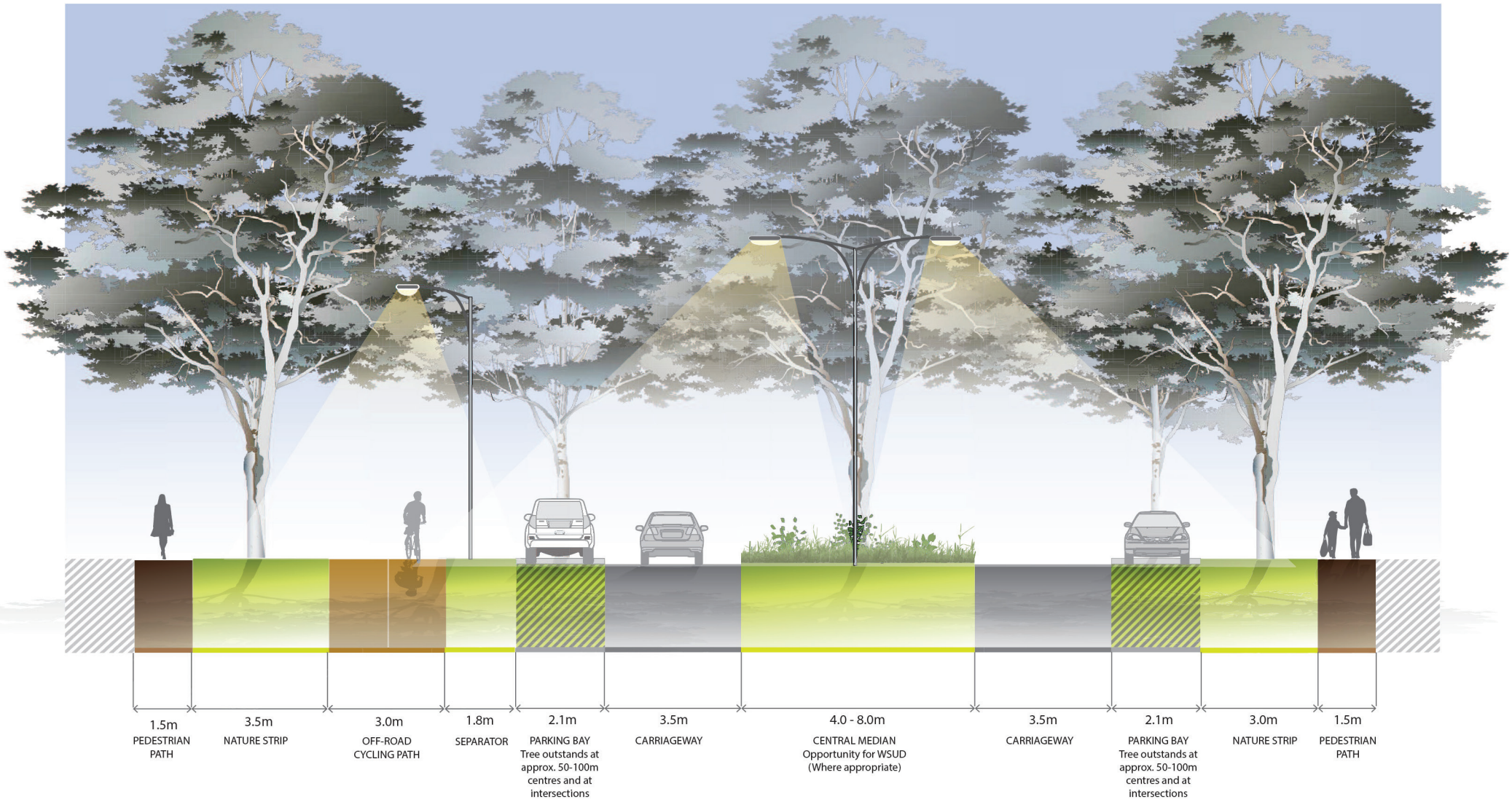
CROSS SECTION 1C

Connector Street (25.5m+)

Variation 3 - Larger tree outstands

Notes:

- For allotments with frontages of 13m or greater tree outstand lengths can be increased to accommodate more trees, garden bed planting and WSUD treatments (where appropriate)
- Provide a minimum distance of 6.0m between outstands and adjacent driveways



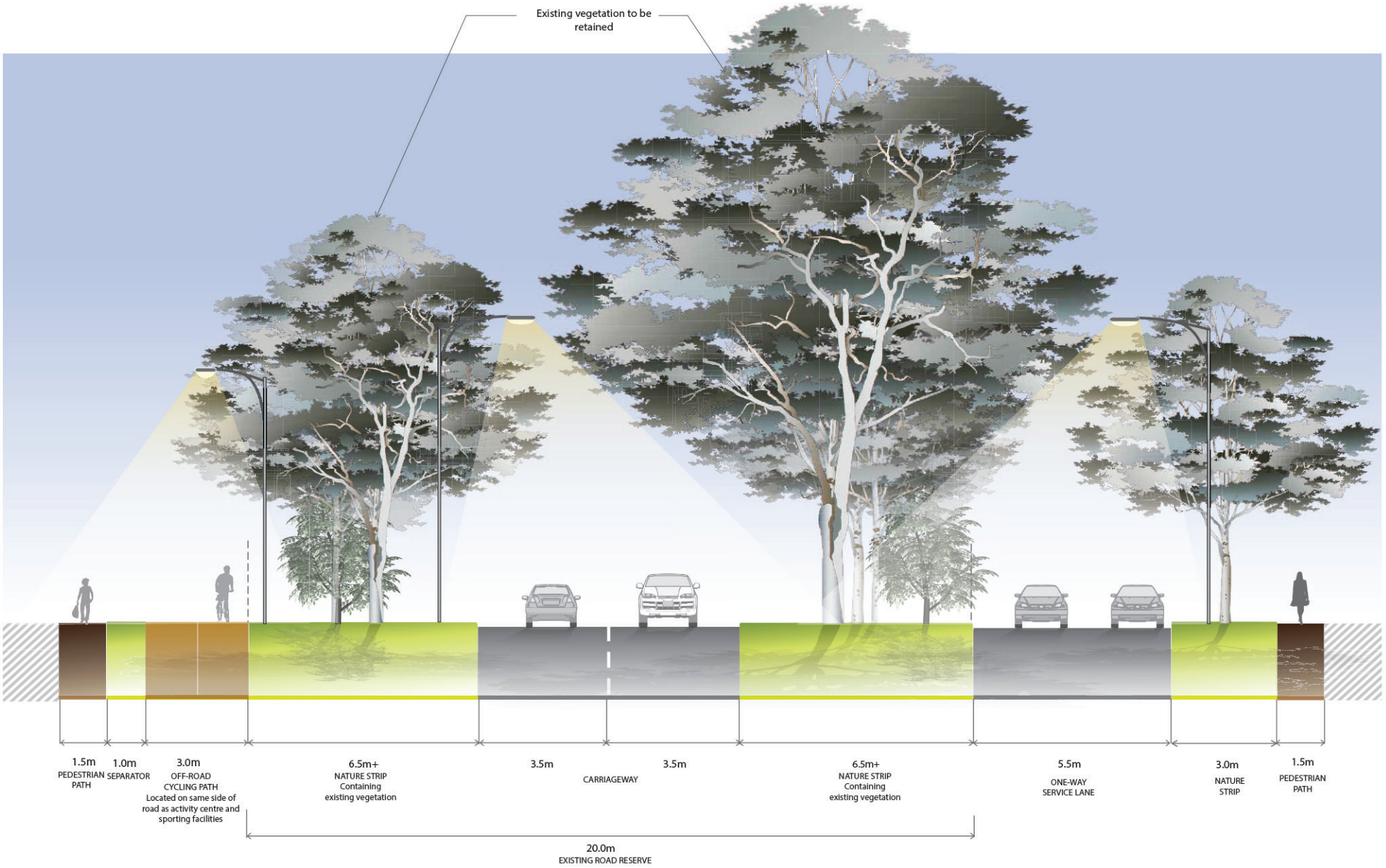
CROSS SECTION 1d

Connector Street (29.5m+)

Variation 4 - Connector Boulevard

Notes:

- Include a central median with canopy trees to create a boulevard effect
- Depending on the location of breaks in the median, provide intermediate pedestrian crossing points to accommodate mid-block crossings.
- Depending on the location, the off-road cycling path may be accommodated in the central median. In this situation, the central median should be at least 8.0metres in width to allow for landscaping and an adequate separation between the carriageways and cyclists.
- In locations where a connector street adjoins a public open space reserve or a waterway corridor, the road reserve width can be reduced to 24.0 metres wide with paths located in the waterway or public open space reserve. This 24 metre road reserve includes carriageways, parking lanes, nature strips on both sides and a pedestrian path on one side. The selection of bicycle and pedestrian path or shared path in open space and waterway corridors is to be determined by the context.



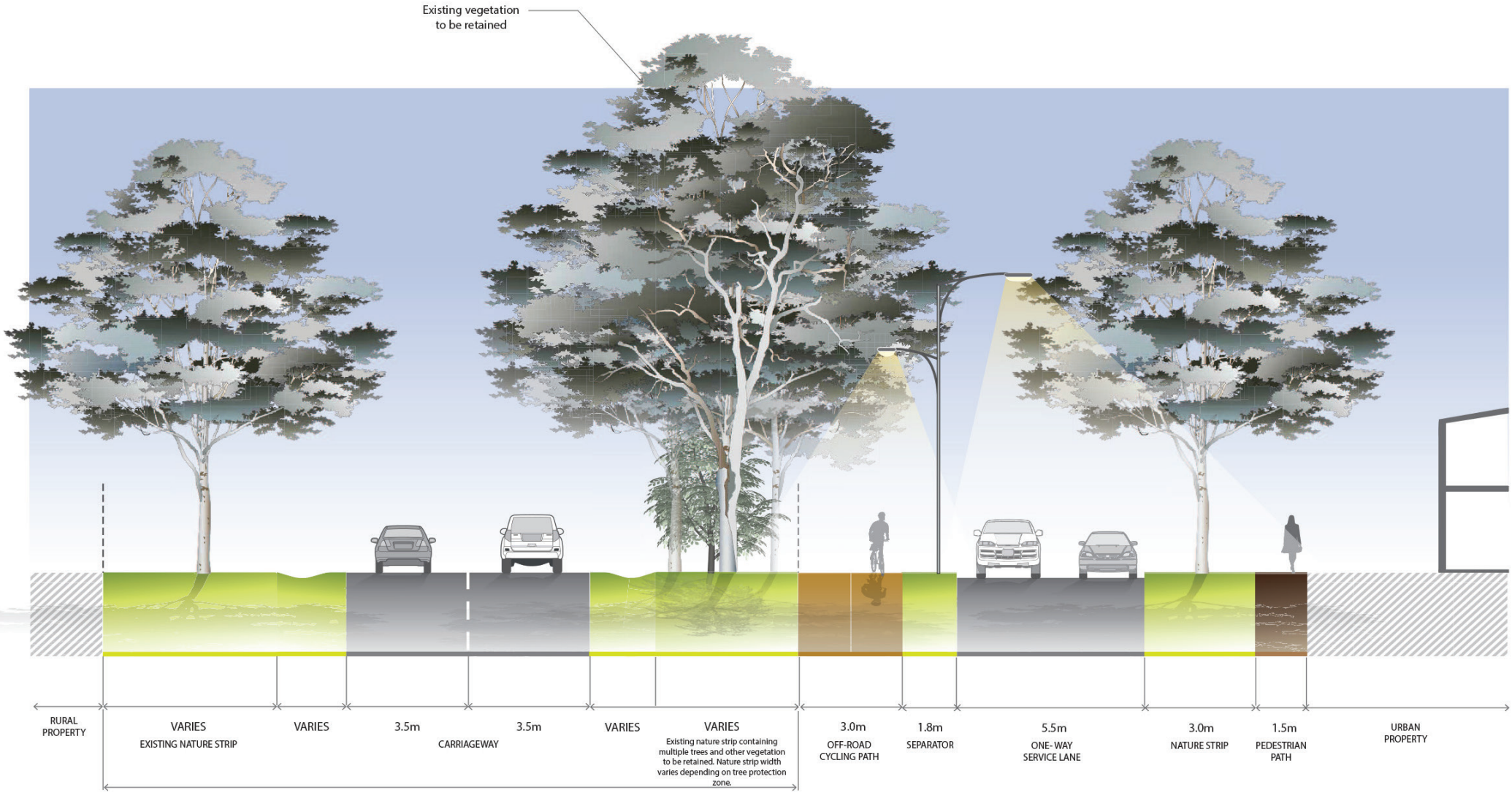
CROSS SECTION 2

Connector Street (20m)

Vegetation retained in nature strip

Notes:

- Street lighting design to consider illumination of cycling path - indicative street light arrangement shown.
- All kerbs are to be B2 Barrier Kerb
- Nature strip widths may need to be increased in some occasions to allow for protection of existing vegetation and utility easements, such as gas.
- IIn locations where a connector street adjoins a public open space reserve or a waterway corridor, paths can be located in the public open space reserve or waterway corridor.
- The selection of bicycle and pedestrian path or shared path in open spaces and waterway corridors is to be determined by the context.



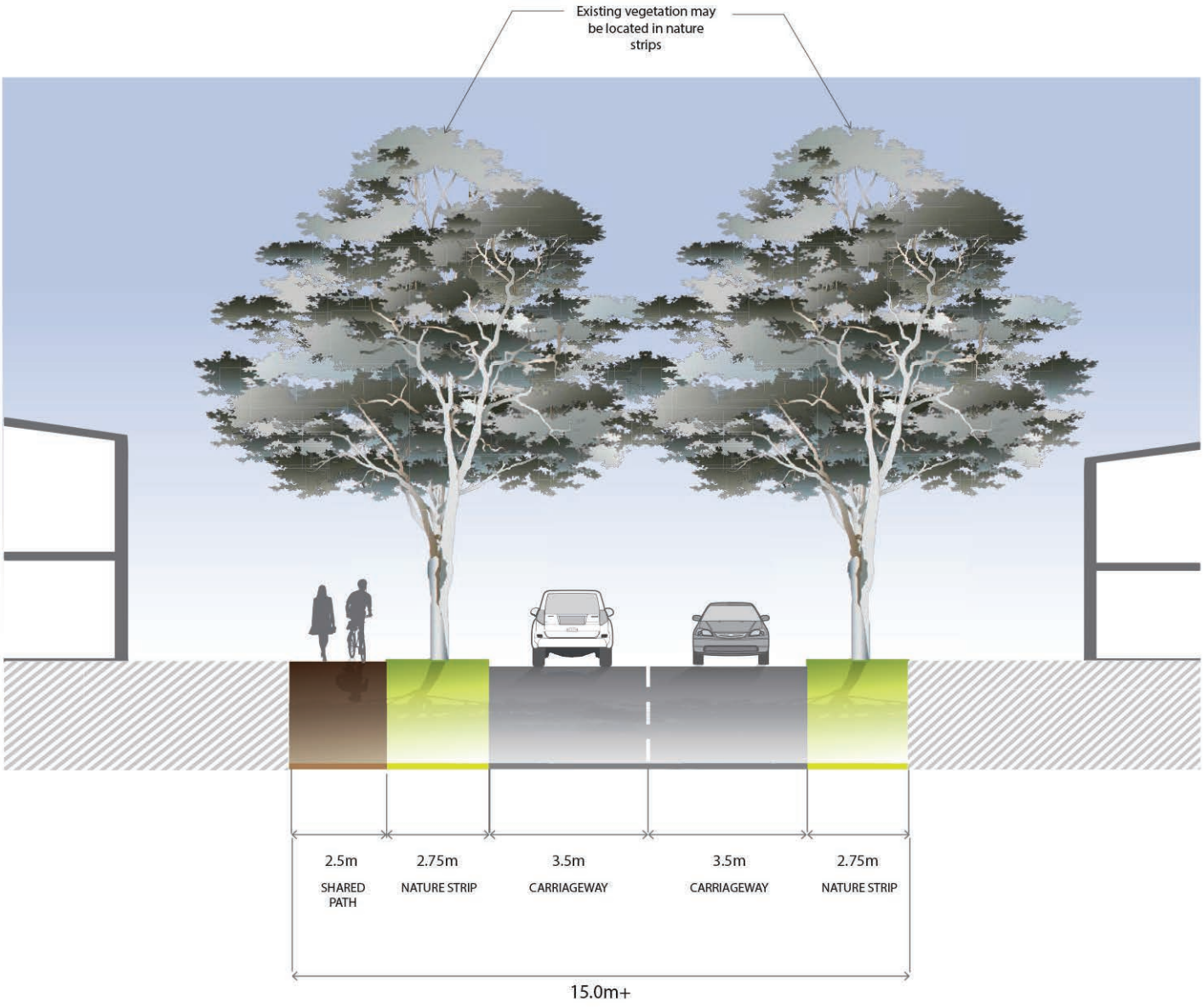
CROSS SECTION 3

Connector Street (20m)

Vegetation retained in nature strip at urban/rural interface

Notes:

- Verge widths may need to be increased on some occasions to allow for protection of existing vegetation and swale drains.
- In locations where a connector street adjoins a public open space reserve or a waterway corridor, paths can be located in the public open space reserve or waterway corridor. The selection of bicycle and pedestrian path or shared path in open spaces and waterwaycorridors is to be determined by the context.



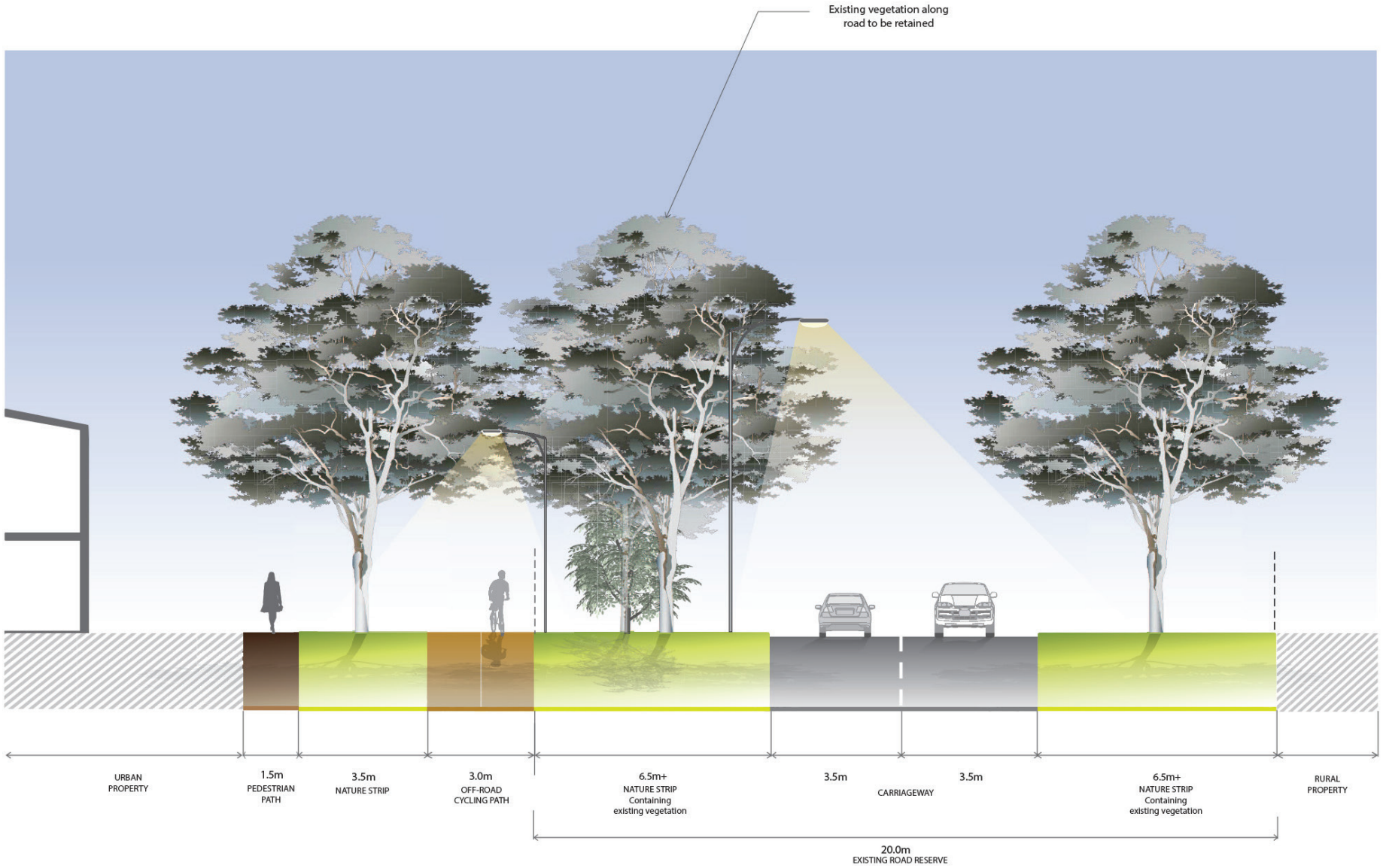
CROSS SECTION 4

Connector Street (15.0m+)

Located on existing road with constraints that prevent road from being widened

Notes:

- To be used for small connections where the existing road is constrained and road widening is not possible
- Where space permits, a pedestrian path should be located on the opposite side of the road to the shared path
- All kerbs are to be B2 Barrier Kerb



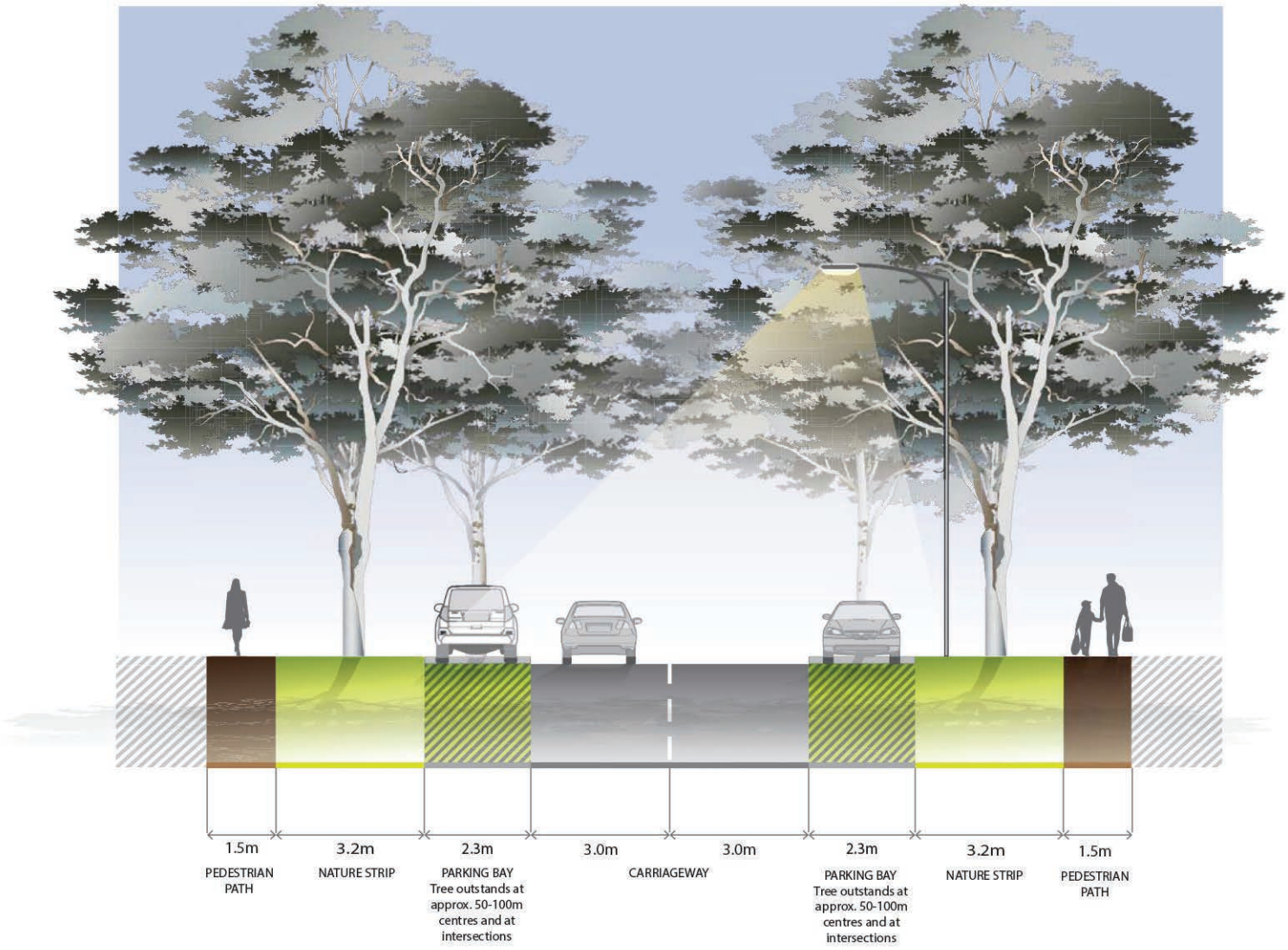
CROSS SECTION 5

Connector Street (20.0m)

Urban/Rural Interface

Notes:

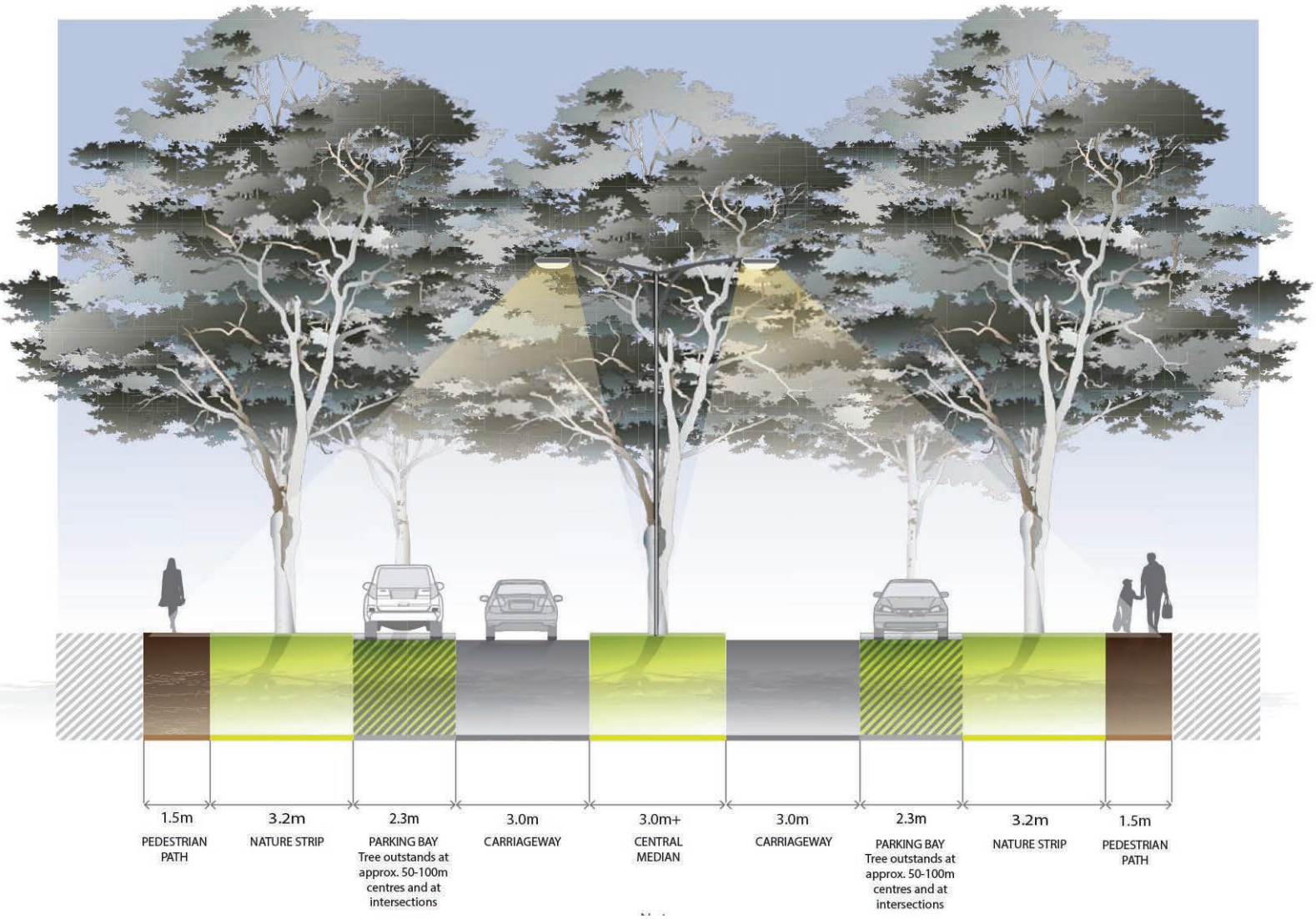
- All kerbs are to be B2 Barrier Kerb
- Verge widths may need to be increased on some occasions to allow for protection of existing vegetation and swale drains.
- In locations where a connector street adjoins a public open space reserve or a waterway corridor, paths can be located in the public open space reserve or waterway corridor. The selection of bicycle and pedestrian path or shared path is to be determined by the context. There may not be enough space to provide off-road cycling paths, particularly where there is existing development on one or both sides of the road.



CROSS SECTION 6
Local Access Level 2 (20m)

Notes:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb



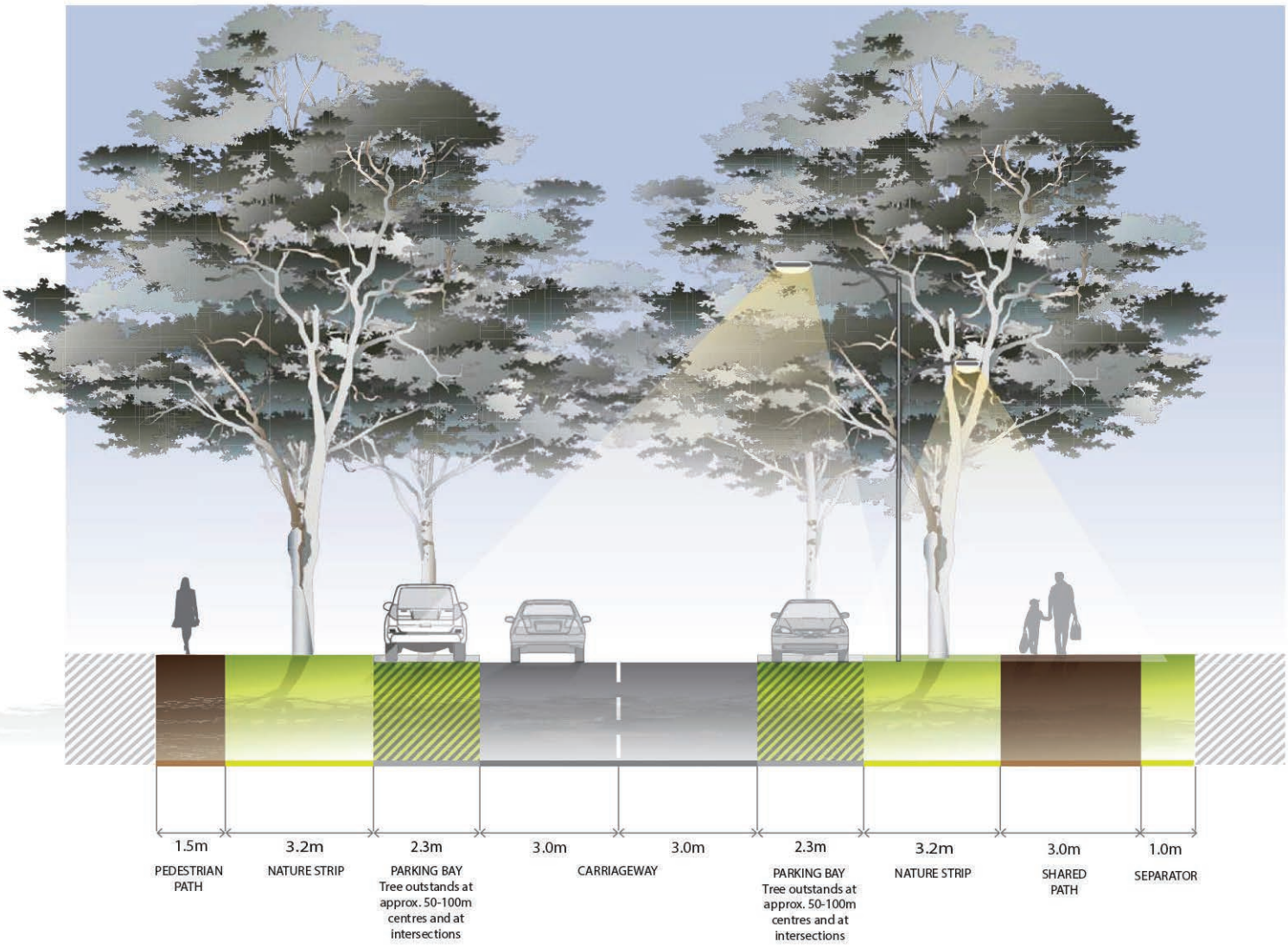
CROSS SECTION 6A

Local Access Level 2 (23m+)

Variation 1 - Boulevard

Notes:

- Include a central median with canopy trees to create a boulevard effect
- Depending on the location of breaks in the median, provide intermediate pedestrian crossing points to accommodate mid-block crossings
- An alternative boulevard treatment can be achieved through a wider verge on one side capable of accommodating a double row of canopy trees



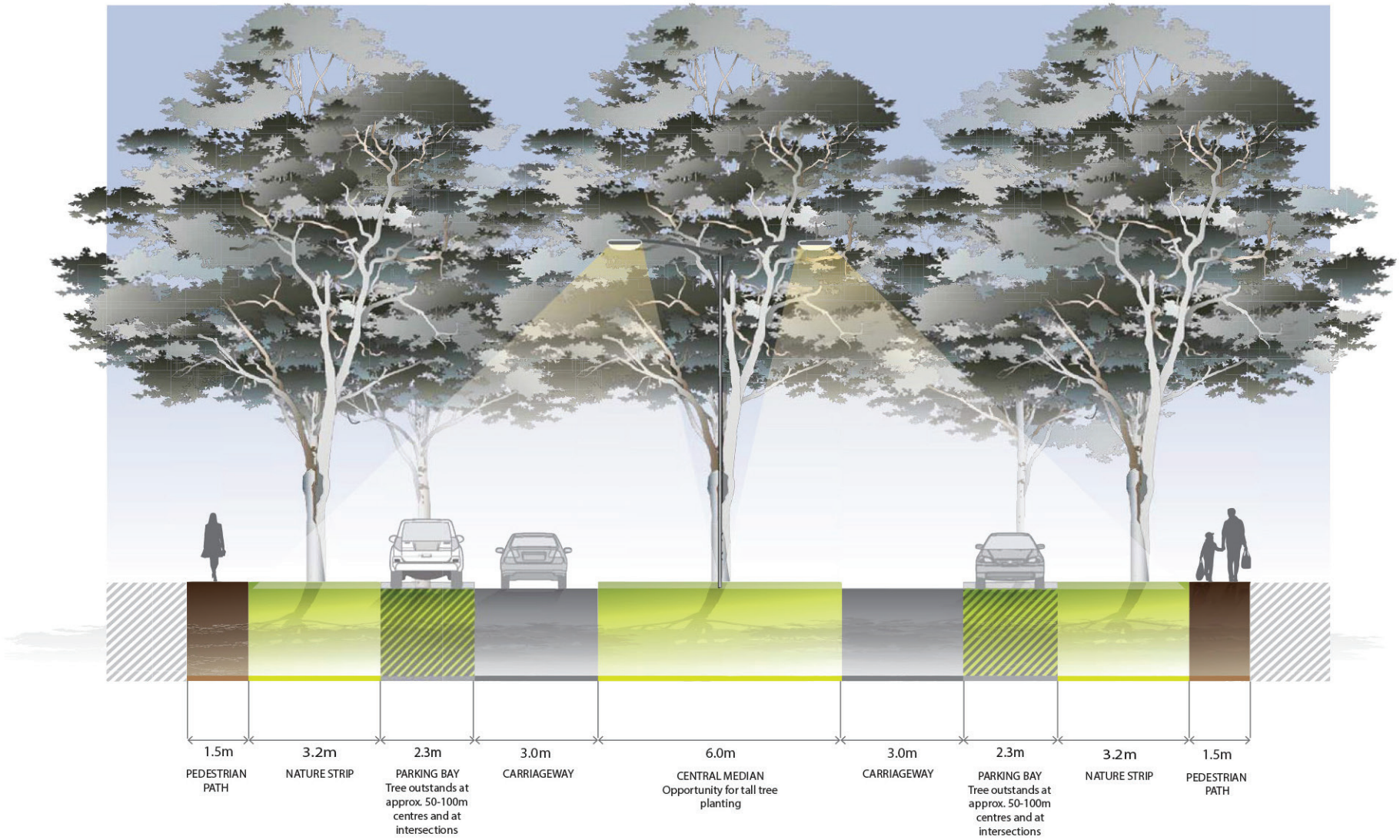
CROSS SECTION 7

Local Access Level 2 (22.5m)

With shared path on one side

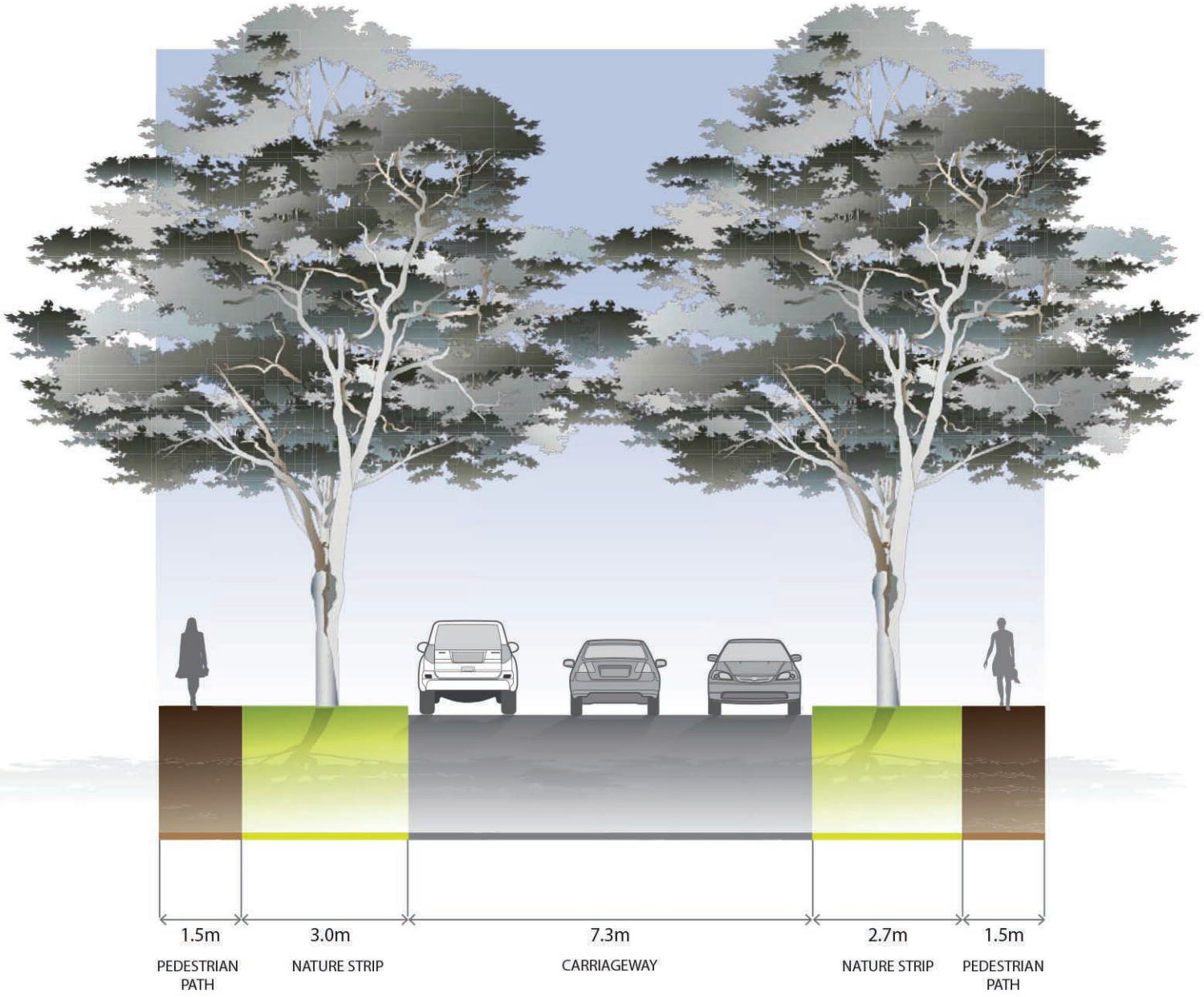
Notes:

- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb
- In locations where a local access road with shared path adjoins a public open space reserve or a waterway corridor, the road reserve can be reduced to 15.3 metres wide with paths located in the waterway or public open space reserve. This 15.3 metre road reserve includes carriageways, parking lanes, nature strip on one side and a pedestrian path on one side.



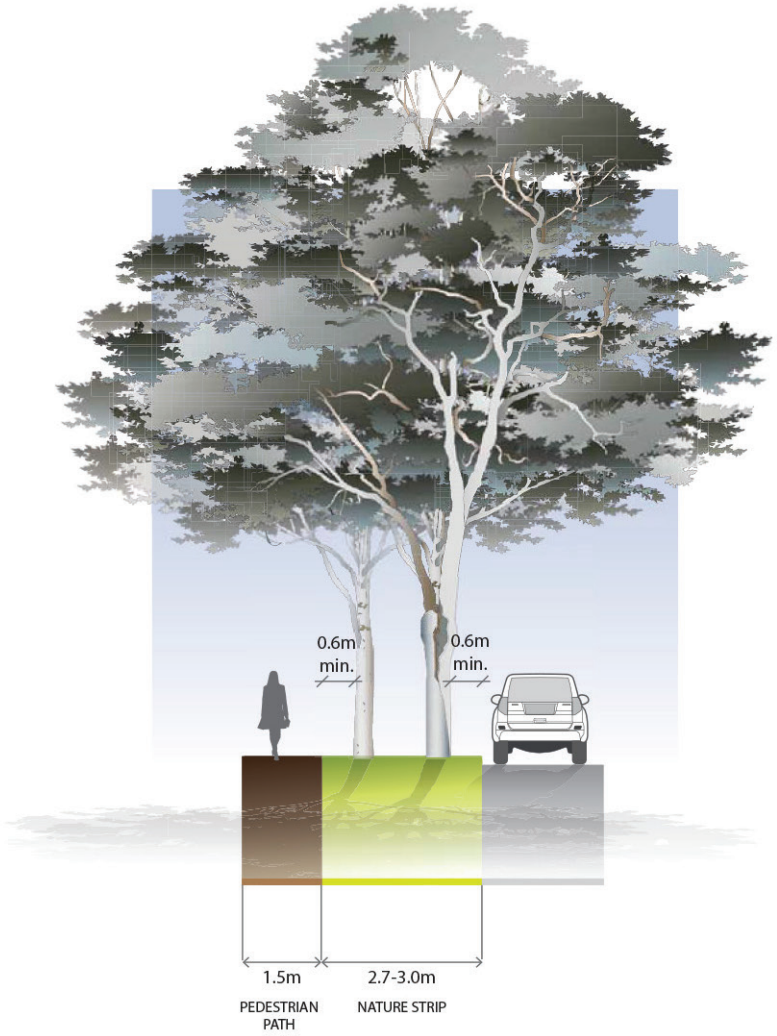
CROSS SECTION 8
Local Access Level 2 - Ridgeline Boulevard (26m)

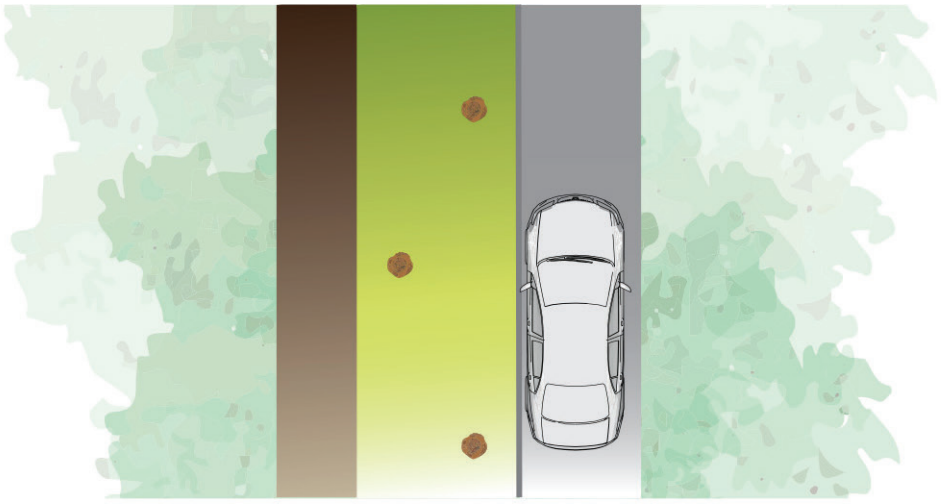
Notes:
- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb



CROSS SECTION 9
Local Access Level 1 (16m)

Notes:
- Minimum street tree mature height 12 metres
- All kerbs are to be B2 Barrier Kerb





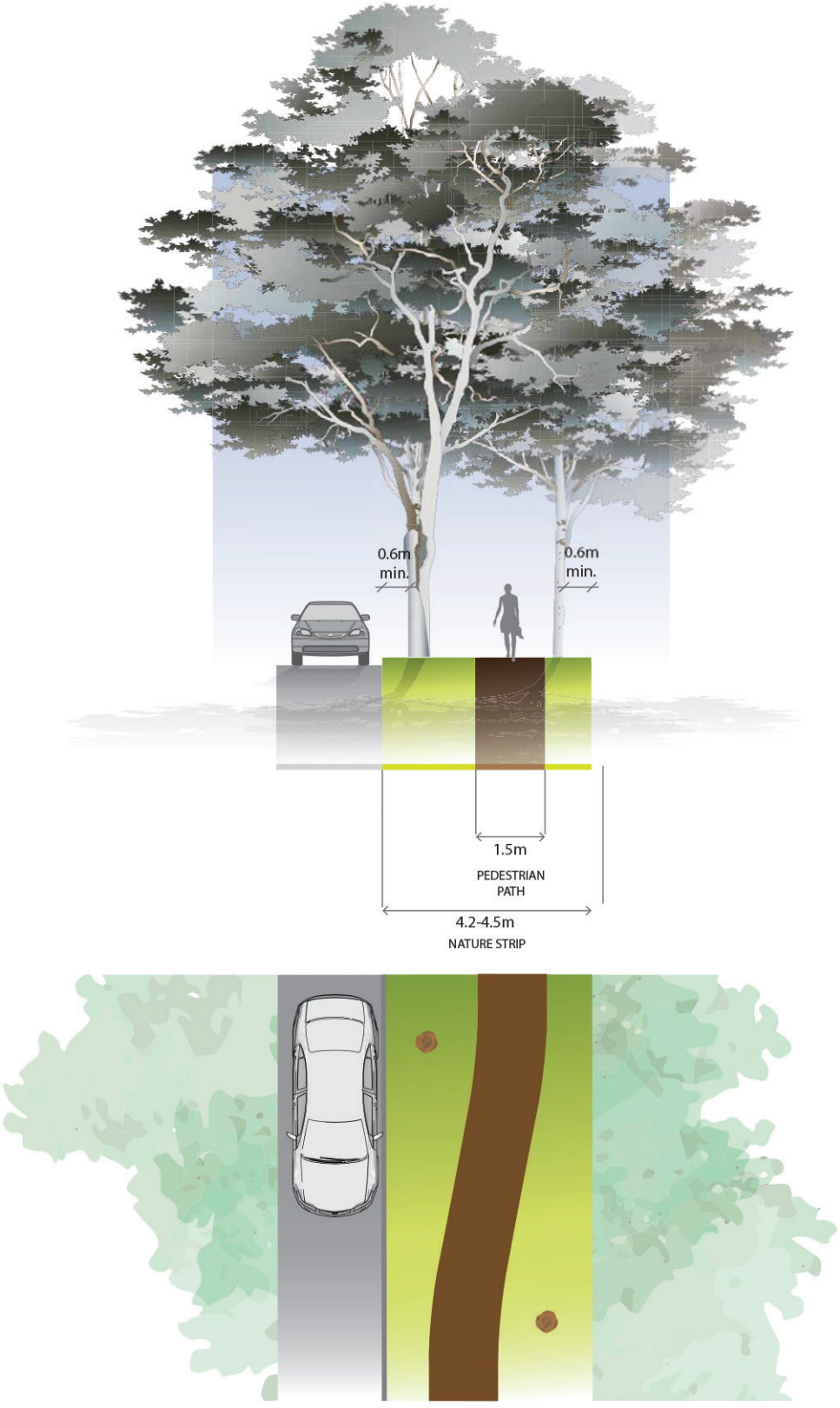
CROSS SECTION 9A

Local Access Level 1 (16m)

Variation 1 - 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
- Subject to service location



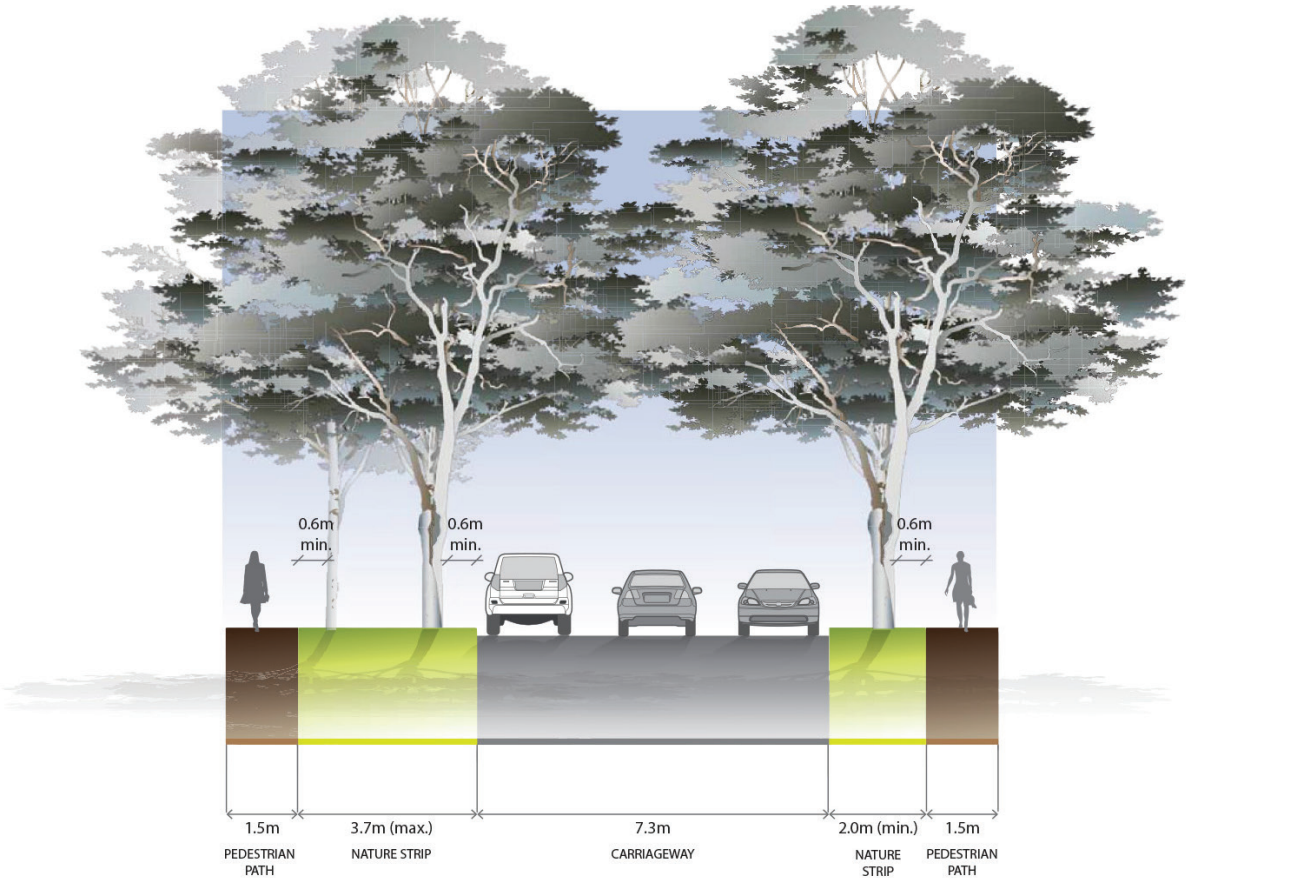
CROSS SECTION 9B

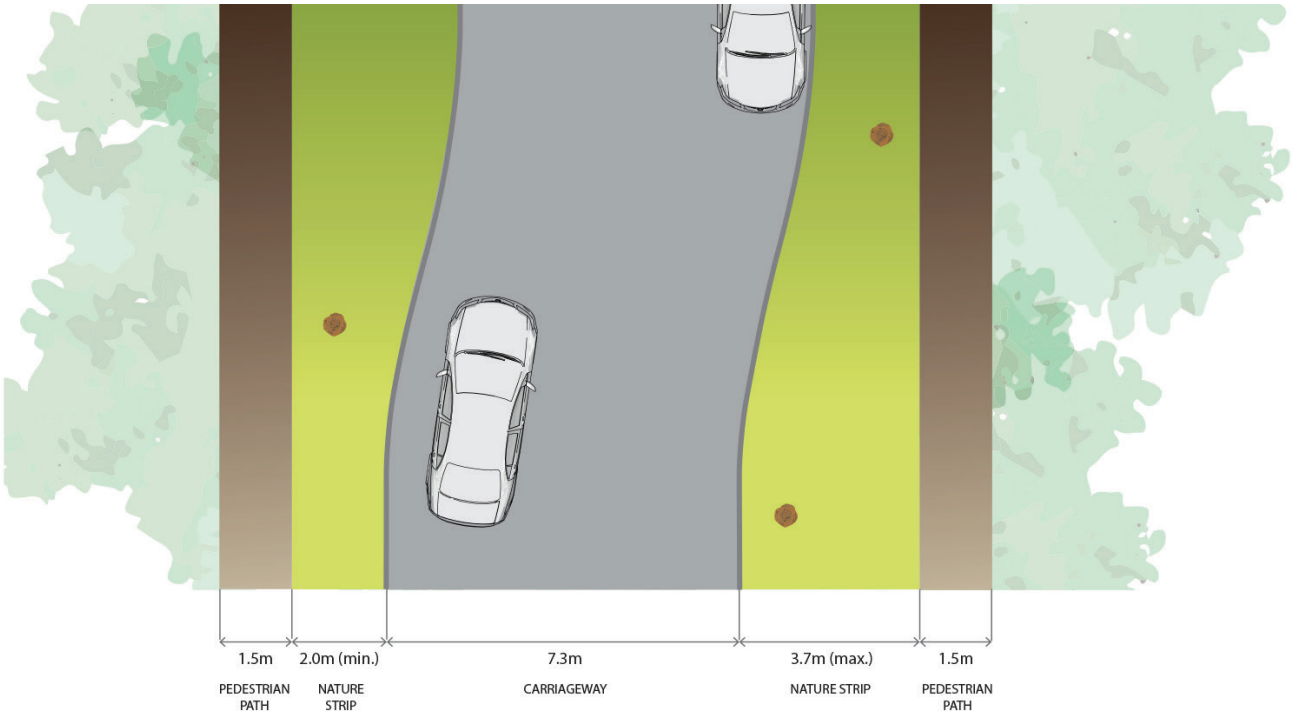
Local Access Level 1 (16m)

Variation 2 - 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.
- Subject to service location





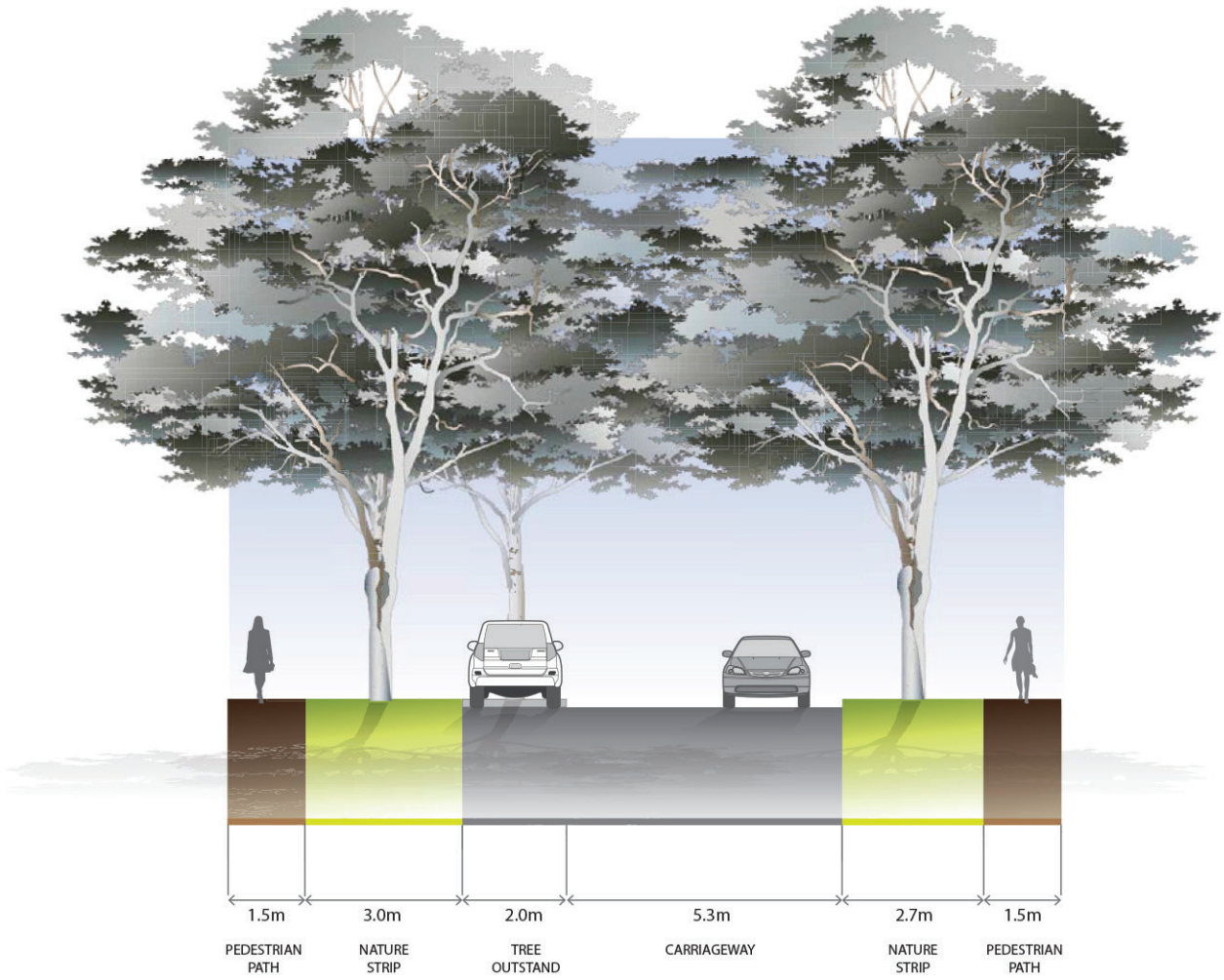
CROSS SECTION 9C

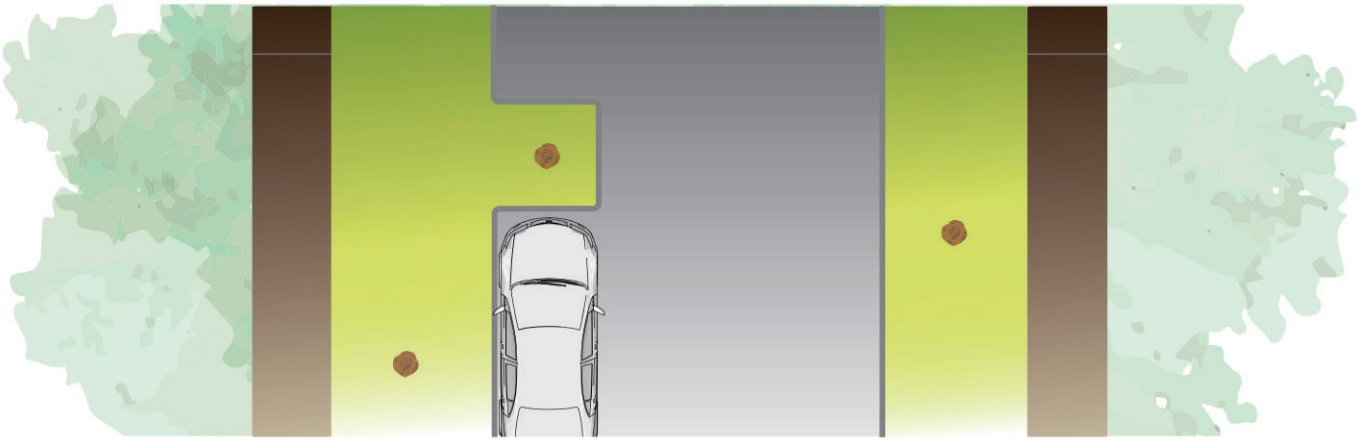
Local Access Level 1 (16m)

Variation 3 - Varying nature strip widths / meandering carriageway

Notes:

- Subject to service location





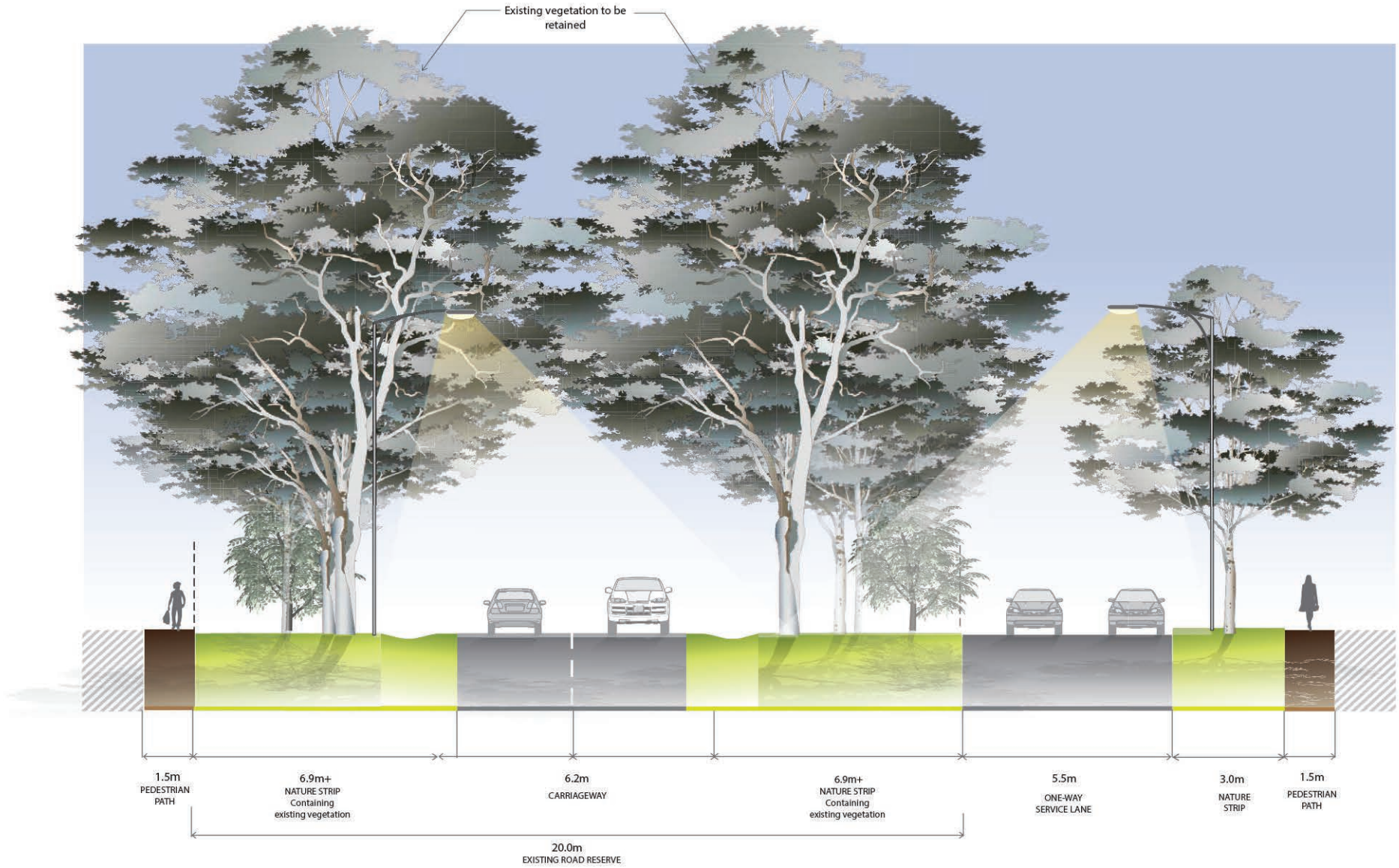
CROSS SECTION 9D

Local Access Level 1 (16m)

Variation 4 - 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



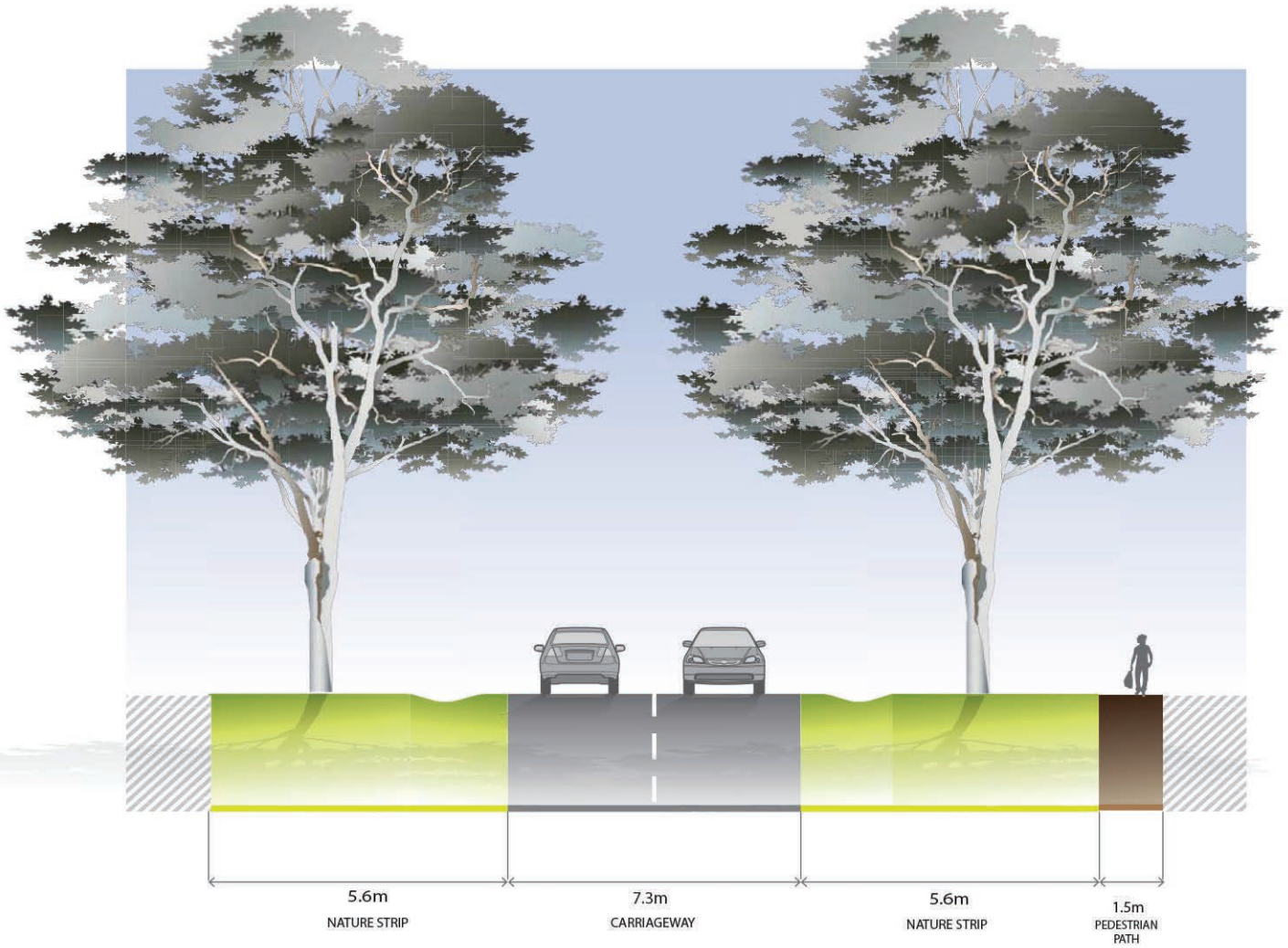
CROSS SECTION 10

Local Access Level 1 (20m)

Vegetation retained in nature strip

Notes:

- Swales adjacent the road pavement cater for drainage rather than kerb and channel.
- Nature strip widths may need to be increased in some occasions to allow for protection of existing vegetation and utility easements, such as gas
- In locations where the street adjoins a public open space reserve or a waterway corridor, the path can be located in the public open space reserve or waterway corridor. The selection of pedestrian path or shared path in open spaces and waterway corridors is to be determined by the context.
- Carriageway widths may vary depending on the space available between existing trees with the intent of avoiding tree removal. Where space permits, the carriageway should be widened to include a car parking lane on one side of the road.



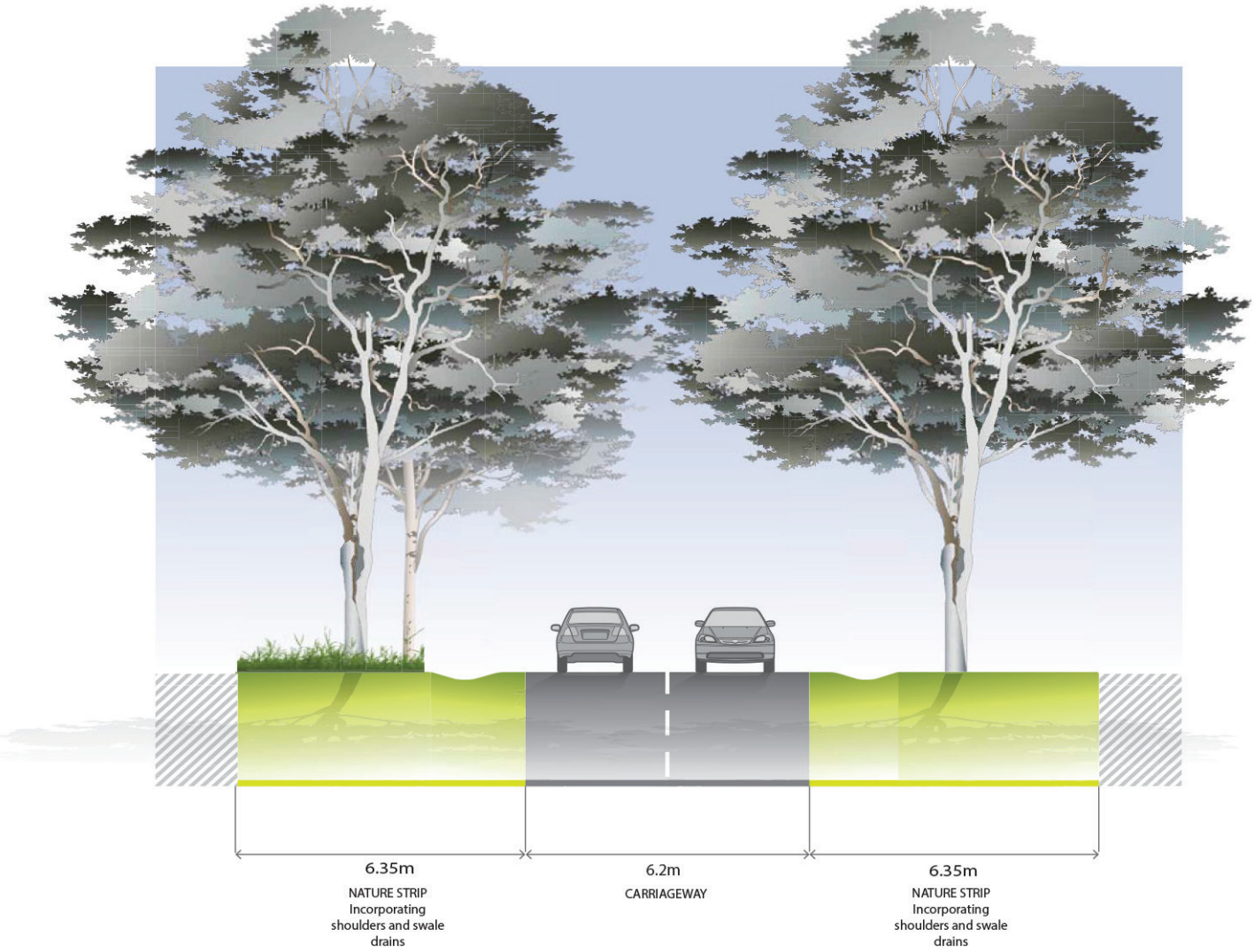
CROSS SECTION 11

Local Access Level 1 (20m)

Low Density Style Variation

Notes:

- This variation provides a local road option for low volume streets in low density residential areas.
- Swales adjacent the road pavement cater for drainage rather than kerb and channel.
- A pedestrian path must be located on at least one side of the road.



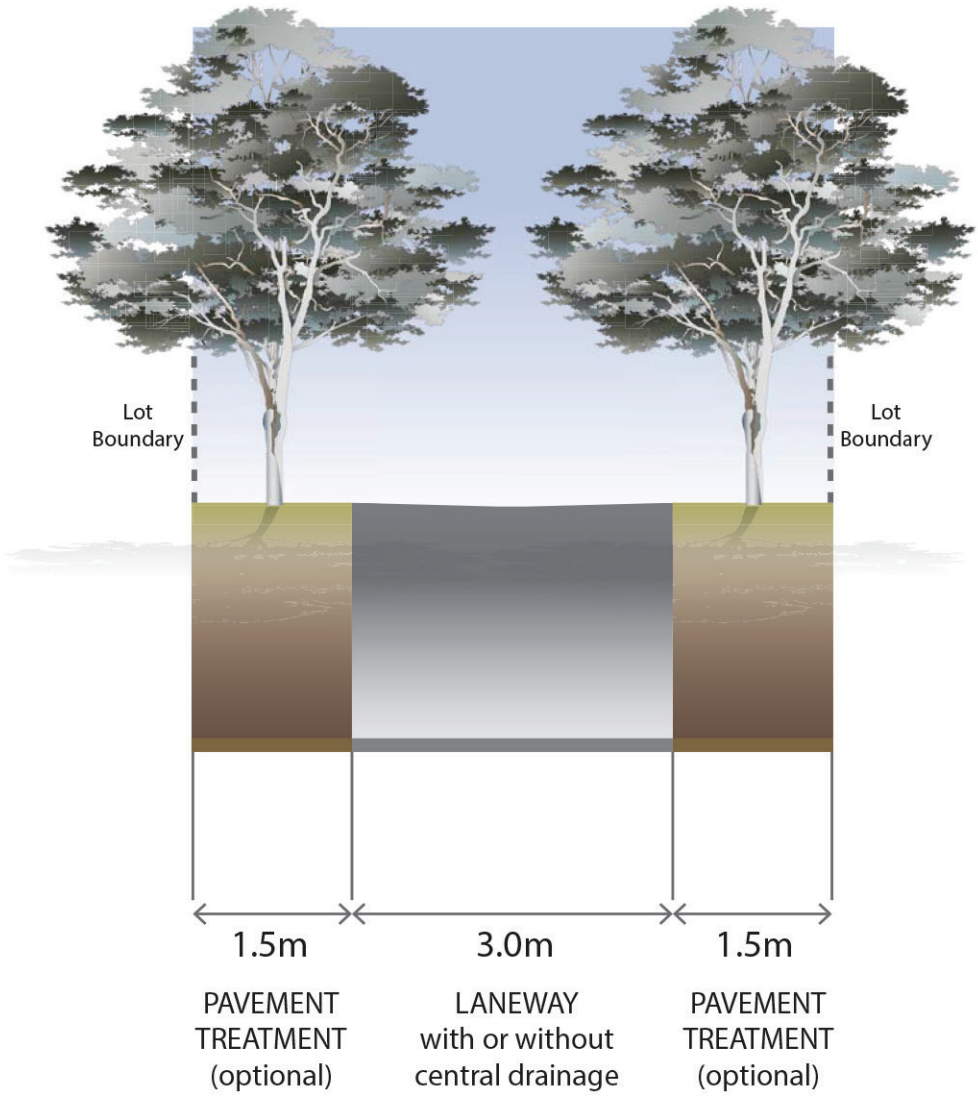
CROSS SECTION 12

Local Access Level 1 (20m)

Rural style variation

Notes:

- This variation provides a rural style local road option for low volume streets in rural areas.
- Swales adjacent the road pavement cater for drainage rather than kerb and channel.
- Two options are shown for nature strip treatment – variable tree placement and groundstorey vegetation (left) and more typical mown grass and central tree planting (right).



CROSS SECTION 13
Laneway (6.0m)

Notes:
- Different pavement treatment to sides of laneway is optional
- Small tree planting to sides of laneway is optional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