# TECHNICAL SPECIFICATION TS8: SUBDIVISION

Technical specifications are used as a possible solution or to provide certainty for identified aspects of a development proposal. Technical specifications may also be used as a reference or benchmark for technical matters in the preparation and assessment of development proposals.

Where a proposed development complies with a relevant provision in the technical specifications and the Technical Specification comprehensively addresses the Outcome, further assessment regarding those specific provisions will not be required.

The Territory Planning Authority may consider endorsement or written support from an entity or utility service provider to demonstrate compliance with an Outcome that relates to services or utilities.

This Technical Specification comprises specifications under seven categories:

- Development and site controls
- Height, bulk and scale
- Environment & heritage
- Amenity, safety and accessibility
- Transport, parking and movement
- Services and utilities
- Miscellaneous

Each Technical Specification comprises a control and a specification.

- **Control** refers to the general issue that the specification deals with.
- **Specification** suggests a possible solution that supports compliance with respect to the particular issue or provision

The following technical specifications could be referred to demonstrate compliance with the Territory Plan.

These specifications will primarily be for subdividing land and for development of new subdivisions. Some of these specifications may be referred to in other circumstances e.g., larger developments and developments that may require significant infrastructure.

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### 1.1 Development and site controls

The following specifications provide possible solutions that should be considered in planning, placing and designing buildings and structures for a proposed development:

#### **Control:** Block layout and orientation

#### Specification:

- 1. new residential blocks comply with all of the following:
  - a) block compliance tables in **Schedule 1**.
  - b) minimum block depth:

i) for compact blocks: 17mii) for mid-sized blocks: 25miii) for large blocks: 28m

- c) minimum block width:
  - iv) for compact blocks: 6mv) for mid-sized blocks: 10mvi) for large blocks: 14m
- d) for compact blocks: slope is no greater than 10%.

Slope means the slope of land, expressed as a percentage, calculated using the difference in datum ground level from the highest to lowest points on the proposed block boundary and the horizontal distance between those points.

- 2. multi-unit blocks enable all dwellings to front a public road or public open space.
- 3. for blocks not part of a subdivision design report, minimum block sizes are as follows:

Zone:	Minimum block size
RZ1	400m²
RZ2	350m²
RZ3	325m²
RZ4	300m²
RZ5	250m²

#### Notes:

Minimum areas exclude any battle axe handle i.e., an access handle is not measured as part of the minimum area compliance.

Unit titling of blocks can rely on the above table however the table is not intended to address unit titling of individual units/dwellings.

As with all Technical Specifications, this does not override any Assessment Requirements.

#### Control: Cul-de-sac blocks

#### Specification:

4. No more than 15 per cent of blocks in a subdivision have vehicular access to cul-de-sac.

#### **Control:** Alternative Setbacks

#### Specification:

5. Blocks to which alternative setbacks under the *Residential Zones Policy* a relevant district policy, or a relevant Technical Specification, are nominated on a planning control plan.

<u>Note</u>: Note any relevant Assessment Outcome that limits use of ongoing provisions. (Reliance on this alternative setback and other ongoing provisions may not be supported.)

#### **Control:** Industrial Subdivision and Blocks

#### Specification:

6. The slope across the frontage or length of the block does not exceed 10 per cent.

#### Control: Public realm

#### Specification:

- 7. The development comprise public realm spaces consistent with **Schedule 2.**
- 8. Local neighbourhood parks have an area not less than 0.5ha
- 9. Central neighbourhood parks have an area of at least 1ha
- 10. Blocks for residential use satisfy at least one of the following:
  - a) not more than 300m from at least one of the following:
    - i) a local neighbourhood park
    - town park or a pedestrian parkland containing recreational facilities such as picnic and barbeque areas and playgrounds
  - b) not more than 500m from at least one of the following:
    - i) a central neighbourhood park
    - ii) neighbourhood oval
    - iii) district park
    - iv) district sportsground.

### 1.2 Height, bulk and scale

The following specifications provide possible solutions that should be considered in relation to height, bulk and scale of buildings and structures associated with a proposed development:

There are no specific height, bulk and scale controls under this category for this specification.

### 1.3 Environment and heritage

The following specifications provide possible solutions that should be considered in relation to the environmental and heritage outcomes associates with a proposed development:

#### **Control:** Matters of national environmental significance

#### Specification:

11. For land affected by a plan for the protection of matters of national environmental significance (NES plan) approved under the *Environment Protection and Biodiversity Conservation Act 1999* (*Commonwealth*), the development is not inconsistent with the relevant NES plan.

Control: Heritage - places or objects registered or provisionally registered on the ACT Heritage Register

#### Specification:

12. Where a development proposed on land containing places or objects registered or provisionally registered on the ACT Heritage Register, endorsement from the ACT Heritage Council is obtained.

**Control:** Protecting existing vegetation

#### Specification:

- 13. Where a development requires groundwork within the tree protection zone of a protected tree and/or is likely to cause damage to or the removal of any protected trees, endorsement from the Conservator of Flora and Fauna is achieved
- 14. Trees on development sites are only removed with the prior agreement in writing of the Territory.

#### **Control:** Landscaping – tree canopy cover (public domain, incl. roads)

#### Specification:

15. For new greenfield subdivision that is primarily residential use, the canopy cover at maturity is

a) for each site in PRZ1: 25% of the site

b) for each street: 20% of the street

c) for each surface car park: 30% of the car park

d) for the total area of all streets: 30% of the total area

e) for the total area of all PRZ1 and streets within the estate: 35% of the total area.

For all other subdivision, street trees will, at maturity, shade not less than 30% of any footpaths and surrounding paths at noon on the summer solstice. Trees proposed to be planted are at least semi-mature stock (1.5m height) and have a minimum mature height of 4m.

#### Control: Permeability - sites greater than 2,000m<sup>2</sup>

#### Specification:

- 16. For development on sites greater than 2,000m² involving works that have the potential to alter the stormwater regime of the site; or development within existing urban areas which increases impervious area by 100m², development achieves the following permeability:
  - a) For new greenfield subdivision that is primarily residential use, all of the following:

i) for each site in PRZ1: 50% of the site

ii) for each street: 20% of the street

iii) for each surface car park: 10% of the car park

iv) for the total area of all streets: 30% of the total area

v) for the total area of all PRZ1 and streets within the estate: 40% of the total area.

- b) For all other subdivision:
  - i) 20% of the total site area.
  - ii) 50% of the verge surface of each street

#### **Control:** Cool paving

#### Specification:

- 17. For each site in PRZ1, at least 75% of the non-exempt paved surface area is one or more of the following types of cool paving:
  - a) paving with light-coloured aggregates, pigments and binders (e.g. fly ash, slag, chip, sand seals and reflective synthetic binders)
  - b) high emittance and high albedo cement and asphalt (e.g. slag, white cement)
  - c) resin-based concrete using natural clear-coloured tree resins in place of cement to bind the aggregate
  - d) light-coloured coatings (e.g. cementitious coating, elastomeric coating) including infrared reflective coatings, high white coatings, colour changing coatings
  - e) thermochromic materials (intelligent coatings developed with nanotechnology that can applied to enhance the thermal and optical properties of pavements and reduced glare effect on pedestrians)
  - f) permeable paving (including porous asphalt cement, pervious Portland cement concrete, block pavements, reinforced grass pavements and vegetated pavements), providing it is installed on a subgrade with the capacity for infiltration or temporary storage of water below the pavement.

- 18. The following areas of paved surface are exempt:
  - a) shaded areas. Shading is to be measured either at solar noon on the summer solstice or assuming the sun is directly overhead. Shade may be provided by structures or vegetation (e.g. eaves, shade sail, tree canopy)
  - b) road pavement
  - c) areas where the Municipal Infrastructure Standards, National Construction Code or other engineering standards preclude the use of these materials
  - d) areas where heritage requirements preclude the use of these materials
  - e) areas where it is demonstrated that undesirable glare or reflected heat would cause unavoidable negative impacts in the particular context
  - f) areas that require particular surfaces to meet sporting needs (e.g. synthetic tennis courts and athletics tracks).

#### **Control: Protection from heat**

#### Specification:

19. 50% of public playgrounds and 50% of public seating are fully shaded in summer. Shading is to be measured either at solar noon on the summer solstice or assuming the sun is directly overhead. Shading may be provided by built and/or green infrastructure (e.g. shade structure, tree canopy).

#### **Control:** Erosion and sediment control

#### Specification:

- 20. Earthworks are managed in accordance with an Environmental Management Concept Plan endorsed by Environment Protection Authority. Supporting document: Environmental Management Concept Plan endorsed by Environment Protection Authority.
- 21. For sites greater than 3000m², development complies with an erosion and sediment control concept plan endorsed by the Environment Protection Authority.
- 22. For sites equal or less than 3,000m², the development complies with the Environment Protection Authority, *Environment Protection Guidelines for Construction and Land Development in the ACT*..

#### **Control:** Development with, or adjacent to, a potentially polluting source

#### Specification:

23. Where development is proposed on a site with, adjacent to, a potentially polluting source (such as a current or former petrol station, tanks, contaminated agricultural land, or land containing contaminated fill), an environmental site assessment conducted in accordance with the ACT Government Strategic Plan – Contaminated Sites Management 1995 and the Contaminated Sites Environment Protection Policy 2000 is endorsed by the ACT Environment Protection Authority

#### **Control: Stormwater detention**

#### Specification:

- 24. For development on sites greater than 2,000m² (other than major roads) involving works that have the potential to alter the stormwater regime of the site, a report from a suitably qualified person is provided demonstrating that the development complies with at least one of the following:
  - a) stormwater retention management measures are provided and achieve all of the following:
    - Stormwater storage capacity of 1.4kL per 100m<sup>2</sup> of the total impervious area of the site is provided specifically to retain and reuse stormwater generated on site as a whole
    - ii. Retained stormwater is used on site
  - b) development captures, stores and uses the first 15mm of rainfall falling on the site. Note: on-site stormwater retention is defined as the storage and use of stormwater on site.
  - c) stormwater detention measures are provided and achieve all of the following:
    - i. capture and direct runoff from the entire site

- ii. Stormwater storage capacity of 1kL per 100m<sup>2</sup> of impervious area is provided to specifically detain stormwater generated on site
- iii. The detained stormwater is designed to be released over a period of 6 hours after the storm event. For this rule on-site stormwater detention is defined as the short-term storage and release downstream of stormwater runoff.

<u>Note</u>: Calculating on-site detention can include 50% of the volume of rainwater tanks where stormwater is used on-site

Control: Stormwater management (flooding) – for roads for developments greater than 2000m<sup>2</sup>

#### Specification:

- 25. For development of roads involving developments greater than 2000m<sup>2</sup>, development meets all of the following:
  - a) The capacity of existing pipe (minor) stormwater connection to the site is not exceeded in the 1 in 10year storm event
  - b) The capacity of the existing overland (major) stormwater system to the site is not exceeded in the 1 in 100-year storm event.

#### Control: Stormwater quality - sites greater than 2,000m<sup>2</sup>

#### Specification:

- 26. For development on sites greater than 2,000m<sup>2</sup> (other than major roads) involving works that have the potential to alter the stormwater regime of the site, a MUSIC model prepared by a suitably qualified person is provided demonstrating the average annual stormwater pollutant export is reduced when compared with an urban catchment of the same area with no water quality management controls for all of the following:
  - a) gross pollutants by at least 90%
  - b) suspended solids by at least 60%
  - c) total phosphorous by at least 45%
  - d) total nitrogen by at least 40%.

#### Notes:

If a tool other than the MUSIC model is used then a report by an independent suitably qualified person must be submitted demonstrating and confirming compliance.

If parameters that are non-compliant are used then a report must also be submitted by an independent suitably qualified person stating how and why the parameters are appropriate.

#### **Control:** Stormwater quality (major roads associated with a proposed development)

#### Specification:

- 27. For development of major roads, including the duplication of an existing major road in full or in part a MUSIC model prepared by a suitably qualified person is provided demonstrating the average annual stormwater pollutant export is reduced when compared with a road catchment of the same area with no water quality management controls for all of the following:
  - a) gross pollutants by at least 90%
  - b) suspended solids by at least 60%
  - c) total phosphorous by at least 45%
  - d) total nitrogen by at least 40%.

#### Notes:

If a tool other than the MUSIC model is used then a report by an independent suitably qualified person must be submitted demonstrating and confirming compliance.

If parameters that are non-compliant are used, then a report must also be submitted by an independent suitably qualified person stating how and why the parameters are appropriate

### **Control:** Statement of Environmental Effects

#### Specification:

- 28. Where a development requires a Statement of Environmental Effects, the development proposal is accompanied by an Assessment of Environmental Effects that addresses the following:
  - a) appropriate measures to soften the impact of development on the landscape
  - b) impacts on the character and appearance of any building, area of architectural, historic, aesthetic or scientific interest, or other object or place of special cultural or heritage value
  - c) impacts on public health and safety, including crime prevention
  - d) whether public transport services are necessary and, if so, whether they are available and adequate
  - e) impacts on the likely accessibility to facilities and services for users and consumers
  - f) any significant short or long-term effect, that the relevant authority considers the use or development may have on the environment, including social and economic effects and potential cumulative effects
  - g) impacts on the watercourses and drainage characteristics of the area, including water quality
  - h) impacts on the amenity of surrounding land uses, including impacts on air quality, noise, overshadowing, privacy, and the level of wind turbulence generated

to the satisfaction of the Territory Planning Authority.

#### **Control:** Natural Environment – sites greater than 1000 m<sup>2</sup>

#### Specification:

- 29. This Specification applies where developments are located on sites that
  - currently contain native species or ecosystems or are intended for rehabilitation or revegetation with native species or ecosystems; or
  - contain non-native flora on sites that are part of the urban forest, urban open space, transport or services zones, and waterway corridors.

This Specification does not apply to the following

- site with single dwellings and secondary residences;
- national parks, nature reserves and any other reserved area established under the *Nature Conservation Act 2014*.

When applying this Specification, reference should be made to protected matters, weeds, pests and invasive species as listed under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 and associated legislation and the ACT *Nature Conservation Act* 2014 and regulations, and other ACT environmental strategies and polices.

Development is consistent with the ACT Practice Guidelines for Ecologically Sensitive Urban Design (Consultation Note: these guidelines are to be developed to provide detailed guidance and options for compliance with this Specification).

### 1.4 Amenity, safety, and accessibility

The following specifications provide possible solutions that should be considered in to enhance the amenity, safety and accessibility for users of a proposed development:

#### **Control:** Land contamination

#### Specification:

- 30. Development complies with an environmental site assessment report endorsed by the ACT Environment Protection Authority.
- 31. A statement is provided that the potential for land contamination has been assessed in accordance with the ACT Government Strategic Plan Contaminated Sites Management 1995 and the ACT Environment Protection Authority Contaminated Sites Environmental Protection Policy 2000, and endorsement is provided from the ACT Environment Protection Authority demonstrating that the land is suitable for the proposed development.

<u>Note:</u> This does not apply if the Environment Protection Authority has provided written advice that there are no contamination within or adjacent to the development area

#### **Control:** Bushfire prone areas

#### Specification:

32. Blocks assessed as requiring buildings to be constructed to a specified bushfire construction level in accordance with *Australian Standards AS3959- Construction of buildings in bushfire prone areas* are to be nominated on a planning control plan as part of the subdivision development plan.

Note limits of BAL for new blocks for future development apply (Assessment requirements)

#### 1.5 Transport, parking, and movement

The following specifications provide possible solutions that should be considered in relation to transport, travel modes, vehicle parking, access and manoeuvring for a proposed development:

#### **Control:** Street hierarchy

#### Specification:

33. The development comprises a street hierarchy consistent with Schedule 3.

#### **Control:** Street network

#### Specification:

- 34. The development comprises a street network consistent with **Schedule 4.**
- 35. Maximum driving distance between any dwelling and specified roads complies with the following:
  - a) minor or major collector street or higher order road: 700m
  - b) arterial road: 1200m
- 36. No more than three turning movements at intersections are required in order to travel from any dwelling to the nearest collector street or arterial road
- 37. For blocks with a front boundary less than 8m no direct vehicular access is provided to either of the following:
  - a) a major collector road
  - b) any minor collector road or access street that is adjacent to an address street boundary with a bearing between 70° and 120°

#### **Control:** Intersections

#### Specification:

38. The development comprise intersection spacing consistent with **Schedule 5.** 

#### **Control:** Public transport infrastructure – buses and bus stops

#### Specification:

- 39. At least 90 per cent of dwellings proposed for a new subdivision are:
  - a) within 500m of a bus stop on an existing or proposed coverage route with well-lit and connected walking access; or
  - b) within 800m of a bus stop on an existing or proposed frequent network.
- 40. Bus stops on coverage routes and frequent local service routes are located not less than 400m apart.
- 41. No bus stop is more than 100m from another bus stop serving buses travelling in the opposite direction on the same bus route.
- 42. The development comprises a bus routes consistent with **Schedule 6.**

#### Control: On-road cycling

#### Specification:

43. Major collectors are provided with a 1.5m wide on-road cycling lane on each side.

#### **Control:** Shared paths

#### Specification:

- 44. The development comprises shared paths consistent with **Schedule 7.**
- 45. Shared paths are provided in the following locations:
  - a) the entire frontage of any block used or proposed to be used for one or more of the following:
    - i) schools
    - ii) shops
    - iii) community facilities
  - b) the entire frontage of any block adjacent to an existing or proposed bus stop
  - c) the entire frontage of any block used or proposed to be used for multi-unit housing containing 10 or more dwellings:
  - d) on both sides of endorsed bus routes.
- 46. Shared paths are connected to one or more of the following:
  - a) any existing or proposed shared path networks, including any nearby Main Routes (as defined in TCCS Design Standards for Urban Infrastructure DS13- Pedestrian and Cycle Facilities or its successor)
  - b) open space networks
  - c) community facilities such as educational establishments and local activity centres
  - d) public transport routes and bus stops

#### Control: On-street car parking

#### Specification:

47. Dimensions of designated on-street car spaces comply with *Australian Standard AS 2890.5 Parking – on street*.

#### 1.6 Services and utilities

The following specifications provide possible solutions that should be considered in relation to site servicing, including possible requirements by utility service providers, for a proposed development:

#### **Control:** Servicing and infrastructure

#### Specification:

- 48. Utility services are provided to new blocks, including water, sewer, stormwater, electricity and telecommunications.
- 49. Proposed development can be sufficiently serviced in terms of infrastructure and utility services.
- 50. Endorsement is achieved from relevant utility providers (electricity, water, gas, sewerage and stormwater) to confirm that the location and nature of earthworks, utility connections, proposed works, pavements and landscape features comply with utility standards, access provisions and asset clearance zones.

#### **Control:** Endorsement by Government Agencies

#### Specification:

- 51. Endorsement from Transport Canberra and City Services (TCCS) is obtained for:
  - a) Bus routes and bus stops;
  - b) On road cycling and shared paths
  - c) Road configuration and geometry
  - d) Public lighting
  - e) Block verge crossings and access locations
  - f) Location and configuration of public open space area
  - g) Waste management
- 52. Endorsement from Emergency Services Agency (ESA) for:
  - a) Road configuration including rear lane and edge treatment in bushfire prone areas
  - b) Hydrant and firefighting facilities
  - c) Emergency vehicle access

#### Control: Encroachment of easements and rights-of-way

#### Specification:

53. No elements of the development encroach over easements or rights-of-way, unless the proposed encroachment is approved in writing by the relevant service provider

#### Control: Asset clearance zones

#### Specification:

54. Endorsement is achieved from relevant utility providers (electricity, water, gas, sewerage and stormwater) to confirm that the location and nature of earthworks, utility connections, proposed works, pavements and landscape features comply with utility standards, access provisions and asset clearance zones.

#### **Control:** Utility services endorsement for demolition works

#### Specification:

- 55. For any demolition works associated with the development, endorsement is achieved from relevant utility providers (including electricity, water, gas, sewerage and stormwater) stating that:
  - a) All network infrastructure on or immediately adjacent the development has been identified on the plan
  - b) All potentially hazardous substances and conditions (associated with or resulting from the demolition process) that may constitute a risk to utility services have been identified

- c) All required network disconnections have been identified and the disconnection works comply with utility requirements
- d) All works associated with the demolition comply with and are in accordance with utility asset access and protection requirements

### 1.7 Miscellaneous

The following specifications provide possible solutions in addition to the preceding categories that should be considered in relation to a proposed development:

There are no specific miscellaneous controls under this category for this specification.

### Schedule 1

#### **Block compliance tables**

#### Using the block compliance tables

The block compliance tables schedule a range of block sizes, slope and orientation to ensure adequate solar access. Only one *test block* is applicable to each proposed block. For each proposed block the same *test block* is to be used to determine block width, block depth, bearing of street address, slope and compliance with the block compliance tables below.

#### Calculating variables:

For this appendix a *test block* means a rectangular block that fits entirely within the boundaries of a proposed block of the same type, as shown in table A1. See also figure A2.

Table A1 - minimum dimensions of test block

block type	compact block	mid size block	large block
minimum area	n/a	250m <sup>2</sup>	500m <sup>2</sup>
minimum width	6m	10m	14m
minimum depth	17m	25m	28m

#### Block width

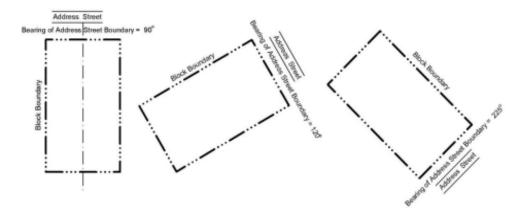
Is the width of a test block.

#### ^^ Block depth

Is the depth of a test block.

#### ^^^ Bearing of address street boundary

The 'bearing of address street boundary' is the bearing of a line perpendicular to the primary axis of a test block, starting at 0° for a west loading test block (i.e. boundary running north-south) and increasing clockwise, as shown in the examples below:



#### (s) Slope

Slope (s) is an average of two slope measurements with reference to a relevant *test block*:

1. extending from the northern most point of the relevant *test block* due south along the boundary to the termination of that boundary or, where the boundary is not aligned north-south, to any other boundary of the *test block*.

 extending from the southern most point of the relevant test block due north along the boundary to the termination of that boundary or, where the boundary is not aligned north-south, to any other boundary of the test block. (see figure A1).

North-facing slopes (slopes falling to the north) have a positive value, south-facing slopes (slopes falling to the south) have a negative value. Slope is represented as a percentage slope (e.g.+12%, -6%, 0). Note that these calculations yield a slope in relation to the north south axis, not necessarily the actual slope of the land. For example, a block oriented north south on land sloping to the west will have a zero slope.

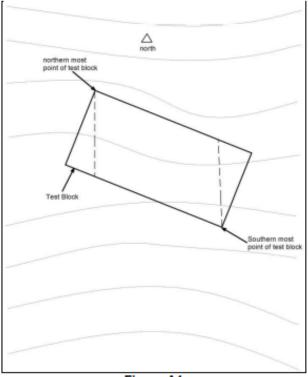


Figure A1

Slope may be demonstrated by using a geographic information system and/or digital terrain model.

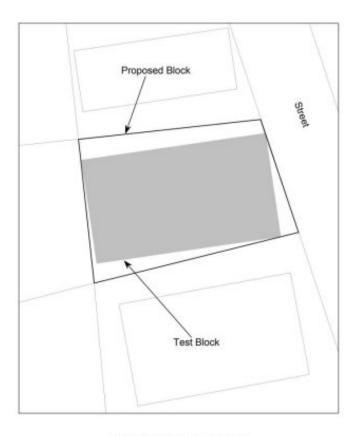


Figure A2: Test block

Tabl					s	lope	(s)		
Bloc	k compliance		fal	l to so	uth	flat	fal	ll to no	th
block	blocks (>500m²) width ^ <16m num block width^ 14n	n	> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
	-44441-	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	
٧٧٧	street to north	90° - <120°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>~</b>	✓	✓
ary		120° - <160°	×	×	×	<b>~</b>	<b>✓</b>	✓	✓
boundary		160° - <180°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
ot bo	street to east	180° - <210°	✓	<b>✓</b>	<b>✓</b>	>	>	✓	<b>✓</b>
street		210° - <250°	×	×	×	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>
	atract to court	250° - <270°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>✓</b>	✓	✓
address	street to south	270° - <300°	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>
of a		300° - <340°	×	×	×	<b>&gt;</b>	<b>~</b>	✓	<b>✓</b>
	atract to west	340° - <360°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓
bearing	street to west	0° - <30°	<b>✓</b>	<b>&gt;</b>	>	>	>	✓	✓
		30° - <70°	×	×	×	>	<b>~</b>	<b>√</b>	✓

Tabl	Table A1.2  Block compliance large blocks (>500m²)				s	lope	(s)		
Bloc			fal	l to so	uth	flat	fa	ll to no	rth
	width ^ 16m - < 18m	ı	> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
		70° - <90°	✓	<b>✓</b>	✓	<b>✓</b>	✓	✓	✓
٧٧٧	street to north	90° - <120°	✓	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>✓</b>	✓	✓
ary		120° - <160°	×	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
pun	atract to cost	160° - <180°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>
t bo	street to east	180° - <210°	✓	<b>✓</b>	<b>✓</b>	<b>~</b>	✓	<b>√</b>	<b>✓</b>
street boundary		210° - <250°	×	×	<b>✓</b>	<b>\</b>	<b>✓</b>	✓	<b>✓</b>
	atract to accuth	250° - <270°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>\</b>	<b>✓</b>	✓	<b>✓</b>
address	street to south	270° - <300°	✓	<b>✓</b>	<b>✓</b>	>	<b>✓</b>	✓	<b>✓</b>
of a		300° - <340°	×	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>
bearing of	etroet to weet	340° - <360°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>\</b>	<b>✓</b>	✓	<b>✓</b>
bear	street to west	0° - <30°	✓	<b>~</b>	<b>~</b>	>	<b>&gt;</b>	✓	<b>✓</b>
		30° - <70°	×	×	<b>✓</b>	<b>\</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>

				s	lope	(s)			
Bloc	k compliance		fall to south			flat	fal	ll to no	rth
block	blocks (>500m²) width ^ ≥18m num block depth^^ 28	lm	> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
	street to north			<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>
٧٧٧	street to north	90° - <120°	✓	<b>✓</b>	✓	<b>✓</b>	<b>✓</b>	✓	✓
ary		120° - <160°	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>	✓	✓
pun		160° - <180°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓
t bo	street to east	180° - <210°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓
street boundary		210° - <250°	×	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>✓</b>	✓	✓
	-11111-	250° - <270°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>✓</b>	✓	✓
address	street to south	270° - <300°	✓	<b>✓</b>	<b>✓</b>	<b>\</b>	<b>✓</b>	✓	<b>✓</b>
of a		300° - <340°	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓
	street to west	340° - <360°	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓
bearing	Street to West	0° - <30°	✓	<b>✓</b>	<b>✓</b>	<b>&gt;</b>	<b>✓</b>	✓	<b>✓</b>
		30° - <70°	×	✓	✓	✓	<b>✓</b>	✓	✓

	Table A2.1  Block compliance mid sized blocks (<250 - ≤ 500m²)				s	lope	(s)		
Bloc				l to so	uth	flat	fa	ll to no	rth
block	width ^ < 12m num block width^ 10n	,	> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
	street to north		✓	✓	✓	<b>√</b>	✓	✓	✓
٧٧٧	street to north	90° - <120°	<b>✓</b>	<b>&gt;</b>	<b>✓</b>	<b>&gt;</b>	✓	✓	<b>✓</b>
ary		120° - <160°	×	×	×	×	×	×	×
boundary	atract to aget	160° - <180°	×	×	×	×	×	×	×
	street to east	180° - <210°	×	×	×	×	×	×	×
street		210° - <250°	×	×	×	×	×	×	×
988	street to south	250° - <270°	<b>✓</b>	>	<b>~</b>	>	>	<b>✓</b>	<b>✓</b>
of address	Street to South	270° - <300°	✓	<b>&gt;</b>	<b>✓</b>	<b>&gt;</b>	<b>✓</b>	✓	<b>✓</b>
ofa		300° - <340°	×	×	×	×	×	×	×
ring	street to west	340° - <360°	×	×	×	×	×	×	×
bearing	Sireet to West	0° - <30°	×	×	×	×	×	×	×
		30° - <70°	×	×	×	×	×	×	×

Table	e A2.2				s	lope	(s)		
Bloc	k compliance sized blocks (<250 - ≤	500m²\	fall to south			flat	fa	ll to no	th
	width ^ 12m - < 14m		> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
	street to north			<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓	✓
٧٧٧	street to north	90° - <120°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>~</b>	<b>✓</b>	✓	✓
ary		120° - <160°	×	×	×	×	×	×	✓
boundary	-1111	160° - <180°	×	×	×	×	✓	✓	✓
t bo	street to east	180° - <210°	×	×	×	×	<b>✓</b>	✓	✓
street		210° - <250°	×	×	×	×	×	×	×
	-11111-	250° - <270°	✓	<b>✓</b>	✓	✓	✓	✓	✓
address	street to south	270° - <300°	✓	<b>✓</b>	✓	<b>~</b>	✓	✓	✓
of a	ъ 300° - <340°		×	×	×	×	×	×	✓
ring			×	×	×	×	<b>✓</b>	✓	✓
bearing	street to west	0° - <30°	×	×	×	×	<b>&gt;</b>	✓	✓
		30° - <70°	×	×	×	×	×	×	✓

Table	Table A2.3 Block compliance mid sized blocks (<250 - ≤ 500m²) block width ^ 14m - < 16m				s	lope	(s)		
Bloc			fall to south			flat	fall to north		rth
		300111 )	> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
	street to porth	✓	✓	✓	<b>✓</b>	✓	✓	✓	
٧٧٧	street to north	90° - <120°	✓	<b>~</b>	<b>✓</b>	<b>~</b>	<b>✓</b>	✓	✓
boundary		120° - <160°	×	×	×	×	×	✓	✓
unc	atract to cost	160° - <180°	×	×	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	✓
	street to east	180° = <210°	×	×	<b>*</b>	<b>*</b>	<b>*</b>	1	1
street		210° - <250°	×	×	×	×	×	×	✓
SSS 8	street to south	250° - <270°	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>	✓	✓
address	street to south	270° - <300°	>	>	>	>	>	<b>✓</b>	✓
of a		300° - <340°	×	×	×	×	×	<b>✓</b>	<b>✓</b>
bearing	street to west	340° - <360°	×	×	>	<b>✓</b>	<b>&gt;</b>	✓	✓
bear	Sueet to west	0° - <30°	×	×	>	>	<b>&gt;</b>	✓	✓
		30° - <70°	×	×	×	×	×	<b>✓</b>	<b>✓</b>

					s	lope	(s)		
Bloc	e A2.4 k compliance sized blocks (<250 - ≤	500m²\	fall to south		flat	fal	ll to no	rth	
block	width ^ ≥16m num block depth^^ 25	•	> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
	70° - <90°			✓	✓	✓	✓	✓	✓
٧٧٧	street to north	90° - <120°	✓	✓	✓	<b>✓</b>	<b>✓</b>	✓	✓
ary		120° - <160°	×	×	×	×	<b>✓</b>	✓	<b>✓</b>
boundary	atract to cost	160° - <180°	×	<b>✓</b>	✓	✓	✓	✓	<b>✓</b>
	street to east	180° - <210°	×	✓	✓	✓	<b>✓</b>	✓	✓
street		210° - <250°	×	×	×	×	×	✓	<b>✓</b>
	atract to court	250° - <270°	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>✓</b>	✓	<b>✓</b>
address	street to south	270° - <300°	✓	<b>✓</b>	✓	<b>✓</b>	✓	✓	✓
of a	ზ 300° - <340°		×	×	×	×	<b>✓</b>	✓	✓
ring			×	✓	<b>✓</b>	<b>✓</b>	>	<b>✓</b>	✓
bearing	street to west	0° - <30°	×	✓	<b>&gt;</b>	>	>	<b>&gt;</b>	✓
		30° - <70°	×	×	×	×	✓	✓	✓

	Table A3.1				s	lope	(s)				
Bloc	Block compliance compact blocks (≤250m²)			lock compliance		fall to south		flat	fa	ll to no	rth
block	width ^ < 12m num block width ^ 6m		> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%		
	-44441-	70° - <90°	✓	✓	✓	<b>✓</b>	✓	✓	✓		
٧٧٧	street to north	90° - <120°	✓	✓	✓	<b>✓</b>	✓	✓	✓		
		120° - <160°	×	×	×	×	×	×	×		
boundary		160° - <180°	×	×	×	×	×	×	×		
	street to east	180° - <210°	×	×	×	×	×	×	×		
street		210° - <250°	×	×	×	×	×	×	×		
	street to south	250° - <270°	<b>✓</b>	<b>✓</b>	<b>✓</b>	<b>&gt;</b>	<b>✓</b>	✓	<b>✓</b>		
address	Street to South	270° - <300°	<b>✓</b>	✓	<b>&gt;</b>	>	>	✓	<b>✓</b>		
of a		300° - <340°	×	×	×	×	×	×	×		
ring	street to west	340° - <360°	×	×	×	×	×	×	×		
bearing	street to west	0° - <30°	×	×	×	×	×	×	×		
		30° - <70°	x	×	x	×	x	×	×		

	Table A3.2 Block compliance compact blocks (≤250m²)				s	lope	(s)		
Bloc				fall to south		flat	fal	ll to no	rth
block	swidth ^ ≥12m num block depth^^ 17	'm	> -15%	-15% to < -10%	-10% to < -5%	-5% to < +5%	+5% to < +10%	+10% to < 15%	> +15%
		70° - <90°	✓	✓	✓	✓	✓	✓	✓
٧٧٧	street to north	90° - <120°	✓	✓	✓	<b>✓</b>	<b>~</b>	✓	✓
ary		120° - <160°	×	×	×	×	×	×	×
boundary	atract to cost	160° - <180°	×	×	×	×	×	✓	✓
t bo	street to east	180° - <210°	×	×	×	×	×	✓	✓
street		210° - <250°	×	×	×	×	×	×	×
	atract to court	250° - <270°	✓	✓	✓	✓	✓	✓	✓
address	street to south	270° - <300°	✓	✓	✓	<b>\</b>	<b>✓</b>	✓	✓
of a		300° - <340°	×	×	×	×	×	×	×
	etroet to west	340° - <360°	×	×	×	×	×	✓	<b>✓</b>
bearing	street to west	0° - <30°	×	×	×	×	×	<b>~</b>	✓
		30° - <70°	×	×	×	×	×	×	×

# Schedule 2

# **Public realm spaces**

PUBLIC REALM TYPE	PRIMARY FUNCTIONS	MANAGEMENT INTENTIONS	STAGE IDENTIFIED
Town park	Located in a town centre  A meeting place park, formal in character. With irrigated grass, paving, art, and street furniture. May have shrub or flower beds, pavilions and water features. May be associated with play facilities, lakes or ponds.	mal in character. ig, art, and  beds, pavilions  Managed to a high standard for intensive use with capacity to host	
District parks	Recreational facilities  Extensive, informal park or series of spaces, 4 -10 Ha  Serving population catchment area of 25 -50,000 minimum people.  With grass and trees and a diversity of recreation facilities to cater for informal recreation for all age groups such as picnics, barbecues, adventure playgrounds and skateboard parks.  May have natural or cultural heritage conservation or habitat creation purposes.  May be associated with waterways, wetlands, lakes and ponds.	Managed to a high standard for intensive use with capacity to hold large gatherings.	Structure Plans/Conce pt Plans
District sportsgrounds	Sportsground complex Training and competition venue for organised nominated sports at all levels, 8 ha minimum. Serving population catchment area of 25 - 50,000 minimum people. May be associated with high schools. With irrigated grass, public parking, training lights and a pavilion that includes change rooms, toilets and kiosk.	Managed to a high standard for intensive sports training and events. May be enclosed and leased.	Structure Plans/Conce pt Plans
*Neighbourhood ovals	Recreational or sporting activities (Not applicable to commercial and industrial estates) Ovals used for sporting purposes and recreational space for local residents. Generally located adjacent to primary schools and/or local shopping centres with shared or separate parking. Neighbourhood ovals are an integral part of surrounding parkland when not in use for sporting purposes. The area is irrigated and will require sufficient space for related amenities (small pavilion/toilet block and training lights).	Moderate intensity management with seasonal variability.	Estate Development Plans

Neighbourhood parks	Recreational or sporting activities  Neighbourhood parks are classified as Local neighbourhood parks (0.5ha-1ha) or Central neighbourhood parks (1ha-2ha). Focal point park of all neighbourhood open spaces and off road movement networks to be an outdoor meeting place. To accommodate opportunities for informal free and innovative play as well as a range of unstructured recreation activities for a range of ages. The play space may include standardised playground equipment. Parks are linked or adjacent to other public realm spaces and may be located adjacent to a neighbourhood sportsground. Neighbourhood parks can also accommodate remnant native vegetation and other natural features. Provided with shade and shelter and drinking water.	Moderate intensity management with seasonal variability.	Estate Development Plans
Heritage parks	Special purpose park  Open space area created to conserve heritage character and elements.  May have heritage conservation and monitoring activities.	Moderate intensity management with seasonal variability. Can be enclosed.	Estate Development Plans
Lakes and ponds	For control of stormwater quality and quantity including flood mitigation from the urban catchments  Designed waterscape for aesthetics and water storage for irrigation and other second class water needs.  Water uses may include conservation and or active recreation (e.g. fishing, swimming, boating) and passive recreation around lakes and ponds.	Low intensity management with seasonal variability with a range of human uses that are nominated/ controlled for each site.	Structure Plans/Conce pt Plans/Estate Development Plans
Broad scale open space	The bushland setting for Canberra Areas of remnant and planted native vegetation, hills and ridges, waterway corridors and buffer areas between suburbs. To provide visual and landscape amenity, informal recreation and wildlife habitat. May contain sites for biological diversity or connectivity, cultural heritage conservation and or for community activities (e.g. Landcare, Parkcare, Community Garden groups).	Low intensity management with seasonal variability plus a range of human uses that are nominated/ controlled for each site. May be agisted with grazing sock.	Structure Plans/Conce pt Plans/Estate Development Plans

Habitat sites	The bushland setting for Canberra Remnant grassland or woodland sites important for nature conservation purposes. May form part of a regional ecosystem, provide the food source for migratory species or contain endangered plant or animal species or be used for connectivity and be subject to conservation activities and monitoring in accord with Action Plans for their conservation prepared under provisions of the Nature Conservation Act 1980.	Low intensity management with seasonal variability.	Structure Plans/Conce pt Plans/Estate Development Plans
Pedestrian parkland	Movement network  Corridors providing for pedestrian and cyclist routes within and between suburbs and linkages with parks, schools and workplaces.  May include playgrounds and fitness stations in suitable locations.  Often co-located with waterways for urban stormwater management and treatment and may contain small ponds and wetlands.  Often includes remnant vegetation and other natural features, may provide wildlife habitat conservation and/or connectivity.  Generally, the dominant surface treatment is dryland grass as dominant ground surface unless otherwise specified for the conservation of habitat, with planted vegetation to enhance shade, shelter, character, seasonal diversity or wildlife movement.	Moderate intensity management with seasonal variability.	Concept Plans/estate Development Plans
Access ways	Movement network Linear spaces for pedestrians and cyclists between residential properties providing direct access between streets and other public realm spaces.	Low intensity management with seasonal variability.	Estate Development Plans
Pedestrian lanes	Movement network  Routes for pedestrians between buildings and /or properties providing direct access between shops and or streets.	Low intensity management with seasonal variability.	Estate Development Plans
Equestrian trails	Movement Network  Whilst open space corridors serve a range of functions and users, opportunities should also be explored to provide for equestrian usage in the context of an equestrian trail plan, providing that conflicts with other user groups can be minimised.	Equestrian trails require no specific management, as the use/activity is ancillary to the space's primary public realm function.	Structure plans / concept plans / estate development plans

Street verges and medians	Movement network  An interconnected network of spaces, not necessarily symmetrical, for off road movement networks, and to incorporate trees, shrubs and ground cover plantings. To provide for aesthetic purposes and microclimate control as well as driving experience, character of place and environmental services.	Low intensity management with seasonal variability.	Estate Development Plans
	May contain underground services and street /traffic furniture. Surface treatments designed to maximise capture of rainfall for ground water recharge and vegetation health.		

### **Schedule 3**

### **Street hierarchy specifications**

Table 1A: Street hierarchy for estates in residential zones and CZ5				
Street type and function	Design speed (km/h)	Traffic volume (vehicles per day) (1)		
REAR LANE	30	0-160 <sup>(2)</sup>		
Rear lanes are narrow and short s	treets which have the	primary function of providing rear vehicular access to blocks		

#### ACCESS STREETS

Access Street A 60 0-300
Access Street B 60 301-1000

Access streets are used where the residential environment is dominant, traffic is subservient, speed and traffic volumes are low and pedestrian and cycle movements are facilitated. Access streets are categorised as Access Street A or Access Street B according to traffic volumes. Access Street A generally collects traffic from rear lanes and connects to collector roads; they do not normally accommodate traffic from other streets.

#### COLLECTOR ROADS

Minor collector 60 1001–3000

A minor collector road collects and distributes traffic from access streets to major collector roads or direct to the external arterial road network. A reasonable level of residential amenity and safety is maintained by restricting vehicle speeds by means of street alignment, intersection design or by speed-control measures. Direct property access is allowed.

**Major collector** 70 3001–6000

Major Collector Roads collect and distribute traffic within residential, industrial and commercial areas. They form the link between the primary network and the roads within local areas and should carry only traffic originating or terminating in the area.

The volume of traffic carried is constrained by environmental objectives – safety and traffic noise – and reflects the limited area that they serve. Direct property access is still permissible but the access and egress arrangements should be such that vehicles can exit properties in a forward direction.

#### Notes supporting table 1A

- To calculate the traffic volume apply a traffic generation rate of 8 vehicle movements per day per dwelling for single dwellings, a rate of 6 vehicles per day per dwelling for multi unit developments, and a rate of 7 vehicles per day for blocks 360m² or smaller.
- 2 160 vpd maximum at the intersection of rear lanes with access streets.

Table 1B: Street hierarchy for estates commercial zones (excluding CZ5)				
Street type and function	Design speed (km/h)	Traffic volume (vehicles per day)		
REAR LANE	30	0-100		
Rear lanes are narrow and short s	streets which have the	primary function of providing rear vehicular access to blocks.		

ACCESS STREET 60 0-1000

Access streets are used where the residential environment is dominant, traffic is subservient, speed and traffic volumes are low and pedestrian and cycle movements are facilitated. Access Streets generally collect traffic from rear lanes and connect to collector roads; they do not normally accommodate traffic from other streets.

#### COLLECTOR ROADS

Minor collector 60 1001–3000

A minor collector road collects and distributes traffic from access streets to major collector roads or direct to the external arterial road network. A reasonable level of residential amenity and safety is maintained by restricting vehicle speeds by means of street alignment, intersection design or by speed-control measures. Direct property access is allowed.

Major collector 70 3001-6000

Major Collector Roads collect and distribute traffic within residential, industrial and commercial areas. They form the link between the primary network and the roads within local areas and should carry only traffic originating or terminating in the area.

The volume of traffic carried is constrained by environmental objectives – safety and traffic noise – and reflects the limited area that they serve. Direct property access is still permissible but the access and egress arrangements should be such that vehicles can exit properties in a forward direction.

Table 1C: Street hierarch	ny for estates in	industrial zones
Street type and function	Design speed (km/h)	Traffic volume (vehicles per day)
ACCESS STREET	60	0–1000

Access streets are used where the residential environment is dominant, traffic is subservient, speed and traffic volumes are low and pedestrian and cycle movements are facilitated. Access Streets generally collect traffic from rear lanes and connect to collector roads; they do not normally accommodate traffic from other streets.

#### **COLLECTOR ROADS**

Minor collector 60 1001-3000

A minor collector road collects and distributes traffic from access streets to major collector roads or direct to the external arterial road network. A reasonable level of residential amenity and safety is maintained by restricting vehicle speeds by means of street alignment, intersection design or by speed-control measures. Direct property access is allowed.

**Major collector** 70 3001–6000

Major Collector Roads collect and distribute traffic within residential, industrial and commercial areas. They form the link between the primary network and the roads within local areas and should carry only traffic originating or terminating in the area.

The volume of traffic carried is constrained by environmental objectives – safety and traffic noise – and reflects the limited area that they serve. Direct property access is still permissible but the access and egress arrangements should be such that vehicles can exit properties in a forward direction.

# Schedule 4

**Street network specifications** 

Table 2A: Street network requirements - all estates except in industrial zones

Facility Type	Rear lane <sup>(2)</sup>	Shared use access street 'Woonerf' style	Access street A	Access street B	Minor collector	Major collector
Traffic volume range (vpd) (1)	0-160(3)	0-40	0–300	301 –1000	1001–3000	3001–6000
Design speed (km/h)	20	20	50	60	60	70
Minimum carriageway width (m) <sup>(2)</sup>	5.5 (5.0 where the lane is less than 60m in length)	3.5–3.7 (single lane)	5.5	7	10	10
Verge width (m)	minimum 1.5m	5.0	5.5	6.25	6.25	6.25
Minimum horizontal radius (to accommodate)	12.5m single unit truck					
On-street car parking	Prohibited	Permitted only as indented spaces	Assumed on one side of the carriageway only	Assumed staggered on both side of the carriageway only	Assumed on both side of the carriageway only	Assumed on one side of the carriageway only
Kerb type	Flush or layback upright kerb adjacent to street lighting	Flush or layback	Layback or upright	Layback or upright	upright	upright
Maximum street longitudinal gradient	12.5%	12.5%	12.5%	12%	12%	12%
Minimum shared path requirement	No shared path required	No shared path required	1.5 wide shared path on one side only	2.0m wide on one side only	2.5m wide shared path on both sides and aligned at least 1.5m away from the kerb	2.5m wide shared path on both sides and aligned at least 1.5m away from the kerb
Bus route requirement	Not to be used as bus route	Not to be used as bus route	Not to be used as bus route	Not to be used as bus route	can be used as a bus route where in accordance with table 3	can be used as a bus route where in accordance with table 3
Street tree requirement	No trees required and not to be planted unless sufficient space is provided	Street trees to be provided	Street trees to be provided	Street trees to be provided	street trees to be provided	street trees to be provided

Intermittent street	Must be			
lighting	provided when			
	length			
	exceeds 60m			

### Notes supporting table 2A

1	For residential and CZ5 zones - to calculate the traffic volume for streets apply a traffic generation rate of:
	8 vehicle movements per day for standard blocks larger than 360m <sup>2</sup>
	7 vehicles per day for standard blocks 360m <sup>2</sup> or smaller
	6 vehicles per day per dwelling for multi unit developments.
2	The carriageway width is measured from kerb invert to kerb invert. The carriageway width measurement does not include any designated on-road car parking spaces, on-road cycle lanes, indented car parking bays or medians.
3	Measured at the intersection of each leg with a higher order street.

# Table 2B: Street network requirements - estates in industrial zones

Facility type	Access street	Minor collector	Major collector
Traffic volume range (vpd)	0-1000	1001–3000	3001–6000
Design speed (km/h)	60	60	70
Minimum carriageway width (m) (1)	10	10	10
Minimum verge width each side (m)	6.25	6.25	6.25
Undesignated on-street car parking	Assumed on one side of the carriage way only	Assumed on one side of the carriage way only	Assumed on one side of the carriage way only
Kerb type	Layback or upright	Upright	Upright
Maximum street longitudinal gradient	12%	12%	12%
Minimum shared path requirement	1.5m wide shared path on both sides	1.5m wide shared path on both sides and aligned at least 1.5m away from the kerb	1.5m wide shared path on both sides and aligned at least 1.5m away from the kerb
Bus route requirement	Can be used as a bus route where in accordance with table 3	Can be used as a bus route where in accordance with table 3	Can be used as a bus route where in accordance with table 3
Street tree requirement	Street trees to be provided	Street trees to be provided	Street trees to be provided

## **Schedule 5**

### **Intersection spacing**

Table 6: Spacing of intersections along traffic routes - estates in residential zones and CZ5

Road type	Minimum spacing o	f staggered intersections
	Left – right stagger	Right – left stagger
Local access street	40	20
Collector (minor)	40	20
Collector (major)	40	20
2-lane sub-arterial	60	30
3-lane sub-arterial	100	30
Divided sub-arterial	150	50
Divided arterial	150	50
Divided major arterial	150	50

Each crossroad counts as one intersection. A right-left stagger on a three-lane sub-arterial of higher road also counts as one intersection. Other intersections may form T-intersections or allow only restricted vehicle movements.

Table 7 - Minimum deflection angle for speed control to 20km/hr slow points (refer to Figure 1)

Stree			
Bend Type	3.5m-5.5m	6.5m-7m	>7m
Single Bend	60°	70 °	90 °
Chicane*	30 °-30 °	45°-45°	60 ° -60 °

<sup>\*</sup>Chicane - Reverse Curve ('s' curve)

Table 8 - Maximum leg lengths between 20km/hr slow points (refer to Figure 1)

Target design speed (km/hr)	Maximum leg length between 20km/hr slow points (m)
30	75-100
40	100-160
50	120-155
60	180-200

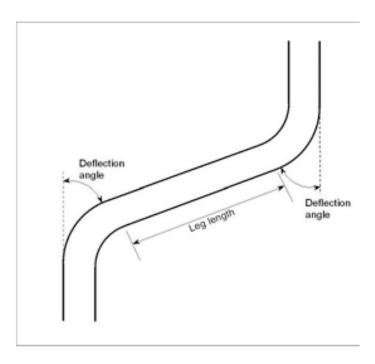


Figure 1: Measuring deflection angles for speed control to 20km/h slow points (refer table 7)

### **Schedule 6**

#### **Bus routes**

#### Table 3: Bus route requirements

### Street carriageway widths(1)

One-way: 4 m

Two-way: 8.0 m

#### Minimum geometric layout

Curve radius for turns on a bus route between a minor collector street and a major collector street

Radius = 15m for single bus units, 14.5m long rigid buses and articulated buses

Note: some routes may require geometry to suit 14.5m long rigid buses and articulated buses.

#### Roundabouts

Maximum desirable pavement crossfall: to comply with AUSTROADS Guidelines

Absolute maximum gradient: to comply with AUSTROADS Guidelines

#### Note supporting table 3

The carriageway width nominated is a minimum dimension measured from kerb invert to kerb invert and does not include any designated on-road car parking spaces, on-road cycle lanes, indented car parking bays or medians.

# **Schedule 7**

# **Shared paths**

# Table 5: Shared path requirements

Path type	Function	Minimum width (m)	Maximum longitudinal gradient
Minor Path	Local access path with low traffic volumes; Pedestrian and low speed cyclist use.	1.5	In accordance with AUSTROADS Guide to Traffic Engineering Practice Part 13
Intermediate Path	Commuting and local access path with low traffic volumes; Pedestrian and cyclist use where cyclists passing in opposite directions is rare.	2.0	In accordance with AUSTROADS Guide to Traffic Engineering Practice Part 14
Trunk Path	Commuting and local access path required to accommodate cyclist speeds of up to 20km/h; Pedestrian and cyclist use where two way cyclist movements are common.	2.5	In accordance with AUSTROADS Guide to Traffic Engineering Practice Part 14
Trunk Path (high use)	Commuting path required to accommodate cyclist speeds of up to 30km/h; High levels of pedestrian and cyclist use in both directions.	3.0	In accordance with AUSTROADS Guide to Traffic Engineering Practice Part 14