CHAPTER 6 OTHER DEVELOPMENT CODES

CHAPTER 6 - OTHER DEVELOPMENT CODES

PART 4 MISCELLANEOUS DEVELOPMENT CODES

Division 1 Preliminary

1.1 Miscellaneous Codes for Development

The provisions of this part comprise the following miscellaneous codes for development:

(1) Advertising Signs Code (Division 2);

(2) Access and Parking Code (Division 3);

(3) Setbacks Code (Division 4);

(4) Site Earthworks Code (Divisions 5);

(5) Infrastructure Works Code (Division 6);

(6) Landscape Design Code (Division 7);

Division 2 Advertising Signs Code

2.1 Overall Outcomes

(1) The overall outcomes are the purpose of this code.

(2) The overall outcomes sought by the Advertising Signs Code are the following:-

(a) Signage allows for the specific promotional needs of advertisers while responding to, and preserving:-

(i) the desired or established character, streetscape and environmental values of the areas in which the signage is situated;

(ii) the safety needs of users of those areas in which signs are erected;

(b) Signage is provided in a minimalist, cohesive manner which promotes the operations of the advertised activity or business undertaking while avoiding visual clutter and discord between the appearance and style of adjacent ***advertising signs***;

(c) Signage is provided in a form, and at a scale, which is subservient and complementary to the desirable characteristics of the built and natural environment of its immediate surrounds; and

(d) Signage is provided in a form which does not have an unreasonable impact on access to views, sunlight or breezes for residents on adjacent land, or create an unreasonable nuisance as a result of noisy, flashing, dynamic or illuminated devices.

2.2 Classification of Advertising Devices and Scope of Devices Covered by the Code

(1) Each ***advertising sign*** under this code has been classified as one of the following types according to its physical attributes and position on a development ***site***, i.e., the ***type*** of the ***advertising sign***:-

- ***Above Awning Sign***
- ***Animated Sign***
- ***Attached Banner Sign***
- ***Awning Fascia Sign***
- ***Billboard Sign***
- ***Blind Sign***
- ***Boundary Fence Sign***
- ***Bunting***
- ***Canopy Sign***
- ***Changeable Message Sign***
- ***Construction Site Sign***
- ***Created Awning Sign***
- ***Flag Sign***
- ***Freestanding Banner Sign***
- ***Ground Sign***
- ***Hamper Sign***
- ***Inflatable Sign***
- ***Mobile Sign***
- ***3D Object Sign***
- ***Projecting Sign***
- ***Projected Image Sign***
- ***Pylon Sign***
- ***Road Banner Sign***
- ***Roof Sign***
- ***Signwritten Roof Sign***
- ***Sky Sign***
- ***Stallboard Sign***
- ***Transport Structure Sign***
- ***Under Awning Sign***
- ***Vehicle Mounted Sign***
- ***Wall Sign***
- ***Window Sign***

(2) This code does not regulate those ***advertising signs*** that are:-

(a) business signage[1] associated with:-

(i) ***bed and breakfast accommodation***;

(ii) a ***display home***;

(iii) a ***home business***;

(iv) a ***dwelling unit*** used for display purposes in any ***multiple dwelling units***;

(v) an ***estate sales office***;

OR

(b) internal directory signs[1] for:-

(i) ***accommodation units;***

(ii) **caravan/transportable home parks**;

(iii) any ***multiple dwelling units***;

(iv) ***motels***;

(v) ***retirement villages***;

OR

(c) provided for a public benefit and are defined as ***public benefit signs***[2] in the administrative definitions (Chapter 7, Part 3).

Examples of ***advertising signs*** are illustrated in Figures 6.4.2A to 6.4.2E in Schedule B to this code.

2.3 Compliance with the Advertising Signs Code

(1) Self assessable development that complies with the acceptable solutions of the Development Requirements *Table 6.4.2A – Assessment Criteria for Self Assessable Development* contained in Section 2.6 complies with the Advertising Signs Code.

(2) Assessable development that is consistent with the specific outcomes of the Development Requirements *Table 6.4.2C– Assessment Criteria for Assessable Development* contained in Section 2.6 complies with the Advertising Signs Code.

(3) For all signage, where a discrepancy exists between the acceptable solutions, specific outcomes or probable solutions listed in:-

(a) an overlay code; or

(b) a locality code; or

(c) this code;

for any sign type, the specific requirements listed in the overlay code prevail over all others, while the locality code requirements prevail over the corresponding provisions of this code.

2.4 Critical Terms for this Code

The dictionary in Schedule A to this code provides the meaning for a number of critical terms used in the code[3].

2.5 Development Requirements

The development requirements of this code relate to the following elements:-

(1) Aggregate Face Area of Business Signage

(2) General Development Criteria for Each of the Various Forms of Advertising Signage

(3) Requirements for Iluminated Signs

(4) Requirements for Signs Fixed to Elements of the Natural and Built Environment

(5) Requirements for Signs within Council Controlled Road Reserves and Other Public Places

(6) Requirements for Signs Affixed to Buildings

2.6 Development Requirements Tables

Table 6.4.2A Assessment Criteria for Self Assessable Development

Acceptable Solutions For Self Assessable Development	
Aggregate Face Area of Business Signage[4]	
AS 1.1 The aggregate ***face area*** of ***advertising signs:-*** (1) fully contained within a development ***site***; or (2) attached to a building, part of which may project beyond the property boundaries of the development ***site***; does not exceed the lesser of:- (3) the area determined in accordance with the following Table 6.4.2B; or (4) 45m²	
Table 6.4.2B	
Environment	**Aggregate *Face Area* of *Advertising Signs***
Residential Area	Home Industry zone – 0.6m² Other – 0m²
Convenience Business Area	the greater of:- (1) 1.5m² per tenancy, and (2) 1m² plus 1m² per 8m, or part thereof, of ***site*** frontage length.
Major Business Area	the greater of:- (1) 2m² per tenancy, and (2) 1m² plus 1m² per 5m, or part thereof, of ***site*** frontage length.
Industrial Area	the greater of:- (1) 2m² per tenancy, and (2) 1m² plus 1m² per 5m, or part thereof, of ***site*** frontage length.
Rural Area	5m²
Reserves Area	0m²
Special Use Area	0m²

Acceptable Solutions For Self Assessable Development
AS 1.2 Where the development has more than one self contained tenancy, signage for each tenancy is determined by:- A B X C = D where A = the aggregate ***face area*** of business signage for the overall development ***site*** B = the gross leasable area of the overall development C = the gross leasable area of the tenancy D = the maximum allotted signage for the tenancy
General Development Criteria for each of the Various Forms of Advertising Signage[5]
AS 2.1 ***Advertising signs***:- (1) do not incorporate an automated changing display or visible moving element as part of the normal advertising process; (2) do not incorporate the use of a cold air inflatable or lighter than air aerial device; (3) do not incorporate the use of an image or images projected onto one or more display surfaces; (4) do not extend across, and are not supported by, ***structures*** on the opposite sides of, a road; (5) are not affixed to, painted on or otherwise adhered to, the abutments, piers or balustrades of an overbridge; (6) are not affixed to, painted on or otherwise adhered to, any part of the roof of a building except where the sign takes the form of an ***awning fascia sign***, a ***created awning sign***, a ***blind sign*** or an ***under awning sign***; and (7) do not take the form of a 3D object sign, a sky sign, a vehicle mounted sign or bunting. **AND** **AS 2.2** Where an ***advertising sign*** in the form of an ***attached banner sign*** is provided, each such sign:- (1) is wholly contained within the property on which the building to which the sign is affixed is sited; (2) is not artificially illuminated by any means other than spill or reflected light; (3) has an aggregate ***face area*** of no more than 2.4m^2; (4) has a width of no more than 750mm; (5) has an overall height above finished ground level of no more than:- (a) that of the adjacent section of the building to which it is attached; or (b) 5m; whichever is the lesser; (6) has an unobstructed clearance of no less than 2.4m between finished ground level and the bottom of the sign; (7) is no closer than 3m to the side or rear boundary of the development ***site*** if the sign is partly, or totally, facing that boundary; and (8) is no closer than 6m to any other ***attached banner sign***. **AND** **AS 2.3** Where an ***advertising sign*** in the form of an ***awning fascia sign*** is provided, each such sign:- (1) protrudes out from the awning to which it is attached by no more than 100mm; (2) is no closer than 300mm to the vertical projection of the face of any vehicle barrier kerb below; and (3) has a height of no more than the lesser of:- (a) the depth of the fascia; and (b) 600mm. **AND** **AS 2.4** Where an ***advertising sign*** in the form of a ***billboard sign*** or a ***pylon sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place; (2) is not established along the same frontage of the development ***site*** as another ***billboard sign*** or a ***pylon sign*** unless the frontage is more than 100m in length; (3) has a separation distance of no less than the following from another ***billboard sign*** or ***pylon sign*** on the same, or an adjacent, ***site***:- (a) 60m between a ***billboard sign*** and a ***pylon sign***; (b) 60m between two ***billboard signs***; and (c) 30m between two ***pylon signs***; (4) has no more than 2 display faces, each of which:- (a) has a face area of no more than 10m^2; and (b) has an internal angle of no more than 45^o to the other display face; (5) has an overall height above finished ground level of no more than 5m;

Acceptable Solutions For Self Assessable Development

(6) is so designed as to either not permit pedestrian traffic to pass under the sign or incorporate only vertical or near vertical elements which anchor the sign to the ground within that part of the sign that is within 2.4m of finished ground level;

(7) is no closer than 3m to the side or rear boundary of the development ***site*** if the sign is partly or totally facing that boundary; and

(8) does not present the view of an exposed frame or unpainted surface behind the sign face to an adjoining property, road or other public place.

AND

AS 2.5 Where an ***advertising sign*** in the form of a ***blind sign*** is provided, each such sign:-

(1) is not artificially illuminated by any means other than spill or reflected light; and

(2) has an unobstructed clearance above finished ground level of no less than:-

(a) 2.4m to a rigid component of the sign; and

(b) 2.1m to a flexible component of the sign.

AND

AS 2.6 Where an ***advertising sign*** in the form of a ***canopy sign*** is provided, each such sign:-

(1) is not located either wholly or partly within a road or other public place;

(2) is not artificially illuminated by any means other than spill or reflected light; and

(3) has an unobstructed clearance above finished ground level of no less than:-

(a) 2.4m to a rigid component of the sign; and

(b) 2.1m to a flexible component of the sign.

AND

AS 2.7 Where an ***advertising sign*** in the form of a ***changeable message sign*** is provided, each such sign:-

(1) is not located either wholly or partly within a road or other public place;

(2) is so designed as to either not permit pedestrian traffic to pass under the sign or incorporate only vertical or near vertical elements which anchor the sign to the ground within that part of the sign that is within 2.4m of finished ground level;

(3) has, where the sign is attached to a building, an overall height above finished ground level of no more than:-

(a) that of the adjacent section of the building to which it is attached; or

(b) 5m;

whichever is the lesser;

(4) has, where the sign is freestanding, an overall height above finished ground level of no more than 5m;

(5) has no more than 2 display faces, each of which has an internal angle of no more than 45^{o} to the other display face;

(6) has an aggregate ***face area*** of no more than 2.4m^{2};

and no more than one such sign is erected on each street frontage to the development ***site***.

AND

AS 2.8 Where an ***advertising sign*** in the form of a ***construction site sign*** is provided, each such sign:-

(1) is not artificially illuminated by any means other than spill or reflected light;

(2) has a ***face area*** of no more than 10m^{2};

(3) has an overall height above finished ground level of no more than 5m; and

(4) is restricted in its content to:-

(a) the name and logo of the owner or developer of the construction project; and

(b) critical information concerning the project.

AND

AS 2.9 Where an ***advertising sign*** in the form of a ***created awning sign*** is provided, each such sign:-

(1) protrudes from the awning to which it is attached by no more than 100mm;

(2) is no closer than 300mm to the vertical projection of the face of any vehicle barrier kerb below;

(3) extends no more than 600mm above the fascia to which it is attached;

(4) has an unobstructed clearance of no less than 2.4m between finished ground level and any part of the sign; and

(5) has a ***face area*** of no more than 125% of that area of the awning face area covered by that sign.

AND

AS 2.10 Where an ***advertising sign*** in the form of a ***flag sign*** is provided, each such sign:-

(1) is not artificially illuminated by any means other than spill or reflected light;

(2) is not located either wholly or partly within a road or other public place;

(3) has an aggregate ***face area*** of no more than 2.4m^{2};

(4) is no closer than 3m to the side or rear boundary of the development ***site***;

Acceptable Solutions For Self Assessable Development

(5) is no closer than 6m to any other ***flag sign***;

(6) has an unobstructed clearance of no less than 2.4m between finished ground level and any part of the flag;

(7) has, where the sign is ground mounted, an overall height above finished ground level of no more than 5m; and

(8) has, where the sign is attached to a building, an overall height above finished ground level of no more than :-

(a) that of the adjacent section of the building to which it is attached; or

(b) 5m;

whichever is the lesser.

AND

AS 2.11 Where an ***advertising sign*** in the form of a ***freestanding banner sign*** is provided, each such sign:-

(1) is not artificially illuminated by any means other than spill or reflected light;

(2) is not located either wholly or partly within a road or other public place;

(3) has an aggregate ***face area*** of no more than 2.4m^2;

(4) has, except for any vertical or near vertical elements which anchor the sign to the ground, an unobstructed clearance of no less than 2.4m between finished ground level and the bottom of the sign;

(5) has an overall height above finished ground level of no more than 5m;

(6) has a width of no more than 750mm;

(7) is no closer than 3m to the side or rear boundary of the development ***site***; and

(8) is no closer than 6m to any other ***freestanding banner sign***.

AND

AS 2.12 Where an ***advertising sign*** in the form of a ***ground sign*** or ***boundary fence sign*** is provided, each such sign:-

(1) has an aggregate ***face area*** of no more than 10m^2;

(2) has an overall height above finished ground level of no more than 1.8m;

(3) is not located either partly or wholly, within a road or other public place;

(4) is not less than 60m from any other ***ground sign*** or ***boundary fence sign*** on the same, or an adjacent, development ***site***;

(5) is not established along the same frontage of the development site as another ***ground sign*** or ***boundary fence sign*** unless that frontage is more than 100m in length;

(6) is no closer than 3m to the side of rear boundary of the development ***site*** if the sign is partly or totally facing that boundary; and

(7) does not present the view of an exposed frame or unpainted surface behind the sign face to an adjoining property, road or other public place.

AND

AS 2.13 Where an ***advertising sign*** in the form of a ***hamper sign*** is provided, each such sign:-

(1) is not located either wholly or partly within a road or other public place; and

(2) does not protrude from the wall to which it is attached by more than 100mm.

AND

AS 2.14 Where an ***advertising sign*** in the form of a ***mobile sign*** is provided, each such sign:-

(1) is not artificially illuminated by any means other than spill or reflected light;

(2) is not located either wholly or partly within a road or other public place;

(3) has a walkway with a width of no less than 2m between the sign and any part of an adjacent building or ***structure***;

(4) has an overall height above finished ground level of no less than 900mm and no more than 1.2m;

(5) has a width and depth of no more than 600mm;

(6) does not, when in display position, have any moving, rotating or animated parts;

(7) is only used for display purposes during the trading hours of the business advertised by that sign;

and no business undertaking on any development ***site*** is advertised on more than one such sign on that ***site***.

AND

AS 2.15 Where an ***advertising sign*** in the form of a ***projecting sign*** is provided, each such sign:-

(1) is not located either wholly or partly within a road or other public place;

(2) has a width of no more than 750mm and a length of no more than 5m;

(3) has an aggregate ***face area*** of no more than 10m^2;

(4) has an overall height above finished ground level of no more than:-

(a) that of the adjacent section of the building to which it is attached; or

(b) 5m;

whichever is the lesser; and

(5) is so designed as to either not permit pedestrian traffic to pass under the sign or have a clearance of no less than 2.4m between the bottom of the sign and finished ground level.

Acceptable Solutions For Self Assessable Development
AND **AS 2.16** Where an ***advertising sign*** in the form of a ***stallboard sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place; and (2) does not protrude from the wall to which it is attached by more than 100mm. **AND** **AS 2.17** Where an ***advertising sign*** in the form of an ***under awning sign*** is provided, each such sign:- (1) has a height of no more than 0.5m and a depth of no more than 0.3m; (2) does not extend beyond the vertical projection of the awning or verandah to which it is affixed; (3) has an overall length of no more than:- (a) 2.4m; or (b) 75% of the width of the awning or verandah to which it is affixed; whichever is the lesser; (4) has an unobstructed clearance above finished ground level of no less than 2.4m; (5) is no closer than 1.5m to the side or rear boundary of the development ***site*** if the sign is partly or totally facing that boundary; and (6) is no closer than 3m to any other ***under awning sign***. **AND** **AS 2.18** Where an ***advertising sign*** in the form of a ***wall sign*** is provided, each such sign:- (1) projects no more than 300mm from the wall to which it is affixed; (2) does not project beyond any edge of the wall to which it is affixed; (3) has a height above finished ground level of no more than:- (a) 5m; or (b) the height of the wall to which the sign is affixed; whichever is the lesser; (4) has an aggregate ***face area*** of no more than $10m^2$; and (5) if it protrudes more than 50mm from the face of the wall to which it is affixed, either is no closer than 2.4m to finished ground level or is within 1.2m of finished ground level. **AND** **AS 2.19** Wherean ***advertising sign*** in the form of a ***window sign*** is provided, the aggregate display area of such signage does not exceed 25% of the area of the glazed area on which, or behind which, the sign is displayed.
Requirements for Illuminated Signs
AS 3.1 Artificial lighting used either for the direct illumination of signs, or to draw attention to a specific sign, is undertaken in such a manner that the resulting illumination does not exceed the "recommended maximum values of light technical parameters for the control of obtrusive light" given in Table 2.1 of *Australian Standard AS 4282 (1997) Control of the Obtrusive Effects of Outdoor Lighting.* **AND** **AS 3.2** Artificial lighting of signs is in the form of static illumination.
Requirements for Signs Fixed to Elements of the Natural and Built Environment
AS 4 Signs are not fixed to:- (1) trees or shrubs; (2) utility provider infrastructure; (3) street furniture; (4) traffic sign posts; or (5) reflector posts.
Requirements for Signs within Council Controlled Road Reserves and Other Public Places[6]
AS 5 Signs which are erected within ***Council*** controlled[7] road reserves are not placed in:- (1) medians; (2) traffic islands; (3) roundabouts; (4) positions which obstruct the visibility of traffic control devices; (5) positions which obstruct the driver sightlines prescribed in the *Planning Scheme Policy PSP28 Civil Infrastructure Design*; or (6) positions which obstruct designated pedestrian or cycle pathways and vehicle parking or manoeuvring areas.

Acceptable Solutions For Self Assessable Development
Requirements for Signs Affixed to Buildings[5] [8]
AS 6.1 ***Advertising signs*** affixed to, painted on, or otherwise adhered to, any part of the roof of a building take the form of:- (1) an ***awning fascia sign*** satisfying the general development criteria prescribed in *AS 2.3* of this code; or (2) a ***created awning sign*** satisfying the general development criteria prescribed in *AS 2.9* of this code; or (3) an ***under awning sign*** satisfying the general development criteria prescribed in *AS 2.17* of this code. ***AND*** **AS 6.2** ***Advertising signs*** affixed to, painted on, or otherwise adhered to, any wall of a building, take the form of:- (1) a ***window sign*** satisfying the general development criteria prescribed in *AS 2.19* of this code; or (2) a ***stallboard sign*** satisfying the general development criteria prescribed in *AS 2.16* of this code; or (3) a ***hamper sign*** satisfying the general development criteria prescribed in *AS 2.13* of this code; or (4) a ***canopy sign*** satisfying the general development criteria prescribed in *AS 2.6* of this code.

Table 6.4.2C Assessment Criteria for Assessable Development

Specific Outcomes for Assessable Development	Probable Solutions
Aggregate Face Area of Business Signage[4]	
SO 1 The extent of business signage on each development ***site*** allows for the reasonable commercial needs of each of the operators of businesses on that ***site*** while:- (1) taking a form which is subservient to the desirable characteristics of the built and natural environment of the development ***site*** and its immediate surrounds; and (2) not having a significant adverse effect on the desired or established character, streetscape and environmental values of the area.	**PS 1.1** The aggregate ***face area*** of ***advertising signs***:- (1) fully contained within a development ***site;*** or (2) attached to a building, part of which may project beyond the property boundaries of the development ***site***; does not exceed the lesser of:- (3) the area determined in accordance with the following Table 6.4.2D; or (4) 45m^2.

Table 6.4.2D

Environment	Aggregate *Face Area of Advertising Signs*
Residential Area	Home industry zone – 0.6m^2 Other – 0m^2
Convenience Business Area	the greater of:- (1) 1.5m^2 per tenancy, and (2) 1m^2 plus 1m^2 per 8m, or part thereof, of ***site*** frontage length.
Major Business Area	the greater of:- (1) 2m^2 per tenancy, and (2) 1m^2 plus 1m^2 per 5m, or part thereof, of ***site*** frontage length.
Industrial Area	the greater of:- (1) 2m^2 per tenancy, and (2) 1m^2 plus 1m^2 per 5m, or part thereof, of ***site*** frontage length.
Rural Area	5m^2
Reserves Area	0m^2
Special Use Area	0m^2

PS 1.2 Where the development has more than one self contained tenancy, signage for each tenancy is determined by:-

$$\frac{A}{B} \times C = D$$

Specific Outcomes for Assessable Development	Probable Solutions
	where A = the aggregate ***face area*** of business signage for the overall development ***site*** B = the gross leasable area of the overall development C = the gross leasable area of the tenancy D = the maximum allotted signage for the tenancy
General Development Criteria for each of the Various Forms of Advertising Signage[5]	
SO 2 The form, location and extent of advertising signage allows for the reasonable commercial and promotional needs of the advertiser while:- (1) being subservient to the desirable characteristics of the built and natural environment of the immediate surrounds to the signage; (2) not having a significant adverse effect on the desired or established character, streetscape and environmental values of the area; (3) minimising any potential adverse effects on adjacent premises; (4) minimising any potential distractive effect on vehicular traffic in the vicinity of the signage; (5) minimising any potential visual clutter; and (6) taking into account the rights of all users of public areas in terms of access and safety.	There is no probable solution for any of the following types of ***advertising signs***:- (1) ***above awning signs***; (2) ***animated signs***; (3) ***bunting***; (4) ***inflatable signs***; (5) ***3D object signs***; (6) ***projected image signs***; (7) ***road banner signs***; (8) ***roof signs***; (9) ***sign written roof signs***; (10) ***sky signs***; (11) ***transport structure signs***; and (12) ***vehicle mounted signs.*** **AND** **PS 2.1** Where an **advertising sign** in the form of an ***attached banner sign*** is provided, each such sign:- (1) is wholly contained within the property on which the building to which the sign is affixed is sited; (2) is not artificially illuminated by any means other than spill or reflected light; (3) has an aggregate ***face area*** of no more than 2.4m^2; (4) has a width of no more than 750mm; (5) has an overall height above finished ground level of no more than:- (a) that of the adjacent section of the building to which it is attached; or (b) 5m; whichever is the lesser; (6) has an unobstructed clearance of no less than 2.4m between finished ground level and the bottom of the sign; (7) is no closer than 3m to the side or rear boundary of the development ***site*** if the sign is partly or totally facing that boundary; and (8) is no closer than 6m to any other ***attached banner sign.*** **AND** **PS 2.2** Where an ***advertising sign*** in the form of an ***awning fascia sign*** is provided, each such sign:- (1) protrudes out from the awning to which it is attached by no more than 100mm; (2) is no closer than 300mm to the vertical projection of the face of any vehicle barrier kerb below; and (3) has a height of no more than the lesser of:- (a) the depth of the fascia; and (b) 600mm. **AND**

Specific Outcomes for Assessable Development	Probable Solutions
	PS 2.3 Where an ***advertising sign*** in the form of a ***billboard sign*** or a ***pylon sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place; (2) is not established along the same frontage of the development ***site*** as another ***billboard sign*** or a ***pylon sign*** unless the frontage is more than 100m in length; (3) has a separation distance of no less than the following from another ***billboard sign*** or ***pylon sign*** on the same, or an adjacent, ***site***:- (a) 60m between a ***billboard sign*** and a ***pylon sign***; (b) 60m between two ***billboard signs***; and (c) 30m between two ***pylon signs***; (4) has no more than 2 display faces, each of which:- (a) has a face area of not more than $10m^2$; and (b) has an internal angle of no more than 45^o to the other display face; (5) has an overall height above finished ground level of no more than 5m; (6) is so designed as to either not permit pedestrian traffic to pass under the sign or incorporate only vertical or near vertical elements which anchor the sign to the ground within that part of the sign that is within 2.4m of finished ground level; (7) is no closer than 3m to the side or rear boundary of the development ***site*** if the sign is partly or totally facing that boundary; and (8) does not present the view of an exposed frame or unpainted surface behind the sign face to an adjoining property, road or other public place. **AND** **PS 2.4** Where an ***advertising sign*** in the form of a ***blind sign*** is provided, each such sign:- (1) is not artificially illuminated by any means other than spill or reflected light; and (2) has an unobstructed clearance above finished ground level of no less than:- (a) 2.4m to a rigid component of the sign; and (b) 2.1m to a flexible component of the sign. **AND** **PS 2.5** Where an ***advertising sign*** in the form of a ***canopy sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place; (2) is not artificially illuminated by any means other than spill or reflected light; and (3) has an unobstructed clearance above finished ground level of no less than:- (a) 2.4m to a rigid component of the sign; and (b) 2.1m to a flexible component of the sign. **AND** **PS 2.6** Where an ***advertising sign*** in the form of a ***changeable message sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place;

Specific Outcomes for Assessable Development	Probable Solutions
	(2) is so designed as to either not permit pedestrian traffic to pass under the sign or incorporate only vertical or near vertical elements which anchor the sign to the ground within that part of the sign that is within 2.4m of finished ground level; (3) has, where the sign is attached to a building, an overall height above finished ground level of no more than:- (a) that of the adjacent section of the building to which it is attached; or (b) 5m; whichever is the lesser; (4) has, where the sign is freestanding, an overall height above finished ground level of no more than 5m; (5) has no more than 2 display faces, each of which has an internal angle of no more than 45° to the other display face; (6) has an aggregate ***face area*** of no more than 2.4m²; and no more than one such sign is erected on each street frontage to the development ***site***. **AND** **PS 2.7** Where an ***advertising sign*** in the form of a ***construction site sign*** is provided, each such sign:- (1) is not artificially illuminated by any means other than spill or reflected light; (2) has a ***face area*** of no more than 10m²; (3) has an overall height above finished ground level of no more than 5m; and (4) is restricted in its content to:- (a) the name and logo of the owner or developer of the construction project; and (b) critical information concerning the project. **AND** **PS 2.8** Where an ***advertising sign*** in the form of a ***created awning sign*** is provided, each such sign:- (1) protrudes from the awning to which it is attached by no more than 100mm; (2) is no closer than 300mm to the vertical projection of the face of any vehicle barrier kerb below; (3) extends no more than 600mm above the fascia to which it is attached; (4) has an unobstructed clearance of no less than 2.4m between finished ground level and any part of the sign; and (5) has a ***face area*** of no more than 125% of that area of the awning face area covered by that sign. **AND** **PS 2.9** Where an ***advertising sign*** in the form of a ***flag sign*** is provided, each such sign:- (1) is not artificially illuminated by any means other than spill or reflected light; (2) is not located either wholly or partly within a road or other public place; (3) has an aggregate ***face area*** of no more than 2.4m²; (4) is no closer than 3m to the side or rear boundary of the development ***site***; (5) is no closer than 6m to any other ***flag sign***; (6) has an unobstructed clearance of no less than 2.4m between finished ground level and any part of the flag;

Specific Outcomes for Assessable Development	Probable Solutions
	(7) has, where the sign is ground mounted, an overall height above finished ground level of no more than 5m; and (8) has, where the sign is attached to a building, an overall height above finished ground level of no more than:- (a) that of the adjacent section of the building to which it is attached; or (b) 5m; whichever is the lesser. **AND** **PS 2.10** Where an ***advertising sign*** in the form of a ***freestanding banner sign*** is provided, each such sign:- (1) is not artificially illuminated by any means other than spill or reflected light; (2) is not located either wholly or partly within a road of other public place; (3) has an aggregate ***face area*** of no more than 2.4m^2; (4) has, except for any vertical or near vertical elements which anchor the sign to the ground, an unobstructed clearance of no less than 2.4m between finished ground level and the bottom of the sign; (5) has an overall height above finished ground level of no more than 5m; (6) has a width of no more than 750mm; (7) is no closer than 3m to the side or rear boundary of the development ***site***; and (8) is no closer than 6m to any other ***freestanding banner sign***. **AND** **PS 2.11** Where an ***advertising sign*** in the form of a ***ground sign*** or ***boundary fence sign*** is provided, each such sign:- (1) has an aggregate ***face area*** of no more than 10m^2; (2) has an overall height above finished ground level of no more than 1.8m; (3) is not located either partly or wholly within a road or other public place; (4) is not less than 60m from any other ***ground sign*** or ***boundary fence sign*** on the same, or an adjacent, development ***site***; (5) is not established along the same frontage of the development site as another ***ground sign*** or ***boundary fence sign*** unless that frontage is more than 100m in length; (6) is no closer than 3m to the side of rear boundary of the development ***site*** if the sign is partly or totally facing that boundary; and (7) does not present the view of an exposed frame or unpainted surface behind the sign face to an adjoining property, road or other public place. **AND** **PS 2.12** Where an ***advertising sign*** in the form of a ***hamper sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place; and (2) does not protrude from the wall to which it is attached by more than 100mm. **AND**

Specific Outcomes for Assessable Development	Probable Solutions
	PS 2.13 Where an ***advertising sign*** in the form of a ***mobile sign*** is provided, each such sign:- (1) is not artificially illuminated by any means other than spill or reflected light; (2) is not located either wholly or partly within a road or other public place; (3) has a walkway with a width of no less than 2m between the sign and any part of an adjacent building or ***structure***; (4) has an overall height above finished ground level of no less than 900mm and no more than 1.2m; (5) has a width and depth of no more than 600mm; (6) does not, when in display position, have any moving, rotating or animated parts; (7) is only used for display purposes during the trading hours of the business advertised by that sign; and no business undertaking on any development ***site*** is advertised on more than one such sign on that ***site***. **AND** **PS 2.14** Where an ***advertising sign*** in the form of a ***projecting sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place; (2) has a width of no more than 750mm and a length of no more than 5m; (3) has an aggregate ***face area*** of no more than $10m^2$; (4) has an overall height above finished ground level of no more than:- (a) that of the adjacent section of the building to which it is attached; or (b) 5m; whichever is the lesser; and (5) is so designed as to either not permit pedestrian traffic to pass under the sign or have a clearance of no less than 2.4m between the bottom of the sign and finished ground level. **AND** **PS 2.15** Where an ***advertising sign*** in the form of a ***stallboard sign*** is provided, each such sign:- (1) is not located either wholly or partly within a road or other public place; and (2) does not protrude from the wall to which it is attached by more than 100mm. **AND** **PS 2.16** Where an ***advertising sign*** in the form of an ***under awning sign*** is provided, each such sign:- (1) has a height of no more than 0.5m and a depth of no more than 0.3m; (2) does not extend beyond the vertical projection of the awning or verandah to which it is affixed; (3) has an overall length of no more than:- (a) 2.4m; or (b) 75% of the width of the awning or verandah to which it is affixed; whichever is the lesser; (4) has an unobstructed clearance above finished ground level of no less than 2.4m; (5) is no closer than 1.5m to the side or rear boundary of the development ***site*** if the sign is partly or totally facing that boundary; and

Specific Outcomes for Assessable Development	Probable Solutions
	(6) is no closer than 3m to any other ***under awning sign***. **AND** **PS 2.17** Where an ***advertising sign*** in the form of a ***wall sign*** is provided, each such sign:- (1) projects no more than 300mm from the wall to which it is affixed; (2) does not project beyond any edge of the wall to which it is affixed; (3) has a height above finished ground level of no more than:- (a) 5m; or (b) the height of the wall to which the sign is affixed; whichever is the lesser; (4) has an aggregate ***face area*** of no more than 10m²; and (5) if it protrudes more than 50mm from the face of the wall to which it is affixed, either is no closer than 2.4m to finished ground level or is within 1.2m of finished ground level. **AND** **PS 2.18** Where an ***advertising sign*** in the form of a ***window sign*** is provided, the aggregate display area of such signage does not exceed 25% of the area of the glazed area on which, or behind which, the sign is displayed.
Requirements for Illuminated Signs	
SO 3 Artificial lighting used for the direct illumination of signs, or to draw attention to a specific sign, is undertaken in such a manner as to:- (1) not cause unreasonable disturbance to vehicular or pedestrian traffic; (2) not cause unreasonable disturbance to any person or fauna on adjacent land; (3) be in keeping with the desired or established character of the area; and (4) not adversely impact on the existing or desired streetscape for the area.	**PS 3.1** Artificial lighting used either for the direct illumination of signs, or to draw attention to a specific sign, is undertaken in such a manner that the resulting illumination does not exceed the "recommended maximum values of light technical parameters for the control of obtrusive light" given in Table 2.1 of *Australian Standard AS 4282 (1997) Control of the Obtrusive Effects of Outdoor Lighting.* **AND** **PS 3.2** Artificial lighting of signs is in the form of static illumination.
Requirements for Signs Fixed to Elements of the Natural and Built Environment	
SO 4 Signs are erected in a manner which:- (1) does not cause injury to living elements of the natural environment; (2) does not adversely affect the operation, or reduce the effective life of, utility infrastructure, other street furniture or traffic control devices; and (3) is in keeping with the desired or established character, streetscape and environmental values of the area.	**PS 4** Signs are not fixed to:- (1) trees or shrubs; (2) utility provider infrastructure; (3) street furniture; (4) traffic sign posts; or (5) reflector posts.
Requirements for Signs within Council Controlled Road Reserves and Other Public Places[6]	
SO 5 Signs erected within ***Council*** controlled road reserves[7] or other public places are positioned in a manner that:- (1) ensures the effective operation of roads, footpaths and traffic control devices are not adversely affected; (2) ensures the rights of all users of public areas in terms of access and safety are preserved; and (3) does not have a significant adverse effect on the desired or established character, streetscape and environmental values of the area.	**PS 5** Signs which are erected within ***Council*** controlled road reserves are not placed in:- (1) medians; (2) traffic islands; (3) roundabouts; (4) positions which obstruct the visibility of traffic control devices; (5) positions which obstruct the driver sightlines prescribed in the *Planning Scheme Policy PSP28 Civil Infrastructure Design*; or

Specific Outcomes for Assessable Development	Probable Solutions
	(6) positions which obstruct designated pedestrian or cycle pathways and vehicle parking or manoeuvring areas.
Requirements for Signs Affixed to Buildings[5 8]	
SO 6 Advertising signage affixed to any part of a building is of a scale, proportion and style, and is positioned in a manner, which:- (1) is complementary to, and compatible with, the architecture, scale, proportions and style of the building to which it is affixed; (2) follows, complements and is integrated with, established grid lines and distinct building elements of the building to which it is affixed; (3) except for ***window signs***, does not cover windows, other external openings within the building fabric or decorative feature elements of the building to which the sign is affixed; (4) follows, complements and is integrated with, the proportions and pattern of advertising signage on adjacent buildings and in the immediate vicinity of the development ***site***; and (5) does not have a significant adverse effect on the desired or established character, streetscape and environmental values of the area.	There is no probable solution for any of the following types of ***advertising signs***:- (1) ***above awning sign***; (2) ***animated sign***; (3) ***attached banner sign***; (4) ***blind sign***; (5) ***bunting***; (6) ***changeable message sign***; (7) ***flag sign***; (8) ***inflatable sign***; (9) ***3D object sign***; (10) ***projecting sign***; (11) ***projected image sign***; (12) ***road banner sign***; (13) ***roof sign***; (14) ***signwritten roof sign***; (15) ***sky sign***; (16) ***transport structure sign***; and (17) ***wall sign***. **PS 6** Compliance with the "General Development Criteria" identified in the following Table 6.4.2E achieves the specific outcome for this element for those sign types listed in that table:-

TABLE 6.4.2E

Sign Type	General Development Criteria
Awning Fascia Sign	*PS 2.2* of this code
Canopy Sign	*PS 2.5* of this code
Created Awning Sign	*PS 2.8* of this code
Hamper Sign	*PS 2.12* of this code
Stallboard Sign	*PS 2.15* of this code
Under Awning Sign	*PS 2.16* of this code
Window Sign	*PS 2.18* of this code

Schedule A to the Advertising Signs Code – Additional Defined Terms

For the purposes of this code, the following meanings apply to critical terms used in the code:-

(1) ***Above Awning Sign***

An ***advertising sign*** affixed to the top of the awning or verandah roof of a building. The term does not include an ***animated sign***

(2) ***Animated Sign***

An ***advertising sign*** which incorporates an automated changing display or visible moving elements as part of the normal advertising process and includes signs with flashing or "chasing" bulbs and other non-static displays. The term does not include a ***projected image sign***.

(3) ***Attached Banner Sign***

An ***advertising sign*** comprising non-rigid material which is secured at the top and bottom to a building. The term does not include a ***road banner sign***.

(4) ***Awning Fascia Sign***

An advertisement painted on, otherwise affixed to, the fascia of an awning or verandah and which is contained fully within the outline of the fascia.

(5) ***Billboard Sign***

A freestanding display surface, the width of which is greater than the height, which may be mounted directly on the ground or on one or more vertical supports. The term does not include a ***ground sign*** or an ***animated sign***.

(6) ***Blind Sign***

An advertisement painted on, or otherwise affixed to, solid or flexible material suspended below the outer edge of an awning or verandah.

(7) ***Boundary Fence Sign***

An advertisement painted on, or otherwise affixed to, a fence erected along the boundary of a ***site***. The term does not include a ***construction site sign*** or an ***animated sign***.

(8) ***Bunting***

An series of small flags+, pennants or the like suspended from a rope or cable, or long suspended ribbons of cloth or similar non-rigid material, either directly or indirectly fixed to a rigid ***structure***.

(9) ***Canopy Sign***

An advertisement painted on, or otherwise affixed to, a rigid or flexible canopy over a window, door or other opening to a building. The term does not include an ***animated sign***.

(10) ***Changeable Message Sign***

An advertisement in a form which allows the message to be readily changed by a manual process. The term does not include an ***animated sign*** or a ***mobile sign***.

(11) ***Construction Site Sign***

An ***advertising sign*** affixed to a ***structure*** or building under construction, or to fixed on-site construction equipment, and includes an advertisement painted on, or otherwise affixed flat to, a temporary safety fence erected in the immediate vicinity of the road boundary of the construction ***site***. The term does not include an ***animated sign***.

(12) ***Convenience Business Area***

Land within a Central Business zone (other than Central Business zoned land at Strathpine), Commercial, Local Business, Neighbourhood Facilities, Urban Village, Village Centre or similar Special Facilities zone.

(13) ***Created Awning Sign***

An ***advertising sign*** attached to, and extending beyond the upper and/or lower edge of, an awning or the like. The term does not include an ***animated sign*** or a ***projecting sign***;

(14) ***Face Area*** of an ***Advertising Sign***

The area of the advertising face of the device measured in the following manner:-

(a) where the sign has a clearly identified structural edge – to the outer extremity of the structural edge; or

(b) where the sign is a graphic or series of graphics on a much larger building element – to the outer extremity of the graphic or graphics; or

(c) where the sign is a projected image – to the outer extremity of the project light; or

(d) where the sign is internally illuminated – to the outer extremity of the illuminated area; or

(e) where the sign is bordered by an illuminated element, whether static or dynamic – to the outer extremity of the illuminated element; or

(f) where the sign comprises a number of separate elements – to the outer extremity of the outermost elements.

(15) ***Flag Sign***

An ***advertising sign*** comprising a cloth or similar non-rigid fabric hung from a pole by one edge only, or by two adjacent corners.

(16) ***Freestanding Banner Sign***

An ***advertising sign*** comprising non-rigid material which is secured at the top and bottom, and which projects out from the ground mounted, freestanding pole to which it is affixed. The term does not include a ***road banner sign***.

(17) ***Ground Sign***

An ***advertising sign*** incorporated in a monolithic structure which sits directly on the ground. The term does not include an ***animated sign***.

(18) ***Hamper Sign***

An ***advertising sign*** painted on, or otherwise affixed to, that section of the wall of a building between the door head and the awning or verandah immediately above, and which does not project beyond the outer extremities of the wall to which it is affixed. The term does not include an ***animated sign***.

(19) ***Industrial Area***

Land within a General Industry, Service Industry, Extractive Industry or similar Special Facilities zone.

(20) ***Inflatable Sign***

An ***advertising device*** in the form of a captive envelope, balloon, blimp or kite which is either a cold air inflatable or a lighter than air aerial device.

(21) ***Major Business Area***

Land within the Central Business zone at Strathpine.

(22) ***Mobile Sign***

An advertisement painted on, or affixed to, either a portable, freestanding, lightweight structure or a ***structure*** mounted on wheels to facilitate easy movement on a ***site***. The term does not include an ***animated sign***.

(23) ***3D Object Sign***

An ***advertising device*** which replicates a "real world" object but at a larger scale than the replicated object in its normal state. The term does not include an ***animated sign***.

(24) ***Projecting Sign***

A rigid ***advertising sign*** affixed to, and projecting at approximately right angles out from, a wall of the building to which it is affixed. The term does not include an ***animated sign***.

(25) ***Projected Image Sign***

An illuminated advertisement which is projected onto a display surface as a static or moving image.

(26) ***Pylon Sign***

A freestanding display surface the height of which is greater than the width and which may be mounted directly on the ground or on one or more vertical supports. The term does not include a ***ground sign*** or an ***animated sign***.

(27) ***Reserves Area***

Land within a Park and Open Space, Sports and Recreation, Conservation or similar Special Facilities zone.

(28) ***Residential Area***

Land within a Residential A, Residential B, Special Residential, Park Residential, Rural Residential, Future Urban, Home Industry or similar Special Facilities zone.

(29) ***Road Banner Sign***

A non-rigid ***advertising sign*** suspended temporarily across a road.

(30) ***Roof Sign***

An ***advertising sign*** affixed to an upper part of a building in such a location that the roof of that building would normally form the predominant backdrop to the sign when it is viewed from the ground. The term does not include an ***animated sign*** or an ***above awning sign***.

(31) ***Rural Area***

Land within a Rural or similar Special Facilities zone.

(32) ***Signwritten Roof Sign***

An advertisement either painted directly onto the roof of a building or fitted flat against the finished roof surface of the building. The term does not include an ***animated sign***.

(33) ***Sky Sign***

An ***advertising sign*** affixed to an upper part of a building in such a location that the sky, or an adjacent building, would normally form the predominant backdrop to the sign when viewed from the ground. The term does not include an ***above awning sign*** or an ***animated sign***.

(34) ***Special Use Area***

Land within a Special Purposes or similar Special Facilities zone.

(35) ***Stallboard Sign***

An advertisement painted on, or otherwise affixed to, the base of a shopfront below the line of any glazing, and which does not project beyond the outer extremities of the wall to which it is affixed. The term does not include an ***animated sign***.

(36) ***Transport Structure Sign***

An advertisement painted on, or otherwise affixed to, a transport ***structure*** such as the abutments, piers or balustrades of an overbridge. The term does not include an ***animated sign***;

(37) ***Type Signage***

That signage identified in Section 2.2(1) of this code.

(38) ***Under Awning Sign***

An ***advertising sign*** suspended under an awning or verandah where the sign is orientated approximately perpendicular to the road frontage of the ***site*** and which does not project beyond the outer extremities of the awning or verandah to which it is affixed. The term does not include an ***animated sign***.

(39) ***Vehicle Mounted Sign***

An advertisement painted on, or affixed to, a ***structure*** which in turn is affixed to a vehicle in such a way that the use of the vehicle for other than advertising purposes is subordinate to the advertising function.

(40) ***Wall Sign***

An advertisement painted on, or otherwise affixed flat to, a wall of a building but not projecting beyond the outer extremities of the wall to which it is affixed. The term does not include a ***hamper sign***, a ***stallboard sign***, an ***animated sign*** or a ***window sign***.

(41) ***Window Sign***

An advertisement which is displayed either on or immediately behind the glass of a display window. The term does not include an ***animated sign***.

SCHEDULE B to the "Advertising Signs Code"

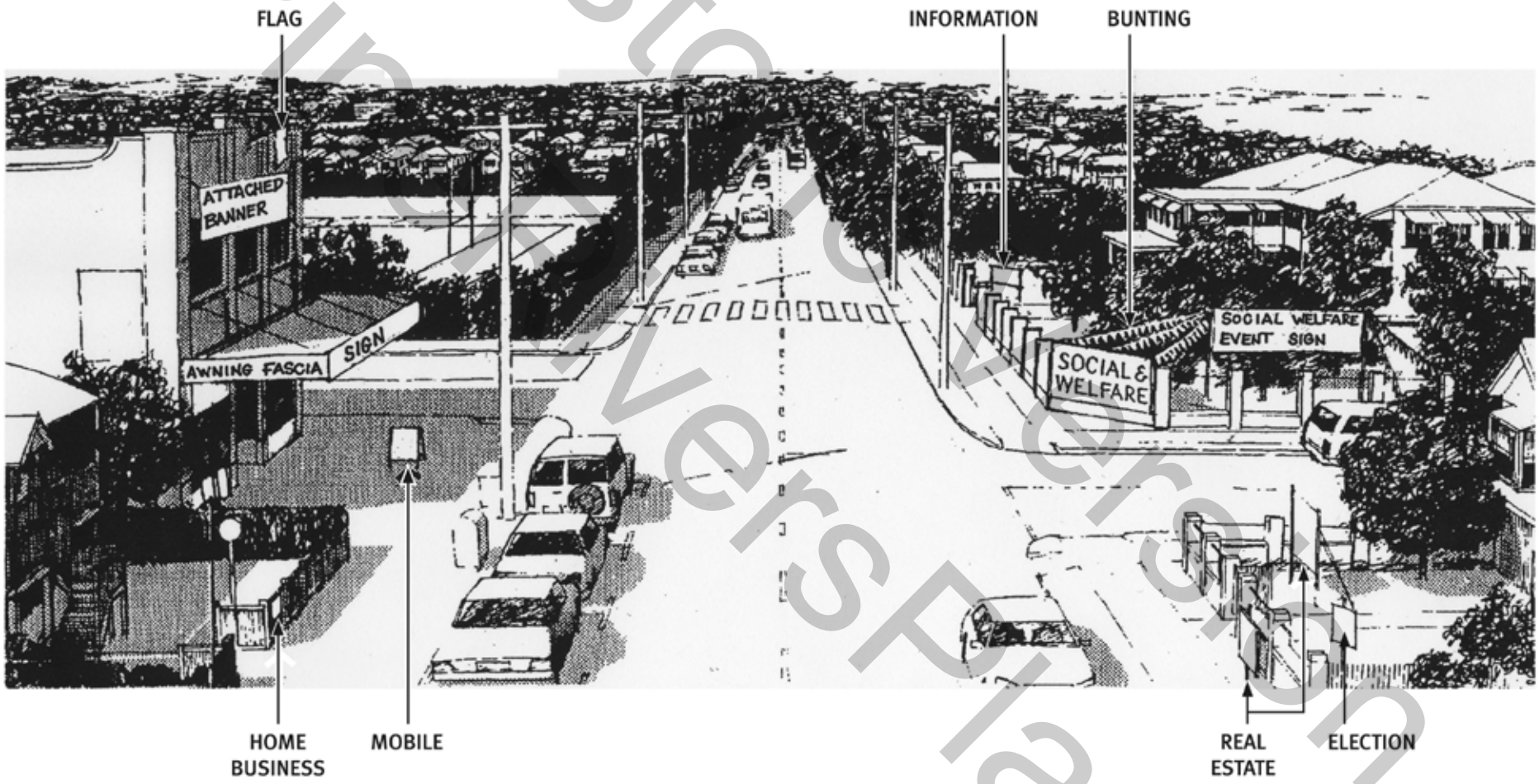


Figure 6.4.2A

(Note: illustrations reproduced and modified with the permission of Brisbane City Council)

Note also that the "Home Business", "Information", "Real Estate", "Election", "Social and Welfare" and "Social and Welfare Event" signs illustrated above are not regulated by this code and are included for information purposes only.

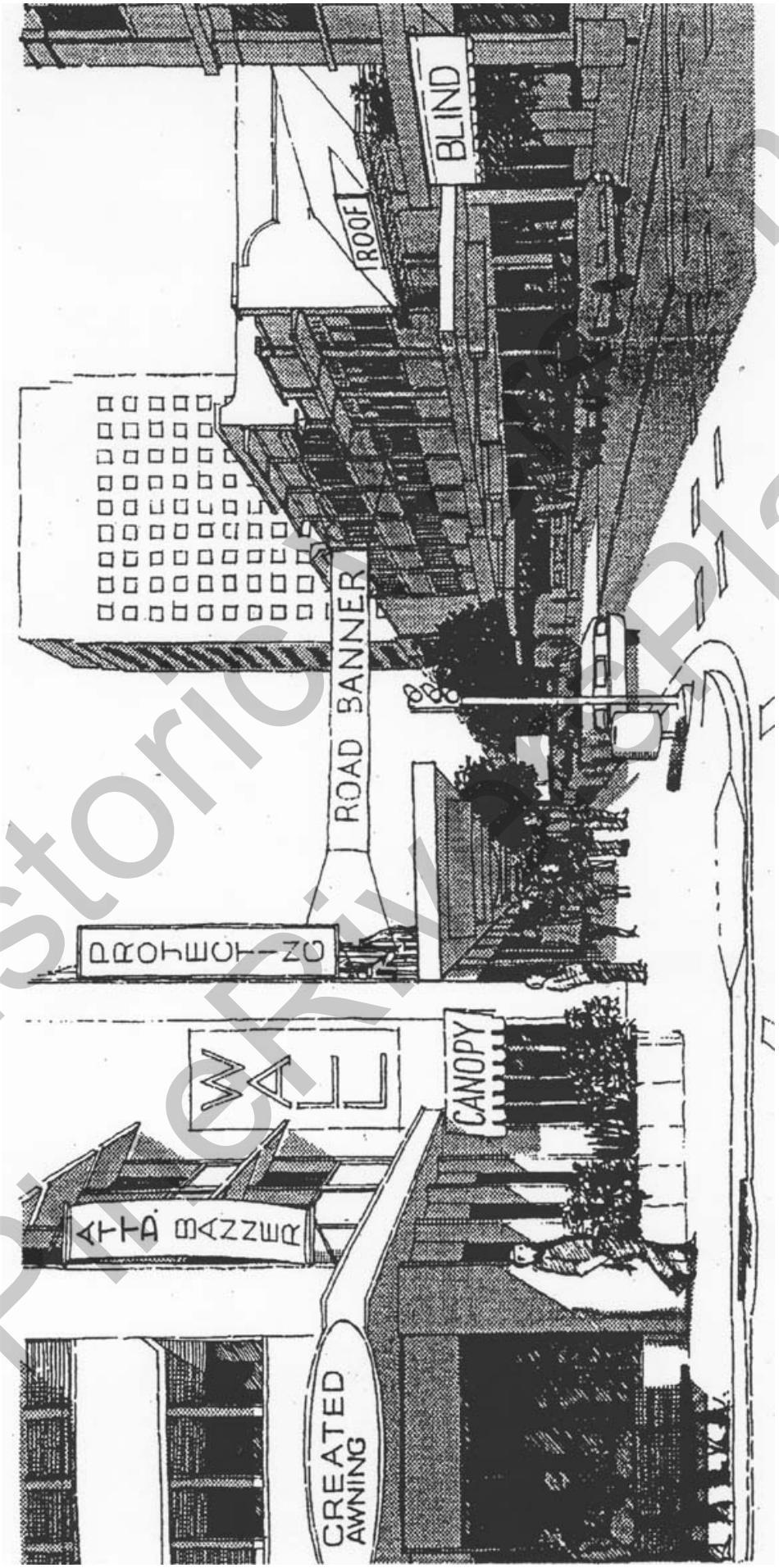


Figure 6.4.2B

(Note: illustrations reproduced and modified with the permission of Brisbane City Council)

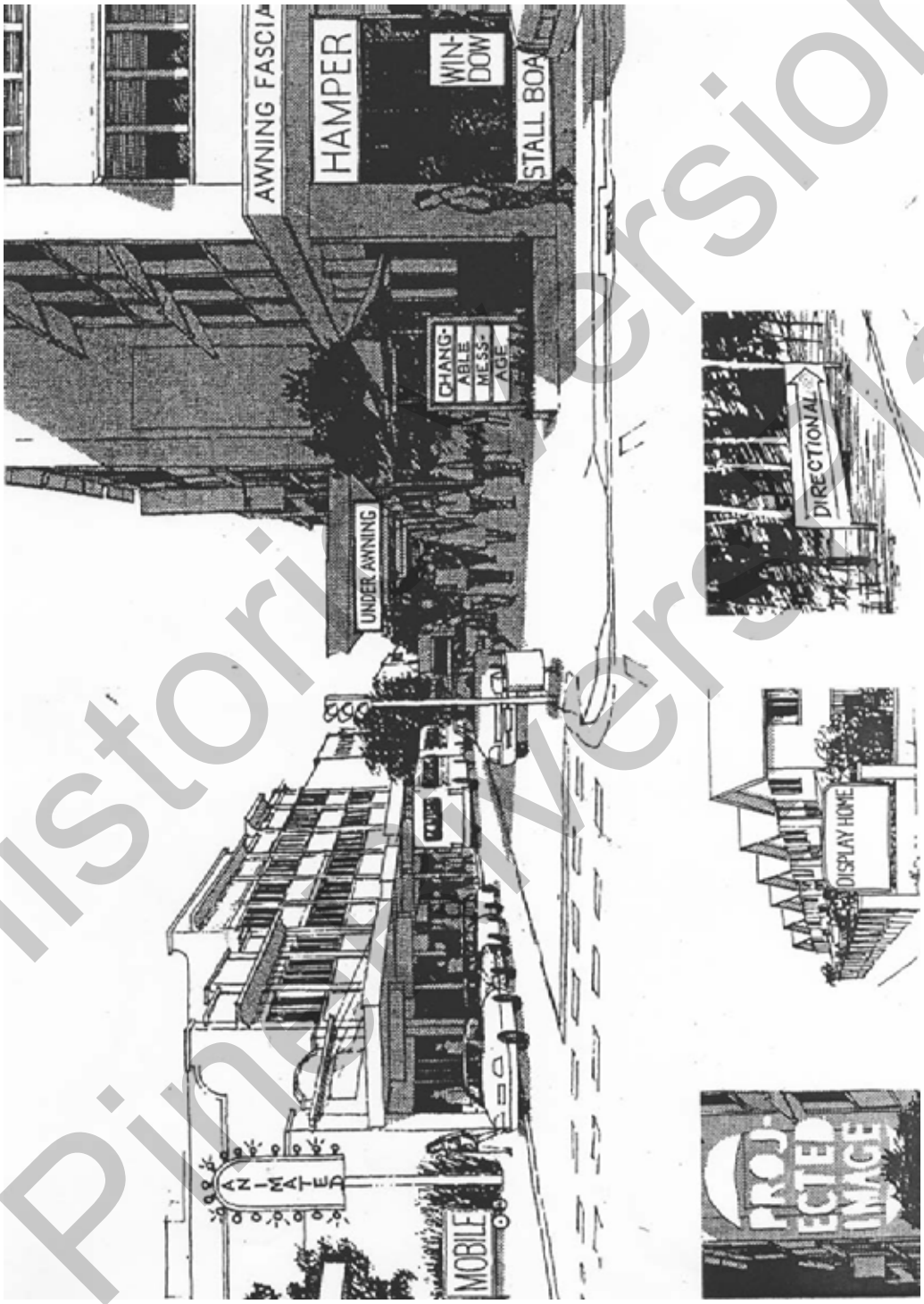


Figure 6.4.2C

(Note: illustrations reproduced and modified with the permission of Brisbane City Council)

Note also that the "Display Home" and "Directional" signs illustrated above are not regulated by this code and are included for information purposes only.

Figure 6.4.2D

(Note: illustrations reproduced and modified with the permission of Brisbane City Council)

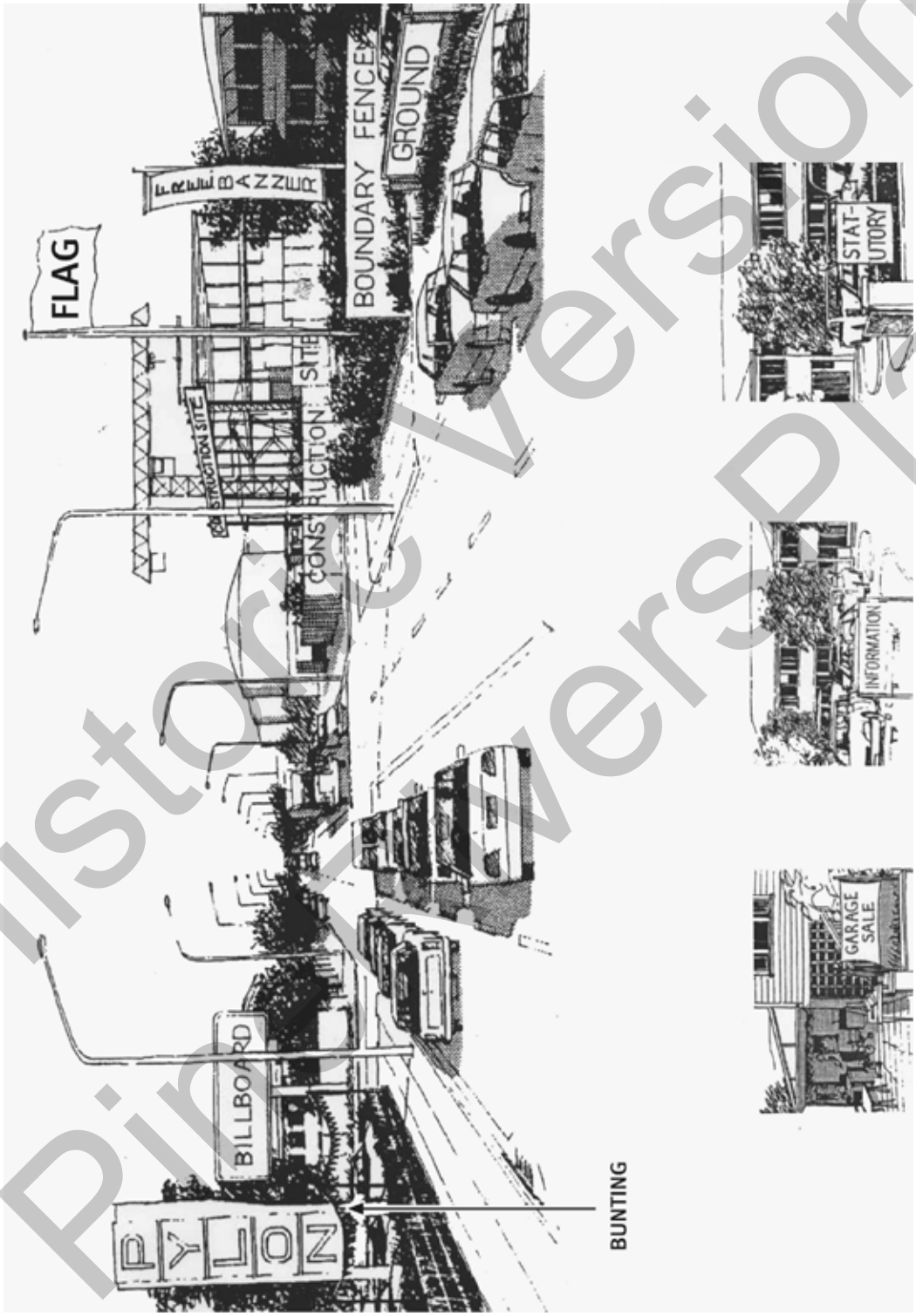


Figure 6.4.2E

(Note: illustrations reproduced and modified with the permission of Brisbane City Council)

Note also that the "Garage Sale", "Information" and "Statutory" signs illustrated above are not regulated by this code and are included for information purposes only

[1] Advertising signs for these purposes are regulated by specific provisions within the relevant use codes in Chapter 6, Part 1 of this ***planning scheme***.

[2] ***Public benefit signs*** are regulated through ***Council's*** Local Laws.

[3] The meanings of the other critical terms which are used in this code as well as elsewhere in this ***planning scheme*** appear as use definitions and administrative definitions in Chapter 7.

[4] See Section 2.2(2) for the extent of signage not regulated by this code.

[5] Subject to a few exceptions, signage on a registered place under the *Queensland Heritage Act 1992* is assessable development under Schedule 8 of IPA. Such signage would be subject to the requirements of both this code and the concurrence agency code of the Queensland Heritage Council.

[6] Signage placed in road reserves or other public places should be so located that it does not obstruct vital information such as street addresses and place names which are relied on for the effective and efficient provision of services by emergency services personnel.

[7] Erection of signs within roads not administered by ***Council*** is also regulated by the entities responsible for those roads,

[8] Signage affixed to a building should be so located that it does not obstruct vital information such as street addresses and place names which are relied on for the effective and efficient provision of services by emergency services personnel.

Division 3 Access and Parking Code

3.1 Overall Outcomes

(1) The overall outcomes are the purpose of this code.

(2) The overall outcomes sought by the Access and Parking Code are the following:-

(a) An appropriate number of car parking spaces, ***service vehicle*** standing areas, bicycle storage and cyclist amenities are provided on each development ***site*** to satisfy the specific needs of the particular land use or mixture of land uses;

(b) Appropriate vehicle queue length is provided in "drive through" service facilities;

(c) The efficient use of on-site parking and ***service vehicle*** facilities is promoted through the consolidation and interlinking of developments on adjoining parcels of land, where appropriate; and

(d) The design and location of on-site parking and ***service vehicle*** facilities adequately address the particular constraints of the various forms of development in regard to:-

(i) avoidance of unreasonable congestion of the road system external to the ***site***;

(ii) the provision of a level of safety for pedestrians and vehicle occupants at all times, both on and adjacent to the ***site***, consistent with reasonable community expectations;

(iii) ease of access and convenience of use;

(iv) retention of existing on-street parking facilities and vehicle access to adjacent developments;

(v) the efficient pickup and delivery of passengers and goods; and

(vi) avoidance of any significant adverse effect on the established or desired streetscape and amenity of the area.

3.2 Compliance with the Access and Parking Code

(1) Self assessable development that complies with the acceptable solutions of the Development Requirements *Table 6.4.3A – Assessment Criteria for Self Assessable Development* contained in Section 3.5 complies with the Access and Parking Code.

(2) Assessable development that is consistent with the specific outcomes of the Development Requirements *Table 6.4.3Y – Assessment Criteria for Assessable Development* contained in Section 3.5 complies with the Access and Parking Code.

3.3 Critical Terms for this Code

Schedule A to this code – *Additional Defined Terms* provides the meaning for a number of critical terms and abbreviations used in the code[1].

3.4 Development Requirements

The development requirements of this code relate to the following elements:-

(1) On-Site Parking Numbers
(2) Parking for Disabled Persons
(3) Bicycle Storage and Cyclist End Use Facilities
(4) Service Vehicle Access and Parking Numbers
(5) Access Driveways
(6) On-Site Vehicle Queue Lengths
(7) On-Site Driver Sight Distances
(8) On-Site Directional and Other Traffic Related Signage
(9) Location of On-Site Parking Spaces
(10) On-Site Traffic Circulation Paths
(11) Parking Space Plan Dimensions
(12) Motorcycle Parking
(13) Service Vehicle Standing and Manoeuvring Areas
(14) Car Park and Service Area Surface Gradients
(15) Height Clearances
(16) Turning of Vehicles on Site
(17) Pedestrian Pathways and Trolley Bays
(18) Raised Separators and Wheelstops
(19) Construction Standards
(20) Illumination

3.5 Development Requirements Tables

Table 6.4.3A Assessment Criteria For Self Assessable Development

Acceptable Solutions for Self Assessable Development	
On-Site Parking Numbers This element does not apply to those components of a development which comprise land uses for which a specific on-site car parking requirement has been prescribed in a ***stated purpose code.***	
AS 1.1 Where the ***site*** is zoned Central Business or Local Business or Village Centre or Urban Village, car parking facilities are provided and maintained on ***site*** at all times that the ***operational component*** of the development is in use in accordance with the following rates:- (1) 6 spaces per 100m² of ***gross floor area*** at ground level; and (2) 1 space per 30m² of gross floor area at any level other than ground level. **OR** **AS 1.2** For development to which *AS 1.1* does not apply, car parking facilities for each use² are provided and maintained on ***site*** at all times that the ***operational component*** of the development is in use in accordance with the rates prescribed in Table 6.4.3B.	
TABLE 6.4.3B	
Use	**Minimum Number of Parking Spaces**
Agriculture	nil
Animal Accommodation	nil
Bulk Garden Supplies	The greater of:- (1) one space per 50m² of ***gross floor area***, or part thereof; and (2) one space per 150m² of ***site*** area, or part thereof; with at least 50% of on-site car parking of sufficient size to accommodate a car with trailer attached
Car Depot	One space, plus one space per 500m² of ***site*** area, or part thereof
Car Park	One space, per staff member on the ***site*** at any point in time
Commercial Services - other than motor vehicle repair or service including windscreen, exhaust and tyre fitting workshops	The greater of:- (1) one space per 50m² of ***gross floor area***, or part thereof; and (2) two spaces per tenancy or community title lot
- motor vehicle repair or service including windscreen, exhaust and tyre fitting workshop	The greater of:- (1) one space per 30m² of ***gross floor area***, or part thereof; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof.
Contractor's Depot	The greater of:- (1) one space per 50m² of ***gross floor area***, or part thereof; and (2) 4 spaces; and (3) 2 spaces per 1000m² of ***site*** area, or part thereof. Where the ***contractor's depot*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***contractor's depot*** use may be provided in ***tandem formation***.
Dairy	nil
Domestic Storage	nil
Environmental Park	nil
Fast Food Delivery Service	One space per 15m² of ***gross floor area***, or part thereof.
Food Outlet	One space for 15m² of ***gross floor area***, or part thereof, plus space for 10 cars in any "drive-through" service facility.

Acceptable Solutions for Self Assessable Development	
Use	**Minimum Number of Parking Spaces**
General Industry	The greater of:- (1) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof; and (2) 4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m²; and (3) 2 spaces per 1,000m² of ***site*** area, or part thereof. Where the ***general industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***general industry*** use may be provided in ***tandem formation***.
Hardware Shop	One space per 30m² of ***gross floor area***, or part thereof, with a minimum of 4 spaces.
Indoor Entertainment and Sport:-	
- bowling alley	4 spaces per alley
- gymnasium	10 spaces per 100m² of ***gross floor area***, or part thereof
- indoor bowls	4 spaces per rink
- indoor skating rink or swimming pool	15 spaces, plus one space per 100m² of ***gross floor area***, or part thereof
- indoor cricket or other court game (other than squash or tennis)	25 spaces per pitch
- squash or tennis courts	6 spaces per court
- other than above	10 spaces per 100m² of ***gross floor area***, or part thereof
Local Utilities	nil
Non-Intensive Animal Husbandry	nil
Office :-	
- medical, dental or paramedical practitioner	4 spaces per consulting room
- other than above	one space per 30m² of ***gross floor area***, or part thereof
Outdoor Sales	One space per 150m² of ***site*** area, or part thereof
Park	nil
Place of Worship	One space per 10m² of ***gross floor area***, or part thereof
Radio Station	One space per 30m² of ***gross floor area***, or part thereof
Recycling Depot	nil
Retail Nursery	10 spaces, plus one space per 100m² of ***site*** area, or part thereof, in excess of 500m²
Rural Industry	The greater of:- (1) 4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m²; and (2) 2 spaces per 1000m² of ***site*** use area, or part thereof.
Service Industry:-	The greater of:-
- where the land has frontage to a road designated[3] by ***Council*** or the Department of Main Roads as being of arterial or sub arterial or collector standard (other than motor vehicle repair or service, including windscreen, exhaust and tyre fitting workshops)	(1) one space per 50m² of ***gross floor area***, or part thereof; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof. Where the ***service industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***service industry*** use may be provided in ***tandem formation***.
- motor vehicle repair or service including windscreen, exhaust and tyre fitting workshop where the land has frontage to a road designated by ***Council*** or the Department of Main Roads as being of arterial or sub arterial or collector standard.	The greater of:- (1) one space per 30m² of ***gross floor area***, or part thereof; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof. Where the ***service industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***service industry*** use may be provided in ***tandem formation***.

Acceptable Solutions for Self Assessable Development	
- where the land has frontage to a road designated by ***Council*** as being of sub collector or lesser standard. - self storage facility	The greater of:- (1) 4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m²; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof; and (3) 2 spaces per 1,000m² of ***site*** area, or part thereof. Where the ***service industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***service industry*** use may be provided in ***tandem formation***. One space per 1,000m² of ***gross floor area***, or part thereof.
Shop	One space per 15m² of ***gross floor area***, or part thereof.
Showroom	One space per 30m² of ***gross floor area***, or part thereof.
Vehicle Sales	The greater of:- (1) one space per 30m² of ***gross floor area***, or part thereof; and (2) 4 spaces; and (3) 2 spaces per 1,000m² of ***site*** area, or part thereof.
Veterinary Clinic	The greater of:- (5) one space per 30m² of ***gross floor area***, or part thereof; and (6) 4 spaces per consultation room.
Warehouse	4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m². Where the ***warehouse*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***warehouse*** use may be provided in ***tandem formation***.
Parking for Disabled Persons	
AS 2 Car parking facilities in a form which satisfies the design criteria set for disabled parking under *Australian Standard AS 2890.1 (1993) Off-Street Car Parking* are provided on the development ***site*** at the following rate:- (1) the rate set in an applicable ***stated purpose code*** for the specific use or uses comprising the development; or (2) for those specific uses comprising the development which are not covered by (1):- (a) for those uses incorporating building work – the rate prescribed in the *Building Code of Australia*; and (b) for all other uses – 1 car parking bay for every 100 car parking spaces provided for those uses pursuant to the "On-Site Parking Numbers" element of this code.	
AS 3 The parking facilities provided for disabled persons are:- (1) located adjacent to the main entries to the ***operational component*** of the development; and (2) adjacent to a pathway which provides direct access from the parking space to a main entry to the ***operational component*** of the development and which satisfies the design criteria set in *Australian Standard AS 1428.1 (2001) Design for Access and Mobility;* and (3) signposted and otherwise identified for use solely by disabled persons in accordance with the design criteria set in *Australian Standards AS 1428.1 (2001) Design for Access and Mobility* and *AS2890.1 (1993) Off-Street Car Parking.*	
Bicycle Storage and Cyclist End Use Facilities	
AS 4.1 Bicycle parking facilities no fewer in number than that stipulated in Table 10.1 of *Austroads (1999), Guide to Traffic Engineering Practice, Part 14 – Bicycles* are provided and maintained on the development ***site*** for each of the uses comprising the development that are identified in that table. Of these facilities, at least 50% of the overall number were provided prior to the use of the development commencing, while the remainder were provided prior to the average daily occupation rate of the bicycle parking facilities initially provided exceeding 75%. **AND** **AS 4.2** The on-site bicycle parking facilities provided under *AS 4.1* :- (1) are provided in a form no less secure than that prescribed in Tables 10.1 and 10.2 of *Austroads (1999), Guide to Traffic Engineering Practice, Part 14 – Bicycles* for the particular type of development proposed; and (2) have dimensions no more restrictive than those prescribed in *Australian Standard AS 2890.3 (1993) Parking Facilities – Bicycle Parking Facilities.*	

Acceptable Solutions for Self Assessable Development

AS 5.1 Combined shower, changing and personal storage locker facilities are provided on the development ***site*** at a rate of no less than 1 combined facility for every 10 "employee/resident" cycle spaces, or part thereof, provided under *AS 4.1* and are accessible by all users of the "employee/resident" cycle spaces at all times.

AND

AS 5.2 Where only one combined shower, changing and personal storage locker facility is provided on the development ***site*** under *AS 5.1*, it is designed and located for use as a unisex facility. Where two or more such facilities are provided, they are designed and located for use as:-

(1) unisex facilities; or

(2) facilities designated solely for use by males and an equivalent number of facilities designed solely for use by females; or

(3) a combination of (1) and (2).

A unisex facility in this context is a shower, changing and personal locker facility in which there is only one shower and where that shower and its associated change facilities are separated from the locker facilities by floor to ceiling partitions of opaque construction incorporating a door which is lockable from the shower side of the partition.

AND

AS 5.3 Each combined shower, changing and personal storage facility provided under *AS 5.1* comprises:-

(1) a shower supplied with hot and cold potable water and a dressing area fitted with a bench or seat, clothes hook and towel hook, all of which are located in a self contained cubicle[4] of opaque construction and access to which is lockable from the shower side;

(2) a mirror, no smaller than 900mm high x 600mm wide, and a single 240 volt general purpose outlet;

(3) ten lockable storage cabinets, each of which has a storage space no smaller than 900mm high x 300mm x 450mm and a hanging rail or hook, for the storage of riding apparel; and

(4) a separating element between the shower and dressing area described in (1) comprising an impermeable screen or curtain extending from the shower base to no less than 2m above that base.

AND

AS 5.4 The entrance to each combined shower, changing and personal storage locker facility provided under *AS 5.1* is no more than 100m from:-

(1) an "employee/resident" cycle storage area provided under *AS 4.1*; and

(2) a main entry to an ***operational component*** of the development.

AS 6.1 "Employee/resident" cycle storage areas are provided within 100m of an entrance to the building to which the cyclist is seeking access for business, employment or residential purposes.

AND

AS 6.2 "Visitor/shopper" cycle storage areas are provided within 30m of the entrance to the building to which the cyclist is seeking access.

AND

AS 6.3 Where the cycle parking/storage areas described in *AS 6.1* and *AS 6.2* are not visible from the designated vehicle and cycle entrance points to the development ***site***, directional signs are provided between the required cycle parking/storage areas and those designated entrance points to the land, while the cycle parking/storage areas are signposted or otherwise designated by permanent markings.

AS 7.1 The on-site bicycle parking facilities provided under *AS 4.1* and *AS 4.2* and the access paths linking the following are illuminated to the level prescribed in *Australian Standard AS1158.3.1 (1999) Pedestrian Area (Category P) Lighting – Performance and Installation Design Requirements* during those hours of twilight and darkness that any part of the ***operational component*** of the development is in use:-

(1) those parking facilities;

(2) the shower, change and personal storage facilities provided for use by cyclists; and

(3) the entrance to the building to which the cyclist is seeking access for business, employment or residential purposes.

AND

AS 7.2 The on-site bicycle parking facilities and access paths described in *AS 7.1* are observable at all times from regularly used public areas.

Service Vehicle Access and Parking Numbers

This element does not apply to ***associated unit, bed and breakfast accommodation, caretaker's residence, cattery, display home, domestic storage, duplex, environmental park, estate sales office, home business, infill housing, park*** and ***tourist cabins.***

AS 8.1 The ***gross floor area*** of the development and the area of the ***site*** do not exceed the limits of Tables 6.4.3C to 6.4.3J for the identified land use or mixture of uses.

AND

AS 8.2 ***Service vehicle*** parking facilities equivalent to no less than the aggregate of the minimum numbers prescribed in Tables 6.4.3C to 6.4.3J for:-

(1) each vehicle type nominated; and

Acceptable Solutions for Self Assessable Development

(2) each of the land uses comprising the development that are identified in those tables;

are provided and maintained on the development ***site***.

However, there is no requirement under this element to provide on-site ***service vehicle*** parking facilities for ***agriculture, animal accommodation, car park, dairy, non-intensive animal husbandry, place of worship, radio station, recycling depot*** or ***rural industry***.

Table 6.4.3C

Indoor Entertainment and Sport or ***Community Facilities***

Gross Floor Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***COACH***
0-999	1				
1000-1999	1	1			1
2000-4000	1		1		2

Table 6.4.3D

Local Utilities

	Minimum Number of ***Service Bays***				
Site Area (m²)	***VAN***	***SRV***	***MRV***	***HRV***	***AV***
any			1		

Table 6.4.3E

Office, Veterinary Clinic or a combination of these uses

Gross Floor Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-999		1			
1000-2499	1		1		
2500-3999	2	1	1		
4000-5999	3	1	1		
6000-7999	4	1	1		
8000-9999	4	2	1		
10000-15000	4	2	1		

Table 6.4.3F

Commercial Services, Fast Food Delivery Service, Food Outlet, Hardware Shop, Retail Nursery, Shop, Showroom or a combination of these uses

Gross Floor Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-199		1			
200-599	1		1		
600-999	1	1	1		
1000-1499	2	1	1		
1500-1999	2	1	1		
2000-2799	2	2	2		
2800-3599	2	2	2	1	
3600-4399	3	2	2	1	
4400-6499	3	2	2	1	1
6500-8499	4	2	2	1	1
8500-11499	4	3	2	1	1
11500-15000	5	3	2	1	1

Note:- *Where a number of specialty retail outlets, each of which has a **gross floor area** of less than 200m², are combined together on the one development **site**, the combination is treated as a single retail component for the purposes of applying the above table, and **MRV** class vehicles are required in lieu of **HRV** and **AV** class vehicles.*

Table 6.4.3G

Bulk Garden Supplies, Contractor's Depot, General Industry, Outdoor Sales, Service Industry *or* ***Warehouse*** where the land has frontage to a ***major road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1			1	
2000-2999	1		1		1
3000-4000		1	1		1

Acceptable Solutions for Self Assessable Development

Table 6.4.3H

Bulk Garden Supplies, Contractor's Depot, General Industry, Outdoor Sales, Service Industry *or* ***Warehouse*** where the land has frontage solely to a ***minor road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1		1		
2000-2999	1		1		
3000-4000		1		1	

Table 6.4.3I

Car Depot or ***Vehicle Sales*** where the land has frontage to a ***major road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1			1	
2000-2999	1	1			1
3000-4000	1		1		1

Table 6.4.3J

Car Depot or ***Vehicle Sales*** where the land has frontage solely to a ***minor road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1		1		
2000-2999	1		1		
3000-4000		1		1	

AND

AS 8.3 The service vehicle parking facilities provided are retained for service vehicle parking purposes at all times that the operational component of the devleopment is open for goods delivery or dispath purposes.

AND

AS 8.4 Provision is made for vehicular access to, and from, the development site by the service vehicle prescribed in Table 6.4.3K for each of the land used comprising the development that are identified in that table:-

Table 6.4.3K

DEVELOPMENT TYPE	***SERVICE VEHICLE***	
	OCCASIONAL ACCESS	**REGULAR ACCESS**
Agriculture	***HRV***	***-***
Animal Accommodation	***MRV***	***-***
Bulk Garden Supplies	***AV***	***HRV***
Car Depot	***AV***	***AV***
Car Park	***HRV***	***VAN***
Commercial Service	***HRV***	***MRV***
Contractor's Depot for ***site***:- - less than 1,000m² area; and - less than 25m frontage	***AV***	***HRV***
Contractor's Depot other than above	***AV***	***AV***
Community Facilities	***RCV***	***MRV***
Dairy	***AV***	***HRV***
Fast Food Delivery Service	***RCV***	***HRV***
Food Outlet	***RCV***	***MRV***
General Industry	***AV***	***AV***
Hardware Shop	***RCV***	***HRV***
Indoor Entertainment and Sport	***COACH***	***MRV***
Local Utilities	***HRV***	***MRV***
Non-Intensive Animal Husbandry	***HRV***	***-***
Office with ***gross floor area*** of more than 1,000m²	***RCV***	***HRV***
Office other than above	***HRV***	***MRV***
Outdoor Sales	***AV***	***HRV***
Place of Worship	***VAN***	***-***
Radio Station	***HRV***	***SRV***
Recycling Depot	***HRV***	***MRV***
Retail Nursery	***HRV***	***MRV***

Acceptable Solutions for Self Assessable Development		
Rural Industry	***HRV***	***MRV***
Service Industry for ***site***:- - less than 1,000m² area; and - less than 25m frontage	***AV***	***HRV***
Service Industry other than above	***AV***	***AV***
Shop with ***gross floor area*** of more than 1,000m²	***AV***	***HRV***
Shop other than above	***RCV***	***MRV***
Showroom with ***gross floor area*** of more than 1,000m²	***AV***	***HRV***
Showroom other than above	***RCV***	***HRV***
Vehicle Sales	***AV***	***AV***
Veterinary Clinic	***HRV***	***VAN***
Warehouse	***AV***	***HRV***

AND

AS 8.5 Provision is made for the ***service vehicle*** listed in the "OCCASIONAL ACCESS" column of Table 6.4.3K for each of the uses comprising the development, to:-

(1) enter the development ***site*** via the "Access Driveway" provided pursuant to the "Access Driveways" element of this code; and

(2) stand wholly within the development ***site***.

AND

AS 8.6 Where vehicular access to the development ***site*** is gained from a ***major road***, provision is made for the ***service vehicle*** listed in the "REGULAR ACCESS" column of Table 6.4.3K for each of the uses comprising the development to:-

(1) enter the development ***site*** via an ***access driveway*** provided pursuant to the "Access Driveways" element of this code;

(2) traverse the ***site*** only on ***circulation roads*** or ***circulation aisles*** to access ***service areas***;

(3) turn on the development ***site*** using a manoeuvre no more onerous than a "3 point turn"; and

(4) manoeuvre on ***site*** to allow parking and loading/unloading in a designated ***service area***. (Where the land use comprises solely a ***food outlet*** or ***community facilities***, the manoeuvring area may include part of that area otherwise used for car parking purposes.)

AND

AS 8.7 Where vehicular access to the development ***site*** is gained from a ***minor road***, provision is made for the ***service vehicle*** listed in the regular access column of Table 6.4.3K for each of the uses comprising the development to:-

(1) enter the development ***site*** via an ***access driveway*** provided pursuant to the "Access Driveways" element of this code; and

(2) stand wholly within the ***site*** in such a manner as to:-

(a) not occupy any of the ***queuing areas*** provided adjacent to the ***access driveway*** pursuant to the "On-Site Vehicle Queue Lengths" element of this code; and

(b) not obstruct access to more than 50% of the on-site car parking spaces.

Access Driveways

AS 9.1 The development does not:-

(1) obtain vehicular access from more than 2 frontage roads; or

(2) incorporate a car parking area with more than 500 car parking spaces to which access is available via only one ***access driveway***; or

(3) incorporate on-site activities which generate a turnover rate of more than 1,000 vehicles per day[5]; or

(4) exceed the floor area or ***site*** area limits of Tables 6.4.3C to 6.4.3J; or

(5) incorporate a car park with more than 50 car parking spaces to which vehicular access is obtained within 100m of a signalised intersection.

AND

AS 9.2 An ***access driveway*** satisfying the following requirements is provided between the road frontage of the development ***site*** and the traffic lanes of any frontage road administered by ***Council***[6] at each vehicular access point to the development ***site***:-

(1) any ***access driveway*** used solely by ***service vehicles*** has the size and shape prescribed in Table 6.4.3L for the largest ***service vehicle*** that uses that ***access driveway;***

Acceptable Solutions for Self Assessable Development

Table 6.4.3L

TYPE OF *ACCESS DRIVEWAY*

DESIGN *SERVICE VEHICLE* from Tables 6.4.3C to 6.4.3K of this code	**Frontage Road**	***Minor Road***	***Major Road***	***Major Road***
	Development Generated Traffic	**N/A**	**Up to and including 100 VPD**	**Greater than 100 VPD**
		***Access Driveway* Type**		***Access Driveway* Type**
Small Rigid Vehicle	***(SRV)***	2(6.5m throat width)		7B
Medium Rigid Vehicle	***(MRV)***	2(7.5m throat width)		7B
Heavy Rigid Vehicle	***(HRV)***	2(7.5m throat width)		7B
Refuse Collection Vehicle	***(RCV)***	2(7.5m throat width)		7C
Coach	***(COACH)***	2(9.0m throat width)		7D
17.5m Articulated Vehicle	***(AV)***	2(9.0m throat width)		7D

Note:-

For the purpose of this table:-

(1) *VPD means vehicles per day[5];*

(2) *where "one-way" **circulation roads** adjoin the **access driveways**, type 5 and 6 **access driveways** are to be used instead of the Type 2 and 7 driveways prescribed in the table;*

(3) *where a development **site** is serviced by more than one **access driveway**, at least one **access driveway** is accessible by the "occasional access" **service vehicle** prescribed for the land use in Table 6.4.3K of this code and is signposted accordingly; and*

(4) ***access driveway** Types 2, 5, 6, 7A, 7B, 7C and 7D have the size and shape depicted in Schedule D to this code.*

(2) any ***access driveway*** used solely by vehicles no larger than the 99.8 percentile vehicle described in *Australian Standard AS 2890.1 (1993) Off-Street Car Parking* has the size and shape prescribed in Table 6.4.3M;

Table 6.4.3M

Turnover Rate for Car Parking Area	Type of Frontage Road	Type of ***Access Driveway***		
		Number of Spaces in Car Parking Area Accessed by Driveway		
		1 to 25	26 to 250	251 to 500
Low/Med	***Minor***	1	2, 3 & 4	7A
Low/Med	***Minor***	2 (6.5m throat width)	7A	7B
High	***Minor***	2, 3 & 4 (7.5m throat width)	7A	7B
High	***Minor***	2 (7.5m throat width)	7B	7B

Notes:-

For the purpose of this table:-

(1) *the **access driveway** for a development comprising solely a **small scale residential use** or a **small scale residential use** combined solely with a form of development for which no on-site car parking or **service vehicle** facilities are required[7], has the size and shape depicted on Drawings 43, 45 or 07 within Schedule D to this code, as appropriate;*

(2) ***access driveway** Types 1, 2, 3, 4, 5, 6, 7A and 7B have the size and shape depicted in Schedule D to this code;*

(3) *where "one-way" **circulation roads** adjoin the **access driveways**, Type 5 and 6 **access driveways** are to be used instead of the Type 1, 2, 3, 4 and 7 driveways prescribed in the table;*

(4) *high turnover rates are likely to be generated by uses such as entertainment, retail and fast food developments;*

(5) *low/medium turnover rates are likely to be generated by uses such as residential and industrial developments;*

(6) *if there is any doubt as to the turnover rate for the development, a high turnover rate applies for design purposes; and*

(7) *where no throat width is nominated for a Type 1, 2, 3 or 4 **access driveway**, the throat width is to be no less than the width of the abutting internal roadway.*

(3) any ***access driveway*** used by both ***service vehicles*** and other vehicles no larger than the 99.8 percentile vehicle described in *Australian Standard AS 2890.1 (1993) Off-Street Car Parking* has the size and shape of the larger ***access driveway*** determined pursuant to (1) and (2) above;

(4) the ***access driveway*** is constructed of the materials, and to the standard, required pursuant to the "Construction Standards" element of this code;

(5) for a development ***site*** having:-

(a) a single road frontage; and

(b) a frontage length of up to, and including, 30m;

no more than one ***access driveway*** is provided;

(6) for a development ***site*** having:-

(a) a single road frontage; and

(b) a frontage length of more than 30m but less than 50m;

Acceptable Solutions for Self Assessable Development

either a single two-way ***access driveway*** or two one-way ***access driveways*** are provided;

(7) for a development ***site*** having:-

(a) a single road frontage; and

(b) a frontage length of 50m or more;

no more than two ***access driveways*** are provided; and

(8) for a development ***site*** having multiple road frontages, ***access driveways*** are provided on no more than two of the road frontages, and the numbers of ***access driveways*** provided on each of the road frontages are within the limits prescribed for each frontage under (5), (6) and (7) above.

AND

AS 9.3 ***Access driveways*** to development ***sites*** from roads which are administered by ***Council***[6] are so located:-

(1) as to be clear of existing aboveground services, bus stops, taxi ranks, traffic control devices, significant trees, pedestrian crossings, stormwater catchpits (unless relocated at no cost to ***Council***) and marked on-street parking or loading bays;

(2) as not to protrude beyond the projection of a shared boundary line to the carriageway of the frontage road except where joint property access between the two development ***sites*** is proposed;

(3) as to be clear of the minimum separation distances prescribed in Table 6.4.3N; and

Table 6.4.3N

Classification of Frontage Road	Adjacent Feature	Minimum Separation of *Access Driveway* from Adjacent Feature
Minor Road	Minor intersection	12m from intersection
	Major intersection	12m from intersection for a land use comprising solely a ***small scale residential use***; or 20m from intersection otherwise
	Second ***access driveway*** to a single road frontage for a corner lot	45m from intersection
	Median break	6m from median nose for a land use comprising solely a ***small scale residential use***; or 10m from median nose otherwise
	Access driveway to adjacent premises or second ***access driveway*** to the one frontage	3m along kerb
	Traffic signals	Clear of queue areas and slip lanes
Major Road	Minor Intersection	12m from intersection for a land use comprising solely a ***small scale residential use;*** or 20m from intersection otherwise
	Major Intersection	12m from intersection for a land use comprising solely a ***small scale residential use***; or 30m from intersection otherwise
	Second ***access driveway*** to a single road frontage for a corner lot	45m from intersection
	Median break	6m from median nose for a land use comprising solely a ***small scale residential use***; or 15m from median nose otherwise
	Access driveway to adjacent premises or second ***access driveway*** to the one frontage	3m along kerb for a land use comprising solely a ***small scale residential use***; or 15m along kerb otherwise
	Traffic signals	Clear of queue areas and slip lanes

Notes:-

For the purposes of this table:-

(1) *distances from intersections are measured along the property boundary from the point at which the frontage property boundaries intersect, disregarding any existing or proposed corner truncation;*

(2) *minor intersection is the intersection of the access frontage road with a* ***minor road****; and*

(3) *major intersection is the intersection of the access frontage road with a* ***major road.***

(4) as to ensure that the minimum ***sight distances*** prescribed in Table 6.4.3O are provided, free of obstructions.

Acceptable Solutions for Self Assessable Development

Table 6.4.3O

SPEED ENVIRONMENT (km hr)	*SIGHT DISTANCE* (metres)
50	80
60	110
70	130
80	165

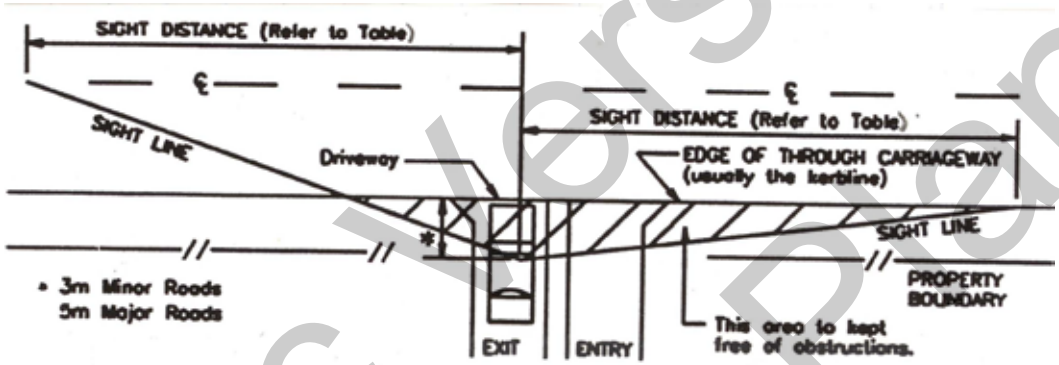
Notes:-

*For the purpose of this table, the **sight line** is measured:-*

(1) *1.15m above ground/pavement level; and*

(2) *as indicated in Diagram 1.*

DIAGRAM 1



On-Site Vehicle Queue Lengths

This element does not apply to ***small scale residential uses*** or a ***small scale residential use*** in association with a use not required by either a ***stated purpose code*** or this code to accommodate on-site parking facilities.

AS 10 On-site queuing of vehicles at vehicular access points to and from the development ***site*** is provided to an extent no less than that prescribed in Table 6.4.3P.

Table 6.4.3P

NUMBER OF SPACES IN CAR PARKING AREA ACCESSED BY DRIVEWAY	MINIMUM NUMBER OF VEHICLES IN QUEUE
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 250	7
Greater than 250	7 plus 1% of capacity over 250 spaces (rounded upwards)

Notes:-

For the purposes of this table:-

(1) *each queuing bay is 6m long;*

(2) *the entry queue is measured from the road boundary of the development **site** to the first traffic control device, intersection or car parking bay within the **site**, whichever is the closest to the **access driveway**; and*

(3) *the exit queue is measured from the road boundary of the development **site** to the first intersection of the entry/exit driveway with an internal roadway required for circulation of vehicles within the **site.***

AS 11.1 For those developments which have one or more on-site "drive through" facilities, a queue length of no less than 6m for each of the queuing bays prescribed for the facility in Table 6.4.3B of this code is provided between the service window and:-

(1) the nearest car parking or loading/unloading bay on the driveway leading to the "drive through" service facility; or

(2) the intersection of the driveway leading to the "drive through" service facility with another internal roadway; or

(3) the vehicular entry point to the development ***site***;

whichever is the closest to the service window, for each on-site "drive through" service facility.

AND

AS 11.2 Any traffic control device, such as a remote ordering point, forming part of the "drive through" service facility is no less than half of the overall queue length for the "drive through" facility measured from the service window.

Acceptable Solutions for Self Assessable Development

On-Site Driver Sight Lines

AS 12 Sight triangles, as indicated in Diagram 2, extending 5m into the development ***site*** from the road frontage and 2m out from the edge of the "exit" roadway are provided, free of obstructions more than 1m high, at each vehicular egress point from the ***site*** on each side of the egress roadway.

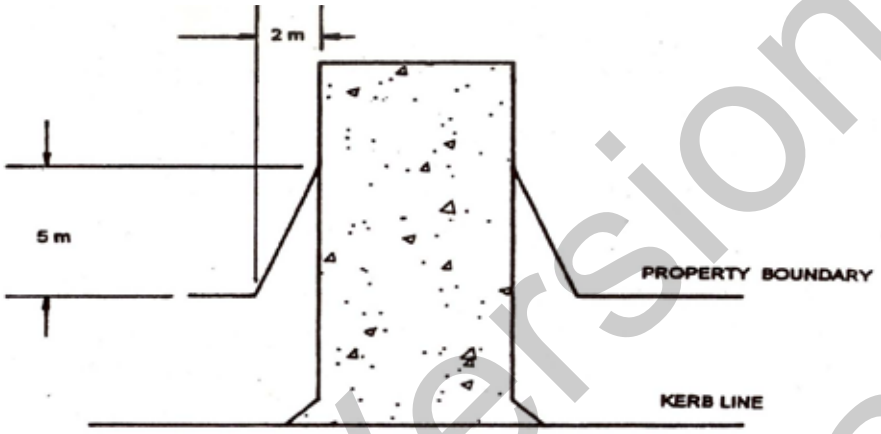


DIAGRAM 2

AS 13 Clear ***sight lines***, no less extensive than the minimums depicted in Diagram 3 and Diagram 4, are provided at:-

(1) intersections of internal roadways;

(2) changes of direction of internal roadways; and

(3) intersections of internal roadways with designated pedestrian pathways;

within the development ***site***.

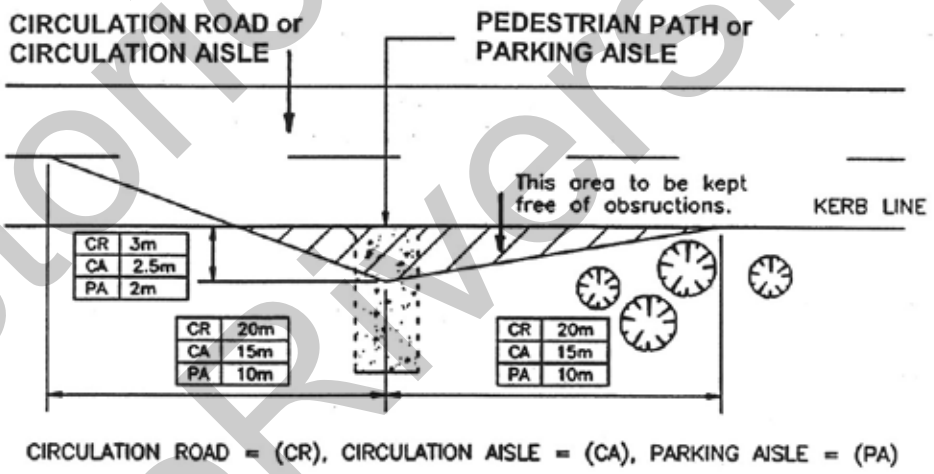


DIAGRAM 3

Acceptable Solutions for Self Assessable Development

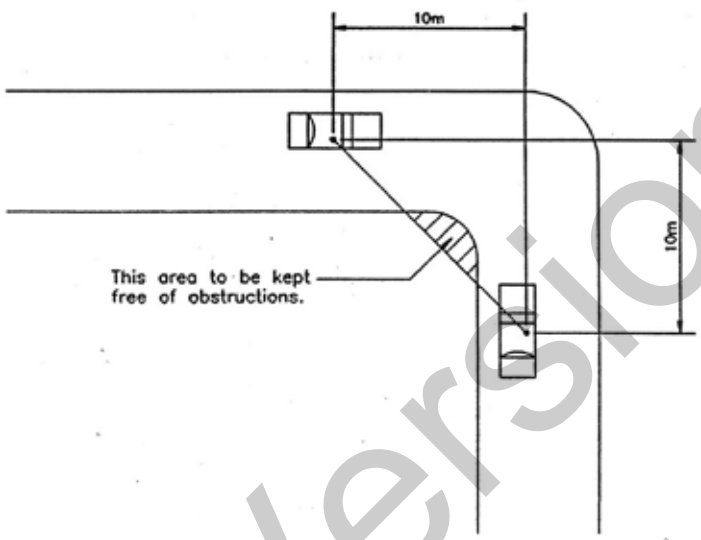


DIAGRAM 4

On-Site Directional and Other Traffic Related Signage

This element does not apply to those developments comprising solely an ***associated unit***, ***bed and breakfast accommodation***, ***duplex dwelling***, ***infill housing*** or one of these uses in association with a use not required to have on-site parking facilities.

AS 14 Directional signage which:-

(1) is of a size that is readily visible by; and

(2) is in a location which is readily visible to; and

(3) contains critical directional information that is readily understood by;

a person positioned in the centre of the main frontage road is provided on the development ***site*** in instances where:-

(4) the location or existence of the car parking area for the development ***site*** is not obvious to that person; or

(5) the constructed vehicular access to the car parking area on the development ***site*** is not from the main frontage road; or

(6) the development has separate parking facilities on the one development ***site*** which either are not connected or are dedicated for use by specific user groups; or

(7) vehicular access to and from the development ***site*** is via "one-way" ***access driveways***.

AS 15 Directional signage which contains critical information addressing the applicable parking area constraints identified herein and which:-

(1) is of a size that is readily visible by; and

(2) is in a location which is readily visible to; and

(3) is understood by;

a person positioned more than 2.5 seconds travel time from the signage, is provided on the development ***site*** in instances where:-

(4) specific sections of the on-site car parking area are dedicated for any of the following uses:-

- (a) staff parking;
- (b) parking for specific persons;
- (c) parking for aged or disabled persons;
- (d) parking for emergency service vehicles;
- (e) motorcycle parking;
- (f) bicycle parking;
- (g) service vehicle standing or manoeuvring;
- (h) trolley storage;
- (i) passenger setdown;
- (j) taxi ranks;
- (k) bus standing;
- (l) "drive through" service;
- (m) shared vehicle/pedestrian precincts;
- (n) pedestrian crossings and other pedestrian thoroughfares; or

Acceptable Solutions for Self Assessable Development
(5) any of the following restrictions apply to the operation of the car parking area:- (a) vehicle speed limits; (b) one-way traffic movement; (c) keeping left of separating islands; (d) stopping and giving way at intersections; (e) conditions of use; or (f) time restrictions on use; or (6) traffic control devices are in use on the development ***site***; or (7) height restrictions apply to specific areas of the ***site*** traversed by vehicles.
AS 16 The traffic/parking control signage and pavement markings provided on the development ***site*** comply, as applicable[8], with:- (1) *Australian Standard AS 1428.1 (2001) Design for Access and Mobility;* (2) *Australian Standard AS 2890.1 (1993) Off Street Car Parking;* (3) *Australian Standard AS 2890.2 (1989) Commercial Vehicle Facilities;* (4) *Australian Standard AS 2890.3 (1993) Bicycle Parking Facilities;* (5) *Australian Standard AS 1742.1 (1986) Manual of Uniform Traffic Control Devices;* and (6) *Austroads (1999), Guide to Traffic Engineering Practice, Part 14 – Bicycles.*
Location of On-Site Parking Spaces This element does not apply to those developments comprising solely ***small scale residential uses*** or a ***small scale residential use*** in association with a use not required to have on-site parking facilities.
AS 17.1 On-site parking facilities are provided in those locations on the development ***site*** prescribed under another code within this ***planning scheme*** which is applicable[9] to that land. **OR** **AS 17.2** Where *AS 17.1* does not apply:- (1) no less than the following proportion of the overall parking requirement for the development required under the "On-Site Parking Numbers" element of this code is visible from the frontage road to the ***site***:- (a) for land zoned "central business" or "commercial" –20%; (b) for business zoned land other than "central business" or "commercial"– 30%; and (c) for industrial zoned land – 40%; and (2) no fewer than 50% of the overall number of car parking spaces provided on the land are closer to the entrance to the ***operational component*** of the development than any of the on-street parking spaces adjacent to the development ***site***.
On-Site Traffic Circulation Paths
AS 18.1 A hierarchy of internal roadways comprising, in ascending order of roadway importance:- (1) ***parking aisles***; and (2) ***circulation roads***; is provided within the on-site car parking area for the development according to the function of that particular section of roadway. **AND** **AS 18.2** Each on-site ***parking aisle*** incorporates the following:- (1) two-way traffic movement only; (2) parking spaces which are solely:- (a) parallel to the axis of the aisle; or (b) perpendicular to the axis of the aisle; (3) an aisle length of no more than 100m; (4) an unobstructed width of no less than:- (a) 6.2m between one row of car parking spaces and the pavement edge or another row of parking spaces on the opposite side of the aisle for the following land uses:- (i) car depot (ii) contractor's depot (iii) general industry (iv) office (v) service industry (vi) small scale residential uses; and (vii) warehouse

Acceptable Solutions for Self Assessable Development

(b) 6.5m between one row of car parking bays and obstructions higher than 150mm above pavement or finished ground level on the opposite side of the aisle for those land uses nominated in (4)(a); and

(c) 7m in instances other than those prescribed in (4)(a) and (b);

(5) a continuation of no less than 1m beyond the last car parking space in the aisle for a "dead end" aisle; and

(6) for curved sections of the aisle, or bends in the aisle, an unobstructed width of no less than that prescribed in (4) as applicable to the function of that section of aisle, and an inside curve which:-

(a) for aisles that provide access to 50 or more parking spaces, accommodates the swept path of the ***85th percentile vehicle***, without crossing the centreline of the aisle, and while maintaining a buffer of no less than 300m between the swept path and:-

(i) the inside curve of the aisle; and

(ii) the centreline of the aisle; and

(b) for aisles that provide access to fewer than 50 parking spaces, accommodates the swept path of the ***85th percentile vehicle*** while maintaining a buffer of no less than 300mm to the edge of the aisle on both the inside and outside of the swept path.

AND

AS 18.3 Each ***circulation road*** incorporates the following:-

(1) a width of no less than that prescribed in Table 6.4.3Q for those straight sections of roadways which are not used as ***service aisles***;

Table 6.4.3Q

Traffic Flow	Minimum Width of Roadway between Obstructions Higher than 150mm above Finished Pavement Level
"one-way" operation	3.6m (3m central sealed width) for a roadway no more than 20m in length 5.6m (5m central sealed width) for a roadway more than 20m in length
"two-way" operation	6.8m (6.2m central sealed width) for activities having a vehicle turnover rate of up to 100vph 7.1m (6.5m central sealed width) for activities having a vehicle turnover rate of 101 to 300 vph 8.1m (7.5m central sealed width) for activities having a vehicle turnover rate of over 300vph

Notes:-

For the purposes of this table:-

(1) *vph means "vehicles per hour"[5];*

(2) *the sealed width nominated in this table, only applies to those sections of* ***circulation road*** *required to be sealed under the "Construction Standards" element of this code; and*

(3) *the minimum roadway widths prescribed in the table may incorporate obstructions no higher than 150mm above finished pavement level within 300mm of each side of the roadway, eg., side kerbs or island edges.*

(2) a width of no less than that prescribed in Table 6.4.3R for those straight sections of roadways which are used solely to access ***service areas***;

Table 6.4.3R

Traffic Flow	Minimum Width of Roadway between Obstructions Higher than 150mm above Finished Ground or Pavement Level
"one-way" operation	5.1m (4.5m central sealed width)
"two-way" operation	7.1m (6.5m central sealed width)

Note:- *For purposes of this table the minimum roadway widths prescribed in the table may incorporate obstructions no higher than 150mm above finished pavement level within 300mm of each side of the roadway, eg., side kerbs or island edges.*

(3) for those straight sections of roadways which are used to access both ***service areas*** and other sections of the on-site parking facilities, a width of no less than the larger of those applicable under Tables 6.4.3Q and 6.4.3R for that section of roadway;

(4) for curved sections of the roadway, or bends in the roadway, an unobstructed width of no less than the "sealed widths" prescribed in (1), (2) and (3) as applicable to the function of that section of roadway, and an inside curve which:-

(a) for those sections which cater solely for ***service vehicles***, accommodates the swept path of the largest ***service vehicle*** required for that section under the "Service Vehicle Access and Parking Numbers" element of this code, while maintaining a buffer of no less than 600mm to the edge of the roadway on both the inside and outside of that swept path;

(b) for those sections which cater solely for vehicles other than ***service vehicles***, accommodates the swept path of the ***85th percentile vehicle*** while maintaining a buffer of no less than 300mm between the swept path and:-

(i) the inside curve of the roadway; and

(ii) the centreline of a "two-way" roadway, or the outside curve of a "one-way" roadway; and

Acceptable Solutions for Self Assessable Development

(c) for those sections which cater for both ***service vehicles*** and other vehicles, accommodates the swept path of the largest ***service vehicle*** required for that section under the "Service Vehicle Access and Parking Numbers" element of this code, while maintaining a buffer of no less than 600mm between the swept path and:-

(i) the inside curve of the roadway; and

(ii) the centreline of a "two-way" roadway, or the outside curve of a "one-way" roadway; and

(5) where the ***circulation road*** incorporates a median island:-

(a) the unobstructed roadway width required under *AS 18.3* (1), (2), (3) and (4) is provided on the basis of a "one-way" roadway on each side of the island; and

(b) the island has a width of no less than 1m, and is signposted at each end and at each intersection of the roadway with a ***parking aisle*** or other roadway in a manner which clearly indicates the required direction of traffic flow.

AND

AS 18.4 Where a ***circulation aisle*** is used instead of a section of ***circulation road***, that aisle:-

(1) does not provide vehicular access to:-

(a) parking facilities for land uses other than the following:-

(i) ***car depot***;

(ii) ***contractor's depot***;

(iii) ***general industry***;

(iv) ***office***;

(v) ***service industry***; and

(vi) ***warehouse***;

if the parking facilities accommodate more than 50 car parking spaces; or

(b) a ***service aisle*** or ***service area***;

(2) has an unobstructed width of no less than:-

(a) 6.2m between one row of car parking spaces and the pavement edge or another row of parking spaces on the opposite side of the aisle for the following land uses:-

(i) ***car depot***;

(ii) ***contractor's depot***;

(iii) ***general industry***;

(iv) ***office***;

(v) ***service industry***;

(vi) ***small scale residential uses***; and

(vii) ***warehouse***;

where the aisle provides access to parking facilities comprising no more than 50 car parking spaces;

(b) 6.5m between one row of car parking spaces and:-

(i) obstructions higher than 150mm above finished ground or pavement level on the opposite side of the aisle for the land uses nominated in (2)(a), but only if the aisle provides access to parking facilities comprising no more than 50 car parking spaces; or

(ii) the pavement edge or another row of parking spaces on the opposite side of the aisle for the land uses nominated in (2)(a) if the aisle provides access to parking facilities comprising more than 50 car parking spaces; or

(iii) the pavement edge or another row of parking spaces on the opposite side of the aisle for land uses other than those nominated in (2)(a), but only if the aisle provides access to parking facilities comprising no more than 50 car parking spaces; and

(c) 7m in instances other than those prescribed in (2)(a) and (b);

(3) for curved sections of the aisle, or bends in the aisle has an unobstructed width of no less than that prescribed in (2) as applicable to the function of that section of aisle, and an inside curve which:-

(a) for aisles that provide access to 50 or more parking spaces, accommodates the swept path of the ***85th percentile vehicle***, without crossing the centreline of the aisle, and while maintaining a buffer of no less than 300mm between the swept path and:-

(i) the inside curve of the aisle; and

(ii) the centreline of the aisle;

(b) for aisles that provide access to fewer than 50 parking spaces on development ***sites*** that are restricted to solely one or more of the land uses nominated in (2)(a), accommodate the swept path of the ***85th percentile vehicle*** while maintaining a buffer of no less than 300mm to the edge of the aisle on both the inside and outside of the swept path; and

Acceptable Solutions for Self Assessable Development

(c) for aisles that provide access to fewer than 50 parking spaces on development sites that incorporate land uses other than those nominated in (2)(a), accommodate the swept path of the ***85th percentile vehicle***, without crossing the centreline of the aisle, and while maintaining a buffer of no less than 300mm between the swept path and:-

(i) the inside curve of the aisle; and

(ii) the centreline of the aisle;

(4) is not, except for ***small scale residential uses***, limited to "one-way" traffic movements in any part; and

(5) accommodates parking spaces which are solely:-

(a) parallel to the axis of the aisle; or

(b) perpendicular to the axis of the aisle.

Parking Space Plan Dimensions

AS 19.1 Each on-site car parking space has an unobstructed width of no less than that prescribed in Table 6.4.3S and an additional buffer of 300mm between each side of the parking space and obstructions more than 150mm above finished ground or pavement level;

Table 6.4.3S

User Type	Parking Space Width
Employee parking in designated staff parking areas for land uses other than amusement, retail, education or health uses	2400mm
Employee parking associated with amusement, retail, educational or health land uses	2600mm
Tenant and Visitor parking facilities within residential developments	2600mm
Public parking facilities where duration of stay would not ordinarily exceed 30 minutes	2700mm
Parking spaces reserved for people with physical disabilities	3200mm
Other	2600mm

AND

AS 19.2 Each on-site car parking space which is orientated parallel to the axis of the ***circulation aisle*** or the ***parking aisle*** has an unobstructed length of no less than that prescribed in Diagram 5:-

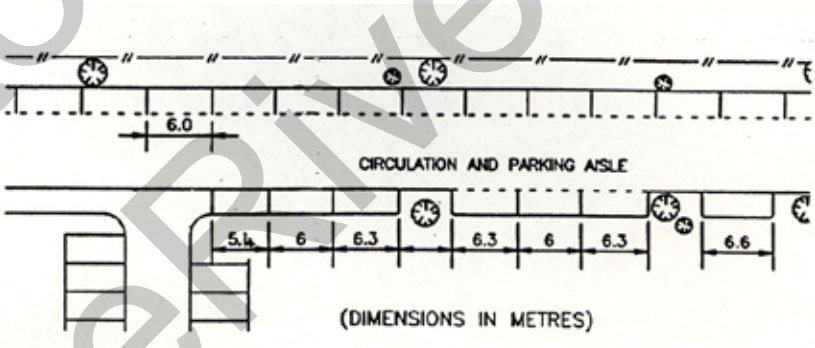


DIAGRAM 5

AND

AS 19.3 Each on-site car parking space which is oriented in such a manner that one end of the space adjoins a ***circulation aisle*** or a ***parking aisle*** has an unobstructed length of no less than 5.4m.

AND

AS 19.4 Each fully enclosed on-site car parking space has an unobstructed length of no less than 6.0m.

AND

AS 19.5 Where this code or the applicable acceptable solutions of another[9] code within this ***planning scheme*** permits parking in ***tandem formation***, the unobstructed overall length of the tandem parking formation is no less than 10.8m.

Motorcycle Parking

AS 20.1 For those developments where 50 or more car parking spaces are provided, motorcycle parking facilities at a ratio of no less than one motorcycle parking space for every 50 car parking spaces, or part thereof, are provided on ***site***.

AND

AS 20.2 Each on-site motorcycle parking space has a minimum plan dimension of 2.5m x 1.35m and has direct access to either a ***circulation aisle*** or a ***parking aisle***.

Acceptable Solutions for Self Assessable Development

Service Vehicle Standing and Manoeuvring Areas

AS 21.1 A ***service vehicle*** facility for the development comprising an integrated system of ***service aisles***, ***service areas*** and ***service bays*** is provided on the ***site*** of any development for which a ***service bay*** for a vehicle no smaller than an ***SRV***, is required under the "Service Vehicle Access and Parking Numbers" element of this code.

AND

AS 21.2 The ***service aisle*** for the development has a minimum unobstructed width of no less than that prescribed in Table 6.4.3R within this code.

AND

AS 21.3 Each on-site ***service area*** incorporates the following:-

(1) the ***service bays*** provided under the "Service Vehicle Access and Parking Numbers" element of this code for those ***service vehicles*** larger than an ***SRV***, distributed in direct proportion to the floor area and land uses served by those bays and their proximity to the service entrances to the development;

(2) an area for the temporary standing of one or more ***service vehicles*** for purposes of loading/unloading of goods and which, for development ***sites*** to which vehicular access is gained from a ***major road***, accommodates the particular ***service vehicle*** prescribed in the "regular access" column of Table 6.4.3K of this code for the particular land use;

(3) sufficient manoeuvring space to accommodate the swept path of the ***design vehicle*** prescribed under the "Service Vehicle Access and Parking Numbers" element of this code from the ***service aisle*** to the temporary standing area for the loading/unloading of goods, incorporating only one reversing manoeuvre, while maintaining a buffer of no less than 600mm to all ***service bays*** and other obstructions; and

(4) sufficient manoeuvring space to accommodate the swept path of the ***design vehicle*** prescribed under the "Service Vehicle Access and Parking Numbers" element of this code from the temporary standing area for the loading/unloading of goods, to the ***service aisle***, in a forward gear, while maintaining a buffer of no less than 600mm to all ***service bays*** and other obstructions.

AS 22 For those developments which comprise solely, or predominantly, one or more of the following uses, the majority of the ***service bays*** for ***VANS*** provided for that development are visible from the ***access driveway*** to the development ***site***:-

(1) ***car depot***;

(2) ***community facilities***;

(3) ***contractor's depot***;

(4) ***general industry***;

(5) ***indoor entertainment and sport***;

(6) ***office***;

(7) ***outdoor sales***;

(8) ***service industry***;

(9) ***vehicle sales***; and

(10) ***warehouse***.

AS 23 Each on-site ***service area*** is located immediately adjacent to a service entrance to the development and is not combined with, or separated from, the service entrance by:-

(1) a through roadway; or

(2) a designated pedestrian pathway; or

(3) any part of a car parking area; or

(4) any part of a motorcycle parking area; or

(5) any part of a bicycle storage facility.

AS 24 On site ***service bays*** for the development have a clear unobstructed area of no less than that prescribed in Table 6.4.3T for each of the different classes of ***service vehicle*** provided for the development;

Table 6.4.3T

	Design Vehicle						
	VAN	***SRV***	***MRV***	***HRV***	***RCV***	***COACH***	***AV***
Minimum Bay Width (m) Loading/Standing	3.0	3.5	3.5	3.5	3.5	3.5	3.5
Minimum Bay Length (m) Loading/Standing	5.4	7.0	9.0	11.0	10.5	13.0	17.5

Note: *The dimensions prescribed above for the **RCV** do not include the area required for the storage of the refuse receptacle.*

Acceptable Solutions for Self Assessable Development

Car Park and Service Area Surface Gradients

AS 25.1 On-site car parking areas and ***service areas*** have a finished surface gradient of no less than that prescribed in Table 6.4.3U for the particular surface finishes nominated;

Table 6.4.3U

Type of Surface	**Minimum Gradient**
Exposed areas:	
Bituminous seal	1 in 40 (2.5%)
Asphaltic concrete	1 in 100 (1.0%)
Cement concrete	1 in 100 (1.0%)
Covered areas:	
All cases	1 in 200 (0.5%)

AND

AS 25.2 Those sections of on-site car parking areas to which access by ***service vehicles*** is not permitted have a finished surface gradient of no more than that prescribed in Table 6.4.3V for the particular function of those sections of the car parking area;

Table 6.4.3V

Location	**Maximum Gradient**
Parking areas for people with disabilities	1 in 40 (2.5%)
Motorcycle parking spaces	1 in 20 (5%)
Parking spaces, ***circulation*** and ***parking aisles*** in:- Public car parking areas (prams and shopping trolleys likely) Tenant car parking area in residential buildings Public car parking area (prams/trolleys unlikely) Staff car parking area	1 in 15 (6.7%) 1 in 15 (6.7%) 1 in 12 (8.3%) 1 in 10 (10%)
Straight ***circulation road*** and ramp	1 in 4 for a maximum length of 6m for ***small scale residential uses***, otherwise 1 in 6 (16.7%)
Curved ***circulation road*** or ramp (at inside of curve)	1 in 6 (16.7%)
Circulation road, ramp or driveway within 6m of an ***access driveway***, traffic control point or marked pedestrian crossing	1 in 20 (5%) *for other than* ***small scale residential uses***
Uphill ***queue area***	1 in 12 (8.3%)
Superelevation on curved roadway or ramp camber	1 in 12 (8.3%)

AND

AS 25.3 On-site ***service areas*** and those sections of the on-site car parking area to which access is restricted to use solely by ***service vehicles*** have a finished surface gradient of no more than that prescribed in Table 6.4.3W for the particular function of those areas and for the particular class of ***service vehicle*** to be accommodated on that section of the development ***site***;

Table 6.4.3W

	DESIGN VEHICLE						
	VAN	***SRV***	***MRV***	***HRV***	***RCV***	***COACH***	***AV***
Maximum Gradient of - general surface - manoeuvring areas - aisles, loading bays	1:20 (5%)	1:20 (5%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)
Maximum Gradient of Ramps - straight - curved	1:6 (16.7%) (for curved ramps, this is measured at inside of constructed curve)	1:8 (12.5%) (for curved ramps, this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps, this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps, this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps, this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps, this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps, this is measured at inside of constructed curve)
Maximum Gradient of - ***queuing area*** - traffic control point	1:20 (5%)	1:20 (5%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)

Acceptable Solutions for Self Assessable Development

AND

AS 25.4 Those sections of the development ***site*** accessible by both ***services vehicles*** and the ***85th percentile vehicle*** have a finished surface grade of no more than the grades prescribed in Table 6.4.3W for the particular function of the area and for the particular class of ***service vehicle*** required to be accommodated on that section of the development ***site***.

AND

AS 25.5 The cross fall component of the maximum finished surface grades prescribed in Tables 6.4.3V and 6.4.3W for the following areas do not exceed 1 in 20(5%):-

(1) car parking spaces, other than for disabled persons; and

(2) those sections of ***circulation road*** used by ***service vehicles*** larger than ***VAN's***;

and do not exceed 1 in 40 (2.5%) in the following areas:-

(3) car parking spaces for disabled persons;

(4) trolley bays; and

(5) pedestrian pathways throughout the development ***site***.

AND

AS 25.6 Other than as provided for in *AS 25.7*, changes in gradient over car parking areas and ***service areas*** do not exceed:-

(1) an algebraic change of 2% (1 in 50) over a pavement length equivalent to the length of a car-carrier ***AV***, for those sections of the site to be traversed by a car-carrier ***AV***; and

(2) for those areas not traversed by a car-carrier ***AV***, an algebraic change of 5% (1 in 20) over a pavement length equivalent to the length of the largest class of vehicle required to be accommodated on that section of the development ***site***.

AND

AS 25.7 Changes in gradient over the length of a straight ***circulation road*** or ramp on that part of a development ***site*** used solely for a ***small scale residential use***, or for a ***small scale residential use*** in association with a use not required to accommodate on-site parking facilities, do not exceed an algebraic change of 12.5% (1 in 8) over a horizontal length of 1m.

Height Clearances

AS 26.1 Those areas of the development site which are open to ***service vehicle*** traffic, (other than vehicular movement solely by ***VANs),*** do not incorporate a change in grade in the finished surface of the pavement, or involve the use of a car-carrier vehicle if there is a ***structure*** over.

AND

AS 26.2 Those areas of the development ***site*** which are open to traffic by vehicles larger than a ***VAN*** have a clearance measured above and perpendicular to the finished pavement surface of no less than that prescribed in Table 6.4.3X for the particular class of ***service vehicle*** for which access is required:-

Table 6.4.3X

	DESIGN VEHICLE					
	SRV	***MRV***	***HRV***	***RCV***	***COACH***	***AV***
Minimum Vertical Clearance (m)	3.5	4.5	4.5	4.5 + operating clearance	4.5	4.5

Notes:-

*For purposes of this table, the required operating clearance for an **RCV** is:-*

(1) *1.6m for a front load RCV (6.1m minimum vertical clearance);*

(2) *2.2m for a side load RCV (6.7m minimum vertical clearance); and*

(3) *2.6m for a rear (roll-off) RCV (7.1m minimum vertical clearance).*

AND

AS 26.3 An unobstructed clearance of no less than 2.5m measured perpendicular to the finished pavement surface is provided above every car parking space designated for use by disabled persons.

AND

AS 26.4 Those areas of the development ***site*** which:-

(1) are traversed by vehicles; and

(2) are not covered by *AS 26.2* or *26.3*; and

(3) have a ***structure*** over;

have an unobstructed clearance of no less than the following measured above, and perpendicular to a flat plane which joins the points at which the tyres of the vehicle accessing the space abutt the finished pavement surface:-

(4) for ***VANs*** and 4 wheel drives – 2.3m; and

(5) for other than ***VANs*** and 4 wheel drives – 2.0m.

Acceptable Solutions for Self Assessable Development

Turning of Vehicles on Site

This element does not apply to ***small scale residential uses***.

AS 27 Unless otherwise permitted under the "Service Vehicle Access and Parking Numbers" element of this code, provision is made for all vehicles to be accommodated on the development ***site*** to completely turn on the land using a manoeuvre which:-

(1) is no more onerous than a "3 point turn"; and

(2) does not involve a reversing manoeuvre covering more than 30m.

Pedestrian Pathways and Trolley Bays

AS 28 A continuous and clearly defined pedestrian pathway constructed to the standard set under *Australian Standard AS 1428.1 (2001) Design for Access and Mobility* is provided from:-

(1) all designated passenger setdown points on the development ***site***;

(2) all public transport setdown areas on and adjacent to the development ***site***; and

(3) all car parking spaces designated for use by people with physical disabilities on the development ***site***;

to the designated entry points to the ***operational component*** of the land use.

AS 29 For those developments where customer guided trolleys are provided for the convenience of patrons, designated trolley holding facilities satisfying the following criteria are provided on the development ***site***:-

(1) part of every car parking space provided on the development ***site*** is within 30m of a trolley storage facility;

(2) each individual storage facility has direct access to a ***parking aisle***, ***circulation aisle*** or designated pedestrian pathway within the development ***site***;

(3) each individual storage facility has capacity to hold no less than 30 trolleys at any point in time; and

(4) each individual storage facility is readily seen from all car parking spaces within 30m of the facility.

Raised Separators and Wheelstops

This element does not apply to car parking facilities required for the ***small scale residential use*** component of any development.

AS 30.1 Raised separators or wheelstops are provided in the following locations on the development ***site***:-

(1) between the side or end of each car parking space[10] which abuts a ***circulation road*** and that ***circulation road***;

(2) between any designated pedestrian pathway and any abutting car parking space;

(3) at any changes in finished surface level of more than 125mm either within or abutting those areas of the development ***site*** traversed by vehicles; and

(4) between any landscaping on, or adjacent to, the development ***site*** and any abutting ***circulation road***, ***circulation aisle***, ***parking aisle***, ***service aisle***, ***service area***, passenger setdown or goods pick-up area or car parking space.

AND

AS 30.2 Wheelstops provided at the closed ends of car parking spaces are:-

(1) no higher than 125mm and no lower than 90mm above finished pavement level; and

(2) secured at least 1m in from the closed end of the car parking space.

AND

AS 30.3 Raised separators, other than wheelstops provided at the closed ends of car parking spaces, have a height above finished pavement level of no less than:-

(1) 125mm if the separator[11] has a width of at least 1m measured from the extremity of the abutting car parking space; or

(2) 1.3m otherwise.

AND

AS 30.4 No raised barriers, other than:-

(1) wheelstops provided at the closed ends of car parking spaces; and

(2) those barriers permitted under the "On-Site Traffic Circulation Paths" element of this code;

encroach upon any of the required vehicle standing or circulation areas prescribed under this code.

Construction Standards

AS 31.1 For those developments where kerb and channel exists at the vehicular access point to the site, the ***access driveway*** between the invert of the channel within the frontage road and the road boundary of the development ***site*** is constructed to the standard prescribed in the following drawings contained in *Schedule D* to this code:-

(1) for solely ***small scale residential uses*** - 43; or

(2) for other than (1) above - 01, 02, 03, 04, 05, 06 and 08;

as applicable for the ***access driveway*** type prescribed in Tables 6.4.3L and 6.4.3M of this code, and is maintained in that condition for the whole of the operating life of the land use on the development ***site***.

AND

Acceptable Solutions for Self Assessable Development

AS 31.2 For those developments where kerb and channel does not exist at the vehicular access point to the ***site***, the ***access driveway*** between the edge of the existing pavement seal within the frontage road and the road boundary of the development ***site*** is constructed to the standard prescribed in the following drawings contained in *Schedule D* to this code:-

(1) for solely ***small scale residential uses*** - 45 or 07; or

(2) for other than (1) above:-

(a) 07; or

(b) 09 in association with 01, 02, 03, 04, 05, 06 or 08;

as applicable to the ***access driveway*** type prescribed in Tables 6.4.3L and 6.4.3M of this code, and is maintained in that condition for the whole of the operating life of the land use on the development ***site***.

AND

AS 31.3 All traffic control devices provided on the development ***site*** are constructed to the standard prescribed in the *Planning Scheme Policy PSP28 Civil Infrastructure Design.*

AND

AS 31.4 All areas of the development ***site*** on which vehicles, (other than those vehicles being used for the construction or maintenance of on-site buildings or other ***structures***, and their surrounds), are driven, parked or otherwise manoeuvred have a loadbearing surface comprising:-

(1) a rigid pavement designed and constructed in accordance with the *Cement and Concrete Association of Australia's Technical Notes 43 to 50*; or

(2) a flexible pavement designed and constructed in accordance with the "Road Pavement Design" element of *Planning Scheme Policy PSP28 Civil Infrastructure Design* and sealed with asphaltic concrete having a depth of no less than 40mm; or

(3) a combination of (1) and (2) above;

and are maintained in a condition free of localised or major collapse for the whole of the operating life of the land use on the development ***site***.

However, there is no requirement under this provision for the parking facilities for those parts of developments comprising ***agriculture***, ***animal accommodation, associated unit***, ***bed and breakfast accommodation***, ***caretaker's residence***, ***dairy***, ***domestic storage***, ***environmental park***, ***farm forestry***, ***infill housing***, ***local utilities***, ***non-intensive animal husbandry***, ***park***, ***recycling depot*** or ***tourist cabins*** to have a sealed loadbearing pavement for on-site car parking facilities. Further, there is no requirement under this provision for the car parking spaces[12] provided for those parts of developments comprising a ***place of worship*** to be sealed provided that the finished surface grade of those car parking spaces does not exceed 3% (1 in 33) and the parking area accommodates no more than 50 car parking spaces.

AS 32.1 Unless the land use constitutes one or more of the following, the development ***site*** has direct access to a ***Council*** maintained stormwater drainage system with the capacity to fully contain the stormwater runoff from the relevant event identified in *AS 32.2* over the development ***site*** and the remainder of the catchment area for the drainage system:-

(1) ***associated unit***,

(2) ***bed and breakfast accommodation***;

(3) ***caretaker's residence***;

(4) ***infill housing***;

(5) ***tourist cabins***; and

(6) any development for which sealed on-site parking facilities are not provided.

AND

AS 32.2 Sealed areas of the development ***site*** are drained to an on-site underground stormwater drainage system which is designed to fully contain the stormwater runoff from its natural and constructed catchment for the following intensity storm and the capacity of which is maintained in its design condition for the whole of the operating life of the uses on the development ***site***:-

(1) for ***business zoned land*** – ***Q10 event***; or

(2) for other than (1) – ***Q5 event***.

However, there is no requirement under this provision for the on-site stormwater drainage system which serves the sealed areas of those parts of the development site comprising an ***associated unit, bed and breakfast accommodation, caretaker's residence, infill housing,*** or ***tourist cabins*** to be underground.

AND

AS 32.3 The sealed areas referred to in *AS 32.2* are so shaped, and the stormwater catchment devices for the underground stormwater system are so designed, that stormwater runoff from the relevant event identified in *AS 32.2* is fully contained within the sealed areas, captured and, where required by *AS 32.2*, directed into the underground stormwater system.

Further, the sealed areas are also shaped to fully contain the flows of a ***Q100 event*** without resulting in inundation of buildings and to direct those flows to a lawful point of discharge external to the development ***site***.

AND

Acceptable Solutions for Self Assessable Development
AS 32.4 The underground stormwater drainage system referred to in *AS 32.2* discharges to a ***Council*** maintained stormwater drainage system having the capacity to cater for the stormwater runoff from the relevant event identified in *AS 32.2* over the developed catchment which includes that development ***site***.
AND
AS 32.5 Stormwater overland flow paths which, prior to development of the land, entered the development ***site***, are not diverted onto adjacent land, (other than a road), in a manner which:- (1) increases the quantity of stormwater from the level which existed prior to the diversion; or (2) concentrates the flow.
Illumination
There is no requirement under this element to provide artificial illumination of:- (1) sealed car parking facilities for the ***small scale residential use*** component of any development; or (2) car parking facilities which do not have a sealed finish.
AS 33.1 Roofed parking areas, ***service vehicle*** facilities and designated pedestrian routes between those parking areas and the ***operational component*** of the on-site land use are illuminated to levels no less than those prescribed in *Australian Standard AS 1680.2.1 (1993) Circulation Spaces and Other General Areas.*
AND
AS 33.2 Outdoor and roof-top parking areas, ***service vehicle*** facilities and designated pedestrian routes between those parking areas and the ***operational component*** of the on-site land use for those developments which operate during the hours of twilight or darkness are illuminated to the levels set in *Australian Standard AS 1158.3.1 (1999) Pedestrian Area (Category P) Lighting - Performance and Installation Design Requirements.*
AND
AS 33.3 A*ccess driveways* to the car parking areas and ***service vehicle*** facilities of those developments which operate during the hours of twilight or darkness are illuminated to the levels set in *Australian Standard AS 1158.3.1 (1999) Pedestrian Area (Category P) Lighting - Performance and Installation Design Requirements.*
AND
AS 34 Lighting of parking areas, ***service vehicle*** facilities and the designated route between those parking areas and the ***operational component*** of the on-site land use is located, directed and shielded in such a manner that the illumination levels do not exceed the "recommended maximum values of light technical parameters for the control of obtrusive light" given in Table 2.1 of *Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.* For purposes of that table, "curfewed hours" are taken to be those hours between 10pm and 7am on the following day.

Table 6.4.3Y – Assessment Criteria for Assessable Development

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th colspan="2">Probable Solutions</th></tr>
<tr><td colspan="3">On-Site Parking Numbers
This element does not apply to those components of a development which comprise land uses for which a specific on-site car parking requirement has been prescribed in a stated purpose code.</td></tr>
<tr><td rowspan="2">SO 1 Adequate car parking facilities are provided for use by operators, their employees, customers and residents of that specific development and bonafide visitors to that specific development having regard to relevant issues including the following:-
(1) anticipated peak parking demand for the facility;
(2) proximity of the specific development to public transport drop off and pick up points, and the reliability, regularity, type and carrying capacity of the public transport which services the area;
(3) the level of pedestrian accessibility to the specific development and between adjacent developments;
(4) the nature of the land use or mixture of land uses comprising the development, including the peak operating hours of those uses;
and these facilities are retained for parking purposes at all times that the operational component of the specific development is in use.</td><td colspan="2">For development not covered by PS 1.1 or PS 1.2 there is no probable solution for this element.
PS 1.1 Where the site is zoned Central Business or Local Business or Village Centre or Urban Village, car parking facilities are provided and maintained on-site at all times that the operational component of the development is in use in accordance with the following rates:-
(1) 6 spaces per 100m² of gross floor area at ground level; and
(2) 1 space per 30m² of gross floor area at any level other than ground level.
OR
PS 1.2 For development to which PS 1.1 does not apply, car parking facilities for each use² are provided and maintained on site at all times that the operational component of the development is in use in accordance with the rates prescribed in Table 6.4.3Z.</td></tr>
<tr><td colspan="2">TABLE 6.4.3Z
Use — Minimum Number of Parking Spaces
Agriculture — nil
Animal Accommodation — nil
Bulk Garden Supplies — The greater of:- (1) one space, per 50m² of gross floor area, or part thereof; and (2) one space, per 150m² of site area, or part thereof; with at least 50% of on-site car parking of sufficient size to accommodate a car with trailer attached
Car Depot — One space, plus one space per 500m² of site area, or part thereof
Car Park — One space, per staff member on the site at any point in time
Commercial Services
- Motor vehicle repair or service including wind-screen, exhaust and tyre fitting workshop — The greater of:- (1) one space per 30m² of gross floor area, or part thereof; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of gross floor area, or part thereof.
- Other than motor vehicle repair or service including windscreen, exhaust and tyre fitting workshops — The greater of:- (1) one space per 50m² of gross floor area, or part thereof; and (2) two spaces per tenancy or community title lot</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions	
	Contractor's Depot	The greater of:- (1) one space per 50m² of ***gross floor area***, or part thereof; and (2) 4 spaces; and (3) 2 spaces per 1000m² of ***site*** area, or part thereof. Where the ***contractor's depot*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***contractor's depot*** use may be provided in ***tandem formation***.
	Dairy	nil
	Domestic Storage	nil
	Environmental Park	nil
	Fast Food Delivery Service	One space per 15m² of ***gross floor area***, or part thereof
	Food Outlet	One space for 15m² of ***gross floor area***, or part thereof, plus space for 10 cars in any "drive-through" service facility
	General Industry	The greater of:- (1) 2 spaces per tenancy or community title lot plus one space per 200m² of ***gross floor area***, or part thereof; and (2) 4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m²; and (3) 2 spaces per 1,000m² of ***site*** area, or part thereof. Where the ***general industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***general industry*** use may be provided in ***tandem formation***.
	Hardware Shop	One space per 30m² of ***gross floor area***, or part thereof, with a minimum of 4 spaces.
	Hazardous or Offensive Industry	The greater of:- (1) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof; and (2) 4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m²; and (3) 2 spaces per 1,000m² of ***site*** area, or part thereof. Where the ***hazardous or offensive industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***hazardous or offensive industry*** use may be provided in ***tandem formation***.
	Hospital	The aggregate of:- (1) one space per 4 beds, or part thereof; and (2) one space per 2 staff members (other than staff doctors), or part thereof, on the ***site*** at any point in time; and (3) one space per staff doctor on the ***site*** at any point in time.

Specific Outcomes for Assessable Development	Probable Solutions	
	Hotel	The aggregate of:- (1) one space per guest suite; and (2) one space per 5m² of lounge, bar and beer garden floor area, or part thereof; and (3) one space per 3 employees, or part thereof, on the ***site*** at any point in time; and (4) one space per 15m², or part thereof, of ***gross floor area*** of liquor barn sales area; and (5) space for 12 cars in any "drive-through" service facility.
	Indoor Entertainment and Sport	
	- Bowling alley	4 spaces per alley
	- Gymnasium	10 spaces per 100m² of ***gross floor area***, or part thereof
	- Indoor Bowls	4 spaces per rink
	- Indoor skating rink or swimming pool	15 spaces, plus one space per 100m² of ***gross floor area***, or part thereof
	- Indoor cricket or other court game (other than squash or tennis)	25 spaces per pitch
	- Squash or tennis courts	6 spaces for court
	- Other than above	No probable solution
	Local Utilities	nil
	Night Club	One space for 10m² of ***gross floor area***, or part thereof.
	Non-Intensive Animal Husbandry	Nil;
	Office	
	- Medical, dental or paramedical practitioner	4 spaces per consulting room.
	- Other than above	One space per 30m² of ***gross floor area***, or part thereof.
	Outdoor Recreation	
	- Outdoor tennis courts	6 spaces per court.
	- Other than above	No probable solution
	Outdoor Sales	One space per 150m² of ***site*** area, or part thereof.
	Park	nil
	Place of Worship	One space per 10m² of ***gross floor area***, or part thereof.
	Radio Station	One space per 30m² of ***gross floor area***, or part thereof.
	Recycling Depot	nil

Specific Outcomes for Assessable Development	Probable Solutions	
	Retail Nursery	10 spaces, plus one space per 100m² of ***site*** area, or part thereof, in excess of 500m².
	Rural Industry	The greater of:- (1) 4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m²; and (2) 2 spaces per 1000m² of site use area, or part thereof.
	Salvage Yard	One space per 150m² of ***gross floor area***, or part thereof, with a minimum of 5 spaces. Where the ***salvage yard*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***salvage yard*** use may be provided in ***tandem formation***
	Service Industry - Where the land has frontage to a road designated[3] by ***Council*** or the Department of Main Roads as being of arterial or sub arterial or collector standard (other than motor vehicle repair or service, including windscreen, exhaust and tyre fitting workshops).	The greater of:- (1 one space per 50m² of ***gross floor area***, or part thereof; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof. Where the ***service industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***service industry*** use may be provided in ***tandem formation***.
	- Motor vehicle repair or service including windscreen, exhaust and tyre fitting workshop where the land has frontage to a road designated by ***Council*** or the Department of Main Roads as being of arterial or sub arterial or collector standard	The greater of:- (1) one space per 30m² of ***gross floor area***, or part thereof; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof. Where the ***service industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***service industry*** use may be provided in ***tandem formation***.
	- Where the land has frontage to a road designated by ***Council*** as being of sub collector or lesser standard	The greater of:- (1) 4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m²; and (2) 2 spaces per tenancy or community title lot, plus one space per 200m² of ***gross floor area***, or part thereof; and (3) 2 spaces per 1,000m² of ***site*** area, or part thereof. Where the ***service industry*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***service industry*** use may be provided in ***tandem formation***.
	- Self Storage Facility	One space per 1,000m² of ***gross floor area***, or part thereof.

Specific Outcomes for Assessable Development	Probable Solutions	
	Service Station	The aggregate of:- (1) 4 spaces per service bay with a minimum of 4 spaces; and (2) one space per 15m² of ***gross floor area***, or part thereof, of any restaurant, take away food or other retail sales area; and (3) one space per 30m² of ***gross floor area***, or part thereof, of any area not covered by (1) or (2).
	Shop	One space per 15m² of ***gross floor area***, or part thereof.
	Showroom	One space per 30m² of ***gross floor area***, or part thereof.
	Vehicle Sales	The greater of:- (1) one space per 30m² of ***gross floor area***, or part thereof; and (2) 4 spaces; and (3) 2 spaces per 1,000m² of ***site*** area, or part thereof.
	Veterinary Clinic or ***Veterinary Hospital***	The greater of:- (1) one space per 30m² of ***gross floor area***, or part thereof; and (2) 4 spaces per consultation room.
	Warehouse	4 spaces, plus one space per 100m² of ***gross floor area***, or part thereof, in excess of 200m². Where the ***warehouse*** use incorporates a building of no less than 800m² ***gross floor area***, 30% of the parking spaces required for the ***warehouse*** use may be provided in ***tandem formation***.
Parking for Disabled Persons		
SO 2 Car parking facilities which adequately meet the likely parking demand of disabled users of the development are provided and maintained for the exclusive use of those disabled users and are in a form which meets the specific access and mobility needs of physically disabled persons in regard to:- (1) anticipated proportion of disabled users to able bodied users if the development; (2) topography of the development ***site*** and adjacent facilities; (3) proximity of the development to disabled friendly public transport facilities and the reliability, regularity, type and carrying capacity of those public transport facilities; (4) the nature of the land use, or mixture of land uses comprising the development; and (5) physical form.	**PS 2** Car parking facilities in a form which satisfies the design criteria set for disabled parking under *Australian Standard AS 2890.1 (1993) Off-Street Car Parking* are provided on the development ***site*** at the following rate:- (1) the rate set in an applicable ***stated purpose code*** for the specific use or uses comprising the development; or (2) for those specific uses comprising the development which are not covered by (1):- (a) for those uses incorporating building work - the rate prescribed in the *Building Code of Australia*; and (b) for all other uses - 1 car parking bay for every 100 car parking spaces provided for those uses pursuant to the "On-Site Parking Numbers" element of this code.	

Specific Outcomes for Assessable Development	Probable Solutions
SO 3 The parking facilities provided for disabled persons are:- (1) located; (2) appropriately identified; and (3) connected to all on-site facilities; in such a manner as to encourage and facilitate their use by disabled persons.	**PS 3** The parking facilities provided for disabled persons are:- (1) located adjacent to the main entries to the ***operational component*** of the development; and (2) adjacent to a pathway which provides direct access from the parking space to a main entry to the ***operational component*** of the development and which satisfies the design criteria set in *Australian Standard AS 1428.1 (2001) Design for Access and Mobility;* and (3) signposted and otherwise identified for use solely by disabled persons in accordance with the design criteria set in *Australian Standards AS 1428.1 (2001) Design for Access and Mobility* and *AS2890.1 (1993) Off-Street Car Parking.*
Bicycle Storage and Cyclist End Use Facilities	
SO 4 Adequate cycle parking and storage facilities within a reasonable walking distance of the ***operational component*** of the development are secured for use by operators, their employees, customers, residents of, and bonafide visitors to, the development, having regard to relevant issues including:- (1) anticipated cycle parking demand for the facility; (2) proximity of the development to public transport drop off and pick up points and the reliability, regularity, type and carrying capacity of the public transport which services the area; (3) proximity of the facility to designated cycle paths; (4) the nature of the land use or mixture of land uses comprising the development; and these facilities are retained for cycle parking purposes at all times that the ***operational component*** of the development is in use.	**PS 4.1** Bicycle parking facilities no fewer in number than that stipulated in Table 10.1 of *Austroads (1999), Guide to Traffic Engineering Practice, Part 14 - Bicycles* are provided and maintained on the development ***site*** for each of the uses comprising the development that are identified in that table. Of these facilities, at least 50% of the overall number was provided prior to the use of the development commencing, while the remainder were provided prior to the average daily occupation rate of the bicycle parking facilities initially provided exceeding 75%. **AND** **PS 4.2** The on-site bicycle parking facilities provided under *PS4.1*:- (1) are provided in a form no less secure than that prescribed in Tables 10.1 and 10.2 of *Austroads (1999), Guide to Traffic Engineering Practice, Part 14 - Bicycles* for the particular type of development proposed; and (2) have dimensions no more restrictive than those prescribed in *Australian Standard AS 2890.3 (1993) Parking Facilities - Bicycle Parking Facilities.*
SO 5 Adequate shower, change and essential equipment storage facilities within a reasonable walking distance of the cycle parking and storage facilities and the ***operational component*** of the development, are provided for use in association with long-term cycle parking and are of a quality which promotes the use of bicycles as an alternative form of transport to the private car and public transport.	**PS 5.1** Combined shower, changing and personal storage locker facilities are provided on the development ***site*** at a rate of no less than 1 combined facility for every 10 employee/resident cycle spaces, or part thereof, provided under *PS4.1* and are accessible by all users of the employee/resident cycle spaces at all times. **AND** **PS 5.2** Where only one combined shower, changing and personal storage locker facility is provided on the development ***site*** under *PS5.1*, it is designed and located for use as a unisex facility. Where two or more such facilities are provided, they are designed and located for use as:- (1) unisex facilities; or (2) facilities designated solely for the use by males and an equivalent number of facilities designated solely for use by females; or (3) a combination of (1) and (2). A unisex facility in this context is a shower, changing and personal locker facility in which there is only one shower and where that shower and its associated change facilities are separated from the locker facilities by floor to ceiling partitions of opaque construction incorporating a door which is lockable from the shower side of the partition.

Specific Outcomes for Assessable Development	Probable Solutions
	AND **PS 5.3** Each combined shower, changing and personal storage facility provided under *PS5.1* comprises:- (1) a shower supplied with hot and cold potable water and a dressing area fitted with a bench or seat, clothes hook and towel hook, all of which are located in a self contained cubicle[4] of opaque construction and access to which is lockable from the shower side; (2) a mirror no smaller than 900mm high x 600 wide and a single 240 volt general purpose outlet; (3) ten lockable storage cabinets, each of which has a storage space no smaller than 900mm high x 300mm x 450mm, and a hanging rail or hook for the storage of riding apparel; and (4) a separating element between the shower and dressing area described in (1) comprising an impermeable screen or curtain extending from the shower base to no less than 2m above that base. **AND** **PS 5.4** The entrance to each combined shower, changing and personal storage locker facility provided under *PS5.1* is no more than 100m from:- (1) an employee/resident cycle storage area provided under *PS4.1*; and (2) a main entry to an ***operational component*** of the development.
SO 6 Cycle parking and storage areas are so located and signposted as to:- (1) promote the use of these parking and storage facilities; and (2) promote the use of bicycles as an alternative form of transport to the private car and public transport; and (3) be readily apparent from the road or cycle way access points to the development ***site***.	**PS 6.1** Employee/resident cycle storage areas are provided within 100m of an entrance to the building to which the cyclist is seeking access for business, employment or residential purposes. **AND** **PS 6.2** Visitor/shopper cycle storage areas are provided within 30m of the entrance to the building to which the cyclist is seeking access. **AND** **PS 6.3** Where the cycle parking/storage areas described in *PS6.1* and *PS6.2* are not visible from the designated vehicle and cycle entrance points to the development ***site***, directional signs are provided between the required cycle parking/storage areas and those designated entrance points to the land, while the cycle parking/storage areas are signposted or otherwise designated by permanent markings.
SO 7 Illumination and casual observation of the following areas and access paths are provided to a level sufficient to instil in potential users of bicycle parking facilities a sense of safety, and to promote the use of those facilities:- (1) the bicycle parking facilities; and (2) the access paths linking the following:- (a) those parking facilities; (b) the shower, change and personal storage facilities provided under this element; and (c) the entrance to a building likely to be accessed by potential users of the cycle parking facilities.	**PS 7.1** The on-site bicycle parking facilities provided under *PS4.1* and *PS4.2* and the access paths linking the following are illuminated to the level prescribed in *Australian Standard AS1158.3.1 (1999) Pedestrian Area (Category P) Lighting - Performance and Installation Design Requirements* during those hours of twilight and darkness that any part of the ***operational component*** of the development is in use:- (1) those parking facilities; (2) the shower, change and personal storage facilities provided for use by cyclists; and (3) the entrance to the building to which the cyclist is seeking access for business, employment or residential purposes. **AND** **PS 7.2** The on-site bicycle parking facilities and access paths described in *PS 7.1* are observable at all times from regularly used public areas.

Specific Outcomes for Assessable Development	Probable Solutions

Service Vehicle Access and Parking Numbers

This element does not apply to ***associated unit***, ***bed and breakfast accommodation***, ***caretaker's residence***, ***cattery***, ***display home***, ***domestic storage, duplex***, ***environmental park***, ***estate sales office***, ***home business***, ***infill housing***, ***park*** and ***tourist cabins***.

SO 8 Adequate ***service vehicle*** access and standing facilities within a reasonable travel distance of the ***operational component*** of the development are provided for delivery, dispatch and public transport operations comprising an integral component of the development having regard to relevant issues including the following:-

(1) the nature of the land use, or mixture of land uses, comprising the development;

(2) the peak operating and servicing hours of the land use, or mixture of land uses, comprising the development;

(3) the type and size of delivery, dispatch, public transport and emergency services vehicles associated with the reasonable everyday operation of the land use, or mixture of land uses, comprising the development; and

(4) the type, size and volume of goods associated with the reasonable everyday operation of the land use, or mixture of land uses.

PS 8.1 ***Service vehicle*** parking facilities[13] equivalent to no less than the aggregate of the minimum numbers prescribed in Tables 6.4.3AA to 6.4.3HH for:-

(1) each vehicle type nominated; and

(2) each of the land uses comprising the development that are identified in those tables;

are provided and maintained on the development ***site***.

However, there is no requirement under this element to provide on-site ***service vehicle*** parking facilities for ***agriculture***, ***animal accommodation***, ***car park***, ***dairy***, ***farm forestry***, ***non-intensive animal husbandry***, ***pensioner units***, ***place of worship***, ***radio station***, ***recycling depot***, ***rural industry***, or any ***multiple dwelling units***.

Table 6.4.3AA

Community Facilities or ***Indoor Entertainment and Sport***

Gross Floor Area (m²)	Minimum Number of ***Service Bays***				
	VAN	**SRV**	**MRV**	**HRV**	**COACH**
0-999	1				
1000-1999	1	1			1
2000-4000	1		1		2

Table 6.4.3BB

Local Utilities

Site Area (m²)	Minimum number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***COACH***
any			1		

Table 6.4.3CC

Office, Veterinary Clinic or a combination of these uses

Gross Floor Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-999		1			
1000-2499	1		1		
2500-3999	2	1	1		
4,000-5999	3	1	1		
6000-7999	4	1	1		
8000-9999	4	2	1		
10000-15000	4	2	1		

Specific Outcomes for Assessable Development	Probable Solutions

Table 6.4.3DD

Commercial Services, ***Fast Food Delivery Service***, ***Food Outlet***, ***Hardware Shop***, ***Retail Nursery***, ***Shop***, ***Showroom*** or a combination of these uses

Gross Floor Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-199		1			
200-599	1		1		
600-999	1	1	1		
1000-1499	2	1	1		
1500-1999	2	1	1		
2000-2799	2	2	2		
2800-3599	2	2	2	1	
3600-4399	3	2	2	1	
4400-6499	3	2	2	1	1
6500-8499	4	2	2	1	1
8500-11499	4	3	2	1	1
11500-15000	5	3	2	1	1

Note:- *Where a number of specialty retail outlets, each of which has a **gross floor area** of less than 200m², are combined on the one development **site**, the combination is treated as a single retail component for the purposes of applying the above table and **MRV** class vehicles are required in lieu of **HRV** and **AV** class vehicles.*

Table 6.4.3EE

Bulk Garden Supplies, Contractor's Depot, General Industry, Outdoor Sales, Service Industry *or* ***Warehouse*** where the land has frontage to a ***major road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1			1	
2000-2999	1		1		1
3000-4000		1	1		1

Specific Outcomes for Assessable Development	Probable Solutions

Table 6.4.3FF

Bulk Garden Supplies, Contractor's Depot, General Industry, Outdoor Sales, Service Industry *or* ***Warehouse*** where the land has frontage solely to a ***minor road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1		1		
2000-2999	1		1		
3000-4000		1		1	

Table 6.4.3GG

Car Depot or ***Vehicle Sales*** where the land has frontage to a ***major road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1			1	
2000-2999	1	1			1
3000-4000	1		1		1

Table 6.4.3HH

Car Depot or ***Vehicle Sales*** where the land has frontage solely to a ***minor road***

Site Area (m²)	Minimum Number of ***Service Bays***				
	VAN	***SRV***	***MRV***	***HRV***	***AV***
0-1999	1		1		
2000-2999	1		1		
3000-4000		1		1	

AND

PS 8.2 The ***service vehicle*** parking facilities provided are retained for ***service vehicle*** parking purposes at all times that the ***operational component*** of the development is open for goods delivery or dispatch purposes.

AND

PS 8.3 Provision is made for vehicular access to, and from, the development ***site*** by the ***service vehicle*** prescribed in Table 6.4.3II[14] for each of the land uses comprising the development that are identified in that table;

Specific Outcomes for Assessable Development	Probable Solutions		
	Table 6.4.3II		
	DEVELOPMENT TYPE	***SERVICE VEHICLE***	
		OCCASIONAL ACCESS	**REGULAR ACCESS**
	Agriculture	***HRV***	-
	Animal Accommodation	***MRV***	-
	Bulk Garden Supplies	***AV***	***HRV***
	Car Depot	***AV***	***AV***
	Car Park	***HRV***	***VAN***
	Commercial Services	***HRV***	***MRV***
	Concrete Batching Plant	***AV***	***HRV***
	Contractor's Depot for ***site***:- - less than 1,000m² area; and - less than 25m frontage	***AV***	***HRV***
	Contractor's Depot other than above	***AV***	***AV***
	Community facilities	***RCV***	***MRV***
	Dairy	***AV***	***HRV***
	Farm Forestry	***AV***	-
	Fast Food Delivery Service	***RCV***	***HRV***
	Food Outlet	***RCV***	***MRV***
	General Industry	***AV***	***AV***
	Hardware Shop	***RCV***	***HRV***
	High Density Multiple Dwelling Units	***HRV***	***VAN***
	Indoor Entertainment and Sport	***COACH***	***MRV***
	Local Utilities	***HRV***	***MRV***
	Low Density Multiple Dwelling Units	***HRV***	***VAN***
	Medium Density Multiple Dwelling Units	***HRV***	***VAN***
	Non-intensive Animal Husbandry	***HRV***	***-***
	Office with ***gross floor area*** of more than 1,000m²	***RCV***	***HRV***
	Office other than above	***HRV***	***MRV***
	Outdoor Sales	***AV***	***HRV***
	Pensioner Units	***HRV***	***VAN***
	Place of Worship	***VAN***	***-***

Specific Outcomes for Assessable Development	Probable Solutions		
	Radio Station	***HRV***	***SRV***
	Recycling Depot	***HRV***	***MRV***
	Retail Nursery	***HRV***	***MRV***
	Rural Industry	***HRV***	***MRV***
	Service Industry for ***site***:- - less than 1,000m² area; and - less than 25m frontage	***AV***	***HRV***
	Service Industry other than above	***AV***	***AV***
	Shop with ***gross floor area*** of more than 1,000m²	***AV***	***HRV***
	Shop other than above	***RCV***	***MRV***
	Showroom with ***gross floor area*** of more than 1,000m²	***AV***	***HRV***
	Showroom other than above	***RCV***	***HRV***
	Vehicle Sales	***AV***	***AV***
	Veterinary Clinic	***HRV***	***VAN***
	Warehouse	***AV***	***HRV***
	AND **PS 8.4** Provision is made for the ***service vehicle*** listed in the "OCCASIONAL ACCESS" column of Table 6.4.3II for each of the uses comprising the development to:- (1) enter the development ***site*** via the ***access driveway*** provided pursuant to the "Access Driveways" element of this code; and (2) stand wholly within the development ***site***. **AND** **PS 8.5** Where vehicular access to the development ***site*** is gained from a ***major road***, provision is made for the ***service vehicle*** listed in the "REGULAR ACCESS" column of Table 6.4.3II for each of the uses comprising the development to:- (1) enter the development ***site*** via an ***access driveway*** provided pursuant to the "Access Driveways" element of this code; (2) traverse the ***site*** only on ***circulation roads*** or ***circulation aisles*** to access ***service areas***; (3) turn on the development site using a manoeuvre no more onerous than a 3 point turn; and (4) manoeuvre on ***site*** to allow parking and loading/unloading in a designated ***service area***. (Where the land use comprises solely a ***food outlet*** or ***community facilities***, the manoeuvring area may include part of that area otherwise used for car parking purposes.)		

Specific Outcomes for Assessable Development	Probable Solutions
	AND **PS 8.6** Where vehicular access to the development site is gained from a ***minor road***, provision is made for the ***service vehicle*** listed in the "REGULAR ACCESS" column of Table 6.4.3II for each of the uses comprising the development to:- (1) enter the development ***site*** via an ***access driveway*** provided pursuant to the "Access Driveways" element of this code; and (2) stand wholly within the ***site*** in such a manner as to:- (a) not occupy any of the ***queuing areas*** provided adjacent to the ***access driveway*** pursuant to the "On-Site Vehicle Queue Lengths" element of this code; and (b) not obstruct access to more than 50% of the on-site car parking spaces.
Access Driveways	
SO 9 Vehicular access to the development ***site*** from a declared roadway is provided in a form which:- (1) minimises potential conflict points with pedestrians and other users of the footpath reserve; (2) provides clearly identified refuges of adequate length and width to accommodate the reasonable everyday volume of users of the footpath reserve for the frontage road between vehicular access points to development ***sites***; (3) accommodates the turning manoeuvres of all vehicles likely to access the ***site***; (4) provides a stable, hard-wearing platform capable of supporting the load requirements imposed by the reasonable everyday traffic volumes and vehicle types associated with the particular traffic demands of the specific land use, while minimising the need for vehicle generated maintenance of the footpath reserve;	There is no "probable solution" for this element[15] for those forms of development where:- (1) vehicular access to the development ***site*** is obtained from more than 2 frontage roads; or (2) that section of a car parking area served by a particular ***access driveway*** contains more than 500 car parking spaces; or (3) the on-site activities generate a turnover rate of more than 1,000 vehicles per day[5]; or (4) the upper limits of Tables 6.4.3AA to 6.4.3HH and Table 6.4.3KK in this code are exceeded; or (5) vehicular access to a car parking area accommodating more than 50 car parking spaces is within 100m of a signalised intersection. **PS 9.1** An ***access driveway*** satisfying the following requirements is provided between the road frontage of the development ***site*** and the traffic lanes of any frontage road administered by ***Council***[6] at each vehicular access point to the development ***site***:- (1) any ***access driveway*** used solely by ***service vehicles*** has the size and shape prescribed in Table 6.4.3JJ for the largest ***service vehicle*** that uses that ***access driveway***;

Specific Outcomes for Assessable Development	Probable Solutions
(5) is so shaped as to allow all vehicles likely to access the ***site*** to move to, and from, the carriageway of the frontage road for the development ***site*** without being forced to slow to a speed which adversely affects the flow of traffic in the frontage road; (6) avoids, to the extent practicable, any potential conflict with, or significant adverse effect on, existing aboveground services, bus stops, taxi ranks, traffic control devices, significant trees, pedestrian crossings, stormwater catchpits and marked on -street parking or loading bays; (7) does not have a significant adverse effect on the reasonable expectations of developers of adjacent land in terms of their vehicular access needs; (8) does not adversely affect the operation of external traffic slip lanes, intersections or existing breaks in external median strips adjacent to the development ***site***; and (9) is so located that adequate ***sight lines*** are provided at the vehicular access points to ensure a safe transition of traffic to, and from, the development ***site*** without adversely affecting traffic movements within the frontage road.	**Table 6.4.3JJ** TYPE OF ***ACCESS DRIVEWAY***

DESIGN SERVICE VEHICLE from Tables 6.4.3AA to 6.4.3II of this code	**Frontage Road**	***Minor Road***	***Major Road***	***Major Road***
	Development Generated Traffic	***N/A***	**Up to and including 100 VPD**	**Greater than 100 VPD**
		Access Driveway Type		***Access Driveway* Type**
Small Rigid Vehicle **(SRV)**		2 (6.5m throat width)		7B
Medium Rigid Vehicle **(MRV)**		2 (7.5m throat width)		7B
Heavy Rigid Vehicle **(HRV)**		2 (7.5m throat width)		7B
Refuse Collection Vehicle **(RCV)**		2 (7.5m throat width)		7C
Coach **(COACH)**		2 (9.0m throat width)		7D
17.5m Articulated Vehicle **(AV)**		2 (9.0m throat width)		7D

Notes:-

For the purpose of this table:-

(1) *VPD means vehicles per day*[5];

(2) *where one-way* ***circulation roads*** *adjoin the* ***access driveways****, Type 5 and 6* ***access driveways*** *are to be used instead of the Type 2 and 7 driveways prescribed in the table;*

(3) *where a development* ***site*** *is serviced by more than one* ***access driveway****, at least one* ***access driveway*** *is accessible by the "occasional access"* ***service vehicle*** *prescribed for the land use in Table 6.4.3II of this code and is signposted accordingly; and*

(4) ***access driveway*** *Types 2, 5, 6, 7A, 7B, 7C and 7D have the size and shape depicted in Schedule D to this code.*

(2) any ***access driveway*** used solely by vehicles no larger than the 99.8 percentile vehicle described in *Australian Standard AS 2890.1 (1993) Off-Street Car Parking* has the size and shape prescribed in Table 6.4.3KK:-

Table 6.4.3KK

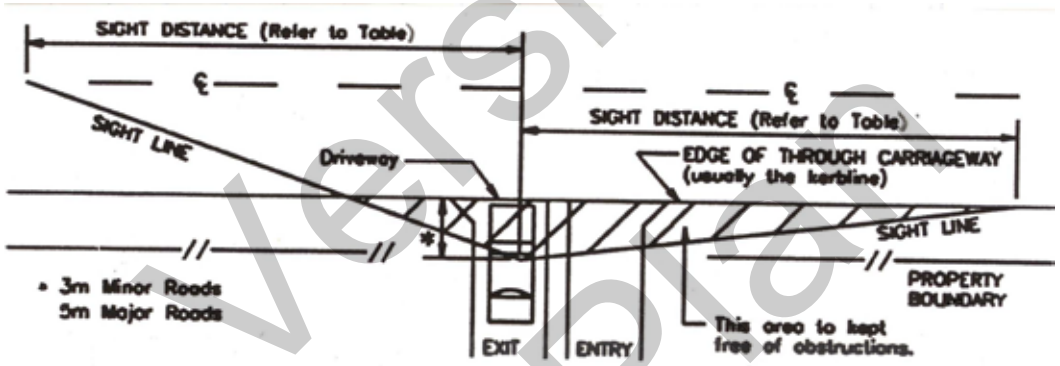
Turnover Rate for Car Parking Area	Type of Frontage Road	Type of ***Access Driveway***		
		Number of Spaces in Car Parking Area accessed by driveway		
		1 to 25	26 to 250	251 to 500
Low/Med	***Minor***	1	2, 3 & 4	7A
Low/Med	***Major***	2 (6.5m throat width)	7A	7B
High	***Minor***	2, 3 & 4 (7.5m throat width)	7A	7B
High	***Major***	2 (7.5m throat width)	7B	7B

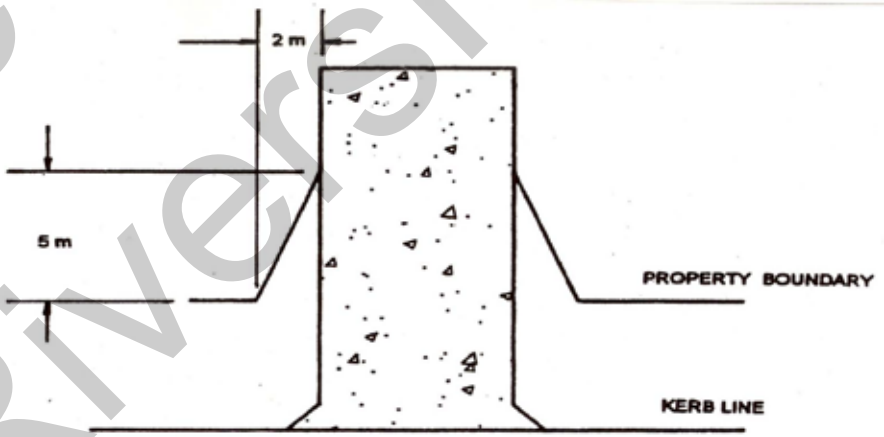
Specific Outcomes for Assessable Development	Probable Solutions
	Notes:- *For the purposes of this table:-* (1) *the **access driveway** for a development comprising solely a **small scale residential use** or a **small scale residential use** combined solely with a form of development for which no on-site car parking or **service vehicle** facilities are required[7], has the size and shape depicted on Drawings 43, 45 or 07 within Schedule D to this code, as appropriate;* (2) ***access driveway** Types 1, 2, 3, 4, 5, 6, 7A and 7B have the size and shape depicted in Schedule D to this code;* (3) *where one-way **circulation roads** adjoin the **access driveways**, Type 5 and 6 **access driveways** are to be used instead of the Type 1, 2, 3, 4 and 7 driveways prescribed in the table;* (4) *high turnover rates are likely to be generated by uses such as entertainment, retail and fast food developments;* (5) *low/medium turnover rates are likely to be generated by uses such as residential and industrial developments;* (6) *if there is any doubt as to the turnover rate for the development, a high turnover rate applies for design purposes; and* (7) *where no throat width is nominated for a Type 1, 2, 3 or 4 **access driveway**, the throat width is to be no less than the width of the abutting internal roadway.*
	(3) any ***access driveway*** used by both ***service vehicles*** and other vehicles no larger than the 99.8 percentile vehicle described in *Australian Standard AS 2890.1 (1993) Off-Street Car Parking* has the size and shape of the larger ***access driveway*** determined pursuant to (1) and (2) above; (4) the ***access driveway*** is constructed of the materials, and to the standard, required pursuant to the "Construction Standards" element of this code; (5) for a development ***site*** having:- (a) a single road frontage; and (b) a frontage length of up to, and including, 30m; no more than one ***access driveway*** is provided; (6) for a development ***site*** having:- (a) a single road frontage; and (b) a frontage length of more than 30m, but less than 50m; either a single two-way ***access driveway*** or two one-way ***access driveways*** are provided; (7) for a development ***site*** having:- (a) a single road frontage; and (b) a frontage length of 50m or more; no more than two ***access driveways*** are provided; and (8) for a development ***site*** having multiple road frontages, ***access driveways*** are provided on no more than two of the road frontages, and the numbers of ***access driveways*** provided on each of the road frontages are within the limits prescribed for each frontage under (5), (6) and (7) above. **AND**

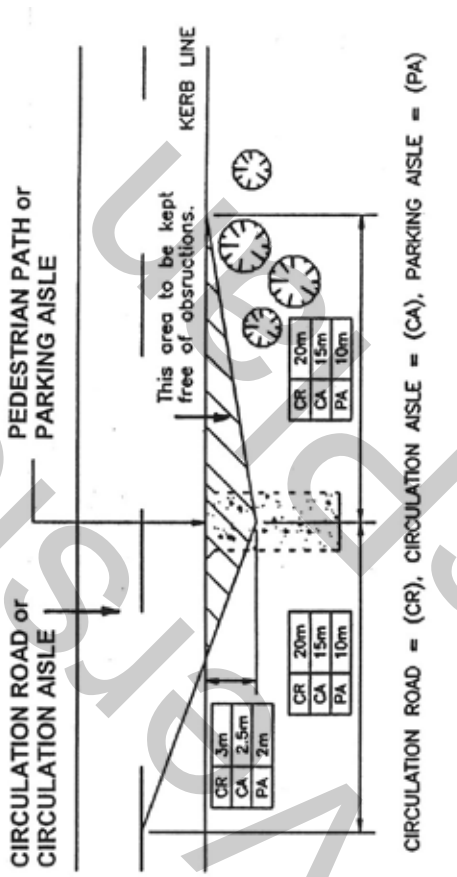
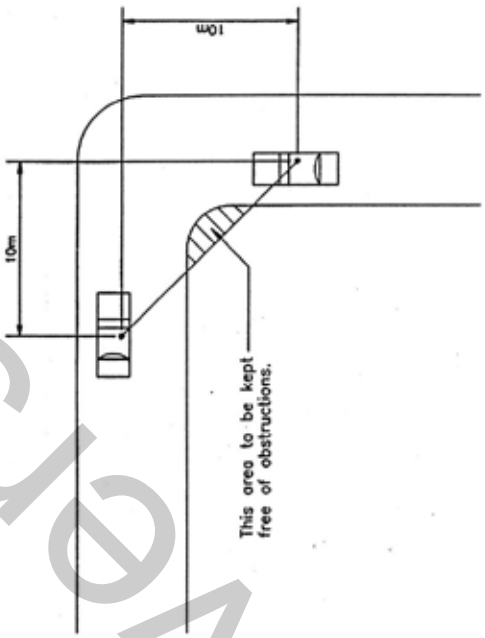
<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>
PS 9.2 Access driveways to development sites from roads which are administered by Council[6] are so located:-
(1) as to be clear of existing aboveground services, bus stops, taxi ranks, traffic control devices, significant trees, pedestrian crossings, stormwater catchpits (unless relocated at no cost to Council) and marked on-street parking or loading bays;
(2) as not to protrude beyond the projection of a shared boundary line to the carriageway of the frontage road except where joint property access between the two development sites is proposed;
(3) as to be clear of the minimum separation distances prescribed in Table 6.4.3LL; and

Table 6.4.3LL
<table>
<tr><th>Classification of Frontage Road</th><th>Adjacent Feature</th><th>Minimum Separation of Access Driveway from Adjacent Feature</th></tr>
<tr><td rowspan="6">Minor Road</td><td>Minor Intersection</td><td>12m from intersection</td></tr>
<tr><td>Major Intersection</td><td>12m from intersection for a land use comprising solely a small scale residential use; or
20m from intersection otherwise</td></tr>
<tr><td>Second access driveway to a single road frontage for a corner lot</td><td>45m from intersection</td></tr>
<tr><td>Median break</td><td>6m from median nose for a land use comprising solely a small scale residential use; or
10m from median nose otherwise</td></tr>
<tr><td>Access driveway to adjacent premises or second access driveway to the one frontage</td><td>3m along kerb</td></tr>
<tr><td>Traffic signals</td><td>Clear of queue areas and slip lanes</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th colspan="3">Probable Solutions</th></tr>
<tr><td></td><td>Major Road</td><td>Minor Intersection</td><td>12m from intersection for a land use comprising solely a small scale residential use; or
20m from intersection otherwise</td></tr>
<tr><td></td><td></td><td>Major Intersection</td><td>12m from intersection for a land use comprising solely a small scale residential use; or
30m from intersection otherwise</td></tr>
<tr><td></td><td></td><td>Second access driveway to a single road frontage for a corner lot</td><td>45m from intersection</td></tr>
<tr><td></td><td></td><td>Median break</td><td>6m from median nose for a land use comprising solely a small scale residential use; or
15m from median nose otherwise</td></tr>
<tr><td></td><td></td><td>Access driveway to adjacent premises or second access driveway to the one frontage</td><td>3m along kerb for a land use comprising solely a small scale residential use; or
15m along kerb otherwise</td></tr>
<tr><td></td><td></td><td>Traffic signals</td><td>Clear of queue areas and slip lanes</td></tr>
<tr><td></td><td colspan="3">Notes:-
For the purpose of this table:-
(1) distances from intersections are measured along the property boundary from the point at which the frontage property boundaries intersect, disregarding any existing or proposed corner truncation;
(2) minor intersection is the intersection of the access frontage road with a minor road; and
(3) major intersection is the intersection of the access frontage road with a major road.
(4) as to ensure that the minimum sight distances prescribed in Table 6.4.3MM are provided free of obstructions.</td></tr>
<tr><td></td><td colspan="3">Table 6.4.3MM
<table><tr><th>SPEED ENVIRONMENT (km/hr)</th><th>SIGHT DISTANCE (metres)</th></tr><tr><td>50</td><td>80</td></tr><tr><td>60</td><td>110</td></tr><tr><td>70</td><td>130</td></tr><tr><td>80</td><td>165</td></tr></table></td></tr>
<tr><td></td><td colspan="3">Notes:-
For the purpose of this table, the sight line is measured:-
(1) 1.15m above ground/pavement level; and
(2) as indicated in Diagram 6.</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions
	DIAGRAM 6 
On-Site Vehicle Queue Lengths This element does not apply to ***small scale residential uses*** or a ***small scale residential use*** in association with a use not required by either a ***stated purpose code*** or this code to accommodate on-site parking facilities.	
SO 10 On-site queuing of vehicles at ***access driveways*** is provided for vehicles entering the development ***site***, and for vehicles leaving the development ***site***, to the extent necessary to ensure that:- (1) vehicles entering the development ***site*** do not obstruct pedestrian or cyclist pathways by standing within those dedicated sections of the footpath reserve of the frontage road; (2) vehicles entering the development ***site*** do not have a significant adverse effect on traffic movements within the carriageway or bicycle lanes of the frontage road; and (3) vehicles leaving the ***site*** do not have an adverse impact on either vehicle pathways for circulation within the on-site parking area or designated pedestrian pathways within the development ***site;*** having regard to issues such as:- (4) the size of the car parking area and the design turnover rates[5] for the land use; (5) the type and operating capacity of any traffic control device on the development site; (6) the status of the frontage road to the development ***site***; and (7) the design of the car parking area beyond the queuing area.	**PS 10** On-site queuing of vehicles at vehicular access points to and from the development ***site*** is provided to an extent no less than that prescribed in Table 6.4.3NN. **Table 6.4.3NN** **NUMBER OF SPACES IN CAR PARKING AREA ACCESSED BY DRIVEWAY** / **MINIMUM NUMBER OF VEHICLES IN QUEUE** 1 to 25 — 1 26 to 50 — 2 51 to 75 — 3 76 to 100 — 4 101 to 150 — 5 151 to 200 — 6 201 to 250 — 7 Greater than 250 — 7 plus 1% of capacity over 250 spaces (rounded upwards) **Notes:-** *For the purpose of this table:-* *(1) each queuing bay is 6m long;* *(2) the entry queue is measured from the road boundary of the development **site** to the first traffic control device, intersection or car parking bay within the **site**, whichever is the closest to the **access driveway**; and* *(3) the exit queue is measured from the road boundary of the development **site** to the first intersection of the entry/exit driveway with an internal roadway required for circulation of vehicles within the **site**.*

Specific Outcomes for Assessable Development	Probable Solutions
SO 11 Queuing of vehicles within on-site "drive through" service facilities is provided to the extent necessary to ensure that, when the facility is subject to reasonable everyday use, vehicles awaiting service in an on-site "drive through" service facility do not have an adverse impact on vehicle pathways:- (1) for circulation within the development ***site***; (2) for access to, or from, an on-site parking or loading/unloading bay; and (3) external to the development ***site***.	**PS 11.1** For those developments which have one or more on-site "drive through" facilities, a queue length of no less than 6m for each of the queuing bays prescribed for the facility in Table 6.4.3Z of this code is provided between the service window and:- (1) the nearest car parking or loading/unloading bay on the driveway leading to the "drive through" service facility; or (2) the intersection of the driveway leading to the "drive through" service facility with another internal roadway; or (3) the vehicular entry point to the development ***site***; whichever is the closest to the service window, for each on-site "drive through" service facility. **AND** **PS 11.2** Any traffic control device, such as a remote ordering point, forming part of the "drive through" service facility is no less than half of the overall queue length for the "drive through" facility measured from the service window.
On-Site Driver Sight Lines	
SO 12 Adequate visibility is provided between drivers of vehicles leaving the development ***site*** and users of the footpath reserve at each vehicular egress point from the ***site*** to maintain a safe environment, within reasonable expectations, for users of the footpath reserve in these conflict areas.	**PS 12** Sight triangles, as indicated in Diagram 7, extending 5m into the development ***site*** from the road frontage and 2m out from the edge of the exit roadway are provided, free of obstructions more than 1m high, at each vehicular egress point from the ***site*** on each side of the egress roadway.  **DIAGRAM 7**
SO 13 Adequate visibility is provided at:- (1) intersections within the development ***site***; (2) changes of direction of internal roadways; and (3) intersections of internal roadways with designated pedestrian pathways; to maintain a safe environment, within reasonable expectations, for users of these conflict areas.	**PS 13** Clear ***sight lines*** no less extensive than the minimums depicted in Diagram 8 and Diagram 9 are provided at:- (1) intersections of internal roadways; (2) changes of direction of internal roadways; and (3) intersections of internal roadways with designated pedestrian pathways; within the development ***site***.

Specific Outcomes for Assessable Development	Probable Solutions
	 DIAGRAM 8  DIAGRAM 9

Specific Outcomes for Assessable Development	Probable Solutions
On-Site Directional and Other Traffic Related Signage This element does not apply to those developments comprising solely an ***associated unit, bed and breakfast accommodation, duplex dwelling, infill housing*** or one of these uses in association with a use not required to have on-site parking facilities.	
SO 14 Adequate directional signage which is readily visible and understood by a reasonable person driving along the main frontage road is provided on the development ***site*** in situations where:- (1) the location of a parking area for the development ***site*** is not obvious; or (2) the vehicular access point to the car parking area for the development ***site*** is not obvious; or (3) clientele access restrictions apply for the car parking area on the development ***site*** and these restrictions are not obvious; or (4) restrictions apply to the direction of traffic flow to and from the development ***site*** and these restrictions are not obvious.	**PS 14** Directional signage which:- (1) is of a size that is readily visible by; and (2) is in a location which is readily visible to; and (3) contains critical directional information that is readily understood by; a person positioned in the centre of the main frontage road is provided on the development ***site*** in instances where:- (4) the location or existence of the car parking area for the development ***site*** is not obvious to that person; or (5) the constructed vehicular access to the car parking area on the development ***site*** is not from the main frontage road; or (6) the development has separate parking facilities on the one development ***site*** which either are not connected, or are dedicated for use by specific user groups; or (7) vehicular access to and from the development ***site*** is via one-way ***access driveways***.
SO 15 In situations where:- (1) the use of specific sections of the on-site parking areas are dedicated for use by specific types of vehicles, specific personnel or for specific functions; or (2) restrictions apply to the direction of traffic flow, or to a traffic flow hierarchy, within the development ***site***; or (3) limited height clearances apply to specific areas of the ***site*** which are traversed by vehicles; or (4) restrictions apply to vehicle speeds within the development ***site***; adequate directional signage which is readily visible and understood by a reasonable person approaching those areas where the specific restrictions apply, and which adequately addresses these specific restrictions, is provided on the development ***site***.	**PS 15** Directional signage which contains critical information addressing the applicable parking area constraints identified herein and which:- (1) is of a size that is readily visible by; and (2) is in a location which is readily visible to; and (3) is readily understood by; a person positioned more than 2.5 seconds travel time from the signage, is provided on the development ***site*** in instances where:- (4) specific sections of the on-site car parking area are dedicated for any of the following uses:- (a) staff parking; (b) parking for specific persons; (c) parking for aged or disabled persons; (d) parking for emergency service vehicles; (e) motorcycle parking; (f) bicycle parking; (g) service vehicle standing or manoeuvring; (h) trolley storage; (i) passenger setdown; (j) taxi ranks; (k) bus standing; (l) "drive through" service; (m) shared vehicle/pedestrian precincts; (n) pedestrian crossings and other pedestrian thoroughfares; or

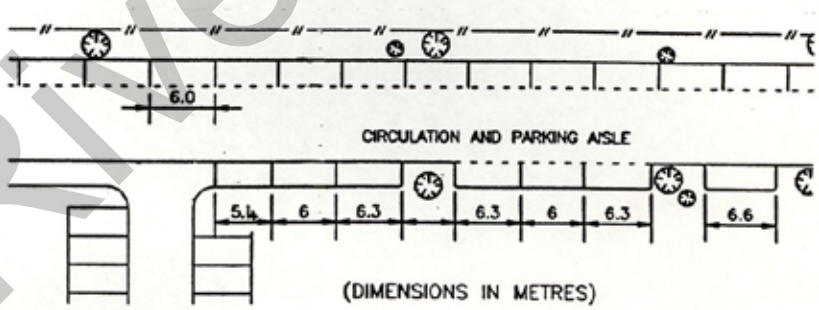
Specific Outcomes for Assessable Development	Probable Solutions
	(5) any of the following restrictions apply to the operation of the car parking area:- (a) vehicle speed limits; (b) one-way traffic movement; (c) keeping left of separating islands; (d) stopping and giving way at intersections; (e) conditions of use; (f) time restrictions on use; or (6) traffic control devices are in use on the development ***site***; or (7) height restrictions apply to specific areas of the ***site*** traversed by vehicles.
SO 16 The signage required under this element is in a standardised format that is recognised in the traffic control industry as industry best practice.	**PS 16** The traffic/parking control signage and pavement markings provided on the development ***site*** comply, as applicable[16], with:- (1) *Australian Standard AS 1428.1 (2001) Design for Access and Mobility;* (2) *Australian Standard AS 2890.1 (1993) Off Street Car Parking;* (3) *Australian Standard AS 2890.2 (1989) Commercial Vehicle Facilities;* (4) *Australian Standard AS 2890.3 (1993) Bicycle Parking Facilities;* (5) *Australian Standard AS 1742.1 (1986) Manual of Uniform Traffic Control Devices;* and (6) *Austroads (1999), Guide to Traffic Engineering Practice, Part 14 - Bicycles.*
Location of On-Site Parking Spaces This element does not apply to those developments comprising solely ***small scale residential uses*** or a ***small scale residential use*** in association with a use not required to have on-site parking facilities.	
SO 17 Adequate car parking facilities which meet reasonable community expectations in regard to:- (1) travel distance between the parking spaces and the entrances to the ***operational components*** of the land use; and (2) perceived availability of parking facilities; are provided for use by owners, residents, employees, customers and other visitors to the development ***site***.	**PS 17.1** On-site parking facilities are provided in those locations on the development ***site*** prescribed under the applicable acceptable solutions of another code within this ***planning scheme*** which is applicable[9] to that land. **OR** **PS 17.2** Where *PS 17.1* does not apply:- (1) no less than the following proportion of the overall parking requirement for the development required under the "On-Site Parking Numbers Element" of this code is visible from the frontage road to the ***site***:- (a) for land zoned "central business" or "commercial" – 20%; (b) for business zoned land other than "central business" or "commercial"– 30%; and (c) for industrial zoned land – 40%; and (2) no fewer than 50% of the overall number of car parking spaces provided on the land are closer to the entrance to the ***operational component*** of the development than any of the on-street parking spaces adjacent to the development ***site***.

Specific Outcomes for Assessable Development	Probable Solutions
On-Site Traffic Circulation Paths	
SO 18 The on-site car parking facility incorporates a system of internal circulation paths which adequately and safely carries vehicular traffic from the entry point of the development ***site*** to the appropriate standing/parking areas for each of the specific classes of vehicle required to be accommodated on the ***site***, and then to the vehicular exit point from the development ***site***, in a manner appropriate to:- (1) the nature of the on-site land use or mixture of land uses; (2) the number and type of vehicles required to be accommodated; (3) the function of each specific section of internal roadway; (4) the traffic load on each specific section of internal roadway; and (5) traffic speed limits on the development ***site***.	**PS 18.1** A hierarchy of internal roadways comprising, in ascending order of roadway importance:- (1) ***parking aisles***; and (2) ***circulation roads***; is provided within the on-site car parking area for the development according to the function of that particular section of roadway. **AND** **PS 18.2** Each on-site ***parking aisle*** incorporates the following:- (1) two-way traffic movement only; (2) parking spaces which are solely:- (a) parallel to the axis of the aisle; or (b) perpendicular to the axis of the aisle; (3) an aisle length of no more than 100m; (4) an unobstructed width of no less than:- (a) 6.2m between one row of car parking spaces and the pavement edge or another row of parking spaces on the opposite side of the aisle for the following land uses:- (i) ***car depot***; (ii) ***contractor's depot***; (iii) ***general industry***; (iv) ***office***; (v) ***service industry***; (vi) ***small scale residential uses***; and (vii) ***warehouse***. (b) 6.5m between one row of car parking bays and obstructions higher than 150mm above pavement or finished ground level on the opposite side of the aisle for those land uses nominated in (4)(a); (c) 7m in instances other than those prescribed in (4)(a) and (b); (5) a continuation of no less than 1m beyond the last car parking space in the aisle for a dead end aisle; and (6) for curved sections of the aisle, or bends in the aisle, an unobstructed width of no less than that prescribed in (4) as applicable to the function of that section of aisle and an inside curve which:- (a) for aisles that provide access to 50 or more parking spaces, accommodates the swept path of the ***85th percentile vehicle***, without crossing the centreline of the aisle and while maintaining a buffer of no less than 300m between the swept path and:- (i) the inside curve of the aisle; and (ii) the centreline of the aisle; and (b) for aisles that provide access to fewer than 50 parking spaces, accommodates the swept path of the ***85th percentile vehicle*** while maintaining a buffer of no less than 300mm to the edge of the aisle on both the inside and outside of the swept path.

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>
AND
PS 18.3 Each circulation road incorporates the following:-
(1) a width of no less than that prescribed in Table 6.4.3OO for those straight sections of roadways which are not used as service aisles;
<table>
<tr><th colspan="2">Table 6.4.3OO</th></tr>
<tr><th>Traffic Flow</th><th>Minimum Width of Roadway between Obstructions Higher than 150mm above Finished Pavement Level</th></tr>
<tr><td>“one-way” operation</td><td>3.6m (3.0m central sealed width) for a roadway no more than 20m in length
5.6m (5m central sealed width) for a roadway more than 20m in length</td></tr>
<tr><td>“two-way” operation</td><td>6.8m (6.2m central sealed width) for activities having a vehicle turnover rate of up to 100 vph
7.1m (6.5m central sealed width) for activities having a vehicle turnover rate of 101 to 300 vph
8.1m (7.5m central sealed width) for activities having a vehicle turnover rate of over 300 vph</td></tr>
<tr><td colspan="2">Notes:-
For the purposes of this table:-
(1) vph means “vehicles per hour”[5];
(2) the sealed width nominated in this table only applies to those sections of circulation road required to be sealed under the “Construction Standards” element of this code; and
(3) the minimum roadway widths prescribed in the table may incorporate obstructions no higher than 150mm above finished pavement level within 300mm of each side of the roadway, e.g, side kerbs or island edges.</td></tr>
</table>
(2) a width of no less than that prescribed in Table 6.4.3PP for those straight sections of roadways which are used solely to access service areas;
<table>
<tr><th colspan="2">Table 6.4.3PP</th></tr>
<tr><th>Traffic Flow</th><th>Minimum Width of Roadway between Obstructions Higher than 150mm above Finished Ground or Pavement Level</th></tr>
<tr><td>“one-way” operation</td><td>5.1m (4.5m central sealed width)</td></tr>
<tr><td>“two-way” operation</td><td>7.1m (6.5m central sealed width)</td></tr>
<tr><td colspan="2">Note:- For the purpose of this table the minimum roadway widths prescribed in the table may incorporate obstructions no higher than 150mm above finished pavement level within 300mm of each side of the roadway, e.g., side kerbs or island edges.</td></tr>
</table>
(3) for those straight sections of roadways which are used to access both service areas and other sections of the on-site parking facilities, a width of no less than the larger of those applicable under Tables 6.4.3OO and 6.4.3PP for that section of roadway;
</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions
	(4) for curved sections of the roadway, or bends in the roadway, an unobstructed width of no less than the sealed widths prescribed in (1), (2) and (3) as applicable to the function of that section of roadway and an inside curve which:- (a) for those sections which cater solely for ***service vehicles***, accommodates the swept path of the largest ***service vehicle*** required for that section under the "Service Vehicle Access and Parking Numbers" element of this code, while maintaining a buffer of no less than 600mm to the edge of the roadway on both the inside and outside of that swept path; (b) for those sections which cater solely for vehicles other than ***service vehicles***, accommodates the swept path of the ***85th percentile vehicle*** while maintaining a buffer of no less than 300mm between the swept path and:- (i) the inside curve of the roadway; and (ii) the centreline of a "two-way" roadway, or the outside curve of a "one-way" roadway; and (c) for those sections which cater for both ***service vehicles*** and other vehicles, accommodates the swept path of the largest ***service vehicle*** required for that section under the "Service Vehicle Access and Parking Numbers" element of this code, while maintaining a buffer of no less than 600mm between the swept path and:- (i) the inside curve of the roadway; and (ii) the centreline of a "two-way" roadway, or the outside curve of a "one-way" roadway; and (5) where the ***circulation road*** incorporates a median island:- (a) the unobstructed roadway width required under *PS 18.3* (1), (2), (3) and (4) is provided on the basis of a "one-way" roadway on each side of the island; and (b) the island has a width of no less than 1m and is signposted at each end and at each intersection of the roadway with a ***parking aisle*** or other roadway in a manner which clearly indicates the required direction of traffic flow. **AND** **PS 18.4** Where a ***circulation aisle*** is used instead of a section of ***circulation road***, that aisle:- (1) does not provide vehicular access to:- (a) parking facilities for land uses other than the following:- (i) ***car depot***; (ii) ***contractor's depot***; (iii) ***general industry***; (iv) ***office***; (v) ***service industry***; and (vi) ***warehouse***; if the parking facilities accommodate more than 50 car parking spaces; or (b) a ***service aisle*** or ***service area***; (2) has an unobstructed width of no less than:- (a) 6.2m between one row of car parking spaces and the pavement edge or another row of parking spaces on the opposite side of the aisle for the following land uses:- (i) ***car depot***;

Specific Outcomes for Assessable Development	Probable Solutions
	(ii) ***contractor's depot***; (iii) ***general industry***; (iv) ***office***; (v) ***service industry***; (vii) ***small scale residential use***; and (viii) ***warehouse***; where the aisle provides access to parking facilities comprising no more than 50 car parking spaces; (b) 6.5m between one row of car parking spaces and:- (i) obstructions higher than 150mm above finished ground or pavement level on the opposite side of the aisle for the land uses nominated in (2)(a), but only if the aisle provides access to parking facilities comprising no more than 50 car parking spaces; or (ii) the pavement edge or another row of parking spaces on the opposite side of the aisle for the land uses nominated in (2)(a) if the aisle provides access to parking facilities comprising more than 50 car parking spaces; or (iii) the pavement edge or another row of parking spaces on the opposite side of the aisle for land uses other than those nominated in (2)(a), but only if the aisle provides access to parking facilities comprising no more than 50 car parking spaces; and (c) 7m in instances other than those prescribed in (2)(a) and (b); (3) for curved sections of the aisle or bends in the aisle, has an unobstructed width of no less than that prescribed in (2) as applicable to the function of that section of aisle and an inside curve which:- (a) for aisles that provide access to 50 or more parking spaces, accommodates the swept path of the ***85th percentile vehicle***, without crossing the centreline of the aisle and while maintaining a buffer of no less than 300mm between the swept path and:- (i) the inside curve of the aisle; and (ii) the centreline of the aisle; (b) for aisles that provide access to fewer than 50 parking spaces on development ***sites*** that are restricted to solely one or more of the land uses nominated in (2)(a), accommodate the swept path of the ***85th percentile vehicle*** while maintaining a buffer of no less than 300mm to the edge of the aisle on both the inside and outside of the swept path; and (c) for aisles that provide access to fewer than 50 parking spaces on development sites that incorporate land uses other than those nominated in (2)(a), accommodate the swept path of the ***85th percentile vehicle***, without crossing the centreline of the aisle and while maintaining a buffer of no less than 300mm between the swept path and:- (i) the inside curve of the aisle; and (ii) the centreline of the aisle; (4) is not, except for ***small scale residential uses***, limited to "one-way" traffic movements in any part; and (5) accommodates parking spaces which are solely:- (a) parallel to the axis of the aisle; or (b) perpendicular to the axis of the aisle.

Specific Outcomes for Assessable Development	Probable Solutions
Parking Space Plan Dimensions	
SO 19.1 The on-site car parking spaces required under the "On-Site Parking Numbers" element of this code are of a size which allows a reasonable driver in an ***85th percentile vehicle*** to readily, and in a dignified manner:- (1) access each unoccupied car parking space through either the one continuous reverse manoeuvre or the one continuous forward manoeuvre; (2) load and unload passengers and goods from the vehicle when parked in the parking space; and (3) gain access to and from the vehicle when parked in the parking space. **AND** **SO 19.2** Those on-site car parking spaces required under the "Parking for Disabled Persons" element of this code are of a size which allows a reasonable physically disabled person within a vehicle specifically designed to address the mobility needs of that disabled person to readily, and in a dignified manner:- (1) access each unoccupied car parking space which is signposted for use by disabled persons through either the one continuous reverse manoeuvre or the one continuous forward manoeuvre; (2) load and unload passengers and goods from the vehicle when parked in the parking space; and (3) gain access to and from the vehicle when parked in the parking space.	**PS 19.1** Each on-site car parking space has an unobstructed width of no less than that prescribed in Table 6.4.3QQ and an additional buffer of 300mm between each side of the parking space and obstructions more than 150mm above finished ground or pavement level; **Table 6.4.3QQ** **User Type** / **Parking Space Width** Employee parking in designated staff parking areas for land uses other than amusement, retail, education or health uses — 2400mm Employee parking associated with amusement, retail, educational or health land uses — 2600mm Tenant and visitor parking facilities within residential developments — 2600mm Public parking facilities where duration of stay would not ordinarily exceed 30 minutes — 2700mm Parking spaces reserved for people with physical disabilities — 3200mm Other — 2600mm **AND** **PS 19.2** Each on-site car parking space which is orientated parallel to the axis of the ***circulation aisle*** or the ***parking aisle*** has an unobstructed length of no less than that prescribed in Diagram 10:-  **DIAGRAM 10** **AND** **PS 19.3** Each on-site car parking space which is oriented in such a manner that one end of the space adjoins a ***circulation aisle*** or a ***parking aisle*** has an unobstructed length of no less than 5.4m.

Specific Outcomes for Assessable Development	Probable Solutions
	AND **PS 19.4** Each fully enclosed on-site car parking space has an unobstructed length of no less than 6.0m. **AND** **PS 19.5** Where this code or the applicable acceptable solutions of another[9] code within this ***planning scheme*** permits parking in ***tandem formation***, the unobstructed overall length of the tandem parking formation is no less than 10.8m.
Motorcycle Parking	
SO 20 Motorcycle parking facilities incorporating the following requirements are provided on the development ***site***:- (1) appropriate to meet the reasonable community expectations in relation to the specific land use; and (2) of a size which accommodates:- (a) the complete extent of the vehicle; (b) the need for the rider and any passengers to mount and dismount; (c) the loading and unloading of goods into and from the vehicle; and (d) passenger and rider access around the vehicle; and (3) orientated so as to be readily accessible from on-site roadways.	**PS 20.1** For those developments where 50 or more car parking spaces are provided, motorcycle parking facilities at a ratio of no less than one motorcycle parking space for every 50 car parking spaces, or part thereof, are provided on ***site***. **AND** **PS 20.2** Each on-site motorcycle parking space has a minimum plan dimension of 2.5m x 1.35m and has direct access to either a ***circulation aisle*** or a ***parking aisle***.
Service Vehicle Standing and Manoeuvring Areas	
SO 21 Service vehicle facilities adequate to cater for the reasonable needs of the development in regard to:- (1) the number and type of ***service vehicles*** normally associated with a development of that nature and scale; (2) the swept path of the ***service vehicles*** associated with the operation of the particular land use when undertaking their manoeuvres and servicing functions; (3) ease of access for ***service vehicles*** to, within and from the ***service areas***; and (4) the provision of ***service vehicle*** standing areas in locations which do not, and in a manner which does not, adversely affect the passage of vehicles or pedestrians within the road network external to the ***site***; are provided in close proximity to the end use activities generating the servicing needs of the development.	**PS 21.1** A ***service vehicle*** facility for the development comprising an integrated system of ***service aisles***, ***service areas*** and ***service bays*** is provided on the ***site*** of any development for which a ***service bay*** for a vehicle no smaller than an ***SRV*** is required under the "Service Vehicle Access and Parking Numbers" element of this code. **AND** **PS 21.2** The ***service aisle*** for the development has a minimum unobstructed width of no less than that prescribed in Table 6.4.3PP within this code. **AND** **PS 21.3** Each on-site ***service area*** incorporates the following:- (1) the ***service bays*** provided under the "Service Vehicle Access and Parking Numbers" element of this code for those ***service vehicles*** larger than an ***SRV***, distributed in direct proportion to the floor area and land uses served by those bays and their proximity to the service entrances to the development; (2) an area for the temporary standing of one or more ***service vehicles*** for purposes of loading/unloading of goods and which, for development ***sites*** to which vehicular access is gained from a ***major road***, accommodates the particular ***service vehicle*** prescribed in the regular access column of Table 6.4.3II of this code for the particular land use;

Specific Outcomes for Assessable Development	Probable Solutions
	(3) sufficient manoeuvring space to accommodate the swept path of the ***design vehicle*** prescribed under the "Service Vehicle Access and Parking Numbers" element of this code from the ***service aisle*** to the temporary standing area for the loading/unloading of goods, incorporating only one reversing manoeuvre, while maintaining a buffer of no less than 600mm to all ***service bays*** and other obstructions; and (4) sufficient manoeuvring space to accommodate the swept path of the ***design vehicle*** prescribed under the "Service Vehicle Access and Parking Numbers" element of this code from the temporary standing area for the loading/unloading of goods, to the ***service aisle***, in a forward gear, while maintaining a buffer of no less than 600mm to all ***service bays*** and other obstructions.
SO 22 Standing areas for ***service vehicles*** which are generally associated with:- (1) short-term servicing functions; or (2) small payloads comprising goods which are easily carried by a single, average person without the need for assistance; and which are generally of a similar scale to that of the ***85th percentile vehicle***, are provided in locations which:- (3) are readily visible from the vehicular entry point to the development ***site***; (4) are able to be conveniently utilised; and (5) discourage the use of areas set aside for non service functions for loading/unloading purposes.	**PS 22** For those developments which comprise solely, or predominantly, one or more of the following uses, the majority of the ***service bays*** for ***VANS*** provided for that development are visible from the ***access driveway*** to the development ***site***:- (1) ***car depot***; (2) ***community facilities***; (3) ***contractor's depot***; (4) ***general industry***; (5) ***indoor entertainment and sport***; (6) ***office***; (7) ***outdoor sales***; (8) ***service industry***; (9) ***vehicle sales***; and (10) ***warehouse***.
SO 23 S***ervice areas*** are provided in locations which do not, and in a manner which does not, adversely affect:- (1) the passage of vehicles to and from other areas of the development ***site***; or (2) the operation of any on-site pedestrian thoroughfare; or (3) the operation of any car parking area, motorcycle parking area or bicycle storage facility; and are in locations which:- (4) are able to be conveniently utilised; and (5) discourage the use of areas set aside for non service functions for loading/unloading purposes.	**PS 23** Each on-site ***service area*** is located immediately adjacent to a service entrance to the development and is not combined with, or separated from, the service entrance by:- (1) a through roadway; or (2) a designated pedestrian pathway; or (3) any part of a car parking area; or (4) any part of a motorcycle parking area; or (5) any part of a bicycle storage facility.

Specific Outcomes for Assessable Development	Probable Solutions
SO 24 ***Service bays*** are of a size which adequately accommodates:- (1) the footprint of the designated ***service vehicle***; (2) the reasonable needs of the driver and passengers to gain access to and from the vehicle cabin; and (3) the reasonable needs of the driver and other designated personnel to:- (a) secure and release loads; (b) gain access to loads; and (c) operate loading/unloading equipment.	**PS 24** On-site ***service bays*** for the development have a clear unobstructed area of no less than that prescribed in Table 6.4.3RR for each of the different classes of ***service vehicle*** provided for the development:-

Table 6.4.3RR

	Design Vehicle						
	VAN	***SRV***	***MRV***	***HRV***	***RCV***	***COACH***	***AV***
Minimum Bay Width (m) Loading/ Standing	**3.0**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**	**3.5**
Minimum Bay Length (m) Loading/ Standing	**5.4**	**7.0**	**9.0**	**11.0**	**10.5**	**13.0**	**17.5**

Note:- *The dimensions prescribed above for the **RCV** do not include the area required for the storage of the refuse receptacle.*

Car Park and Service Area Surface Gradients

SO 25 The car parking areas and ***service areas*** provided for the development have finished surface grades which adequately address the reasonable needs of the users of those areas in regard to:- (1) prevention of stormwater ponding; (2) maximising visibility at potential conflict points; (3) minimising required driver effort when undertaking stop/start and turning manoeuvres; (4) minimising potential for damage to vehicles and on-site ***structures***; (5) optimising ease of use and promoting use of on-site facilities; and (6) the special needs of aged and physically impaired users.	**PS 25.1** On-site car parking areas and ***service areas*** have a finished surface gradient of no less than that prescribed in Table 6.4.3SS for the particular surface finishes nominated;

Table 6.4.3SS

Type of surface	**Minimum gradient**
Exposed areas:-	
Bituminous seal	1 in 40 (2.5%)
Asphaltic concrete	1 in 100 (1.0%)
Cement concrete	1 in 100 (1.0%)
Covered areas:-	
All cases	1 in 200 (0.5%)

AND

PS 25.2 Those sections of on-site car parking areas to which access by ***service vehicles*** is not permitted have a finished surface gradient of no more than that prescribed in Table 6.4.3TT for the particular function of those sections of the car parking area;

Specific Outcomes for Assessable Development	Probable Solutions

Table 6.4.3TT

Location	Maximum Gradient
Parking areas for people with disabilities	1 in 40 (2.5%)
Motorcycle parking spaces	1 in 20 (5%)
Parking spaces, ***circulation*** and ***parking aisles*** in:-	
Public car parking areas (prams and shopping trolleys likely)	1 in 15 (6.7%)
Tenant car parking area in residential buildings	1 in 15 (6.7%)
Public car parking area (prams/trolleys unlikely)	1 in 12 (8.3%)
Staff car parking area	1 in 10 (10%)
Straight ***circulation road*** and ramp	1 in 4 for a maximum length of 6m for ***small scale residential uses***, otherwise 1 in 6 (16.7%)
Curved ***circulation road*** or ramp (at inside of curve)	1 in 6 (16.7%)
Circulation road, ramp or driveway within 6m of an ***access driveway***, traffic control point or marked pedestrian crossing	1 in 20 (5%) *for other than* ***small scale residential uses***
Uphill ***queue area***	1 in 12 (8.3%)
Superelevation on curved roadway or ramp camber	1 in 12 (8.3%)

AND

PS 25.3 On-site ***service areas*** and those sections of the on-site car parking area to which access is restricted to use solely by ***service vehicles,*** have a finished surface gradient of no more than that prescribed in Table 6.4.3UU for the particular function of those areas and for the particular class of ***service vehicle*** to be accommodated on that section of the development ***site***;

Table 6.4.3UU

DESIGN VEHICLE

	VAN	***SRV***	***MRV***	***HRV***	***RCV***	***COACH***	***AV***
Maximum Gradient of: -general surface -manoeuvring areas -aisles, loading bays	1:20 (5%)	1:20 (5%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)

Specific Outcomes for Assessable Development	Probable Solutions							
	Maximum Gradient of Ramps -straight -curved	1:6 (16.7%) (for curved ramps this is measured at inside of constructed curve)	1:8 (12.5%) (for curved ramps this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps this is measured at inside of constructed curve)	1:10 (10%) (for curves ramps this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps this is measured at inside of constructed curve)	1:10 (10%) (for curved ramps this is measured at inside of constructed curve)
	Maximum Gradient of -***queuing area*** -traffic control point	1:20 (5%)	1:20 (5%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)	1:25 (4%)
	AND **PS 25.4** Those sections of the development ***site*** accessible by both ***services vehicles*** and the ***85th percentile vehicle*** have a finished surface grade of no more than the grades prescribed in Table 6.4.3UU for the particular function of the area and for the particular class of ***service vehicle*** required to be accommodated on that section of the development ***site***. **AND** **PS 25.5** The cross fall component of the maximum finished surface grades prescribed in Tables 6.4.3TT and 6.4.3UU for the following areas do not exceed 1 in 20(5%):- (1) car parking spaces, other than for disabled persons; and (2) those sections of ***circulation road*** used by ***service vehicles*** larger than ***VAN's***; and do not exceed 1 in 40 (2.5%) in the following areas:- (3) car parking spaces for disabled persons; (4) trolley bays; and (5) pedestrian pathways throughout the development ***site***. **AND** **PS 25.6** Other than as provided for in *PS 25.7*, changes in gradient over car parking areas and ***service areas*** do not exceed:- (1) an algebraic change of 2% (1 in 50) over a pavement length equivalent to the length of a car-carrier ***AV***, for those sections of the site to be traversed by a car-carrier ***AV***; and (2) for those areas not traversed by a car-carrier ***AV***, an algebraic change of 5% (1 in 20) over a pavement length equivalent to the length of the largest class of vehicle required to be accommodated on that section of the development ***site***.							

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>AND
PS 25.7 Changes in gradient over the length of a straight circulation road or ramp on that part of a development site used solely for a small scale residential use, or for a small scale residential use in association with a use not required to accommodate on-site parking facilities, do not exceed an algebraic change of 12.5% (1 in 8) over a horizontal length of 1m.</td></tr>
<tr><td colspan="2">Height Clearances</td></tr>
<tr><td>SO 26 Adequate height clearance is provided within those areas of the site traversed by vehicles to meet the reasonable needs of the users of those areas in regard to:-
(1) the designated use of those areas;
(2) the class of vehicles accessing those areas;
(3) the efficient functioning of those areas; and
(4) any special needs of aged or physically impaired users of those areas.</td><td>For those areas of the development site which are open to service vehicle traffic, (other than vehicular movement solely by VAN's), and which:-
(1) incorporate a change in grade in the finished surface of the pavement or involve the use of a car-carrier vehicle; and
(2) have a structure over;
there is no probable solution for this element.
PS 26.1 Those areas of the development site which are open to service vehicle traffic, by vehicles larger than a VAN have a clearance measured above and perpendicular to the finished pavement surface of no less than that prescribed in Table 6.4.3VV for the particular class of service vehicle for which access is required;
Table 6.4.3VV
<table>
<tr><th></th><th colspan="6">DESIGN VEHICLE</th></tr>
<tr><th></th><th>SRV</th><th>MRV</th><th>HRV</th><th>RCV</th><th>COACH</th><th>AV</th></tr>
<tr><td>Minimum Vertical Clearance (m)</td><td>3.5</td><td>4.5</td><td>4.5</td><td>4.5 + operating clearance</td><td>4.5</td><td>4.5</td></tr>
</table>
Notes:-
For the purposes of this table, the required operating clearance for an RCV is:-
(1) 1.6m for a front load RCV (6.1m minimum vertical clearance);
(2) 2.2m for a side load RCV (6.7m minimum vertical clearance); and
(3) 2.6m for a rear (roll-off) RCV (7.1m minimum vertical clearance).
AND
PS 26.2 An unobstructed clearance of no less than 2.5m measured perpendicular to the finished pavement surface is provided above every car parking space designated for use by disabled persons.
AND
PS 26.3 Those areas of the development site which:-
(1) are traversed by vehicles; and
(2) are not covered by PS 26.1 or 26.2; and
(3) have a structure over;
have an unobstructed clearance of no less than the following measured above and perpendicular to a flat plane which joins the points at which the tyres of the vehicle accessing the space abutt the finished pavement surface:-
(4) for VANs and 4 wheel drives – 2.3m; and
(5) for other than VANs and 4 wheel drives – 2.0m.</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions
Turning of Vehicles on Site This element does not apply to ***small scale residential uses***.	
SO 27 Adequate provision is made for all vehicles likely to access the development ***site*** to move onto and from the ***site*** in a safe and efficient manner, having regard to:- (1) the class of vehicle likely to access the ***site***; (2) the frequency with which vehicles of each specific class visit the development ***site***; (3) the classification of the frontage road to and from which vehicular access is obtained; (4) the nature of the particular use, or mixture of uses, of the land; and (5) the traffic volumes and vehicle turnover frequency for the particular development.	**PS 27** Unless otherwise permitted under the "Service Vehicle Access and Parking Numbers" element of this code, provision is made for all vehicles to be accommodated on the development ***site*** to completely turn on the land using a manoeuvre which:- (1) is no more onerous than a "3 point turn"; and (2) does not involve a reversing manoeuvre covering more than 30m.
Pedestrian Pathways and Trolley Bays	
SO 28 Pedestrian pathways which meet the reasonable needs of users of the on-site facilities are provided on the development ***site*** in locations and to a standard which:- (1) addresses the special needs of aged or physically impaired users of the on-site services; (2) are likely to be areas of more intense pedestrian activity; (3) provide a direct link to the entrances to the ***operational component*** of the on-site land use; and (4) provide a sheltered environment or refuge for pedestrians from potential conflicts with on-site vehicular activity.	**PS 28** A continuous and clearly defined pedestrian pathway constructed to the standard set under *Australian Standard AS 1428.1 (2001) Design for Access and Mobility* is provided from:- (1) all designated passenger setdown points on the development ***site***; (2) all public transport setdown areas on and adjacent to the development ***site***; and (3) all car parking spaces designated for use by people with physical disabilities on the development ***site***; to the designated entry points to the ***operational component*** of the land use.
SO 29 For those developments where customer guided trolleys or similar goods transport devices are provided for the convenience of patrons, one or more temporary holding facilities which are so located as to promote their use, and which meet the reasonable needs of patrons in regard to:- (1) ease of access; (2) ease of use; and (3) the capacity of the storage facility; are provided.	**PS 29** For those developments where customer guided trolleys are provided for the convenience of patrons, designated trolley holding facilities satisfying the following criteria are provided on the development ***site***:- (1) part of every car parking space provided on the development ***site*** is within 30m of a trolley storage facility; (2) each individual storage facility has direct access to a ***parking aisle***, ***circulation aisle*** or designated pedestrian pathway within the development ***site***; (3) each individual storage facility has capacity to hold no less than 30 trolleys at any point in time; and (4) each individual storage facility is readily seen from all car parking spaces within 30m of the facility.

Specific Outcomes for Assessable Development	Probable Solutions
Raised Separators and Wheelstops This element does not apply to car parking facilities required for the ***small scale residential use*** component of any development.	
SO 30 Adequate safety mechanisms to ensure:- (1) the safe and efficient operation and use of all areas of the development ***site*** likely to be traversed by vehicles; (2) the safe and efficient operation of on-site ***circulation roads*** in particular; (3) the safety and convenience of pedestrians using designated pedestrian pathways; and (4) the necessary separation of landscaping and vehicle travel paths to minimise potential damage to vehicles and those parts of the landscaping above finished ground level; are provided in a form which does not adversely affect the safe and efficient operation of the development.	**PS 30.1** Raised separators or wheelstops are provided in the following locations on the development ***site***:- (1) between the side or end of each car parking space[10], which abutts a ***circulation road*** and that ***circulation road***; (2) between any designated pedestrian pathway and any abutting car parking space; (3) at any changes in finished surface level of more than 125mm either within or abutting those areas of the development ***site*** traversed by vehicles; and (4) between any landscaping on, or adjacent to, the development ***site*** and any abutting ***circulation road***, ***circulation aisle***, ***parking aisle***, ***service aisle***, ***service area***, passenger setdown or goods pick-up area or car parking space. **AND** **PS 30.2** Wheelstops provided at the closed ends of car parking spaces are:- (1) no higher than 125mm and no lower than 90mm above finished pavement level; and (2) secured at least 1m in from the closed end of the car parking space. **AND** **PS 30.3** Raised separators, other than wheelstops provided at the closed ends of car parking spaces, have a height above finished pavement level of no less than:- (1) 125mm if the separator[11] has a width of at least 1m measured from the extremity of the abutting car parking space; or (2) 1.3m otherwise. **AND** **PS 30.4** No raised barriers, other than:- (1) wheelstops provided at the closed ends of car parking spaces; and (2) those barriers permitted under the "On-Site Traffic and Circulation Paths" element of this code; encroach upon any of the required vehicle standing or circulation areas prescribed under this code.
Construction Standards	
SO 31 The vehicular access paths from the sealed section of the frontage roadway up to the front boundary of the development ***site***, as well as all parts of the land on which vehicles are driven, parked or otherwise manoeuvred are constructed to a standard which:- (1) adequately caters for the vertical and lateral loads of all vehicles likely to visit the development ***site***; (2) minimises the need for constant patching and reconstruction works to maintain these facilities in a serviceable condition; (3) caters for the special needs of the particular land use in terms of ***service vehicle*** types and the control of on-site spillages;	**PS 31.1** For those developments where kerb and channel exists at the vehicular access point to the site, the ***access driveway*** between the invert of the channel within the frontage road and the road boundary of the development ***site*** is constructed to the standard prescribed in the following drawings contained in *Schedule D* to this code:- (1) for solely ***small scale residential uses*** - 43; or (2) for other than (1) above - 01, 02, 03, 04, 05, 06 and 08; as applicable for the ***access driveway*** type prescribed in Tables 6.4.3JJ and 6.4.3KK of this code, and is maintained in that condition for the whole of the operating life of the land use on the development ***site***. **AND**

Specific Outcomes for Assessable Development	Probable Solutions
(4) adequately caters for the expected traffic volumes for the particular land use; (5) addresses the soil conditions of the particular development ***site***; and (6) addresses the particular needs of aged and physically disabled persons likely to visit the ***site***.	**PS 31.2** For those developments where kerb and channel does not exist at the vehicular access point to the ***site***, the ***access driveway*** between the edge of the existing pavement seal within the frontage road and the road boundary of the development ***site*** is constructed to the standard prescribed in the following drawings contained in *Schedule D* to this code:- (1) for solely ***small scale residential uses*** - 45 or 07; or (2) for other than (1) above:- (a) 07; or (b) 09 in association with 01, 02, 03, 04, 05, 06 or 08; as applicable for the ***access driveway*** type prescribed in Tables 6.4.3JJ and 6.4.3KK of this code, and is maintained in that condition for the whole of the operating life of the land use on the development ***site***. **AND** **PS 31.3** All traffic control devices provided on the development ***site*** are constructed to the standard prescribed in the *Planning Scheme Policy PSP28 Civil Infrastructure Design.* **AND** **PS 31.4** All areas of the development ***site*** on which vehicles, (other than those vehicles being used for the construction or maintenance of on-site buildings or other ***structures*** and their surrounds), are driven, parked or otherwise manoeuvred, have a loadbearing surface comprising:- (1) a rigid pavement designed and constructed in accordance with the *Cement and Concrete Association of Australia's Technical Notes 43 to 50*; or (2) a flexible pavement designed and constructed in accordance with the road pavement design element of *Planning Scheme Policy PSP28 Civil Infrastructure Design* and sealed with asphaltic concrete having a depth of no less than 40mm; or (3) a combination of (1) and (2) above; and are maintained in a condition free of localised or major collapse for the whole of the operating life of the land use on the development ***site***. However, there is no requirement under this provision for the parking facilities for those parts of developments comprising ***agriculture***, ***animal accommodation***, ***associated unit***, ***bed and breakfast accommodation***, ***caretaker's residence***, ***dairy***, ***domestic storage***, ***environmental park***, ***farm forestry***, ***infill housing***, ***local utilities***, ***non-intensive animal husbandry***, ***park***, ***recycling depot*** or ***tourist cabins*** to have a sealed loadbearing pavement for on-site car parking facilities. Further, there is no requirement under this provision for the car parking spaces[12] provided for those parts of developments comprising a ***place of worship*** to be sealed provided that the finished surface grade of those car parking spaces does not exceed 3% (1 in 33) and the parking area accommodates no more than 50 car parking spaces.
SO 32 Stormwater drainage from the developed areas of the ***site*** is dealt with in a manner which:- (1) does not create or accentuate problems associated with stormwater flows and drainage systems on land adjoining the development ***site***; (2) does not load an existing downstream stormwater drainage system beyond its design limit; and	Other than developments comprising the following, there is no "probable solution" under this element for those developments which do not have access to a ***Council*** maintained stormwater drainage system with the capacity to fully contain the stormwater runoff from the relevant event identified in *PS 32.1* over the development ***site*** and the remainder of the catchment area for the drainage system:- (1) ***associated unit***; (2) ***bed and breakfast accommodation***; (3) ***caretaker's residence***;

Specific Outcomes for Assessable Development	Probable Solutions
(3) ensures that the land use continues to operate effectively at all reasonable times.	(4) ***infill housing**;* (5) ***tourist cabins***; and (6) any development for which sealed on-site parking facilities are not provided. **PS 32.1** Sealed areas of the development ***site*** are drained to an on-site underground stormwater drainage system which is designed to fully contain the stormwater runoff from its natural and constructed catchment for the following intensity storm and the capacity of which is maintained in its design condition for the whole of the operating life of the uses on the development ***site***:- (1) for ***business zoned land*** - ***Q10 event***; or (2) for other than (1) – ***Q5 event***. However, there is no requirement under this provision for the on-site stormwater drainage system which serves the sealed areas of those parts of the development site comprising an ***associated unit, bed and breakfast accommodation, caretaker's residence, infill housing,*** or ***tourist cabins*** to be underground. **AND** **PS 32.2** The sealed areas referred to in *PS 32.1* are so shaped and the stormwater catchment devices for the underground stormwater system are so designed, that stormwater runoff from the relevant event identified in *PS 32.1* is fully contained within the sealed areas, captured and, where required by *PS 32.1*, directed into the underground stormwater system. Further, the sealed areas are also shaped to fully contain the flows of a ***Q100 event*** without resulting in inundation of buildings, and to direct those flows to a lawful point of discharge external to the development ***site***. **AND** **PS 32.3** The underground stormwater drainage system referred to in *PS 32.1* discharges to a ***Council*** maintained stormwater drainage system having the capacity to cater for the stormwater runoff from the relevant event identified in *PS 32.1* over the developed catchment which includes that development ***site***. **AND** **PS 32.4** Stormwater overland flow paths which, prior to development of the land, entered the development ***site*** are not diverted onto adjacent land, (other than a road), in a manner which:- (1) increases the quantity of stormwater from the level which existed prior to the diversion; or (2) concentrates the flow.
Illumination	
SO 33 The car parking areas and ***service vehicle*** facilities serving those components of the on-site land use which operate during the hours of twilight and darkness are illuminated to a level which a reasonable person perceives as:- (1) providing an adequate level of illumination within those parking and ***service vehicle*** facilities and at the vehicular and pedestrian entry points to the ***site***; and	There is no requirement under this element to provide artificial illumination of:- (1) sealed car parking facilities for the ***small scale residential use*** component of any development; or (2) car parking facilities which do not have a sealed finish. **PS 33.1** Roofed parking areas, ***service vehicle*** facilities and designated pedestrian routes between those parking areas and the ***operational component*** of the on-site land use are illuminated to levels no less than those prescribed in *Australian Standard AS 1680.2.1 (1993) Circulation Spaces and Other General Areas.*

Specific Outcomes for Assessable Development	Probable Solutions
(2) providing an adequate level of illumination along designated pedestrian routes within the development ***site***, and to any off-site parking facilities provided for the on-site land use; for the location and nature of the development.	**AND** **PS 33.2** Outdoor and roof-top parking areas, ***service vehicle*** facilities and designated pedestrian routes between those parking areas and the ***operational component*** of the on-site land use for those developments which operate during the hours of twilight or darkness are illuminated to the levels set in *Australian Standard AS 1158.3.1 (1999) Pedestrian Area (Category P) Lighting - Performance and Installation Design Requirements.* **AND** **PS 33.3 A*ccess driveways*** to the car parking areas and ***service vehicle*** facilities of those developments which operate during the hours of twilight or darkness are illuminated to the levels set in *Australian Standard AS 1158.3.1 (1999) Pedestrian Area (Category P) Lighting - Performance and Installation Design Requirements.*
SO 34 Artifical lighting of car parking areas and ***service vehicle*** facilities is operated in such a manner as not to cause unreasonable disturbance to any person or animal on adjacent land.	**PS 34** Lighting of parking areas, ***service vehicle*** facilities and the designated route between those parking areas and the ***operational component*** of the on-site land use is located, directed and shielded in such a manner that the illumination levels do not exceed the recommended maximum values of light technical parameters for the control of obtrusive light given in Table 2.1 of *Australian Standard AS 4282 (1997) Control of Obtrusive Effects of Outdoor Lighting.* For purposes of that table, curfewed hours are taken to be those hours between 10pm and 7am on the following day.

Schedule A to the "Access and Parking Code" – Additional Defined Terms

For the purpose of this code, the following meanings apply to critical terms and abbreviations used in the code:-

(1) ***Access Driveway***

The footpath crossing which provides access to a ***site*** and on which vehicles move between the carriageway of the frontage road and the road boundary of the ***site***. (See Diagram 11 in Schedule B to this code.)

(2) ***AUSTROADS***

The publication entitled *AUSTROADS Guide to Traffic Engineering Practice*.

(3) ***Business Zoned Land***

Land within a Central Business, Commercial, Local Business, Neighbourhood Facilities, Urban Village, Village Centre or similar Special Facilities zone.

(4) ***Circulation Aisle (CA)***

A vehicular access aisle performing the dual function of providing access direct to individual car parking spaces and providing access to other aisles. (See Diagram 11 in Schedule B to this code.)

(5) ***Circulation Road (CR)***

A roadway contained within a development ***site*** which does not provide direct access to parking spaces, but carries vehicular traffic between ***access driveways***, ***circulation/parking aisles*** and ***service areas***. (See Diagram 11 in Schedule B to this code.)

(6) ***Design Vehicle***

The vehicle for which each particular development must make on-site provision under this code.

(7) ***85th Percentile Vehicle***

The 85th percentile vehicle described in *Australian Standard AS 2890.1 (1993) Off Street Car Parking*.

(8) ***Industrial Zoned Land***

Land within a General Industry, Service Industry, Extractive Industry or similar Special Facilities zone.

(9) ***Major Road***

A public roadway designated by the administering authority for that road as :-

(1) an arterial or sub arterial standard road; or

(2) a road under the control of the Queensland Department of Main Roads; or

(3) a road which has been given a national, state or metropolitan route number;

but not a service road within (1), (2) or (3) above.

(10) ***Minor Road***

A public roadway other than a ***major road***.

(11) ***Operational Component***

That part of the land use where the commodity or service sought on ***site*** is provided, or the purpose for visiting the development ***site*** is met.

(12) ***Parking Aisle (PA)***

A vehicular access aisle used by cars solely to gain direct access to individual parking spaces. (See Diagram 11 in Schedule B to this code.)

(13) ***Q5 event***

5 year average recurrence interval storm.

(14) ***Q10 event***

10 year average recurrence interval storm.

(15) ***Q100 event***

100 year average recurrence interval storm.

(16) ***Queuing Area***

A length of roadway within a car parking area available for the temporary accommodation of stationary or near stationary vehicles in a queue for other than pick-up, set-down, loading or unloading purposes. (See Diagram 11 in Schedule B to this code.)

(17) ***Service Aisle***

That portion of on-site roadway between the ***access driveway*** and the ***service area***. (See Diagram 11 in Schedule B to this code.)

(18) ***Service Area***

The area of a development ***site*** allocated for manoeuvring, standing, loading or unloading of ***service vehicles***. (See Diagram 11 in Schedule B to this code.)

(19) ***Service Bay***

A marked parking bay for ***service vehicles*** on a development ***site***. (See Diagram 11 in Schedule B to this code.)

(20) ***Service Vehicle***

A vehicle used to supply, or remove, goods or services to and from a development ***site***.

(1) ***AV*** is the 17.5m articulated vehicle described in ***AUSTROADS***.

(2) ***COACH*** is the 12.2m inter-city tourist bus described in ***AUSTROADS***.

(3) ***RCV*** is the industrial refuse collection vehicle equivalent to the 10m Mack Industrial Refuse Collection Vehicle.

(4) ***HRV*** is the heavy rigid vehicle described in *Australian Standard AS 2890.2 (1989) Commercial Vehicle Facilities.*

(5) ***MRV*** is a medium rigid vehicle having a wheelbase of 5m, a single rear axle and a load carrying capacity of approximately 8 tonnes.

(6) ***SRV*** is the small rigid vehicle described in *Australian Standard AS 2890.2 (1989) Commercial Vehicle Facilities.*

(7) ***VAN*** is the 99.8 percentile vehicle described in *Australian Standard AS 2890.1 (1993) Off Street Car Parking.*

(21) ***Sight Distance***

The distance over which continuous visibility is available between a driver and an object, or between two drivers, at specific heights above the ground. (See Diagrams 1, 2, 3, 4, 6, 7, 8 and 9.)

(22) ***Sight Line***

A straight line of clear view between a driver and an object, or between two drivers at specific heights above the ground, and over which ***sight distance*** is measured. (See Diagrams 1, 2, 3, 4, 6, 7, 8 and 9.)

(23) ***Small Scale Residential Use***[17]

Residential land uses covered by the defined land use terms ***associated unit, bed and breakfast accommodation, caretaker's residence, duplex dwelling, infill housing*** and ***tourist cabins*** in this ***planning scheme***.

(24) ***Stated Purpose Code***

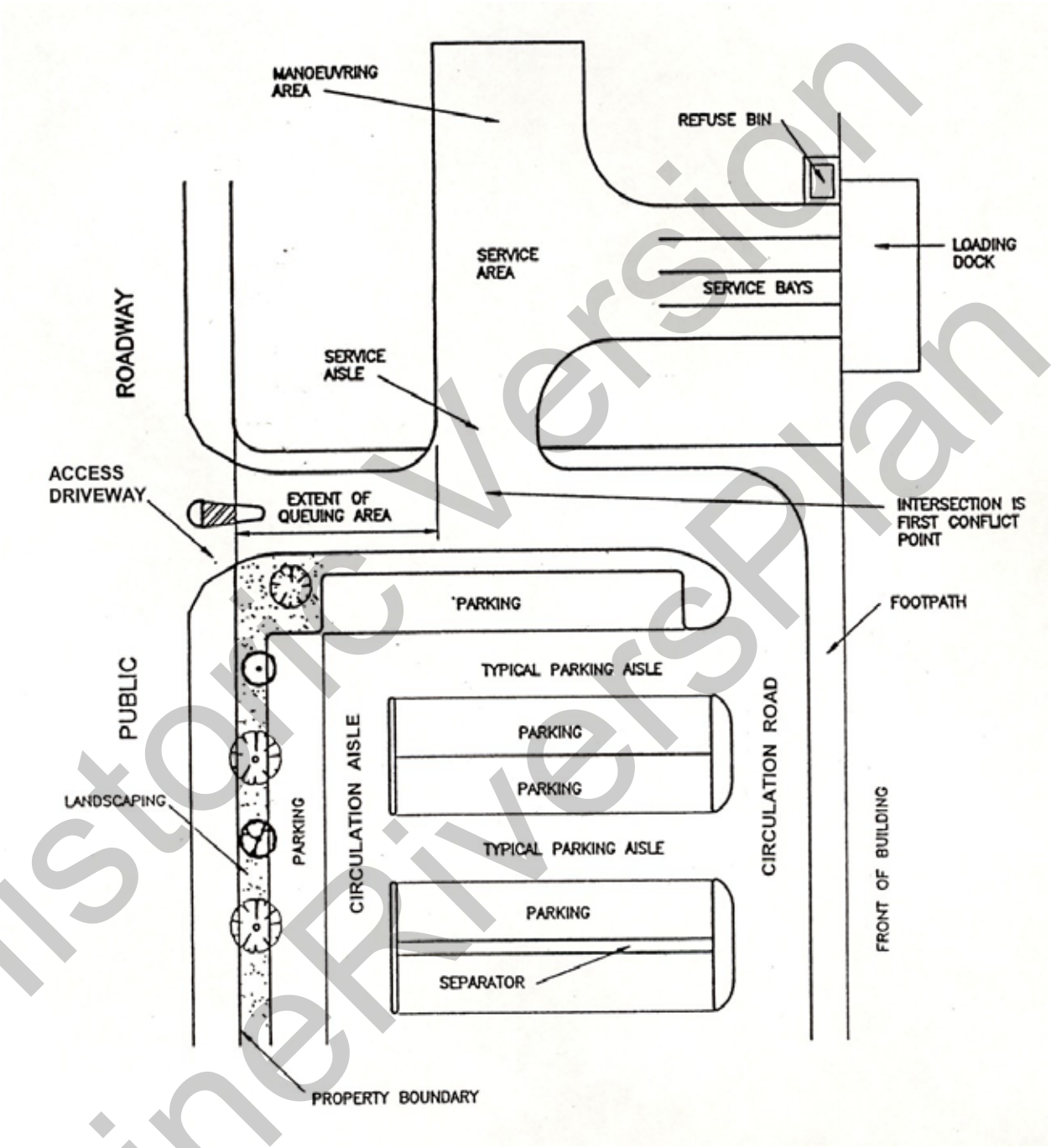
A development code within Part 1 of Chapter 6 of this ***planning scheme***.

(25) ***Tandem Formation***

Two on-site parking spaces joined end to end where only one of the spaces has direct access to a ***circulation aisle*** or a ***parking aisle***.

Schedule B to the "Access and Parking Code"

DIAGRAM 11



Schedule C to the "Access and Parking Code"

EXAMPLE TRIP GENERATION RATES		
Land Use	**Unit (i.e. zone, retail, services, professional, industrial)**	**Peak Trip Generation Rate**
Residential Dwelling	Rural Res, Park Res, Special Res, Res A, Future Urban	0.85 trips per hour/household
	Res B (1 & 2 bed)	0.53 trips per hour/household
	Res B (2 & 3 bed)	0.68 trips per hour/household
	Housing for Aged and Disabled	0.18 trips per hour/household
Business/Commercial	Office	2 trips per hour/100m^2 ***GFA***
	Health	13 trips per hour/100m^2 ***GFA***
	Bank	20 trips per hour/100m^2 ***GFA***
Shopping Centre (supermarket based or larger)	0 – 10,000m^2 GLFA	12.4 trips per hour/100m^2 GLFA
	10,000 – 20,000m^2 GLFA	6.9 trips per hour/100m^2 GLFA
	20,000 – 30,000m^2 GLFA	5.8 trips per hour/100m^2 GLFA
	> 30,000m^2 GLFA	4.2 trips per hour/100m^2 GLFA
Motels		0.4 trips per hour/unit
Industry	Service	0.9 trips per hour/100m^2 ***GFA***
	Other	0.5 trips per hour/100m^2 ***GFA***
Warehouses		0.5 trips per hour/100m^2 ***GFA***
Service Stations and Convenience Stores		66 trips per hour/100m^2 ***GFA***
Vehicle Sales/Motor Show Rooms		0.7 trips per hour/100m^2 ***GFA***
Car Tyre Retail Outlets		1 trip per hour/100m^2 ***site*** area
Market		4 trips per hour/stall
Video Stores		22.8 trips per hour/100m^2 ***GFA***
Drive-In Fast Food	McDonalds/Hungry Jacks	100 trips per hour/100m^2 ***GFA***
	Red Rooster/KFC	70 trips per hour/100m^2 ***GFA***
Restaurants		5 trips per hour/100m^2 ***GFA***
Squash Courts		3 trips per hour/court
Tennis Courts		4 trips per hour/court
Gymnasiums	Metro. Regional Centre	3 trips per hour/100m^2 ***GFA***
	Metro. Sub-regional Centre	9 trips per hour/100m^2 ***GFA***
Caravan Parks	Urban / Coastal	0.48 trips per hour/occupied site
	Tourist	0.8 trips per hour/occupied site
Passenger Terminal		1 trip per hour/100m^2 ***GFA***
Medical Centres (extended hours)		13 trips per hour/100m^2 ***GFA***
Child Care Centre	Pre-school	1.4 trips per hour/child
	Long Day Care	0.8 trips per hour/child
	Before/After Care	0.6 trips per hour/child

Notes:

(1) The generation rates listed in this table are for peak operating times;

(2) ***GFA*** is ***gross floor area***; and

(3) GLFA is gross leasable floor area.

Schedule D to the "Access and Parking Code"

Industrial Driveway- Types 1 and 2.

Drawing No. 01.

LEVELS:

RL.A. and RL.B. - existing kerb level

RL.C. and RL.D. - 40mm above existing kerb level

EXISTING SERVICES

Applicant is to check levels and location of all services and notify the relevant service authorities prior to commencing construction works.

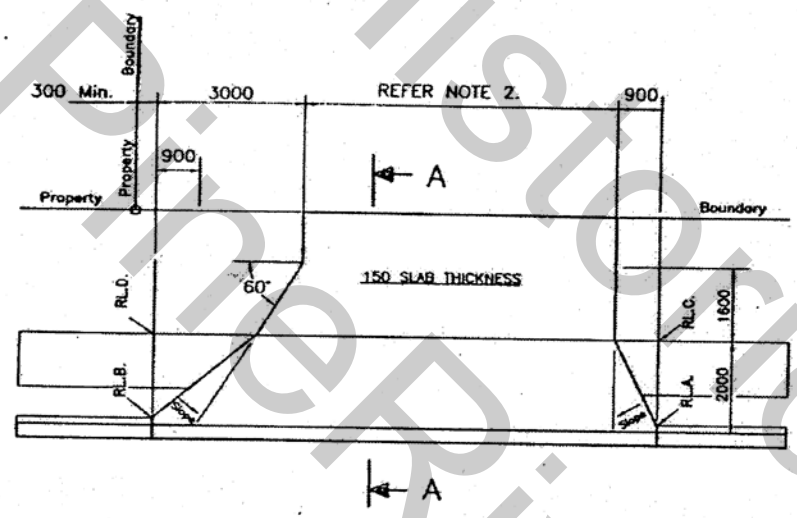
NOTES:

(1) Construction details are shown on the following drawings:

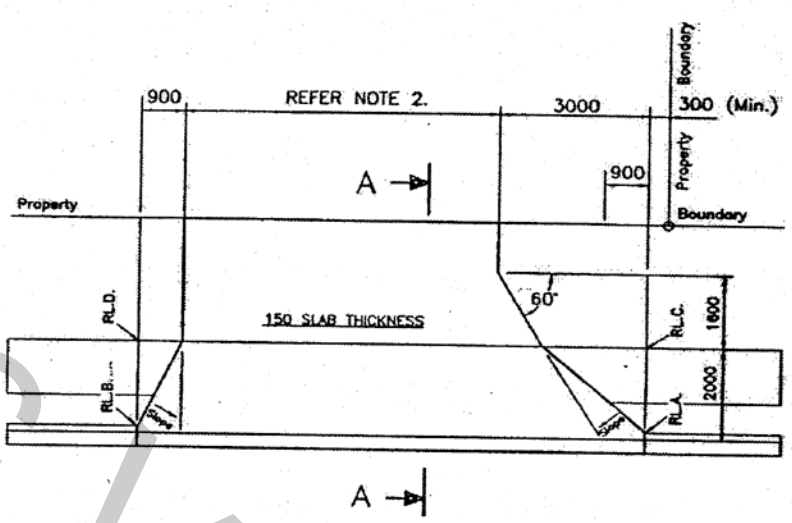
(a) drawing number 05 for commercial and industrial developments; and

(b) drawing number 06 for residential developments other than a ***small scale residential use***.

(2) The throat width of the ***access driveway*** is that width prescribed in Tables 6.4.3L, 6.4.3M, 6.4.3JJ and 6.4.3KK under the "Access Driveways" element of this code.



TYPE 3



TYPE 4

EXISTING SERVICES

Applicant is to check levels and location of all services and notify the relevant service authorities prior to commencing construction works.

NOTES:

(1) Construction details are shown on the following drawings:

(a) drawing number 05 for commercial and industrial developments; and

(b) drawing number 06 for residential developments other than a ***small scale residential use***.

(2) The throat width of the ***access driveway*** is that width prescribed in Tables 6.4.3L, 6.4.3M, 6.4.3JJ and 6.4.3KK under the "Access Driveways" element of this code.

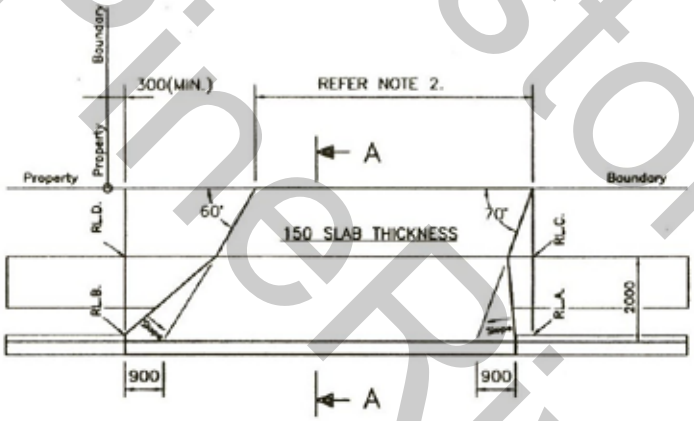
LEVELS:

RL.A. and RL.B. - existing kerb level

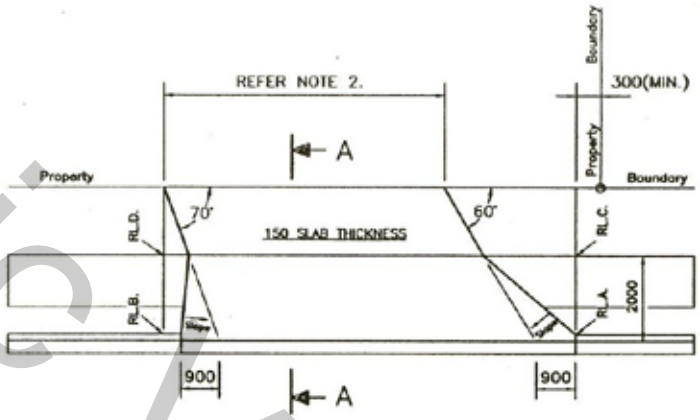
RL.C. and RL.D. - 40mm above existing kerb level

Drawing No. 02.

Industrial Driveway- Types 3 and 4.



TYPE 5



TYPE 6

EXISTING SERVICES

Applicant is to check levels and location of all services and notify the relevant service authorities prior to commencing construction works.

NOTES:

(1) Construction details are shown on the following drawings:

(a) drawing number 05 for commercial and industrial developments; and

(b) drawing number 06 for residential developments other than a ***small scale residential use***.

(2) The throat width of the ***access driveway*** is equivalent to the following:

(a) where used in place of a Type 1,2,3 or 4 ***access driveway*** - the width of the abutting ***circulation road***; or

(b) where used in place of a Type 7 ***access driveway*** - the throat width nominated for the equivalent Type 7 ***access driveway***.

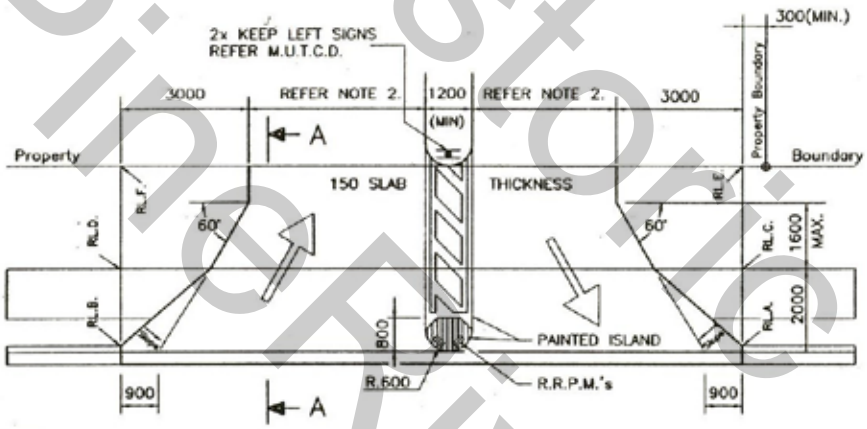
LEVELS:

RL.A. and RL.B. - existing kerb level

RL.C. and RL.D. - 40mm above existing kerb level

Drawing No. 03.

Industrial Driveway- Types 5 and 6.



TYPE 7

NOTES:

(1) Construction details are shown on the following drawings:

(a) drawing number 05 for commercial and industrial developments; and

(b) drawing number 06 for residential developments other than a ***small scale residential use***.

(2) The throat width of the ***access driveway*** is in accordance with the following table:

DIMENSIONS		
TYPE	W1(m)	W2(m)
7a	4.6	4.0
7b	5.5	4.5
7c	7.5	5.5
7d	9.0	7.5

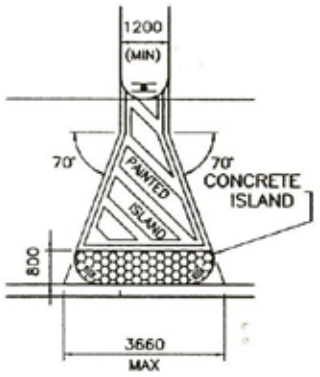
(3) Paint to be white in colour with glass beads embedded or premixed.

EXISTING SERVICES

Applicant is to check levels and location of all services and notify the relevant service authorities prior to commencing construction works.

THIS ISLAND TO BE USED WHERE RIGHT TURNS ARE PERMITTED

THIS ISLAND TO BE USED WHERE RIGHT TURNS ARE NOT PERMITTED



LEFT TURN IN,
LEFT TURN OUT
ALTERNATIVE ISLAND

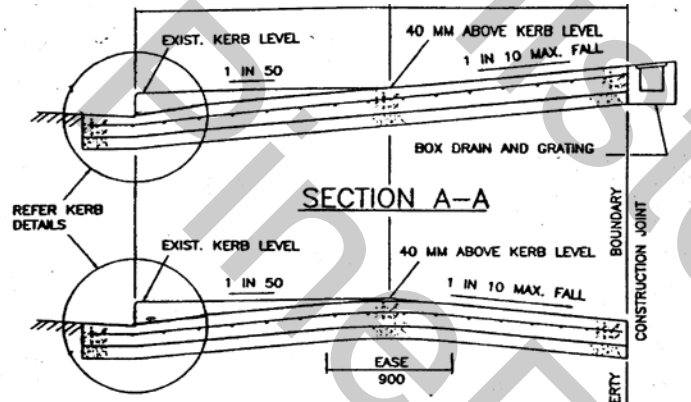
LEVELS:

RL.A. and RL.B. - existing kerb level

RL.C. and RL.D. - 40mm above existing kerb level

Drawing No. 04.

Industrial Driveway- Types 7.



SECTION A–A

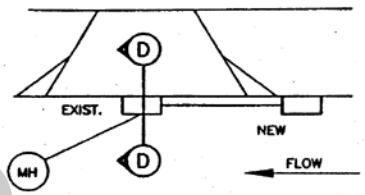
SECTION A–A

NOTES PLEASE READ CAREFULLY

1. APPLICANT IS TO NOTIFY COUNCIL AT LEAST ONE (1) DAY PRIOR TO POURING, SO THAT AN INSPECTION OF BOXING AND REINFORCING CAN BE ARRANGED.
2. DRIVEWAY TO BE CAST MONOLITHICALLY WITH 1 LAYER OF F72 MESH 50 FROM TOP. CONCRETE TO BE MIN. N25 STRENGTH WITH 80mm SLUMP AND 20mm AGGREGATE.
3. REMOVE EXISTING KERB & CHANNEL FOR THE LENGTH OF THE CROSSING AND REINSTATE ANY BITUMEN SEAL DAMAGED DURING CONSTRUCTION.
4. APPLICANT IS RESPONSIBLE TO ENSURE THAT THE DRIVEWAY IS CONSTRUCTED TO THE CORRECT LEVELS.
5. ANY EXISTING DRIVEWAYS ALONG THE FRONTAGE OF THE SITE ARE TO BE REMOVED AND REPLACED WITH NEW KERB.
6. IF FOOTPATH EXISTS, REMOVE FOR EXTENT OF DRIVEWAY AND MATCH NEATLY. WHERE A NEW FOOTPATH IS TO BE CONSTRUCTED, CAST SEPARATELY TO DRIVEWAY.
7. FRONT FACE OF DRIVEWAY TO BE FORMED. ANY DAMAGE TO EXISTING ROAD IS TO BE REPAIRED TO THE SATISFACTION OF COUNCIL'S ENGINEER.
8. WHEN EXTENDING AN EXISTING DRIVEWAY WIDTH OR ADDING NEW WINGS, REFER DRAWING NO. 8.

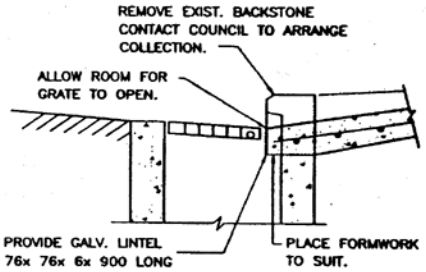
EXISTING COUNCIL SERVICES

9. VALVES/HYDRANTS LOCATED WITIN THE DRIVEWAY SHALL HAVE BITUMEN IMPREGNATED FIBREBOARD, OR APPROVED EQUIVALENT, PLACED BETWEEN THE CONCRETE VALVE RING AND THE DRIVEWAY. FOR ANY ALTERATIONS TO LEVELS CONTACT COUNCIL AT LEAST TWO (2) DAYS PRIOR TO POURING.
10. EXISTING CATCHPIT KERBSTONE TO BE REMOVED AND GRATE TO REMAIN. REMOVE EXISTING APRONS AND REINSTATE MONOLITHICALLY WITH DRIVEWAY. AN ADDITIONAL NEW CATCHPIT REQUIRED.

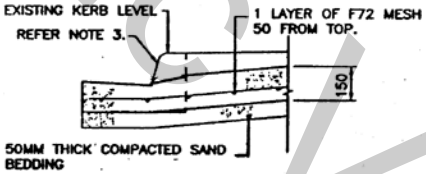


AVOID CONFLICT BETWEEN DRIVEWAY & EXIST. CATCHPITS WHEREVER POSSIBLE. REFER NOTE 10.

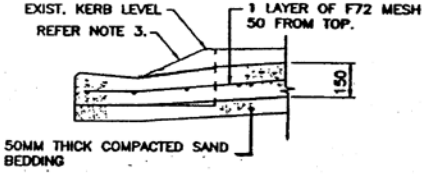
CONFLICT WITH EXIST. CATCHPIT



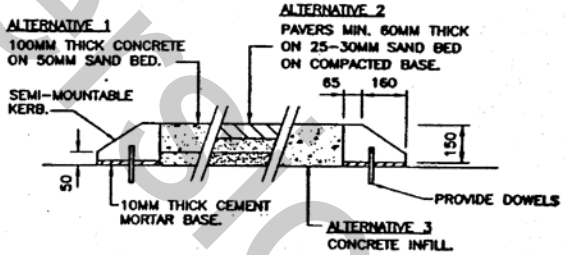
SECTION D–D



UPRIGHT KERB DETAIL



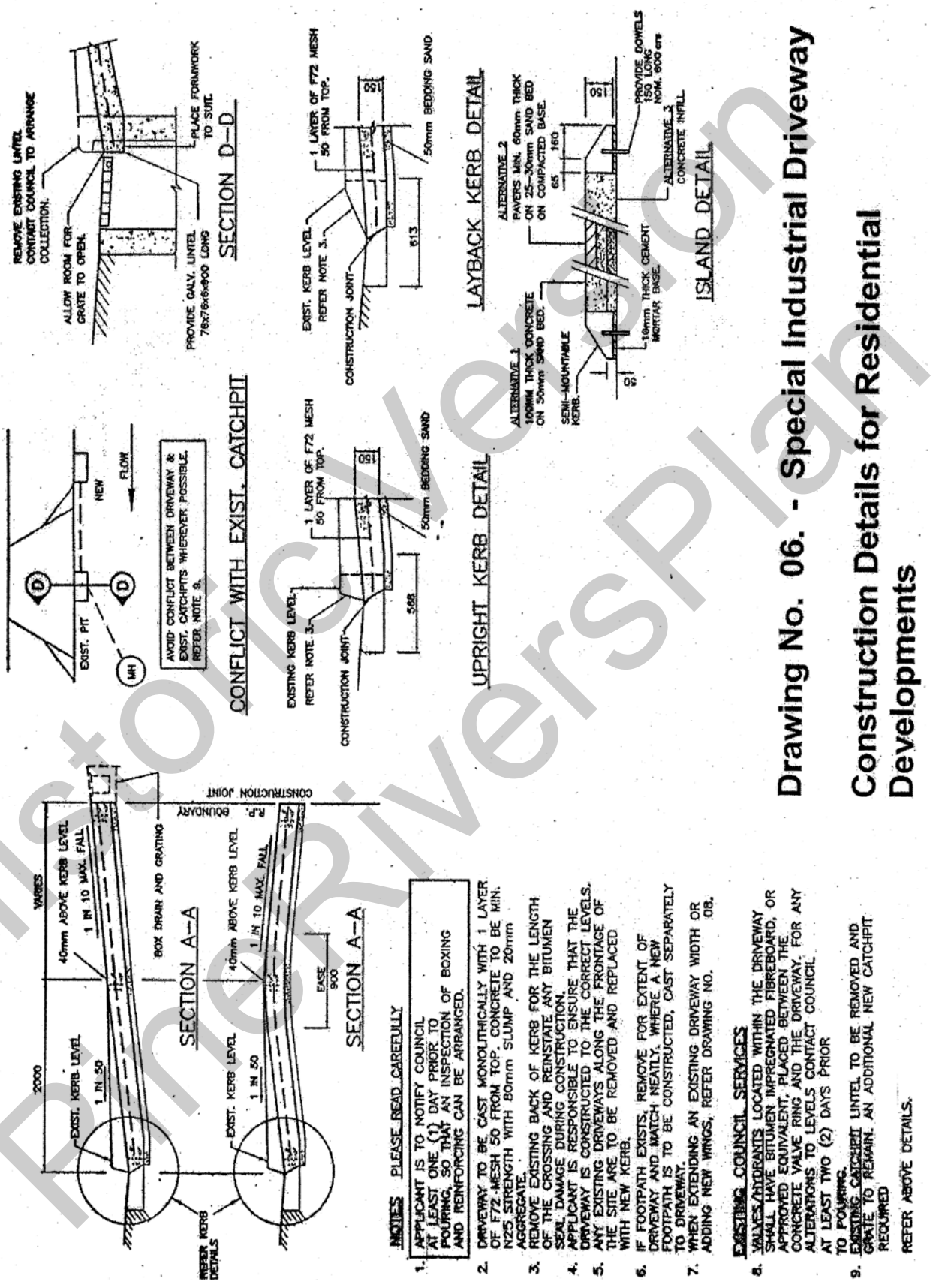
LAYBACK KERB DETAIL



ISLAND DETAIL

Drawing No. 05. - Standard Industrial Driveway

Construction Details for Commercial/Industrial Developments



NOTES PLEASE READ CAREFULLY

1. APPLICANT IS TO NOTIFY COUNCIL AT LEAST ONE (1) DAY PRIOR TO POURING, SO THAT AN INSPECTION OF BOXING AND REINFORCING CAN BE ARRANGED.
2. DRIVEWAY TO BE CAST MONOLITHICALLY WITH 1 LAYER OF F72 MESH 50 FROM TOP. CONCRETE TO BE MIN. N25 STRENGTH WITH 80mm SLUMP AND 20mm AGGREGATE.
3. REMOVE EXISTING BACK OF KERB FOR THE LENGTH OF THE CROSSING AND REINSTATE ANY BITUMEN SEAL DAMAGE DURING CONSTRUCTION.
4. APPLICANT IS RESPONSIBLE TO ENSURE THAT THE DRIVEWAY IS CONSTRUCTED TO THE CORRECT LEVELS.
5. ANY EXISTING DRIVEWAYS ALONG THE FRONTAGE OF THE SITE ARE TO BE REMOVED AND REPLACED WITH NEW KERB.
6. IF FOOTPATH EXISTS, REMOVE FOR EXTENT OF DRIVEWAY AND MATCH NEATLY. WHERE A NEW FOOTPATH IS TO BE CONSTRUCTED, CAST SEPARATELY TO DRIVEWAY.
7. WHEN EXTENDING AN EXISTING DRIVEWAY WIDTH OR ADDING NEW WINGS, REFER DRAWING NO. 08.

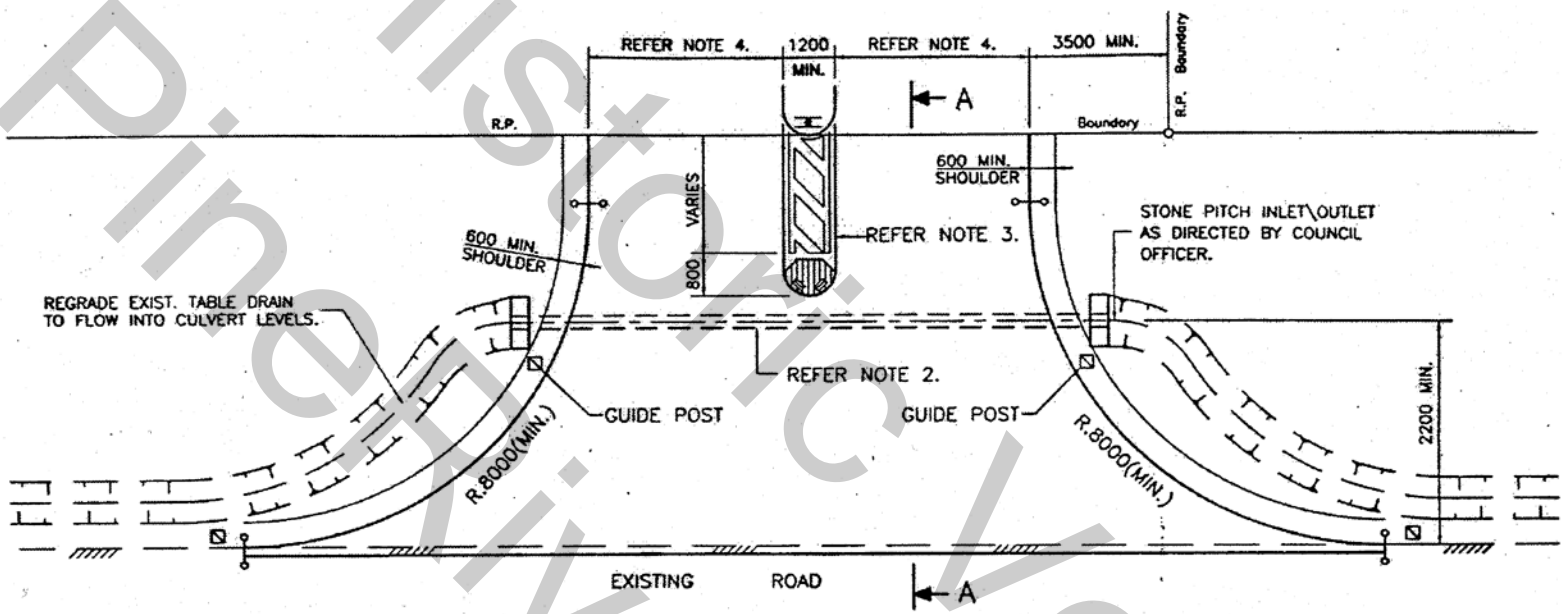
EXISTING COUNCIL SERVICES

8. VALVES/HYDRANTS LOCATED WITHIN THE DRIVEWAY SHALL HAVE BITUMEN IMPREGNATED FIBREBOARD, OR APPROVED EQUIVALENT, PLACED BETWEEN THE CONCRETE VALVE RING AND THE DRIVEWAY. FOR ANY ALTERATIONS TO LEVELS CONTACT COUNCIL AT LEAST TWO (2) DAYS PRIOR TO POURING.
9. EXISTING CATCHPIT LINTEL TO BE REMOVED AND GRATE TO REMAIN. AN ADDITIONAL NEW CATCHPIT REQUIRED

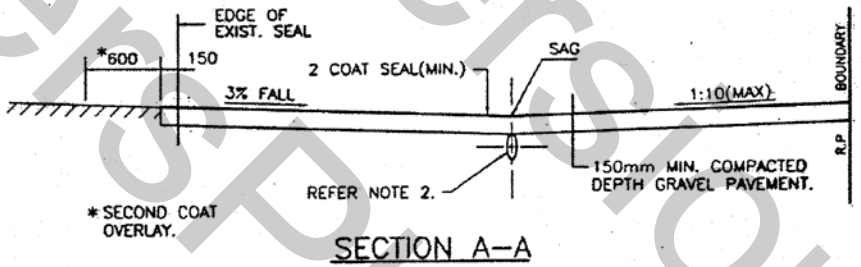
REFER ABOVE DETAILS.

Drawing No. 06. - Special Industrial Driveway

Construction Details for Residential Developments



PLAN



SECTION A–A

NOTES:

(1) Applicant is to notify Council at least 1 day prior to pouring so that an inspection of boxing and reinforcement can be arranged.

(2) Minimum 300 mm diameter RCP with cover and pipe class to manufacturer's specification. Pipe to grade at 1 in 100 min. Refer to drawing no. 45.

(3) If the bitumen sealed driveway is to be used in place of a Type 7 ***access driveway***, install a splitter island to the standard detailed on drawing no. 5.

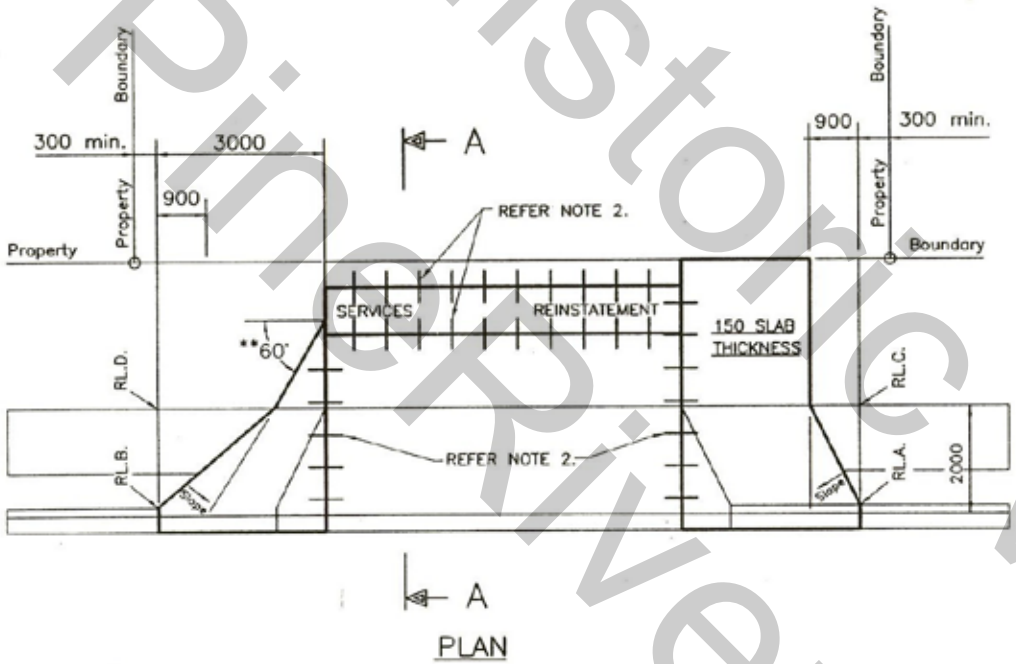
(4) The throat width of the ***access driveway*** is that width prescribed in Tables 6.4.3L, 6.4.3M, 6.4.3JJ and 6.4.3KK under the "Access Driveways" element of this code.

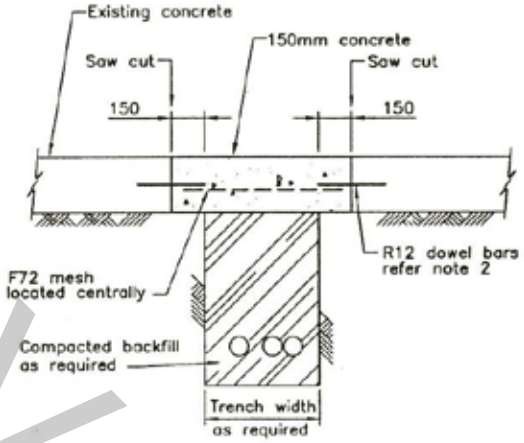
EXISTING SERVICES

Applicant is to check levels and location of all services and notify the relevant service authorities prior to commencing construction works.

Drawing No. 07.

Bitumen Sealed Access Driveway





PART SECTION A–A

NOTES:

(1) For additional construction details, refer to drawing nos. 05 and 06, as appropriate.

(2) Join new concrete with centrally placed R 12 dowel bars, 600mm long and @ 600mm centres. Grease coat section of dowel in the existing concrete driveway.

EXISTING SERVICES

Applicant is to check levels and location of all services and notify the relevant service authorities prior to commencing construction works.

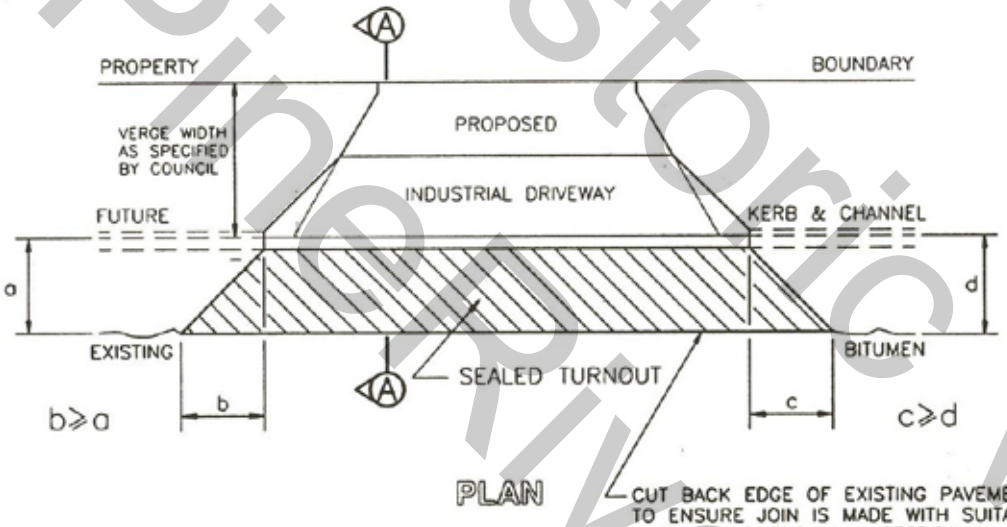
LEVELS

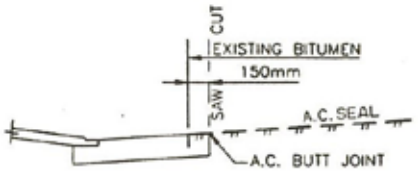
RL.A. and RL.B. - existing kerb level

RL.C. and RL.D. - 40 mm above existing kerb level

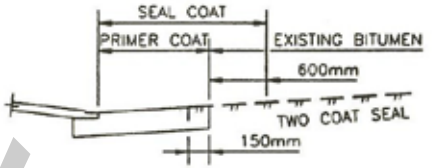
Drawing No. 08.

Extensions to, and Reinstatement of, Industrial Access Driveways





SECTION A-A (A.C. SEAL)



SECTION A-A (TWO COAT SEAL)

NOTES:

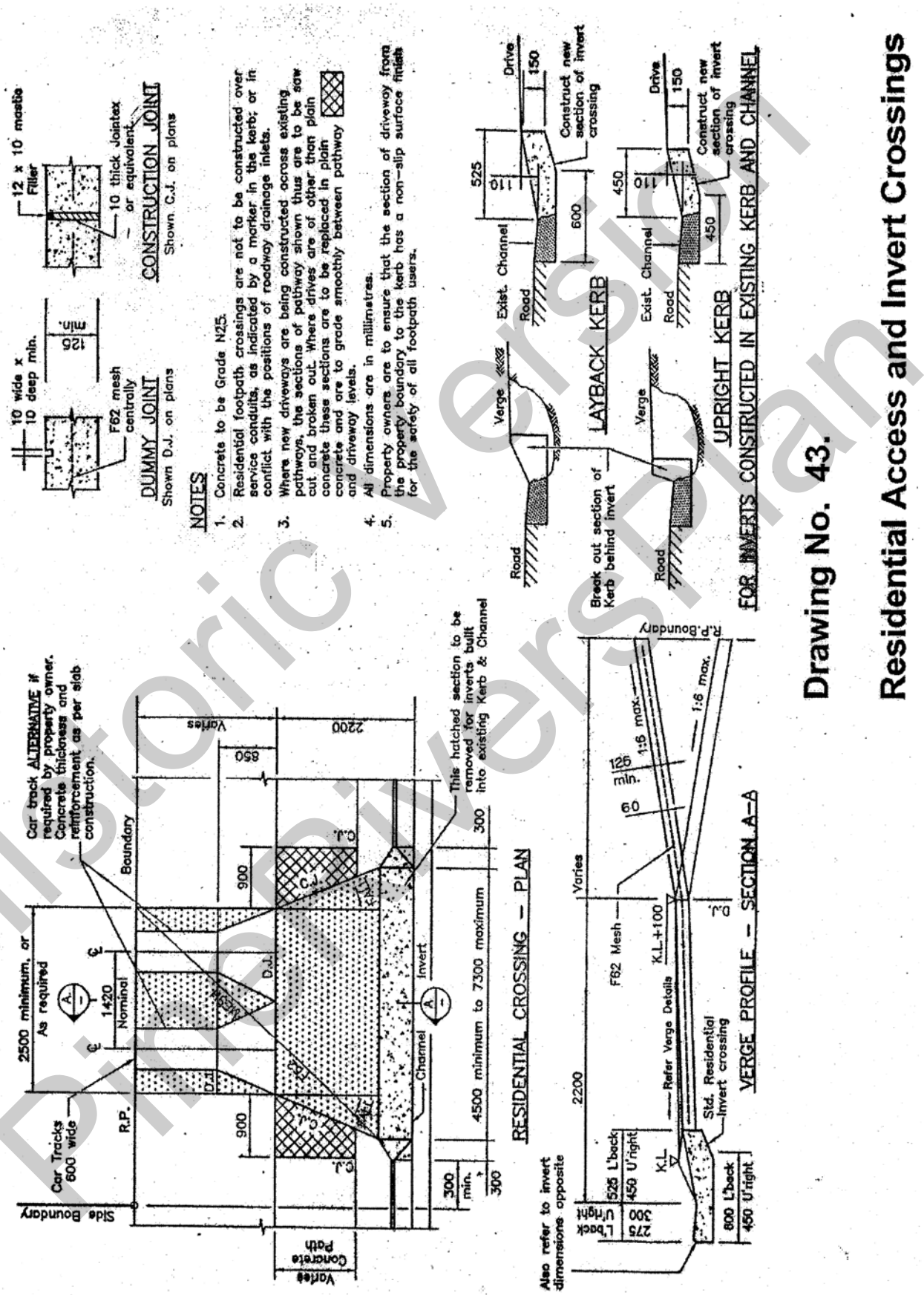
(1) Where a full width sealed roadway (between existing or future kerb lines) does not exist for the frontage of the site, and full frontage works are not required to be constructed by an applicable code for the development under this ***town planning scheme***, a sealed turnout is required to be constructed between the existing seal of the frontage road and the toe of the ***access driveway*** provided under the "access driveways" element of this code, to the standard detailed in this drawing.

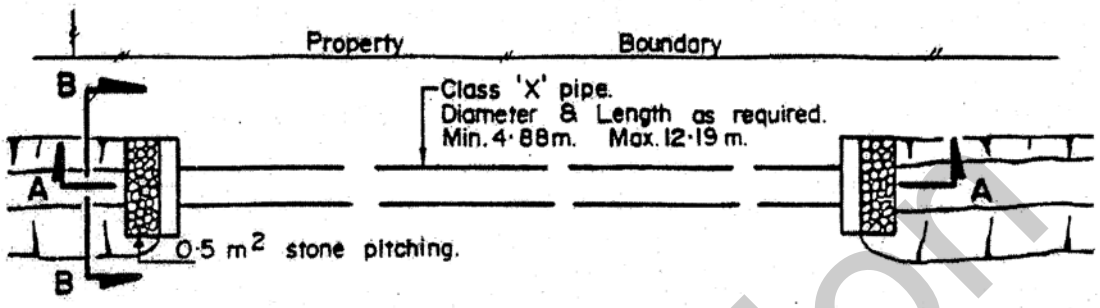
(2) The turnout is to comprise at least a 300mm compacted depth of gravel pavement with a seal coat of two coat bitumen seal or a 40mm minimum thickness of AC surfacing. The seal coat is to be of the same type of material as that used in the existing frontage roadway.

(3) The industrial driveway is to be constructed to the standard detailed on drawing nos. 01, 02, 03, 04, 05 and 06, as appropriate, for the type of ***access driveway*** required for the development under the "access driveways" element of this code.

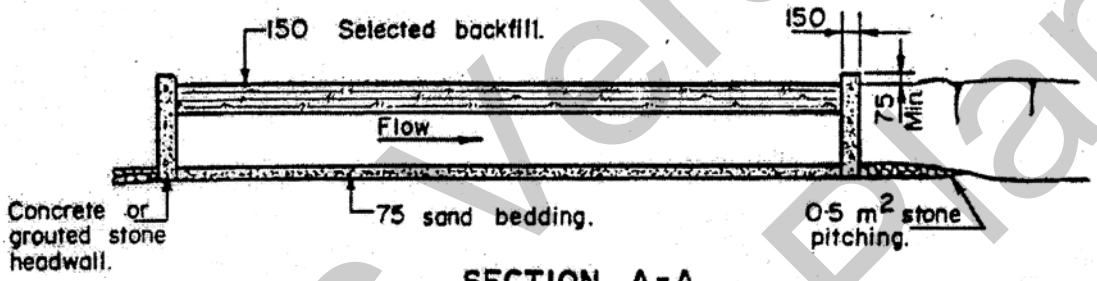
Drawing No. 09.

Sealed Turnouts to Industrial Access Driveways

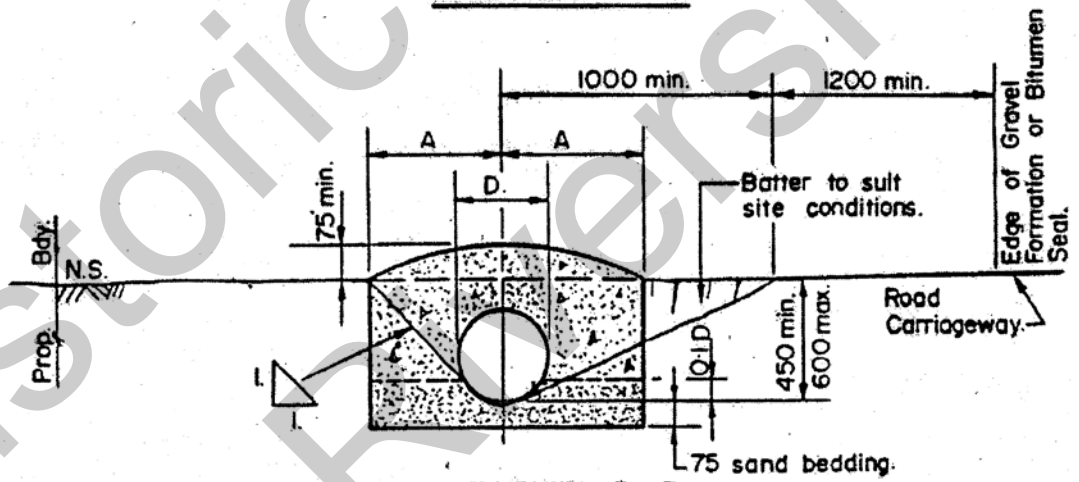




PLAN



SECTION A-A



SECTION B-B

NOTES

1. All dimensions are in millimetres unless otherwise noted.
2. Class 'Y' & 'Z' pipes may be ordered where incidence of heavy traffic is high.

D	A
300	475
375	600
450	725

Drawing No. 45.

Standard Pipe Crossings

[1] The meaning of other critical terms which are used in this code as well as elsewhere in this ***planning scheme*** appear as "use definitions" and "administrative definitions" in Chapter 7.

[2] Where the development comprises more than one use, the car parking facilities required are an aggregate of the rates for each of the uses comprising the development.

[3] The designation for the road appearing in the priority infrastructure plan or ***Council's*** integrated local transport plan.

[4] Lighting standards and construction requirements for cubicles are prescribed in the Building Code of Australia.

[5] Example traffic generation rates are provided in Schedule C to this code.

[6] ***Access driveways*** to roads not administered by ***Council*** will need to be located, designed and constructed to the standard prescribed by the administering authority for that road.

[7] Required by either this ***planning scheme*** or other legislation applicable to the development.

[8] For the traffic/parking control signage to which the documents referenced in AS16 do not apply, the content, size and location must comply with the criteria prescribed in the Advertising Signs Code and ***Council's*** local law on ***advertising signs*** for signage of that type.

[9] Those codes identified in the assessment table and any overlay code relevant to the land.

[10] A car parking space in this instance does not include either a passenger setdown area or a goods pick-up area.

[11] A separator in this instance would take the form of a raised island which allows vehicles to overhang it by up to 1m.

[12] This exemption applies to the car parking spaces only and does not extend to the ***access driveway, circulation road, circulation aisle, parking aisle*** or ***service areas***.

[13] There is no probable solution for those uses which:-
(a) are not nominated in Tables 6.4.3AA to 6.4.3HH; or
(b) are not specifically exempted under this provision; or
(c) exceed the limits of the tables described in (a).

[14] There is no probable solution for this provision for any land use not nominated in Table 6.4.3II.

[15] Development applications for these forms of development should be supported by traffic engineering reports undertaken by suitably qualified engineers.

[16] For the traffic/parking control signage to which the documents referenced in PS 16 do not apply, the content, size and location must comply with the criteria prescribed in the Advertising Signs Code and Council's local law on ***advertising signs*** for signage of that type.

[17] Since this is not an applicable code for ***detached house***, that land use has not been included in the list of uses comprising ***small scale residential uses***.

Division 4 Setbacks Code

4.1 Overall Outcomes

(1) The overall outcomes are the purpose of this code.

(2) The overall outcomes sought by the Setbacks Code are the following:-

(a) The siting and physical form of buildings and other ***structures***:-

(i) are appropriate to the desired character and environmental values of the areas in which they are situated;

(ii) do not obstruct safe and convenient access to adjacent infrastructure;

(iii) allow for construction of frontage roads and their associated service infrastructure to the standard prescribed for the designated[1] function of those roads; and

(iv) do not obstruct or redirect stormwater surface flows over the land in a manner which causes nuisance or annoyance to users of land adjacent to the development ***site***;

(b) Acceptable levels of natural light, natural ventilation and privacy for occupants of adjacent residential premises are provided; and

(c) The siting of required[2] landscape buffers and on-site parking facilities:-

(i) allow for construction of frontage roads and their associated service infrastructure to the standard prescribed for the designated[1] function of those roads; and

(ii) do not obstruct or redirect stormwater surface flows over the land in a manner which causes nuisance or annoyance to users of land adjacent to the development site.

4.2 Compliance with the Setbacks Code

(1) Self assessable development that complies with the acceptable solutions of the Development Requirements *Table 6.4.4A – Assessment Criteria for Self Assessable Development* contained in Section 4.4 complies with the Setbacks Code.

(2) Assessable development that is consistent with the specific outcomes of the Development Requirements *Table 6.4.4B – Assessment Criteria for Assessable Development* contained in Section 4.4 complies with the Setbacks Code.

4.3 Development Requirements

The development requirements of this code relate to the following elements:-

(1) Boundary Setback Distances for Vehicle Parking and Landscaping;

(2) Boundary Setback Distances for Buildings and Other ***Structures***;

(3) Clearance to ***Council*** Maintained Services; and

(4) Stormwater Overland Flow.

4.4 Development Requirements Tables

Table 6.4.4A - Assessment Criteria for Self Assessable Development

Acceptable Solutions For Self Assessable Development
Boundary Setback Distances for Vehicle Parking and Landscaping
AS 1.1 Required landscape buffers and vehicle parking facilities on development ***sites*** that have frontage to any of those roads nominated in Table 6.4.4C within *Schedule A* to this code are located clear of the "additional reserve width"[3] prescribed in the table. **OR** **AS 1.2** If the development ***site*** does not have frontage to any of those roads nominated in Table 6.4.4C within *Schedule A* to this code, required landscape buffers and vehicle parking facilities are fully contained within the current confines of the development ***site.***
Boundary Setback Distances for Buildings and Other Structures
AS 2.1 A setback distance of no less than the following is maintained between the road boundary of the development ***site*** and any building or ***structure*** (other than a ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall):- (1) the specific road boundary setback distance nominated in the applicable acceptable solution of a locality code[4] applicable to the development ***site***; or (2) for those instances where (1) does not apply, the greater of:- (a) 6m; and (b) the specific road boundary setback distance nominated in the applicable acceptable solution of any other code applicable[5] to the land.

Acceptable Solutions For Self Assessable Development

For purposes of this provision, the property boundary includes any identified ***probable future land acquisition line***.

AND

AS 2.2 A setback distance of no less than the greater of the following is maintained between the road boundary of the development ***site*** and any ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall:-

(1) the specific road boundary setback distance for the ***structure*** required under the applicable acceptable solution of another code within this ***planning scheme*** which is applicable[5] to the development ***site***; and

(2) the setback requirement identified in Table 6.4.4D within *Schedule A* to this code.

For the purposes of this provision, the property boundary includes any identified ***probable future land acquisition line***.

AND

AS 2.3 A setback distance of no less than the following is maintained between the side or rear boundary of the development ***site*** and any building or ***structure*** (other than a ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall):-

(1) the specific side or rear boundary setback distance nominated in the applicable acceptable solution of a locality code[4] applicable to the development ***site***; or

(2) for those instances where (1) does not apply, the greater of:-

(a) the specific side or rear boundary setback distance nominated in the applicable acceptable solution of an overlay code applicable[5] to the development ***site***; and

(b) the specific side or rear boundary setback distance nominated in the applicable acceptable solution of any other code applicable[5] to the development ***site***.

AND

AS 2.4 A setback distance of no less than the greater of the following is maintained between the side or rear boundary of the development ***site*** and any ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall:-

(3) the specific side or rear boundary setback distance for the ***structure*** required under the applicable acceptable solution of another code within this ***planning scheme*** which is applicable[5] to the development ***site***; and

(4) the setback requirement identified in Table 6.4.4E within *Schedule A* to this code.

Clearance to Council Maintained Services

AS 3.1 No building, ***structure***, or part thereof (other than those fences specifically exempted under *AS 3.2*), is erected without prior written ***Council*** approval:-

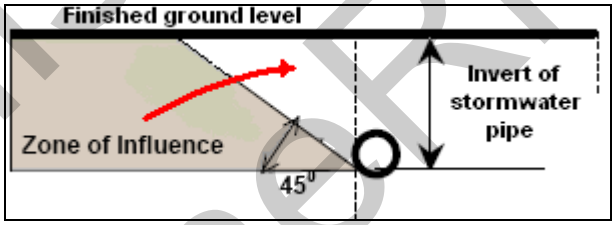
(1) within or over any ***Council*** easement; or

(2) on or over land which is over the zone of influence to any ***Council*** maintained stormwater pipe.

For purposes of this provision:-

(3) only that section of the finished ground surface contained above and between the two outward rising planes which mark the outer extent of the zone of influence to that ***Council*** maintained service is considered to be "land which is over the zone of influence" to that service; and

(4) the zone of influence to a service is that part of the site below finished ground level which is contained above and between the planes rising upwards and outwards as a tangent to the outer surface of a ***Council*** maintained service at a 45^0 angle to the horizontal.



AND

AS 3.2 No "lightweight fence" is erected without prior written ***Council*** approval :-

(1) within or over any ***Council*** easement; or

(2) on or over land which is over the zone of influence to any ***Council*** maintained stormwater pipe;

unless the support posts of the "lightweight fence" maintain a minimum horizontal separation distance of no less than 900mm from any ***Council*** maintained stormwater pipe.

For purposes of this provision:-

(3) a lightweight fence must have a height above finished ground level of no more than 2m and be constructed of:-

(a) timber, metal or other similar non-masonry support posts; and

(b) rails, slats, palings, planks or other non-masonry infill panels between the support posts; and

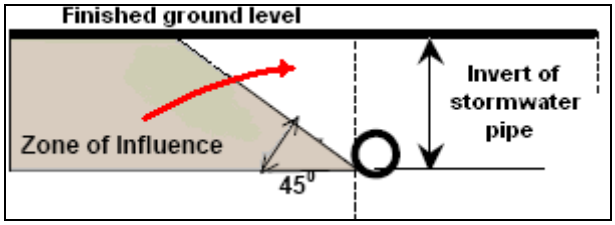
incorporate a system of fixings which allow the infill panels to be readily removed from, and reaffixed to, the support posts without the need to break, or reset, bonded joints; and

(4) a lightweight fence must not include any component used to retain earth on either side of the fence.

Acceptable Solutions For Self Assessable Development
Note: (1) Building work which is over, or adjacent to, a sewer or water main is not regulated by the ***planning scheme*** as it is specifically addressed by section 823 of the *Water Act 2000*. (Under section 823 written consent from the service provider must first be obtained prior to undertaking the work.) A guideline on building work over, or adjacent to, a sewer or water main is available from ***Council.*** (2) ***Council*** has a Planning Scheme Policy, *PSP40 – Clearance to Council Infrastructure* which establishes the process and supporting documentation required in obtaining written ***Council*** approval under the *Water Act,* the *Building Act,* and these provisions.
Stormwater Overland Flow
AS 4 Buildings and other ***structures*** are positioned in a manner which does not:- (1) prevent stormwater overland flow which, prior to the building work being carried out, passed onto the development ***site,*** from entering the land; or (2) divert stormwater overland flow onto adjacent land, (other than a road), in a manner which:- (a) concentrates the flow; or (b) increases the quantity of stormwater discharged from the level which existed prior to the diversion.

Table 6.4.4B - Assessment Criteria for Assessable Development

Specific Outcomes for Assessable Development	Probable Solutions
Boundary Setback Distances for Vehicle Parking and Landscaping	
SO 1 The siting of required[2] landscape buffers and on-site parking facilities is undertaken in a manner which does not compromise the construction of the frontage road and its associated service infrastructure to the standard prescribed in the *Planning Scheme Policy PSP28 Civil Infrastructure Design* for the designated[1] function of that road.	**PS 1.1** Required landscape buffers and vehicle parking facilities on development ***sites*** that have frontage to any of those roads nominated in Table 6.4.4C within *Schedule A* to this code are located clear of the additional reserve width[3] prescribed in the table. **OR** **PS 1.2** If the development ***site*** does not have frontage to any of those roads nominated in Table 6.4.4C within *Schedule A* to this code, required landscape buffers and vehicle parking facilities are fully contained within the current confines of the development ***site.***
Boundary Setback Distances for Buildings and Other Structures	
SO 2 All buildings and other ***structures*** are located on the ***site*** in a manner which:- (1) does not adversely impact on the existing or desired streetscape for the area; (2) is in keeping with the desired or established character of the area; (3) does not result in significant loss of amenity to uses on adjacent land or land in the general vicinity of the ***site***, having regard to:- (a) overshadowing; (b) privacy and overlooking; and (c) light and ventilation; (4) does not result in adverse effects on the safe and efficient operation of the vehicle carriageways and pedestrian thoroughfares within the frontage road; and (5) does not compromise the construction of the frontage road and its associated service infrastructure to the standard prescribed in *Planning Scheme Policy PSP28 Civil Infrastructure Design* for the designated function of that road.	**PS 2.1** A setback distance of no less than the following is maintained between the road boundary of the development ***site*** and any building or ***structure*** (other than a ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall):- (1) the specific road boundary setback distance nominated in the applicable acceptable solution of a locality code[4] applicable to the development ***site***; or (2) for those instances where (1) does not apply, the greater of:- (a) 6m; and (b) the specific road boundary setback distance nominated in the applicable acceptable solution of any other code applicable[5] to the land. For purposes of this provision, the property boundary includes any identified ***probable future land acquisition line***. **AND** **PS 2.2** A setback distance of no less than the greater of the following is maintained between the road boundary of the development ***site*** and any ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall:- (1) the specific road boundary setback distance for the ***structure*** required under the applicable acceptable solution of another code within this ***planning scheme*** which is applicable[5] to the development ***site***; and (2) the setback requirement identified in Table 6.4.4D

Specific Outcomes for Assessable Development	Probable Solutions
	within *Schedule A* to this code. For the purposes of this provision, the property boundary includes any identified ***probable future land acquisition line***. **AND** **PS 2.3** A setback distance of no less than the following is maintained between the side or rear boundary of the development ***site*** and any building or ***structure*** (other than a ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall):- (1) the specific side or rear boundary setback distance nominated in the applicable acceptable solution of a locality code[4] applicable to the development ***site***; or (2) for those instances where (1) does not apply, the greater of:- (a) the specific side or rear boundary setback distance nominated in the applicable acceptable solution of an overlay code applicable[5] to the development ***site***; and (b) the specific side or rear boundary setback distance nominated in the applicable acceptable solution of any other code applicable[5] to the development ***site***. **AND** **PS 2.4** A setback distance of no less than the greater of the following is maintained between the side or rear boundary of the development ***site*** and any ***structure*** having a height of less than 1m above ***natural ground surface***, a fence or a freestanding wall:- (1) the specific side or rear boundary setback distance for the ***structure*** required under the applicable acceptable solution of another code within this ***planning scheme*** which is applicable[5] to the development ***site***; and (2) the setback requirement identified in Table 6.4.4E within *Schedule A* to this code.
Clearance to Council Maintained Services	
SO 3 All buildings and other ***structures*** are located in a manner which:- (1) does not adversely impact on a ***Council***[6] maintained drainage feature on, or adjacent to, the land; and (2) does not preclude reasonable access to a ***Council***[7] maintained drainage feature on, or adjacent to, the land for monitoring, maintenance or replacement purposes.	**PS 3.1** No building, ***structure***, or part thereof (other than those fences specifically exempted under *PS 3.2*), is erected without prior written ***Council*** approval:- (1) within or over any ***Council*** easement; or (2) on or over ***land which is over the zone of influence*** to any ***Council*** maintained stormwater pipe. For purposes of this provision:- (3) only that section of the finished ground surface contained above and between the two outward rising planes which mark the outer extent of the zone of influence to that ***Council*** maintained service is considered to be "land which is over the zone of influence" to that service; and (4) the zone of influence to a service is that part of the site below finished ground level which is contained above and between the planes rising upwards and outwards as a tangent to the outer surface of a ***Council*** maintained service at a 45^0 angle to the horizontal.  **AND** **PS 3.2** No "lightweight fence" is erected without prior written ***Council*** approval :-

Specific Outcomes for Assessable Development	Probable Solutions
	(1) within or over any ***Council*** easement; or (2) on or over "land which is over the zone of influence" to any ***Council*** maintained stormwater pipe; unless the support posts of the "lightweight fence" maintain a minimum horizontal separation distance of no less than 900mm from any ***Council*** maintained stormwater pipe. For purposes of this provision:- (3) a lightweight fence must have a height above finished ground level of no more than 2m and be constructed of:- (a) timber, metal or other similar non-masonry support posts; and (b) rails, slats, palings, planks or other non-masonry infill panels between the support posts; and incorporate a system of fixings which allow the infill panels to be readily removed from, and reaffixed to, the support posts without the need to break, or reset, bonded joints; and (4) a lightweight fence must not include any component used to retain earth on either side of the fence. **Note:** (1) Building work which is over, or adjacent to, a sewer or water main is not regulated by the ***planning scheme*** as it is specifically addressed by section 823 of the *Water Act 2000*. (Under section 823 written consent from the service provider must first be obtained prior to undertaking the work.) A guideline on building work over, or adjacent to, a sewer or water main is available from ***Council.*** (2) ***Council*** has a Planning Scheme Policy, *PSP40 – Clearance to Council Infrastructure* which establishes the process and supporting documentation required in obtaining written ***Council*** approval under the *Water Act,* the *Building Act,* and these provisions. (3) Additional clearances to ***Council*** infrastructure may be required where high rise buildings are proposed.
Stormwater Overland Flow	
SO 4 All buildings and other ***structures*** are positioned in a manner which does not create or accentuate problems associated with stormwater flows and drainage systems on land adjoining the ***site***.	**PS 4** Buildings and other ***structures*** are positioned in a manner which does not:- (1) prevent stormwater overland flow which, prior to the building work being carried out, passed onto the development ***site,*** from entering the land; or (2) divert stormwater overland flow onto adjacent land, (other than a road),in a manner which:- (a) concentrates the flow; or (b) increases the quantity of stormwater discharged from the level which existed prior to the diversion.

Schedule A to the Setbacks Code - Roads with Additional Reserve Requirements

Table 6.4.4C - Roads with Additional Reserve Requirements

ROAD NAME	RELEVANT SECTION OF ROAD				ADDITIONAL RESERVE WIDTH (m)
	FROM - Road	TO - Road	SPECIFIC SECTION		
			SIDE	SECTION	
ALMA Road	Thompson	Marsden	North	Entire length	10
ALMA Road	Marsden	Gunsynd	North	Lot 65 S312858 frontage only	7.5
ALMA Road	Gunsynd	Alma Road Park	North	Lot 65 S312858 & Lot 3 RP122454 frontage only	20
ALMA Road	Alma Road Park	Old Gympie	Both	Entire length excluding Lot 21 SP 152564 & Lot 2 SP 121293	5
BOUNDARY Road	Narangba	Clear View	South	Lot 14 RP76790, Lot1 RP202707, Lot 17 RP76790 & Lot 18 RP175456 frontage only	6
BOUNDARY Road	Clear View	Lot 2 RP100104 eastern boundary	South	Lot 2 RP100104 frontage only	6
BOUNDARY Road	Lot 2 RP 100104	Old Gympie	South	Lot 23, 24 & 25 RP76790 frontage only	12
BOUNDARY Road	Old Gympie	Bruce Highway	South	Entire length	7
BUNYA Road	Eatons Crossing	Maskell	Southern	Lot 2 RP 165572 & Lot 998 RP 862733 frontage only	2
BUNYA Road	Maskell	Lot 1 M331502 western boundary	Northern	Lot2 RP838962 & Lot1 DP142914 frontage only	10
BUNYA Road	Lot1 M331502 western boundary	Heather Anne	Both	Entire length	5
BUNYA Road	Heather Ann Drive	Allen	Both	Entire length excluding Lot 1 RP193611	5
BUNYA Road	Allen	Retreat	Eastern	Entire length	10
BUNYA Road	Retreat	Blue Hills	Both	Entire length	5
BUNYA Road	Blue Hills	Collins	Both	Entire length	6
CAMELIA Avenue	South Pine	Shire Boundary		Lo t2 & 4 RP141507, Lot 390 RP108666, Lot 4 RP141504, Lot2 RP141505 & Lots 40 & 41 RP112887 frontage only	4
DAKABIN LINK Road	Bruce Highway	Old Gympie		Lot 2 RP30530 & Lot 2 SP150724 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	30
DAWSON Parade	Pimelea	South Pine	Western	Lot 21 RP89360 & Lot1 RP151845 frontage only	3
DIANNE Street	Gympie	North Coast Railway	Both	Lots 12, 18, 25, 26, 46, 47, 48 & 49 RP118224 & Lot 1 RP36077 frontage only	25
DOHLES ROCKS Road	Lot 500 RP 868874	School	Southern	Entire length	8

ROAD NAME	RELEVANT SECTION OF ROAD				ADDITIONAL RESERVE WIDTH (m)
	FROM - Road	TO - Road	SPECIFIC SECTION		
			SIDE	SECTION	
	eastern boundary				
DOHLES ROCKS Road	School	Bickle	Northern	Lot7&8 RP200651, Lo t1 & 2 RP200652 & Lot 3 RP30263 frontage only	9.5
DOHLES ROCKS Road	Bickle	Ogg	Northern	Lot 1 RP805838 & Lot 1 SL113276 frontage only	2
DOHLES ROCKS Road	Ogg	Goodrich	Northern	Lot 2 SP181579 frontage only	9
DOHLES ROCKS Road	Ogg	Goodrich	Southern	Lot 1 RP847798 & Lot 2 & 3 RP853374 frontage only	9
DOHLES ROCKS Road	Goodrich	Bruce Highway	Southern	Lot 1 RP148358 frontage only	4
DOHLES ROCKS Road	Bruce Highway	Cairns	Both	Lot 2 RP141209, Lot 1 SP154322 & Lot 1 RP171861 frontage only	5
DOHLES ROCKS Road	Henry	Korman	Northern	Lot1 RP180245, Lot2 RP139690, Lot 1& 2 RP88134 & Lot 3 RP211430 frontage only	10
FRANCIS Road,Lawnton	Tarandi	Sparkes	South	Lots 1, 2, 3, 4, 5 & 6 RP112357 and Lot 2 RP115894 frontage only	4
FRANCIS Road, Lawnton	Tarandi	Sparkes	North	Lot296 SL5187, Lots 27&28 RP106372, Lot 31 RP102953 & Lot 5 RP119010 frontage only	4
FRANCIS Road,Lawnton	Sparkes	Wilsmith	Northern	Lot 21 RP96654(cnr Ellis & Francis) only	5
FRANCIS Road,Lawnton	Wilsmith	Baker	Northern	Lot 44 RP85855 frontage only	4
FRANCIS Road, Lawnton	Baker	Isis	Northern	Entire length	4
HENRY Road	Dohles Rocks	Brays	Western	Refer North South Urban Arterial	50
IRA BUCKBY Road	Ira Buckby Road W	Warra	Western	Entire length	5
IRA BUCKBY Road	Warra	Cashmere Lane	Western	Entire length	5
IRA BUCKBY Road	Warra	Cashmere Lane	Eastern	Lot 2 RP105600 & Lot 2 RP861698 frontage only	20
IRA BUCKBY Road	Cashmere	Sarow	Western	Entire length	10
IRA BUCKBY Road	Cashmere	Sarow	Eastern	Lot 1 RP861698 & Lot 1 RP193813 frontage only	7.5
IRA BUCKBY Road	Sarow	Hayward	Western	Entire length excluding Lot 3 RP178821	5
IRA BUCKBY Road	Sarow	Hayward	Eastern	Entire length excluding Lot 24 RP 225336	5
IRA BUCKBY Road	Hayward	Samsonvale	Western	Lot 100 SP158085, Lo t2 RP101161 & Lot 6 RP855821 frontage only	5
IRA BUCKBY Road	Hayward	Samsonvale	Eastern	Lot 1 RP118170 frontage only	5
KREMZOW Road	Ira Buckby	Lilley	Southern	Entire length	10
KREMZOW Road	Lilley	Jacksonia	Southern	Entire length	13
KREMZOW Road	Jacksonia	Brisbane	Both	Entire length exclude Lots 38 & 39 SP125555	10
KREMZOW Road	Brisbane	Old North	Northern	Entire length	13

ROAD NAME	RELEVANT SECTION OF ROAD				ADDITIONAL RESERVE WIDTH (m)
	FROM - Road	TO - Road	SPECIFIC SECTION		
			SIDE	SECTION	
KREMZOW Road	Brisbane	Old North	Southern	Lot 2 RP83555 and lot 3 RP195937 frontage only	5
KREMZOW Road	Old North	Pinnacle	Both	Entire length excluding Lo t1 SP124605, Lot 86 SP101775, Lot 56 RP224966 & BUP11716	5
LACEYS CREEK Road	Mt Pleasant	Nugent	Northern	Lot 2 RP160359 & Lot 21 RP907843 frontage only	3
LAWNTON POCKET Road	Bruce Highway	Lawnton Pocket		Lot 369 SL538, Lot 328 SL9667 & Lot 17 SP149151 frontage only	44
LAWNTON POCKET Road	Lawnton Pocket	Bells Pocket	Both	Entire length	12
LAWNTON POCKET Road	Bells Pocket Rd	Walker	Southern	Entire length	2
LAWNTON POCKET Road	Bells Pocket Road	Walker	Northern	Entire length	22
LAWNTON POCKET Road	Walker	Lot2 RP198048 eastern boundary	Southern	Entire length	2
LAWNTON POCKET Road	Walker	Lot2 RP198048 eastern boundary	Northern	Entire length	28
LAWNTON POCKET Road	Lot2 RP198048 eastern boundary	Paisley	Northern	Entire length	28
LAWNTON POCKET Road	Paisley	Gympie	Southern	Entire length excluding Lot 31 SP112749	5
LAWNTON POCKET Road	Paisley	Gympie	Northern	Entire length excluding Lot 298 SL11392 (10m)	15
LEITCHS Road	South Pine	Strathwyn	Eastern	Entire length excluding Lot 2 RP863393	3
LEITCHS Road	South Pine	Stathwyn	Western	Entire length	6
LEITCHS Road	Kremzow	Bult	Western	Entire length excluding Lots 1 to 3 SP136695	2.5
LEITCHS Road	Bult	Stanley		Lots 5 & 6 RP79619, Lo 4 RP855173, Lots 6, 7 & 8 RP167652 & Lot 9 RP167640 frontage only	35
LILLEY Road	Warner Road West	Sanderling	Eastern	Lots 2 & 3 RP82893 frontage only	5
LILLEY Road	Sanderling	Lot 506 RP231531	Western	Lot 1 RP165232 frontage only	5
LIVINGSTONE Street	Stanley	Jasmine	Western	Entire length	2.5
MOUNT SAMSON Road	Rossleigh	Hills	Eastern	Lot 1 RP29871, Lot 1 SL6455, Lot1 RP29929& Lot3 RP29900 frontage only	5
MOUNT SAMSON Road	Strong	Bradley	Eastern	Lot 1 RP160740,Lot 2 RP163261& Lot 293 SL8883 frontage only	6
NEPEAN Avenue	Dawson	Patricks	Both	Entire length	2.5
North South Urban Arterial	Bruce Highway	Reiley		Lot 2 SP135179 Road Reserve Requirement in accordance *with Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	100
North South Urban Arterial	Reiley	Wagner		Lots 1 & 2 RP178767 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38*	100

ROAD NAME	RELEVANT SECTION OF ROAD				ADDITIONAL RESERVE WIDTH (m)
	FROM - Road	TO - Road	SPECIFIC SECTION		
			SIDE	SECTION	
				Planning Layouts for Road Upgrade Works	
North South Urban Arterial	Wagner	Greens		Lot 1 SP139464, Lot 2 SP132204 & Lot 1 RP169866 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	100
North South Urban Arterial	Greens	Dohles Rocks		Lot 1 SL9127 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	100
North South Urban Arterial	Dohles Rocks	Elizabeth	Western	Lot 418 S31135 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	50
North South Urban Arterial	Elizabeth	Brays	Both	Lot 553 SL2994, Lot 3 RP906749, Lot 1 RP185717& Lot 1 RP145417 frontage only in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	50
North South Urban Arterial	Brays	Freshwater Ck		Lots 1 & 2 RP199390 & Lot 7 RP810954 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	100
North South Urban Arterial	Freshwater Ck	Barry		Lot 2& 3 RP165586 & Lot 990 S312890 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	100
North South Urban Arterial	Barry	Kinsellas Road East		Lot 947 & 989 S312890 frontage only in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	120
North South Urban Arterial	Kinsellas Road East	Anzac Ave	Both	Lot 1 RP58837, Lot 946 S312890, Lot 507 RP210072, Lot 13 & 14 RP210072, Lot 18 RP891816 & Lot 2 RP891817 frontage only in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	100
OGG Rd	Goodfellows	Brays	Western	Lot 3 SP132210, Lot 5 SP132209 & Lot 6 SP132208 frontage only	5
OLD GYMPIE Rd	Anzac	Viney	Both	Entire length excluding Kallangur State School, including Lot 1 RP66323 Intersection upgrade	5
OLD GYMPIE Rd	Viney	Ann	Eastern	Lot 1 RP95076 Intersection upgrade only	5
OLD GYMPIE Rd	Ann	Brickworks	Both	Entire length excluding Lot 1 RP136193 & Lot 3 to Lot 9 RP136193	5
OLD GYMPIE Rd	Nellies	Whitehorse	Eastern	Entire length from Nellies to Lot 285 RP884363 plus Lot 1 RP100422 frontage	2

ROAD NAME	RELEVANT SECTION OF ROAD				ADDITIONAL RESERVE WIDTH (m)
	FROM - Road	TO - Road	SPECIFIC SECTION		
			SIDE	SECTION	
OLD GYMPIE Rd	Nellies	Whitehorse	Western	Lot 6 & 7 RP82116, Lot 1 RP102062 & Lots 1, 2, 3 & 4 RP95755 frontage only	2
OLD GYMPIE Road	Whitehorse	Boundary	Both	Entire length excluding Lot 2 RP863370	2
OLD NORTH Road	South Pine	Kremzow		Lot 4 & 5 RP94619 & Lot 1 RP97796 Road Reserve Requirement in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	70
OLD NORTH Road	Kremzow	Stanley	Western	Lot 1 & 2 RP810271& Lot 256 RP810272 frontage only in accordance with *Planning Scheme Policy PSP 38 Planning Layouts for Road Upgrade Works*	120
OLD NORTH Road	Stanley	Nanbaree	Western	Lot 2 RP810271 & Lot 2 RP810973 frontage only in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	120
OLD NORTH Road	Nanbaree	Brisbane	Western	Entire length in accordance with *Planning Scheme Policy PSP38 Planning Layouts for Road Upgrade Works*	50
QUEENS Road	Miller	South Pine	Northern	Entire length excluding Lot 5 RP881938 & Lot 4 SP112764	5
SAMSONVALE Road	Railway	Symphony	North	Lot 31 RP128933 to Lot 3 RP111767 frontage only	3
SAMSONVALE Road	Symphony	Buckingham	North	Lot 1 RP105238 (14m for curve widening)	14
SAMSONVALE Road	Buckingham	Sparkes	North	Lot 243 CP900029 & Lot 242 CP909930 (3m for curve widening)	3
SAMSONVALE Road	Sparkes	Lavarack	Southern	Lot 1 RP211435 - intersection upgrade	5
SAMSONVALE Road	Lavarack	Dean	Southern	Lot 4 RP70245 frontage only	7
SAMSONVALE Road	Dean	Youngs Xing	Northern	Lot 1 & 2 RP188164, Lot 2 RP182749 & Lot 2 RP209868 frontage only	3
SAMSONVALE Road	Youngs Xing	Gum	Northern	Lot 10 & 11 RP90276 frontage only	3
SAMSONVALE Road	Gum	Ira Buckby	Southern	Lot 3 RP86900 to Lot 1 RP179559 (ex Lot 1 SP158075) frontage only	6
SOUTH PINE Road	Lily	Queens	Western	Lots 1 & 2 RP111128 & Lots 374 & 375 RP111128 frontage only	3
SOUTH PINE Road	Queens	Buckland	North	Entire length excluding Lot 5 RP881938, Lot 12 RP151942 & Lot 3 SP128054	10
SOUTH PINE Road	Buckland	Camelia	North	Lots 62, 63 & 64 SL11116 frontage only	5
SOUTH PINE Road	Camelia	Pimelea	Southern	Lots 172 & 173 RP125145 frontage only	2.5
SOUTH PINE Road	Henderson	Dawson	Northern	Lot 10 RP171864 & Lots 9 & 11 RP90455 frontage only	5
SOUTH PINE Road	Dawson	Plucks	Southern	Lot 32 & 33 RP89360 frontage only	2.5

ROAD NAME	RELEVANT SECTION OF ROAD				ADDITIONAL RESERVE WIDTH (m)
	FROM - Road	TO - Road	SPECIFIC SECTION		
			SIDE	SECTION	
THOMPSON Road	Rail Underpass	Alma	Eastern	Lot 1 RP814313 frontage only	6
TORRENS Road	Beeville	Narangba	Both	Entire length	5
YOUNGS CROSSING Road	Samsonvale	Devon	Eastern	Lot 2 RP209868 frontage only	2.5
YOUNGS CROSSING Road	Devon	Todds Gully	Eastern	Entire length	2.5
YOUNGS CROSSING Road	Todds Gully	Francis	Western	Lot 30 RP87305 Intersection upgrade	2
YOUNGS CROSSING Road	McIllwraith	Protheroe	Eastern	Lot 61& 62 SL11119 Road Reserve Requirement	8
YOUNGS CROSSING Road	Protheroe	Dayboro	Eastern	Lot 1 RP88755	44

TABLE 6.4.4D - ROAD BOUNDARY SETBACK DISTANCE		
Structure Height (measured above natural ground surface)	**Environment**	**Road Boundary Setback Requirement**
not more than 1m	all areas	• no requirement to provide setback.
more than 1m, but not more than 2m	all areas	• clear of the minimum requirement for driver sight lines identified in the acceptable solutions of the Access and Parking Code and *Planning Scheme Policy PSP28 Civil Infrastructure Design* adjacent to the vehicular access points to the ***site***.
more than 2m	residential area	• the road boundary setback distance applicable to a building or other ***structure*** under acceptable solution *AS 2.1* of this code.
	all areas other than residential areas	• clear of the minimum requirement for driver sight lines identified in the acceptable solutions of the Access and Parking Code and *Planning Scheme Policy PSP28 Civil Infrastructure Design* adjacent to the vehicular access points to the ***site***
Note*: For the purposes of this table:-* (1) *a residential area is land within a Residential A, Residential B, Special Residential, Park Residential, Rural Residential, Future Urban, Home Industry or similar Special Facilities Zone.* (2) *the property boundary includes any identified* ***probable future land acquisition line.***		

TABLE 6.4.4E - SIDE AND REAR BOUNDARY SETBACK DISTANCE		
Structure Height (measured above natural ground surface)	**Environment**	**Side or Rear Boundary Setback Requirement**
not more than 1m	all areas	• no requirement to provide setback.
more than 1m, but not more than 2m	all areas	• if vehicular access is provided between adjacent parcels of land - clear of the minimum requirement for driver sight lines identified in the acceptable solutions of the Access and Parking Code; or • circumstances other than above - no requirement to provide a setback.
more than 2m	residential area	• the boundary setback distance applicable to a building or other ***structure*** under *AS 2.3* of this code.
	all areas other than residential areas	• if vehicular access is provided between adjacent parcels of land – clear of the minimum requirement for driver sight lines identified in the acceptable solutions of the Access and Parking Code; or • circumstances other than above – no requirement to provide a setback.
Note: *For the purposes of this table:-* (1) *a residential area is:-* (a) *land within a Residential A, Residential B, Special Residential, Park Residential, Rural Residential, Future Urban, Home Industry or similar Special Facilities Zone; and* (b) *any common boundary between a development site and land within any of those* ***zones*** *identified in (a).* (2) *the property boundary includes any identified* ***probable future land acquisition line.***		

[1] The designation for the road appearing in the Priority Infrastructure Plan and ***Council's*** "Integrated Local Traffic Plan".

[2] Required by a code within this ***planning scheme*** which is applicable to the development.

[3] This additional reserve width marks the extent of the ***probable future land acquisition line*** for those properties having frontage to those sections of road identified in Table 6.4.4C.

[4] The locality code identified in the assessment table.

[5] Those codes identified in the assessment table and any overlay code relevant to the land.

[6] Impacts of works on infrastructure owned and maintained by entities other than ***Council*** are generally regulated by legislation specific to the provision of that infrastructure.

This page left blank intentionally

Division 5 Site Earthworks Code

5.1 Overall Outcomes

(1) The overall outcomes are the purpose of this code.

(2) The overall outcomes sought by the Site Earthworks Code are the following:-

(a) The construction of all ***site*** earthworks is undertaken in a manner which does not have an unreasonable adverse impact on:-

(i) the occupants of land in the general vicinity of the construction ***site***;

(ii) the environment beyond the boundaries of the immediate construction ***site***;

(iii) ***Council*** maintained infrastructure on and adjacent to the land;

(b) The siting and physical form of all ***site*** earthworks:-

(i) are appropriate to the desired character and environmental values of the area;

(ii) do not result in an adverse effect on adjacent land or infrastructure;

(iii) permit ready access to all parts of the development ***site*** for maintenance purposes;

(iv) do not result in an unreasonable impact on the levels of natural light, natural ventilation and privacy for users of adjacent land; and

(c) The resulting landforms are structurally sound and require minimal maintenance.

5.2 Compliance with the Site Earthworks Code

(1) Self assessable development that complies with the acceptable solutions of the Development Requirements *Table 6.4.5A – Assessment Criteria for Self Assessable Development* contained in Section 5.4 complies with the Site Earthworks Code.

(2) Assessable development that is consistent with the specific outcomes of the Development Requirements *Table 6.4.5B – Assessment Criteria for Assessable Development* contained in Section 5.4 complies with the Site Earthworks Code.

5.3 Development Requirements

The development requirements of this code relate to the following elements:-

(1) MANAGING IMPACTS OF ALL SITE EARTHWORKS DURING CONSTRUCTION

(a) Siltation and Erosion Control Measures

(b) Construction Times

(c) Dust Suppression Measures

(d) Stormwater Overland Flow

(2) EARTHWORKS BATTERS - CONSTRUCTION CRITERIA

(a) Boundary Setbacks

(b) Setbacks to Council Maintained Infrastructure

(c) Stormwater Overland Flow and Water Impoundment Discharges

(d) Visual Impact

(e) Site Preparation for Areas to be Covered by Compacted Fill

(f) Fill Materials and Compaction Requirements

(g) Batter Stability

5.4 Development Requirements Tables

Table 6.4.5A - Assessment Criteria for Self Assessable Development

Acceptable Solutions for Self Assessable Development
MANAGING IMPACTS OF ALL SITE EARTH WORKS DURING CONSTRUCTION
Siltation and Erosion Control Measures
AS 1.1 Clearing of vegetation is limited to:- (1) those areas of the ***site*** which are to be cut or filled; and (2) those areas of the development ***site*** over which vehicular access to the ***site*** of the works is to be obtained; and (3) those adjacent areas required specifically to accommodate the necessary manoeuvres of on-site construction vehicles. For purposes of this provision, clearing of vegetation only relates to that clearing which disturbs the topsoil below the affected vegetation.

Acceptable Solutions for Self Assessable Development
AND
AS 1.2 Diversion drains having an adequate capacity to contain the stormwater overland flow from a Q10[1] event and lined with velocity dissipation mechanisms are constructed on the uphill side of the construction ***site***.
AND
AS 1.3 Silt barriers having the capacity to contain all particulate and vegetable matter from the stormwater runoff of a Q10[1] event over the development ***site*** are:- (1) fixed in place immediately adjacent to the cleared area of the ***site***; (2) provided at the discharge point of the diversion drains provided under *AS 1.2*; and (3) maintained in effective working order at all times.
AND
AS 1.4 All construction materials stored on the development ***site*** are located on the high side of the silt barrier provided under *AS 1.3*.
AND
AS 1.5 The erosion and sediment control measures provided under *AS 1.2* and *AS 1.3* are in place prior to the commencement of any vegetation clearing or bulk earthworks on the development ***site***.
Construction Times
AS 2 No construction works are carried out on the ***site*** outside of the following hours without prior ***Council*** approval:- (1) Monday to Saturday (other than public holidays) - between 6.30am and 6.30pm on the same day; and (2) Sunday and Public Holidays – no work is carried out.
Dust Suppression Measures
AS 3.1 Clearing of vegetation is limited to those areas of the development ***site*** identified in *AS 1.1*.
AND
AS 3.2 All exposed earth on the construction ***site*** is maintained in a moist condition at all times[2].
Stormwater Overland Flow
AS 4 Earthworks and stormwater diversion drains constructed on the development ***site*** are so shaped that:- (1) stormwater overland flow which, prior to commencement of these earthworks passed onto that ***site*** from adjacent land, is not prevented from entering the ***site*** by either diversion or damming of that overland flow; and (2) stormwater overland flow from the development ***site*** is not discharged or diverted onto land, (other than a road), adjacent to the ***site*** in a manner which:- (a) concentrates the flow at any point along the property boundary; or (b) increases the quantity of stormwater discharged at any point along the property boundary; beyond that which existed prior to commencement of these earthworks.
EARTHWORKS BATTERS-[3] - CONSTRUCTION CRITERIA
Boundary Setbacks
AS 5.1 All cut and fill works are fully contained within the development ***site***.
AND
AS 5.2 A setback of the greater of the following is maintained between the top of a cut batter or the toe of a fill batter on the development ***site*** and the road boundary to the land:- (1) the specific road boundary setback distance for cut and fill batters required under an applicable acceptable solution of another code within this ***planning scheme*** which is applicable[4] to the development ***site***; and (2) the setback requirement identified in Tables 6.4.5C and 6.4.5D within *Schedule A* to this code as applicable. For purposes of this provision, the property boundary includes any identified ***probable future land acquisition line.***
AND
AS 5.3 A setback of the greater of the following is maintained between the top of a cut batter or the toe of a fill batter on the development ***site*** and the side or rear boundary to the land:- (1) the specific side or rear boundary setback distance for cut and fill batters required under an applicable acceptable solution of another code within this ***planning scheme*** which is applicable[4] to the development ***site***; and (2) the setback requirement identified in Tables 6.4.5E and 6.4.5F within *Schedule A* to this code as applicable. For purposes of this provision, the property boundary includes any identified ***probable future land acquisition line.***
Setbacks to Council Maintained Infrastructure
AS 6.1 No earthworks are undertaken within any easement[5] issued in favour of ***Council*** which exists on the land.
AND
AS 6.2 No earthworks which would result in any of the following are carried out on the development ***site***:- (1) a reduction in cover over a ***Council*** maintained[6] service to less than 600mm; or

Acceptable Solutions for Self Assessable Development
(2) an increase in finished surface grade over, or within 1.5m on each side of, a ***Council*** maintained[6] service beyond that which existed prior to the earthworks being undertaken; or (3) an increase in the height of the finished ground over, or adjacent to, any ***Council*** maintained[6] manhole, pit, sewer jump-up or inspection opening.
Stormwater Overland Flow and Water Impoundment Discharges
AS 7 Earthworks undertaken on the development ***site*** are so shaped as to not:- (1) prevent stormwater overland flow which, prior to commencement of the earthworks, passed onto the development ***site***, from entering the land; or (2) divert stormwater overland flow onto adjacent land, (other than a road), in a manner which:- (a) concentrates the flow; or (b) increases the quantity of stormwater discharged from the level which existed prior to the diversion.
AS 8 Stormwater discharge from dams and other water impoundments on the development ***site*** is undertaken in a manner which does not:- (1) concentrate the flow onto adjacent land; or (2) increase the quantity of stormwater discharged over the affected section of the adjacent land from the level which existed prior to the diversion.
Visual Impact
AS 9 Other than for those earthworks which are fully encapsulated within a building, no part of the finished ground line over the development ***site*** is more than the lesser of the following vertical distances above, or below, the line of the ***natural ground surface***:- (1) 2m; and (2) the maximum height prescribed under an applicable acceptable solution of any other code within this ***planning scheme*** which is applicable[4] to the development ***site***.
Site Preparation for Areas to be Covered by Compacted Fill
AS 10 Those areas of the development ***site*** on which fill material is to be placed and compacted are prepared to the standard prescribed in *Australian Standard AS 3798 (1996) Guidelines on Earthworks for Commercial and Residential Developments*.
Fill Materials and Compaction Requirements
AS 11 All fill material which is intended to be loadbearing, or the finished surface level of which is required to remain approximately constant, is selected, placed and compacted to the standard prescribed in *Australian Standard AS 3798 (1996) Guidelines on Earthworks for Commercial and Residential Developments*.
AS 12 All fill material used on the development ***site*** is free of:- (1) actual acid sulfate soils[7] and potential acid sulfate soils; and (2) organic or putrescible matter; and (3) material imported from land which is, or has been, listed on the Environmental Management Register under the *Environmental Protection Act 1994*.
Batter Stability
AS 13.1 Batter slopes for dams and on-site water impoundments, (other than swimming pools), are no steeper than the following:- (1) outer slope of dam wall – 1 vertical to 2 horizontal[8]; and (2) all internal slopes – 1 vertical to 4 horizontal **AND** **AS 13.2** Cut and fill batters, (other than batters to dams and water impoundments), have a finished slope no steeper than the following:- (1) any cut batter is no steeper than:- (a) for sand – 2 horizontal to 1 vertical; and (b) for silt – 4 horizontal to 1 vertical; and (c) for firm clay – 1 horizontal to 1 vertical; and (d) for soft clay – 3 horizontal to 2 vertical; (2) any fill batter, (other than a compacted fill batter), is no steeper than 4 horizontal to 1 vertical; and (3) any compacted fill batter is no stepper than:- (a) for sand – 5 horizontal to 2 vertical; and (b) for silt – 4 horizontal to 1 vertical; and (c) for firm clay – 2 horizontal to 1 vertical.

Acceptable Solutions for Self Assessable Development
AS 14.1 A diversion drain having the following characteristics is constructed on the uphill side of each cut batter, (other than a batter to a water impoundment):- (1) having sufficient capacity to fully contain the flows from a Q10[1] event over the entire catchment of the drain; and (2) located within 1m of the top of the cut batter; and (3) lined with velocity dissipation, flow dispersion and erosion protection mechanisms able to withstand the dynamic forces of a Q10[1] event over the entire catchment of the drain. **AND** **AS 14.2** Land above each fill batter is so shaped as to:- (1) incorporate a diversion drain having the characteristics prescribed in *AS 14.1*; or (2) shed surface stormwater flows for the majority of the catchment away from the fill batter. **AND** **AS 14.3** Dams and other on-site water impoundments have an overflow facility which:- (1) is of sufficient capacity to fully contain the flows from a Q10[1] event over the entire catchment of the water impoundment; (2) is so positioned that the flows from a Q10[1] event over the entire catchment of the water impoundment do not surcharge over any dam wall; and (3) is lined with velocity dissipation, flow dispersion and erosion protection mechanisms able to withstand the dynamic forces of a Q10[1] event over the entire catchment of the water impoundment.

Table 6.4.5B - Assessment Criteria for Assessable Development

Specific Outcomes for Assessable Development	Probable Solutions
MANAGING IMPACTS OF ALL SITE EARTH WORKS DURING CONSTRUCTION	
Siltation and Erosion Control Measures	
SO 1 Adequate stormwater runoff, erosion and sediment control measures to prevent any unreasonable adverse impact on:- (1) adjacent land; and (2) vegetation to be retained on the development ***site***; from on-site earthworks are maintained in place and in effective working order.	**PS 1.1** Clearing of vegetation is limited to:- (1) those areas of the ***site*** which are to be cut or filled; and (2) those areas of the development ***site*** over which vehicular access to the ***site*** of the works is to be obtained; and (3) those adjacent areas required specifically to accommodate the necessary manoeuvres of on-site construction vehicles. For purposes of this provision, clearing of vegetation only relates to that clearing which disturbs the topsoil below the affected vegetation. **AND** **PS 1.2** Diversion drains having an adequate capacity to contain the stormwater overland flow from a Q10[1] event and lined with velocity dissipation mechanisms are constructed on the uphill side of the construction ***site***. **AND** **PS 1.3** Silt barriers having the capacity to contain all particulate and vegetable matter from the stormwater runoff of a Q10[1] event over the development ***site*** are:- (1) fixed in place immediately adjacent to the cleared area of the ***site***; (2) provided at the discharge point of the diversion drains provided under *PS 1.2*; and (3) maintained in effective working order at all times. **AND** **PS 1.4** All construction materials stored on the development ***site*** are located on the high side of the silt barrier provided under *PS 1.3*. **AND** **PS 1.5** The erosion and sediment control measures provided under *PS 1.2* and *PS 1.3* are in place prior to the commencement of any vegetation clearing or bulk earthworks on the development ***site***.

Specific Outcomes for Assessable Development	Probable Solutions
Construction Times	
SO 2 Operating times for on-site construction activities are regulated in such a manner as to preclude:- (1) any significant adverse effect on the desired or established character of the area; and (2) excessive heavy vehicle traffic to, or from, the development ***site*** during twilight hours or over an extended period of time on any day.	**PS 2** No construction works are carried out on the ***site*** outside of the following hours without prior ***Council*** approval:- (1) Monday to Saturday (other than public holidays) - between 6.30am and 6.30pm on the same day; and (2) Sunday and Public Holidays – no work is carried out.
Dust Suppression Measures	
SO 3 Dust suppression measures which ensure that unreasonable quantities of airborne particulate matter resulting from construction activities on the development ***site*** are not carried onto adjacent land, are put in place.	**PS 3.1** Clearing of vegetation is limited to those areas of the development ***site*** identified in *PS 1.1*. **AND** **PS 3.2** All exposed earth on the construction ***site*** is maintained in a moist condition at all times[2].
Stormwater Overland Flow	
SO 4 Earthworks are undertaken on the development ***site*** in a manner which does not create or accentuate problems associated with stormwater flows and drainage systems on adjacent land.	**PS 4** Earthworks and stormwater diversion drains constructed on the development ***site*** are so shaped that:- (1) Stormwater overland flow which, prior to commencement of these earthworks, passed onto that ***site*** from adjacent land, is not prevented from entering the ***site*** by either diversion of damming of that overland flow; and (2) Stormwater overland flow from the development ***site*** is not discharged or diverted onto land, (other than a road), adjacent to the ***site*** in a manner which:- (a) concentrates the flow at any point along the property boundary; or (b) increases the quantity of stormwater discharged at any point along the property boundary; beyond that which existed prior to commencement of these earthworks.
EARTHWORKS BATTERS[3] - CONSTRUCTION CRITERIA	
Boundary Setbacks	
SO 5 Fill and cut batters are located on the development ***site*** in a manner which:- (1) does not adversely impact on the existing or desired streetscape for the area; and (2) is in keeping with the desired or established character of the area; and (3) permits practical access to earthworks batters and adjacent ***structures*** for maintenance purposes; and (4) does not result in adverse effects on the safe and efficient operation of the vehicle carriageways and pedestrian thoroughfares within the frontage road.	**PS 5.1** All cut and fill works are fully contained within the development ***site***. **AND** **PS 5.2** A setback of the greater of the following is maintained between the top of a cut batter or the toe of a fill batter on the development ***site*** and the road boundary to the land:- (1) the specific road boundary setback distance for cut and fill batters required under another code within this ***planning scheme*** which is applicable[4] to the development ***site***; and (2) the setback requirement identified in Tables 6.4.5C and 6.4.5D within *Schedule A* to this code as applicable. For purposes of this provision, the property boundary includes any identified ***probable future land acquisition line.*** **AND** For purposes of this provision, the property boundary includes any identified ***probable future land acquisition line***. **PS 5.3** A setback of the greater of the following is maintained between the top of a cut batter or the toe of a fill batter on the development ***site*** and the side or rear boundary to the land:-

Specific Outcomes for Assessable Development	Probable Solutions
	(1) the specific side or rear boundary setback distance for cut and fill batters required under another code within this ***planning scheme*** which is applicable[4] to the development ***site***; and (2) the setback requirement identified in Tables 6.4.5E and 6.4.5F within *Schedule A* to this code as applicable. For purposes of this provision, the property boundary includes any identified ***probable future land acquisition line.***
Setbacks to Council Maintained Infrastructure	
SO 6 Earthworks on the development ***site*** are undertaken in a manner which:- (1) does not adversely impact on a ***Council*** maintained[6] service or drainage feature on, or adjacent to, the land; and (2) does not preclude reasonable access to a ***Council*** maintained[6] service or drainage feature on, or adjacent to, the land for monitoring, maintenance or replacement purposes.	**PS 6.1** No earthworks are undertaken within any easement[5] issued in favour of ***Council*** which exists on the land. **AND** **PS 6.2** No earthworks which would result in any of the following are carried out on the development ***site***:- (1) a reduction in cover over the ***Council*** maintained[6] service to less than 600mm; or (2) an increase in finished surface grade over, or within 1.5m on each side of, the ***Council*** maintained[6] service beyond that which existed prior to the earthworks being undertaken; or (3) an increase in the height of the finished ground over, or adjacent to, any ***Council*** maintained[6] manhole, pit, sewer jump-up or inspection opening.
Stormwater Overland Flow and Water Impoundment Discharges	
SO 7 Earthworks on the development ***site*** are undertaken in a manner which does not create or accentuate problems associated with stormwater flows and drainage systems on land adjoining the ***site***.	**PS 7** Earthworks undertaken on the development ***site*** are so shaped as to not:- (1) prevent stormwater overland flow which, prior to commencement of the earthworks, passed onto the development ***site*** from entering the land; or (2) divert stormwater overland flow onto adjacent land, (other than a road),in a manner which:- (a) concentrates the flow; or (b) increases the quantity of stormwater discharged from the level which existed prior to the diversion.
SO 8 Stormwater discharge from dams and other water impoundments on the development ***site*** is undertaken in a manner which does not cause nuisance or annoyance to users of adjacent land.	**PS 8** Stormwater discharge from dams and other water impoundments on the development ***site*** is undertaken in a manner which does not:- (1) concentrate the flow onto adjacent land; or (2) increase the quantity of stormwater discharged over the effected section of the adjacent land from the level which existed prior to the diversion.
Visual Impact	
SO 9 Cut and fill batters on the development ***site*** are of an extent which:- (1) does not adversely impact on the existing or desired streetscape for the area; (2) is in keeping with the desired or established character of the area; and (3) does not result in a significant loss of amenity to users of adjacent land or land in the general vicinity of the ***site***.	**PS 9** Other than for those earthworks which are fully encapsulated within a building, no part of the finished ground line over the development ***site*** is more than the lesser of the following vertical distances above, or below, the line of the ***natural ground surface***:- (1) 2m; and (2) the maximum height prescribed under any other code within this ***planning scheme*** which is applicable[4] to the development ***site***.
Site Preparation for Areas to be Covered by Compacted Fill	
SO 10 Those areas of the development ***site*** on which loadbearing fill is to be placed are prepared to the standard required to ensure that adequate long term structural support is provided for the loadbearing fill and any superimposed load intended to be placed on that loadbearing fill.	**PS 10** Those areas of the development ***site*** on which fill material is to be placed and compacted are prepared to the standard prescribed in *Australian Standard AS 3798 (1996) Guidelines on Earthworks for Commercial and Residential Developments*.

Specific Outcomes for Assessable Development	Probable Solutions
Fill Materials and Compaction Requirements	
SO 11 All fill material is selected, laid and finished to the standard appropriate for the intended short and long term purpose of the fill.	**PS 11** All fill material which is intended to be loadbearing, or the finished surface level of which is required to remain approximately constant, is selected, placed and compacted to the standard prescribed in *Australian Standard AS 3798 (1996) Guidelines on Earthworks for Commercial and Residential Developments*.
SO 12 Fill material used on the development ***site*** is either selected or contained in a manner which precludes contamination of soils and waters either on, or beyond, the development ***site***.	**PS 12** All fill material used on the development ***site*** is free of:- (1) actual acid sulfate soils[7] and potential acid sulfate soils; and (2) organic or putrescible matter; and (3) material imported from land which is, or has been, listed on the "Environmental Management Register" under the *Environmental Protection Act 1994*.
Batter Stability	
SO 13 Each cut batter and each fill batter on the development ***site*** has a finished surface slope which:- (1) permits reasonable access to, and over, the batter for maintenance purposes; and (2) is self-supporting except under the most adverse conditions.	**PS 13.1** Batter slopes for dams and on-site water impoundments, (other than swimming pools), are no steeper than the following:- (1) outer slope of dam wall – 1 vertical to 2 horizontal[8]; and (2) all internal slopes – 1 vertical to 4 horizontal **AND** **PS 13.2** Cut and fill batters, (other than batters to dams and water impoundments), have a finished slope no steeper than the following:- (1) any cut batter is no steeper than:- (a) for sand – 2 horizontal to 1 vertical; and (b) for silt – 4 horizontal to 1 vertical; and (c) for firm clay – 1 horizontal to 1 vertical; and (d) for soft clay – 3 horizontal to 2 vertical; (2) any fill batter, (other than a compacted fill batter), is no steeper than 4 horizontal to 1 vertical; and (3) any compacted fill batter is no stepper than:- (a) for sand – 5 horizontal to 2 vertical; and (b) for silt – 4 horizontal to 1 vertical; and (c) for firm clay – 2 horizontal to 1 vertical.
SO 14 Earthworks associated with the construction of cut batters and fill batters incorporate adequate measures to minimise erosion potential from stormwater overland flows over the batter.	**PS 14.1** A diversion drain having the following characteristics is constructed on the uphill side of each cut batter, (other than a batter to a water impoundment):- (1) having sufficient capacity to fully contain the flows from a Q10^{1} event over the entire catchment of the drain; and (2) located within 1m of the top of the cut batter; and (3) lined with velocity dissipation, flow dispersion and erosion protection mechanisms able to withstand the dynamic forces of a Q10^{1} event over the entire catchment of the drain. **AND** **PS 14.2** Land above each fill batter is so shaped as to:- (1) incorporate a diversion drain having the characteristics prescribed in *PS 14.1*; or (2) shed surface stormwater flows for the majority of the catchment away from the fill batter. **AND** **PS 14.3** Dams and other on-site water impoundments have an overflow facility which:- (1) is of sufficient capacity to fully contain the flows from a Q10^{1} event over the entire catchment of the water impoundment;

Specific Outcomes for Assessable Development	Probable Solutions
	(2) is so positioned that the flows from a Q10[1] event over the entire catchment of the water impoundment do not surcharge over any dam wall; and (3) is lined with velocity dissipation, flow dispersion and erosion protection mechanisms able to withstand the dynamic forces of a Q10[1] event over the entire catchment of the water impoundment.

Schedule A to the Site Earthworks Code - Setback Distance to Earth Fill and Earth Cut Batters

TABLE 6.4.5C - ROAD BOUNDARY SETBACK DISTANCE TO EARTH FILL BATTERS		
Batter Height	**Finished Surface Grade**	**Road Boundary Setback Requirement**
not more than 1m	any grade	• no requirement to provide a setback
more than 1m	no steeper than 1 vertical to 4 horizontal	• clear of the minimum requirement for driver sight lines identified in the acceptable solutions of the Access and Parking Code and the *Planning Scheme Policy PSP28 Civil Infrastructure Design* adjacent to the vehicular access points to the ***site***.
	steeper than 1 vertical to 4 horizontal	• clear of the minimum requirement for driver sight lines identified in the acceptable solutions of the Access and Parking Code and the *Planning Scheme Policy PSP28 Civil Infrastructure Design* adjacent to the vehicular access points to the ***site***; and • no less than 1m.
Notes: *For the purpose of this table:-* (1) *the boundary setback is measured from the property boundary to the toe of the fill batter;* (2) *the property boundary includes any identified "**probable future land acquisition line**"; and* (3) *the batter height is the height of the top of the fill batter measured above the **natural ground surface** of the adjacent road boundary to the development **site**.*		

TABLE 6.4.5D – ROAD BOUNDARY SETBACK DISTANCE TO EARTH CUT BATTERS		
Batter Height	**Finished Surface Grade**	**Road Boundary Setback Requirement**
not more than 1m	any grade	• no requirement to provide a setback
more than 1m	no steeper than 1 vertical to 4 horizontal	• no requirement to provide a setback
	steeper than 1 vertical to 4 horizontal	• no less than 1m.
Notes: *For the purpose of this table:-* (1) *the boundary setback is measured from the property boundary to the top of the cut batter;* (2) *the property boundary includes any identified "**probable future land acquisition line**"; and* (3) *the batter height is the height of the toe of the cut batter measured below the **natural ground surface** of the adjacent road boundary to the development **site**.*		

TABLE 6.4.5E - SIDE AND REAR BOUNDARY SETBACK DISTANCE TO EARTH FILL BATTERS		
Batter Height	**Finished Surface Grade**	**Side or Rear Boundary Setback Requirement**
not more than 1m	any grade	• no requirement to provide a setback
more than 1m	no steeper than 1 vertical to 4 horizontal	• no requirement to provide a setback
	steeper than 1 vertical to 4 horizontal	• clear of the minimum requirement for driver sight lines identified in the acceptable solutions of the Access and Parking Code and the *Planning Scheme Policy PSP28 Civil Infrastructure Design* adjacent to any vehicular access between adjacent parcels of land; and • no less than 1m.
Notes: *For the purpose of this table:-* (1) *the boundary setback is measured from the property boundary to the toe of the fill batter; and* (2) *the batter height is the height of the top of the fill batter measured above the **natural ground surface** of the adjacent side or rear boundary to the development **site**.*		

TABLE 6.4.5F - SIDE AND REAR BOUNDARY SETBACK DISTANCE TO EARTH CUT BATTERS		
Batter Height	**Finished Surface Grade**	**Side or Rear Boundary Setback Requirement**
not more than 1m	any grade	• no requirement to provide a setback
more than 1m	no steeper than 1 vertical to 4 horizontal	• no requirement to provide a setback
	steeper than 1 vertical to 4 horizontal	• no less than 1m
Notes: *For the purpose of this table:-* (1) *the boundary setback is measured from the property boundary to the top of the cut batter; and* (2) *the batter height is the height of the toe of the cut batter measured below the* ***natural ground surface*** *of the adjacent side or rear boundary to the development* ***site****.*		

[1] A "Q10 event" is the 10 year average recurrence interval storm.

[2] Additional dust suppression measures may include staged construction activities, installation of wind barriers, mulching or covering of each stage of the works as that stage is completed.

[3] The term *earthworks batters* in this context does not include those earthworks carried out immediately prior to the construction of a retaining ***structure*** which is designed to provide structural support for the remaining earth bank and any backfill.

[4] Those codes identified in the assessment table and any overlay code relevant to the land.

[5] For an easement issued in favour of an entity other than ***Council***, the consent of that entity should be obtained before undertaking any works within that easement.

[6] Impacts of works on infrastructure owned and maintained by entities other than ***Council*** are generally regulated by legislation specific to the provision of that infrastructure.

[7] The terms "actual acid sulfate soils" and "potential acid sulfate soils" have the meaning given in *State Planning Policy 2/02 Planning and Managing Development Involving Acid Sulfate Soils*.

[8] Flatter finished surface slopes may be required for structural reasons.

Division 6 Infrastructure Works Code

6.1 Overall Outcomes

(1) The overall outcomes are the purpose of this code.

(2) The overall outcomes sought by the infrastructure works code are to:-

(a) Ensure that ***sites*** are managed during construction to minimise adverse impacts to the environment and on the health and amenity of residents and premises;

(b) Ensure that ***sites*** are managed during construction to minimise adverse traffic impacts to existing roads;

(c) Have adequate road access that is designed and constructed to provide an optimum combination of safety, amenity, convenience, economy and environment for residents, road and street users, and the community generally;

(d) Ameliorate the impact of development on the existing and planned road system;

(e) Have stormwater management systems that are designed and constructed to provide an optimum combination of safety, amenity, convenience, economy and environment for residents and the community generally;

(f) Have a catchment approach to the implementation of stormwater management systems so that water quality throughout the catchment is maintained and the stormwater is of a quality that protects downstream receiving waters;

(g) Provide for the convenience and safety of pedestrians and vehicular traffic during frequent or nuisance stormwater flows;

(h) Ameliorate the impact of development on the existing and planned stormwater management systems;

(i) Minimise pollutant inflows to the receiving waters and control scour and depositional effects;

(j) Control and temporarily detain within each catchment as much incident rainfall and runoff as possible to reduce the impact of development;

(k) Adequately protect people, the natural environment and the built environment from stormwater runoff flows at an acceptable level of risk;

(l) Provide safe, convenient and legible networks for walking and cycling;

(m) Complement existing and planned public transport systems;

(n) Adequately service with sewerage, water supply, electricity, street lighting and communications services in a timely, cost effective, coordinated and efficient manner that supports sustainable development practices, and is in accordance with the desired character of the ***locality***;

(o) Ensure all sewerage, water supply, electricity, street lighting and communications services that require relocation and/or alterations as a result of urban residential development are carried out in a timely, cost effective, coordinated and efficient manner; and

(p) Ameliorate the impact of development on the existing and planned sewerage, water supply, electricity, street lighting and communications services.

6.2 Compliance with the Infrastructure Works Code

Assessable development that is consistent with the specific outcomes of the Development Requirements *Table 6.4.6 - Assessment Criteria for Assessable Development* contained in Section 6.4 complies with the Infrastructure Works Code.

6.3 Development Requirements

The following are the design elements relevant to infrastructure works:-

(1) Managing Impacts During Construction

(2) Earthworks

(3) Road Networks (excludes State-controlled Roads)

(4) Stormwater Management

(5) Pedestrian & Cyclist Facilities

(6) Public Transport

(7) Utilities

(8) Water Supply

(9) Sewerage

(10) Electricity
(11) Street Lighting
(12) Telecommunications
(13) Alterations and Relocations
(14) As Constructed Information

6.4 Development Requirements Table

Table 6.4.6 – Assessment Criteria for Assessable Development

Specific Outcomes for Assessable Development	Probable Solutions
Managing Impacts During Construction	
SO 1 All development ***sites*** minimise any adverse impact to the natural environment caused by erosion, siltation, incineration of cleared vegetation and rubbish.	**PS 1** The development works incorporate temporary stormwater runoff, erosion and sediment controls and trash traps designed in accordance with Council's *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 2, Section 4.2.0 and 4.11.4, and Subdivisions Section Technical Note No. 6. The measures are adjusted on-site to maximise their effectiveness. Stormwater runoff, erosion and sediment controls are constructed prior to commencement of any clearing works wherever possible. All environmentally significant areas to be retained with the development are clearly delineated and fenced prior to development works commencing.
SO 2 All development works are carried out at times which minimise noise impacts to residents.	**PS 2** All development works are carried out within the following times, unless otherwise approved in writing by ***Council's*** engineer: (1) Monday to Friday (other than public holidays) between 7am and 6pm on the same day; and (2) Saturday (other than public holidays) between 7am and 12 noon on the same day. No work is carried out on Sundays and public holidays. **Note:** Variations to the above working hours may be approved if Council's engineer considers that the work is unlikely to cause significant inconvenience or disruption to the public or the work is unlikely to cause annoyance or inconvenience to occupants of adjacent properties.
SO 3 All development works are managed to minimise dust and siltation nuisance to residents.	**PS 3** During construction, dust suppression measures (such as watering of the ***site***) are implemented to protect nearby premises from dust pollution.
SO 4 All development works avoid the redirection of stormwater runoff where potential impacts to other premises may occur.	**PS 4** Temporary construction works do not pond or concentrate stormwater runoff in adjoining properties. Temporary construction works do not create nuisance or annoyance to adjoining premises as a result of altering the stormwater runoff pattern exiting the ***site***.
SO 5 All clearing works are carefully undertaken to ensure the clearing is limited to the area of the approved infrastructure works, buildings areas and other areas approved in the development permit.	**PS 5** Areas of significant vegetation, proposed park and open space areas and other areas of vegetation or individual trees designated to be retained with the development are temporarily fenced and flagged.
SO 6 All cleared vegetation is disposed of in a manner which minimises, as far as practicable, nuisance and annoyance to existing premises.	**PS 6** Where cleared vegetation is chipped or pit burned on ***site,*** the location of these works is not less than 100m from any dwelling or commercial premises. All vegetation with a diameter below 400mm is chipped and stored on ***site*** in an approved location generally on park or public land. Vegetation with a diameter above 400mm is pit burned on ***site*** if a suitable location is available. The pit burn is generally carried out as one continuous operation. Chipping and/or pit burning is only undertaken when weather conditions are favourable. Burn pit locations are approved in writing by ***Council's*** engineer and shown on the as constructed drawings. Cleared vegetation is not disposed of by above ground burning.

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td>SO 7 All noxious weeds and other materials which are detrimental to the intended use of the land are removed and disposed of in a manner which minimises environmental impacts.</td><td>PS 7 All groundsel, noxious weeds, stumps, fallen trees, rubbish, car bodies, scrap metal and the like are removed and disposed of in a manner which minimises environmental impact.
Stumps, fallen trees, undergrowth, buildings, structures, foundations and the like in existing and proposed park and open space areas are removed where directed by Council's representative.</td></tr>
<tr><td colspan="2">Earthworks</td></tr>
<tr><td>SO 8 Filling is not placed below the 100 year ARI floodline for rivers and 50 year ARI floodline for creeks and other watercourses unless specifically approved in writing by Council's engineer.</td><td>PS 8 Filling is not placed below the 100 year ARI floodline for rivers and 50 year ARI floodline for creeks and other watercourses unless specifically approved in writing by Council's engineer.</td></tr>
<tr><td colspan="2">Road Networks (excludes State-controlled roads)</td></tr>
<tr><td>SO 9 The existing road network is upgraded where necessary to cater for the traffic impact from the development for a period not less than 10 years hence.</td><td>PS 9 A traffic report investigating the impact of the proposed development on the existing road system (provided to Council for approval) examines the traffic impacts over the subsequent 10 year period. All recommended works (road and intersection upgrading) in the approved report are designed (based on traffic volumes and movements 10 years hence) and constructed by the developer.
Detailed design is in accordance with Council's Planning Scheme Policy PSP28 Civil Infrastructure Design, Part 1.</td></tr>
<tr><td rowspan="3">SO 10 All Council controlled frontage roads are constructed to Council's Planning Scheme Policy PSP28 Civil Infrastructure Design standards.</td><td>PS 10 All Council controlled frontage roads are constructed to Council's Planning Scheme Policy PSP28 Civil Infrastructure Design standards as follows:-
<table>
<tr><th>Situation</th><th>Road Type</th><th>Minimum Construction (1)</th></tr>
<tr><td rowspan="2">Frontage road unconstructed or gravel road only</td><td>Residential</td><td>For Access Place and Access Street: full carriageway and verges.
For Collector Street and Trunk Collector Street: verge adjoining the development, carriageway (including near side kerb and channel) to a minimum sealed width of 6m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.
For Major Roads: verge adjoining the development, carriageway (including near side kerb and channel) to a minimum sealed width of 7m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.</td></tr>
<tr><td>Industrial</td><td>For Access Roads: the full carriageway and verges are provided (including all associated works).
For Collector Roads: the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum sealed width of 9.5m plus 1.2m wide (full depth pavement) gravel shoulder and table drainage to the opposite side is provided (including all associated works).
For Major Roads: the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum sealed width of 9.5m plus 2.0m wide (full depth pavement) gravel shoulder and table drainage to the opposite side is provided (including all associated works).</td></tr>
</table></td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions		
		Commercial	For Access Streets: the full carriageway and verges are provided. For Collector Streets: the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum width containing near side parking lane, through lanes each way, median (as required) plus 1.2m wide (full depth pavement) gravel shoulder and table drainage to the opposite side. For Major Roads: the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum width containing near side parking lane, service streets (as required), through lanes each way, median (as required) plus 1.2m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.
		Rural	For Access Place and Access Road: full carriageway and verges. For Collector Road: verge adjoining the development, carriageway to a minimum sealed width of 6m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side. For Major Roads: verge adjoining the development, carriageway to a minimum sealed width of 7m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side.
	Frontage road sealed [2] but not constructed to ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design* standard	Residential	For Access Place and Access Street: reconstruction of full carriageway and verges. For Collector Street and Trunk Collector Street: reconstruction of verge adjoining the development and carriageway (including near side kerb and channel) to a minimum sealed width of 6m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side. The works match into the remaining existing works wherever possible. For Major Roads: verge adjoining the development and carriageway (including near side kerb and channel) to a minimum sealed width of 7m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side. The works match into the remaining existing works wherever possible.
		Industrial	For Access Roads: the full carriageway and verges is reconstructed (including all associated works). For Collector Roads: the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum sealed width of 9.5m plus 1.2m wide (full depth pavement) gravel shoulder and table drainage to the opposite side is reconstructed (including all associated works). The works match into the remaining works wherever possible. For Major Roads: the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum sealed width of 9.5m plus 2.0m wide (full depth pavement) gravel shoulder and table drainage to the opposite side is reconstructed (including all associated works). The works match into the remaining works wherever possible.

Specific Outcomes for Assessable Development	Probable Solutions		
		Commercial	For Access Streets: construction of the full carriageway and verges is completed. For Collector Streets and Trunk Collector Streets: complete the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum width containing near side parking lane, through lanes each way, median (as required) plus 1.2m wide (full depth pavement) gravel shoulder and table drainage to the opposite side. The works match into the existing works. For Major Roads: complete the verge adjoining the development, carriageway (including near side kerb and channel) to a minimum width containing near side parking lane, service streets (as required), through lanes each way, median (as required) plus 1.2m wide (full depth pavement) gravel shoulder and table drainage to the opposite side. The works match into the existing works.
		Rural	For Access Place and Access Road: construction of all remaining carriageway and verges. For Collector Road: verge adjoining the development and carriageway (including near side kerb and channel) to join existing works. In any event the minimum sealed width to be constructed is 6m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side where necessary. The works match into the existing works. For Major Roads: verge adjoining the development and carriageway (including near side kerb and channel) to join existing works. In any event the minimum sealed width is 7m plus 1.5m wide (full depth pavement) gravel shoulder and table drainage to the opposite side where necessary. The works match into the existing works.
	Notes: *1. Construction includes all associated works (services, street lighting and linemarking)* *2. Testing of the existing pavement is carried out to confirm whether the existing works meet* **Council's** *Planning Scheme Policy PSP28 Civil Infrastructure Design standard.*		
SO 11 Sealed and flood free road access during minor storms is available to the ***site*** from the nearest Major Road.	**PS 11** Roads or streets giving access to the development from the nearest Major Road are sealed to a minimum width of 6m. These access roads or streets have minor drainage systems which conform with ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 2, Section 4.7.0.		
SO 12 Existing street car parking is retained, wherever practicable, at new accesses onto existing Collector Streets and/or existing Major Roads.	**PS 12** No solution provided.		
SO 13 All turns vehicular access to existing lots is retained, wherever practicable, at new accesses onto existing Collector Streets and/or existing Major Roads.	**PS 13** No solution provided.		

Specific Outcomes for Assessable Development	Probable Solutions
SO 14 The road design takes into account: (1) streetscapes that may be created or already exist; (2) protection of topography and vegetation; (3) opportunities for views and vistas; and (4) protection of natural drainage and open space systems.	**PS 14** No solution provided.
SO 15 As constructed information including test certificates for material quality (if required) and compaction is provided after completion of the works.	**PS 15** As constructed information including test certificates for material quality (if required) and compaction is provided after completion of the infrastructure works.
Stormwater Management	
SO 16 The major drainage system has the capacity to safely convey stormwater flows for the 100 year ARI storm event.	**PS 16** The internal drainage system safely and adequately conveys the stormwater flows for the 100 year ARI storm event (ultimate development catchment characteristics upstream) through the ***site***. The external (downstream) drainage system safely conveys the stormwater flows for the 100 year ARI storm event (ultimate development catchment characteristics upstream) without allowing the flows to encroach upon private lots. Overland flow paths from roads and public open space areas do not pass through private lots. Drainage pathways are provided to accommodate overland flows from roads and public open space areas. The major drainage system has a minimum design ARI of 100 years (ultimate development catchment characteristics upstream). Detention basins are designed in accordance with ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 2, Section 4.8.0. Open channels are designed in accordance with ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 2, Section 4.9.0. The flow velocity in all unlined or soft faced open drains is kept within acceptable limits for the type of material or lining and condition of the channel (refer QUDM Table 8.03). Detailed design of the major drainage system conforms with ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 2, Section 4.
SO 17 The minor stormwater drainage system (internal and external) has the capacity to convey stormwater flows from frequent storm events whilst ensuring pedestrian and vehicular traffic movements are safe and convenient.	**PS 17** The minor drainage system has a minimum design ARI (ultimate development catchment characteristics upstream) as follows[1]:-

Zone	Design ARI (years)
Central Business, Commercial, Local Business, Neighbourhood Facilities	10
Service Industry, General Industry, Home Industry	5
Residential B	5

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>
<table>
<tr><td colspan="2">Residential A, Special Residential (urban), Future Urban</td><td>5</td></tr>
<tr><td colspan="2">Special Residential (non-urban), Park Residential, Rural Residential, Rural</td><td>5</td></tr>
<tr><td colspan="2">Park and Open Space, Sports and Recreation</td><td>5</td></tr>
<tr><td colspan="2">Roads & Bikeways</td><td>Design ARI (years)</td></tr>
<tr><td>Major Road</td><td>Kerb and Channel Flow</td><td>10</td></tr>
<tr><td></td><td>Cross Drainage (culverts)</td><td>50</td></tr>
<tr><td>Minor Road</td><td>Kerb and Channel Flow</td><td>Refer to zone</td></tr>
<tr><td></td><td>Cross Drainage (culverts)</td><td>10</td></tr>
<tr><td>Bikeway</td><td>Cross Drainage</td><td>2</td></tr>
</table>
Road carriageways generally have kerb and channel (except where swale drains are approved by Council's engineer). Catchpits are located to ensure the longitudinal flow in the channel does not exceed the following requirements for the minor storm:
<table>
<tr><th rowspan="2">Location</th><th colspan="2">Minor- Maximum Flow Width[2]</th></tr>
<tr><th>Major Roads</th><th>Minor Roads</th></tr>
<tr><td>Normal situation – kerb and channelled, crowned road</td><td>Parking Lane width (usually 2.5m) or breakdown lane width</td><td>Full pavement width with zero depth at crown</td></tr>
<tr><td>Normal situation – no kerb and channel, crowned road</td><td>Contained within the table drain</td><td>Contained within the table drain</td></tr>
<tr><td>Normal situation – one way crossfall road</td><td>Parking Lane width (usually 2.5m) or breakdown lane width</td><td>To high side of road pavement but not above top of kerb on low side</td></tr>
<tr><td>Where parking lane may be replaced by a through, acceleration, deceleration or turn lane</td><td>1m</td><td>Not applicable</td></tr>
<tr><td>Where road falls towards median</td><td>1m</td><td>Not applicable</td></tr>
<tr><td>Pedestrian crossing or bus stops</td><td>0.45m</td><td>0.45m</td></tr>
<tr><td>Intersection kerb returns (including entrances to shopping centres and other major developments)</td><td>1m</td><td>1m</td></tr>
</table>
Notes:
1. Refer to Council's Planning Scheme Policy PSP28 Civil Infrastructure Design, Part 2, Section 4 for detailed design requirements.
2. Widths are measured from channel invert for kerb and channel and from kerb face for kerb only.
</td></tr>
</table>

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>
The product of depth by average velocity in the channel (longitudinal drainage) does not exceed 0.6m²/s except where there is a danger of pedestrians being swept away and drowned where the value is limited to 0.4m²/s.
The pipelines in roads are located on a 1.5m nominal alignment measured from the invert of kerb and channel towards the road centreline and are not located under kerb and channel.
Pipelines from sag points in the road are taken through drainage reserves, pathways or park and open space to an approved discharge point.
Gully inlets (catchpits) to roads allow for blockage by reducing the theoretical capacity of the inlet as follows:
<table>
<tr><th>Condition</th><th>Inlet Type</th><th>Percentage of Theoretical Capacity Allowed</th></tr>
<tr><td>Sag</td><td>Side Entry</td><td>80%</td></tr>
<tr><td></td><td>Grated</td><td>50%</td></tr>
<tr><td></td><td>Combination</td><td>Capacity of kerb opening assuming grate is fully blocked</td></tr>
<tr><td>Continuous Grade</td><td>Side Entry</td><td>80%</td></tr>
<tr><td></td><td>Grated – Longitudinal Bars</td><td>60%</td></tr>
<tr><td></td><td>Grated – Transverse Bars (with or without longitudinal bars)</td><td>50%</td></tr>
<tr><td></td><td>Combination</td><td>70% - 90% of capacity of kerb opening plus grate (depending upon length of backstone)</td></tr>
</table>
Gully inlets and manholes have the following minimum freeboard for the minor storm event:-
<table>
<tr><th>Situation</th><th>Minimum Freeboard Requirements</th></tr>
<tr><td>Gully inlet on grade</td><td>150mm below invert of kerb and channel</td></tr>
<tr><td>Gully inlet in sag</td><td>150mm below invert of kerb and channel</td></tr>
<tr><td>Field inlet</td><td>150mm below top of grate or lip of inlet</td></tr>
<tr><td>Manhole or junction ***structure***</td><td>150mm below top of lid</td></tr>
</table>
Roof and allotment (interallotment) internal drainage complies with the following:-
<table>
<tr><th>Zone</th><th>Minimum Standard</th></tr>
<tr><td>Central Business, Commercial, Local Business, Neighbourhood Facilities</td><td>QUDM Level V</td></tr>
<tr><td>Service Industry, General Industry, Home Industry</td><td>QUDM Level IV</td></tr>
<tr><td>Residential B</td><td>QUDM Level III</td></tr>
<tr><td>Residential A, Special Residential (urban), Future Urban</td><td>QUDM Level III</td></tr>
<tr><td>Special Residential (non-urban), Park Residential, Rural Residential, Rural</td><td>N/A</td></tr>
<tr><td>Sports and Recreation</td><td>N/A</td></tr>
</table>
</td></tr>
</table>

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>Drowned stormwater outlets are not used.
Stormwater drainage infrastructure through or within private land is protected by easements in favour of Council (at no cost to Council). Minimum easement widths are as follows:-
<table>
<tr><th>Pipe Diameter</th><th>Minimum Easement Width (excluding access requirements)</th></tr>
<tr><td>Stormwater Pipe up to 825mm diameter</td><td>3.0m</td></tr>
<tr><td>Stormwater Pipe up to 825mm diameter with Sewer Pipe up to 225mm diameter</td><td>4.0m</td></tr>
<tr><td>Stormwater Pipe greater than 825mm diameter</td><td>Easement boundary to be 1m clear of outside wall of pipe and clear of pits.</td></tr>
</table>
Detailed design of the minor drainage system conforms with Council's Planning Scheme Policy PSP28 Civil Infrastructure Design, Part 2, Section 4.</td></tr>
<tr><td>SO 18 Stormwater management facilities ensure that drainage discharge from the site does not cause nuisance or annoyance to any person, property or premises.</td><td>PS 18 Stormwater runoff from the site is conveyed to a point of lawful discharge without causing nuisance or annoyance to any person, property or premises.
Wherever possible pollutant loads are not made worse on downstream properties.
Wherever practicable runoff rates are not made worse on downstream properties.
A watercourse as defined in the Water Act 2000 is accepted as a lawful point of discharge providing the drainage discharge from the site does not increase downstream flood levels during the 100 year ARI storm by more than 20mm and any flooding of downstream allotments which are not able to be further subdivided is not increased.</td></tr>
<tr><td>SO 19 The stormwater quality management system minimises the environmental impact of stormwater on surface and underground receiving water quality.</td><td>PS 19 All developments in excess of 2 ha provide stormwater quality improvement devices.
The calculated pollutant concentrations from the site do not exceed Council's adopted water quality objectives (WQO) for the particular catchment. Where no WQO has been adopted then the calculated pollutant concentrations from the site do not exceed the appropriate ANZECC standards.
All dry weather flow is treated to reduce pollutant loads prior to discharge to a watercourse, creek or river.
The first flush flow from the first 15mm of rainfall over the site is treated to reduce pollutant loads prior to discharge to a watercourse, creek or river. Where approved proprietary products are used to treat first flush flows the minimum flow treated is for the 1 year ARI storm.
Detention basins include a low flow water quality treatment facility with a minimum storage time of 24 hours and a maximum storage time of 48 hours.
All stormwater improvement devices are constructed off line wherever possible (i.e. major flows do not pass through stormwater quality improvement devices).
Approved proprietary products are installed and maintained in accordance with the manufacturers recommendations.
All stormwater quality improvement devices are located in public land or areas.
The detailed design of stormwater quality improvement devices conforms with Council's Planning Scheme Policy PSP28 Civil Infrastructure Design, Part 2, Sections 3 and 4.</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions
SO 20 The stormwater quality management system minimises the environmental impact of stormwater on natural ***waterway*** configuration.	**PS 20** Stormwater management facilities do not encroach upon riparian areas. Filling does not extend below the Q50 (ultimate) flood contour for creeks and ***watercourses***. Filling does not extend below the Q100 (ultimate) flood contour for rivers. The number of stormwater outlets to ***waterways*** are minimised. Natural creeks and ***watercourses*** are not channelised to maximise development area.
SO 21 The stormwater quality management system minimises the environmental impact of stormwater on existing natural wetlands and vegetation.	**PS 21** Stormwater management facilities do not encroach upon existing natural wetlands.
SO 22 As constructed information including test certificates for material quality (if required) and compaction is provided after completion of the works.	**PS 22** As constructed information including test certificates for material quality (if required) and compaction is provided after completion of the infrastructure works.
Pedestrian and Cyclist Facilities	
SO 23 The pedestrian and bikeway design provides for safe, attractive and convenient movement to and from the development.	**PS 23** Footpaths are provided to the site frontage. Footpaths are designed to conform with the following:

Issue	Requirement
Width	1.2m minimum for Minor Roads; 1.5m one side and 2m other side for Trunk Collector, Sub Arterial and Arterial; 1.5m minimum elsewhere except for dual use pedestrian/cycle paths where minimum width is 2m
Location	Refer relevant standard drawing for road classification. Meandering of the path is desirable to create visual interest.
Clearance to Properties	0.8m for Minor Roads; 1m for Trunk Collector, Sub-Arterial and Arterial.
Clearance to Kerbline	1.5m for Minor Roads; 2.5m for Trunk Collector, Sub-Arterial and Arterial.
Grades	Along roads - as per maximum grade for classification of road; Pathway reserves and open space – 10% desirable maximum.
Crossfall	2.5% (1 in 40) minimum; 5% (1 in 20) maximum.

Specific Outcomes for Assessable Development	Probable Solutions
	Chicanes are provided at the ends of all pathways to roads (refer to standard Drawing Nos. 8-60033, 8-60034 & 8-60036). Bike/footway terminations at Collector Streets or higher classification roads conform with Standard Drawing No. 8-60034. Detailed design of the footpaths conforms with ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 1, Section 6.4.0. Bikeways are provided adjacent the ***site*** as indicated in ***Council's*** Bikeways Plan or adopted local area plan. Detailed design of the bikeways conforms with ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 1, Section 6.5.0.
SO 24 As constructed information is provided after completion of the works.	**PS 24** As constructed information is provided after completion of the infrastructure works.
Public Transport	
SO 25 The road design provides for existing and potential bus services.	**PS 25** Bus stops are provided within the site frontage where appropriate. Where bus bays are required for Trunk Collector Streets, Sub-Arterial and Arterial Roads, fully indented bus bays are provided with detailed design conforming with *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 1, Section 3.12.2. Bus stops on Collector Streets generally provide a level area not less than 2m wide between the kerb and the footpath. For higher passenger demand bus stops a bus shelter is provided on a level concrete slab (not less than 3m in width) between the kerb and the footpath.
SO 26 As constructed information including test certificates for material quality (if required) and compaction is provided after completion of the works.	**PS 26** "As constructed" information including test certificates for material quality (if required) and compaction is provided after completion of the infrastructure works.
Utilities	
SO 27 Development only occurs in locations where there are adequate services and capacity for the desired use.	**PS 27** The design of water supply infrastructure including water mains, pumping stations, pressure mains and associated works complies with the relevant Queensland Government Department's *Guidelines for Planning and Design of Urban Water Supply Schemes*, ***Council's*** Standard Drawings and ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 3. The design of water supply infrastructure includes all works internal and any works external required to ensure that the proposed development and existing lots maintain adequate water supply at all times. The design of sewerage infrastructure including sewer mains, pumping stations, pressure mains and associated works complies with the relevant Queensland Government Department's *Guidelines for Planning and Design of Sewerage Schemes*, ***Council's*** Standard Drawings and ***Council's*** *Planning Scheme Policy PSP28 Civil Infrastructure Design*, Part 4. The design of sewerage infrastructure includes all works internal and any works external required to ensure that the proposed development and existing lots are provided with a service at all times within the capacity of the system. The design of the electrical reticulation is in accordance with ENERGEX Specification URD *Underground Residential Distribution*.

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td>SO 28 Utilities, including:-
(1) sewerage;
(2) water supply;
(3) electricity;
(4) street lighting; and
(5) communication services,
are provided and conform with the standards of the relevant service authority.</td><td>PS 28 The following utilities are provided and conform with the standard of the relevant service authority:-
<table><tr><th>Locality</th><th>Utilities Provided</th></tr><tr><td>Major Employment Centres</td><td>Water supply, sewerage, underground electricity, street lighting and communications services conduits</td></tr><tr><td>Urban</td><td>Water supply, sewerage, underground electricity, street lighting and communications services conduits</td></tr><tr><td>Catchment</td><td>Water supply (if available), on-site waste effluent disposal system, electricity, street lighting and communications services</td></tr><tr><td>Village</td><td>Water supply, sewerage, underground electricity, street lighting and communications services conduits</td></tr><tr><td>Semi-urban</td><td>Water supply, on-site waste effluent disposal system, electricity, street lighting and communications services</td></tr><tr><td>Rural Living</td><td>On-site waste effluent disposal system, electricity, street lighting and communications services</td></tr><tr><td>Mountain Summit and Forests</td><td>On-site waste effluent disposal system, electricity, street lighting and communications services</td></tr><tr><td>Coast and River Lands</td><td>Water supply (if available), on-site waste effluent disposal system, electricity, street lighting and communications services</td></tr></table></td></tr>
<tr><td colspan="2">Water Supply</td></tr>
<tr><td>SO 29 Where the development is intended to be provided with a water supply, the design and construction of the associated infrastructure and connections are provided in a safe, cost-effective, coordinated and efficient manner that supports sustainable development practices.
SO 30 Water supply infrastructure is easily controlled and accessed for maintenance and repair.</td><td>PS 29 and PS 30 Staged construction of water supply infrastructure is designed so that each stage is self supporting at the completion of construction of that stage.
Water supply infrastructure materials and construction complies with Council's Planning Scheme Policy PSP28 Civil Infrastructure Design, Part 3, Section 4.
The minimum water main size is 100mm diameter.
Water mains are provided on both sides of all Commercial Roads, Major Roads and divided roads.
Water mains are provided along one side of all Minor Roads.
Water mains are located within service corridors shown on Council's standard drawings.
Service connections are not made to water mains 250mm diameter and above.
Fire hydrants are provided at intervals (measured within the road reserve) not exceeding 80m, at high points (for air release) and at the ends of mains (use a duckfoot bend).
Scours are provided at all low points, generally discharging into drainage structures.</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions
	Fittings and valves at road intersections are contained in the verge and are 500mm clear of the back of the kerb. The water supply system is designed to limit the static head to 80m maximum. Where approved by ***Council's*** engineer, pressure reducing valves are designed and installed to limit the static head to 80m maximum. Water supply infrastructure is contained within roads or other public reserves. In exceptional circumstances ***Council*** may accept water mains through private land providing an appropriate easement, not less than 3m wide, is registered in ***Council's*** favour. The water main is constructed centrally within the easement. Sufficient valves are provided, generally on street corners, to limit the area of any shut-off to within the following:- (1) 40 lots or premises for 100mm and 150mm mains; and (2) 50 lots or premises for 225mm mains. Valves in the shut-off area are limited to a maximum of six. Water supply infrastructure is designed and constructed in accordance with the following standard drawings:-

Item	Standard Drawing No.
Hydrant and Valve Installations	8-40002
Pavement Markers and Delineators	8-40003
Hydrant, Valve and Mains Marker Posts	8-40004
Thrust Block Details	8-40006
Air Valve Installation Details	8-40007
Air Valve Sizing	8-40008
Scour Outlets	8-40009
Trench Details	8-40010
Section Valve Pits and Interconnection Pits	8-40011
Pressure Reducing Valve Pits	8-40012 & 8-40013
Pressure Gauge Installations	8-40014
Offtakes from Mains	8-40015
Property Service Conduits	8-40016

Service tappings are constructed using ductile iron pre-tapped fittings for every lot or premises. For pipe diameters where pre-tapped fittings are not manufactured conventional tapping bands are used.

Water supply conduits are provided for across road house connections for the full width of the carriageway and concrete footpaths.

Kerb marker plates are provided to indicate the location of property service conduits.

Concrete thrust blocks are provided at all locations where there is unbalanced hydraulic load including all bends (horizontal and vertical), tees, angle branches, crosses, dead ends and reducers. Thrust blocks are contained within the service allocation.

Water mains are provided with the following cover:-

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>
<table>
<tr><th rowspan="2">Main Diameter (mm)</th><th colspan="3">Cover</th></tr>
<tr><th>Verges & Accessway</th><th>Urban Road Carriageway(1)</th><th>State Controlled Roads</th></tr>
<tr><td>100 – 200</td><td>600</td><td>Greater of 750 or pavement thickness + 150</td><td>1200</td></tr>
<tr><td>225 – 375</td><td>750</td><td>Greater of 900 or pavement thickness + 150</td><td>1200</td></tr>
<tr><td>>375</td><td>1000</td><td>Greater of 1000 or pavement thickness + 150</td><td>1200</td></tr>
</table>
Notes:
1 Where Council's engineer approves a reduced cover, the water main is constructed of ductile iron pipe (minimum Class K9).
Water mains are not laid under stormwater pipes, sewerage mains or electricity conduits.
For water mains 300mm diameter and larger, subsoil drains are provided from low points preferably draining to stormwater drainage structures.
Water mains maintain the following minimum clearances to existing and future services:
(1) horizontally where the water main runs along the adjacent service for > 1m:– 800mm;
(2) horizontally where the water main runs along the adjacent services for < 1m:- 150mm;
(3) vertically:- 150mm.
Connection to Council's water supply system is not provided until adequate water supply can be maintained at all times and the new mains are disinfected and watertight. Tests certificates (not older than 10 days at the time of connection) are provided to confirm the new mains have been satisfactorily disinfected prior to connection to Council's water supply system. The mains are pressure tested and test certificates are provided to confirm that the new mains are watertight prior to connection to Council's water supply system.
</td></tr>
<tr><td>SO 31 Water mains provide multiple flow routes for fire fighting and water quality issues.</td><td>PS 31 Water mains are constructed with the maximum number of cross connections, including connections through all pathways.</td></tr>
<tr><td>SO 32 The water supply system for the proposed development is planned to conform with Council's broad infrastructure plan for the water supply zone.</td><td>PS 32 The water supply system for the proposed development aligns with Council's broad infrastructure plan for the water supply zone.</td></tr>
</table>

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td colspan="2">Sewerage</td></tr>
<tr><td>SO 33 Where lots are intended to be provided with reticulated sewerage the design and construction of the associated infrastructure and connections are provided in a safe, cost-effective, coordinated and efficient manner that supports sustainable development practices.</td><td>
PS 33 Staged construction of sewerage infrastructure is designed so that each stage is self supporting and properly served at the completion of construction of that stage.
Sewerage infrastructure design complies with Council's Planning Scheme Policy PSP28 Civil Infrastructure Design, Part 4. For normal sewer reticulation design the following parameters are used:-
<table>
<tr><th>Item</th><th>Design Value</th></tr>
<tr><td>Demand</td><td>• Urban Residential – greater of 10 equivalent tenements (ET) per hectare or 1 ET per lot
• Integrated Urban Residential – 1 ET per lot
• Multiple Dwellings – 0.75 ET per lot or unit
• Industrial (1) – 15 ET per hectare
• Commercial (1) – 15 ET per hectare
• Other zones/uses – as approved by Council's engineer</td></tr>
<tr><td>Occupancy Rate Per Tenement</td><td>3.29 equivalent persons (EP)</td></tr>
<tr><td>Average Dry Weather Flow (ADWF)</td><td>250 litres/EP/day</td></tr>
<tr><td>Maximum Possible Flow (C_1)</td><td>• Sewers serving < 1,000 EP: 5 times ADWF
• Sewers serving >23,000 EP: 3 times ADWF</td></tr>
<tr><td>Infiltration Allowance (IA)</td><td>250 litres/EP/day</td></tr>
<tr><td>Maximum Design Flow (MDF)</td><td>Maximum Possible Flow + Infiltration Allowance (C_1 + IA)</td></tr>
</table>
Notes:
1. Where the use is known to have greater demand use the greater demand.
Sewerage infrastructure materials and construction complies with Council's Planning Scheme Policy PSP28 Civil Infrastructure Design, Part 4, Section 4.
The sewerage system through the site has sufficient capacity to convey the ultimate flows from all upstream properties when they are fully developed.
Sewer pipes are sized in accordance with AS2200. The minimum flow velocity in any sewer is 0.6m/s based on ADWF. Sewers are designed to carry MDF at a flow depth not exceeding ¾ of the pipe diameter.
The minimum sewer main size is 150mm diameter.
Sewers are designed and constructed to serve the entire area of each lot.
House drains are graded (around the perimeter of the maximum building envelope) at 1 in 40 with a minimum cover of 600mm except for control allotments where a grade of 1 in 60 with a minimum cover of 400mm is used.
Sewers are designed to extend to the boundaries of the site in order to serve all upstream areas within the catchment.
In flat areas, sewers are designed to serve properties on both sides of the sewer.
Sewers are designed to follow the natural fall of the land as far as possible.
</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions

The minimum grade on sewer mains for residential lots is as follows:

Sewer Diameter (mm)	Minimum Grade(1)
150	Industrial: 1 in 100 for first 3 lots, 1 in 150 thereafter
	Residential and other ***zones***: 1 in 80 for first 6 lots, 1 in 150 thereafter
225	1 in 290
300	1 in 420
375	1 in 570
450	1 in 730
525	1 in 900
600	1 in 1000
675	1 in 1200
750	1 in 1500

Notes:

1. Sewers are designed on steeper grades where possible.

The minimum drop through a manhole is the greater of 40mm or the difference between downstream and upstream pipe diameters.

Steep sewers on grades exceeding 1 in 15 are provided with concrete stops (refer to Standard Drawing No. 8-50008) at the following spacing:-

Pipe Diameter (mm)	General Maximum Grade	Maximum Spacing of Concrete Stops (m)	
		VC Pipe	Other than VC Pipe
150	1 in 6	2	6
225	1 in 10	2	6
300 or greater	1 in 15	2	6

Sewers steeper than 1 in 4 are only approved by ***Council's*** engineer in special circumstances and providing the manufacturer's recommended maximum flow velocity is not exceeded. No sewer has a grade steeper than 1 in 3.

Sewer mains are provided with the following cover:-

Location	Minimum Cover (mm)
House connection branches in lots	600
Sewer mains in lots: • front of lot • elsewhere in the lot	 • greater of 250 below invert of kerb and channel or 600 below future driveway(1) • 600
Sewer mains in road verges	900
Sewer mains under road pavements	1200

Notes:

1. Determine using driveway access as per Standard Drawing No. 8-10008.

Specific Outcomes for Assessable Development	Probable Solutions
	The minimum clearance between the sewer and adjacent services or pipes is 300mm. Where ***Council's*** engineer has approved a reduced clearance for a sewer crossing another service, the crossing sewer is constructed using a full length (5.5m) of Class 12 DICL pipe. House connections are only made to sewers where the depth to invert does not exceed 3m. A shallower second main is provided for house connections where the sewer depth (to invert) exceeds 3m. Flexible sewer pipes are only used for sewers less than 4.5m deep. Trunk sewer mains of 300mm diameter and greater are not located in residential lots. Existing on-site sewerage systems that are made redundant by the development are demolished or removed from the ***site***. Sewer manholes are provided at the following locations:- (1) changes in direction; (2) changes of grade; (3) intersections of sewers; (4) changes of sewer diameter; (5) changes of sewer pipe material; and (6) ends of sewer lines, except where the line section does not exceed 30m in length and no more than 2 house connections are made to the line. Manhole spacing (centre to centre) does not exceed 90m for sewer lines up to 450mm diameter and 120m for greater than 450mm diameter. Type 1 manholes are used for sewer lines up to 375mm diameter and up to 6m sewer depth. Precast manholes are not used where:- (1) the sewer line receives pumped flows; (2) the sewer line is > 375mm diameter; (3) the manhole depth exceeds 6m; (4) saturated ground conditions are likely; and (5) the manhole is located near a creek bank which is likely to be susceptible to erosion. The top of the manhole ring is at the following finished levels:- (1) 600mm above ground in unmaintained areas; (2) 100mm above finished surface level in maintained open space and private lots; (3) 25mm above finished surface level in road verges; and (4) flush with carriageway surface, trafficable areas and concrete paths. Where possible, the top of manholes are above the 20 year ARI flood level. Bolt down manhole covers are used near creek banks, in flood prone areas (i.e. below 20 year ARI flood level) in parks and reserves and public open space.

Specific Outcomes for Assessable Development	Probable Solutions
	Control manholes at pump stations are within 10m distance of the station except where approved otherwise by ***Council's*** engineer. Where practicable, sewer lines are located within lots on the following alignments:- (1) 1.5m from the front and rear lot boundary; and (2) 1m from the side lot boundary. In special circumstances, ***Council's*** engineer may approve alternative sewer alignments outside the building envelope. Sewer lines do not cross lot boundaries at acute angles. Where inter-allotment drainage is provided, the sewer line is located between the drainage line and the lot boundary. The house connection branch extends 1m beyond the drainage line. Manholes are located 1m upstream of lot boundaries. Manholes do not straddle lot boundaries. The angle between incoming sewer lines and outlet sewer lines is 60° or greater. A maximum of three (3) inlet sewers or house connection inlets are made to any manhole. House connections are made to manholes where ever practicable. House connection branches (other than to manholes) are located between 1m and 1.2m upstream of lot boundaries at the lowest part of the lot. House connection branch inverts are not deeper than 1m. In special circumstances, ***Council's*** engineer may approve a greater depth (up to 1.5m) to control the whole lot. The maximum length of house connection branch from a sewer in an adjoining lot is 5m with the branch extending a minimum of 1m into the lot being served. Flow meters and telemetry equipment is housed in weatherproof enclosures. The potential for sewage overflows from sewage pump stations is minimised using appropriately designed overflow storage or other means approved by ***Council's*** engineer. The number and length of pressure mains is minimised as far as practicable. Sewer pressure mains are located in road verges of the opposite side to water supply mains. Sewer pressure mains have the following cover:- (1) 1200mm under carriageways; (2) 1000mm elsewhere. Sewer pressure mains are not laid within 1.5m of parallel potable water supply mains. In special circumstances ***Council's*** engineer may approve a lesser separation providing the sewer pressure main obvert is 500mm below the water supply main. Sewer pressure mains have section valves at not greater than 500m spacing. Scour valves are located at all low points in the pressure main. Vents are provided to all high points in the pressure main.

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>
Pump Stations and Pressure Mains
The top of sewage pump stations is 100mm above the 20 year ARI flood level.
The bottom of the switchboard for the sewage pump station is 300mm above the 100 year ARI flood level.
The sewage pump station is contained within a secure fenced compound.
The sewage pump station is provided with appropriate ventilation.
The sewage pump station is provided with a water service including a reduced pressure zone valve.
Appropriate measures are provided to prevent sewage from becoming septic where the detention time exceeds six (6) hours.
Sewage pumps are the non-clogging submersible type pump.
Flow meters are provided on the discharge line from the pump station.
Telemetry is provided to the sewage pump station.
Odour and corrosion control measures are provided, as necessary, to pressure mains.
Pressure mains discharge into vented discharge manholes whose immediate downstream line does not have any house connection branches.
Maintenance vehicle access is provided to the sewage pump station in accordance with the following:-
<table>
<tr><th>Item</th><th>Requirement</th></tr>
<tr><td>Design Vehicles</td><td>(a) Medium Rigid Vehicle
(b) Articulated Tanker when oxygen injection is used</td></tr>
<tr><td>Access Track Maximum Grade</td><td>(a) 1 in 10 for gravel access;
(b) 1 in 6 for sealed access</td></tr>
<tr><td>Access Track Minimum Width</td><td>3.5m</td></tr>
<tr><td>Access Track Drainage</td><td>(a) No inundation in 5 year ARI storm;
(b) Trafficable in 10 year ARI storm</td></tr>
<tr><td>Surfacing</td><td>(a) Minor pump station with access grade < 1 in 10 – gravel surface(1);
(b) Minor pump station with access grade >1 in 10 – sealed;
(c) Major pump stations – sealed.</td></tr>
<tr><td>Pavement Design</td><td>(a) Minor pump station - as per DG 06 using 2.3 x 10^3 ESAs;
(b) Major pump station - as per DG 06 using 4.5 x 10^3 ESAs</td></tr>
<tr><td>Pump Maintenance</td><td>(a) Level area adjacent pump well for a crane truck;
(b) Vent pole, switchboard and other equipment clear of working area of crane truck.</td></tr>
</table>
Notes:
1. Where the access is adjacent to residential properties or Council's engineer considers that the amenity of nearby residents may be affected by dust, the access is sealed.
</td></tr>
</table>

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td></td><td>Standard Drawings
Sewerage infrastructure is designed and constructed in accordance with the following standard drawings:-
<table>
<tr><th>Item</th><th>Standard Drawing No.</th></tr>
<tr><td>Sewer Manholes</td><td>8-50002, 8-50003, 8-50004, 8-50006 & 8-50007</td></tr>
<tr><td>Sewer Pipelines</td><td>8-50008</td></tr>
<tr><td>House Connection Branches</td><td>8-50009</td></tr>
<tr><td>Sewage Pump Stations</td><td>8-50015, 8-50016, 8-50017, 8-50018, 8-50019, 8-50021, 8-50023, 8-50024, 8-50025, 8-50026, 8-50040, 8-50041, 8-50042, 8-50043, 8-50050, 8-50051, 8-50052, 8-50053, 8-50100, 8-50101, 8-50102, 8-50103, 8-50110, 8-50111, 8-50112, 8-50113, 8-50120, 8-50121, 8-50122, 8-50123, 8-50140 & 8-50141</td></tr>
<tr><td>Sewer Valves</td><td>8-50027</td></tr>
<tr><td>Sewer Rising Mains</td><td>8-50028, 8-50029</td></tr>
</table>
Connection to Council's sewerage system is not provided until the new mains are clean and watertight.
The mains and manholes are vacuum tested and test certificates are provided to confirm that the new mains and manholes are watertight.</td></tr>
<tr><td>SO 34 Adequate buffers are provided between sewerage transportation and treatment facilities and dwellings to protect residential amenity and health.</td><td>PS 34 No solution provided.</td></tr>
<tr><td>SO 35 The sewerage transportation system for the proposed development is planned to conform with Council's broad infrastructure plan for the catchment.</td><td>PS 35 The sewerage transportation system conforms with Council's infrastructure plan for the sewerage scheme.</td></tr>
<tr><td colspan="2">Electricity</td></tr>
<tr><td>SO 36 Where lots are intended to be provided with reticulated electricity the service is underground with design and construction of the associated infrastructure and connections being provided in a safe, cost-effective, coordinated and efficient manner that supports sustainable development practices.</td><td>PS 36 Underground electrical reticulation is provided in urban area developments.
Crossings of existing roads are bored. In special circumstances, Council's engineer may approve other methods including trenched construction.
Road crossing are not at acute angles to the road centreline.
Electrical crossings occur at alternate common lot boundaries to water service crossings.
Electrical crossings are within the area defined as an intersection under the relevant State legislation or are diagonally across intersections to enable 11kV cables to be installed without joints.
Pillars are provided at all entry points to private property and located at side boundaries of the lot.
Pillars are located on alternate common lot boundaries to water meters and hydrants.</td></tr>
</table>

<table>
<tr><th>Specific Outcomes for Assessable Development</th><th>Probable Solutions</th></tr>
<tr><td colspan="2">Street Lighting</td></tr>
<tr><td rowspan="6">SO 37 All roads are provided with street lighting which is designed and constructed to provide a safe, cost-effective, coordinated and efficient system that supports sustainable development practices.</td><td>PS 37 All works are designed and constructed to AS1158, Public Lighting Code, 1986, Austroads Guide to Traffic Engineering Practice – Part 12, Roadway Lighting, 1988 and ENERGEX standards and approval.
Street lighting poles and luminaries are standard ENERGEX patterns under Rate 1 Tariff in roads and Rate 2 Tariff in other than roads.
Street light poles are located on standard alignments in accordance with Council's standard drawings:-</td></tr>
<tr><td>Street lights are generally located opposite common lot boundaries and are positioned to minimise conflicts with vehicle movements.
Street lights are located to minimise the risk of damage from errant vehicles at intersections, bends and speed control devices and by oversize vehicles which must necessarily leave the carriageway to manoeuvre in turn around areas, speed control devices and some intersections.
Street light poles that are in vulnerable locations (e.g. small islands or roundabouts) use frangible type poles.
Colour consistency is maintained as far as practicable.</td></tr>
<tr><td>Lighting to State controlled roads is provided in accordance with the requirements and approval of the relevant state government department.
Lighting designs are prepared in accordance with the lighting category specified below:-
<table>
<tr><th>Road Classification</th><th>Lighting Category</th></tr>
<tr><td>State controlled road</td><td>Refer relevant State Government Department</td></tr>
<tr><td>Arterial</td><td>A2</td></tr>
<tr><td>Sub-Arterial</td><td>A3</td></tr>
<tr><td>Residential:</td><td></td></tr>
<tr><td>Trunk Collector</td><td>B1(1)</td></tr>
<tr><td>Collector</td><td>B2</td></tr>
<tr><td>Access Street, Access Place</td><td>B2</td></tr>
<tr><td>Industrial</td><td>B2 (6)</td></tr>
<tr><td>Pathways between residential lots</td><td>B2</td></tr>
<tr><td>General pathways in open space areas</td><td>C3(2)</td></tr>
<tr><td>Commuter Links</td><td>C2(2)</td></tr>
<tr><td>Other locations</td><td>Subject to individual assessment</td></tr>
</table></td></tr>
<tr><td>Note:
1. Use A3 where pedestrian / cyclist volumes are higher.
2. Lighting standard may vary to suit local conditions.
3. The above classification also applies to community title developments.
4. Power supply to pathway lighting is underground.
5. Pathway lighting is Rate 2 Tariff.
6. A higher category may be appropriate where a Collector Road is a through road, or where there are land uses such as retailing or entertainment (e.g. A# or A2).</td></tr>
</table>

Specific Outcomes for Assessable Development	Probable Solutions
	Pedestrian underpasses or tunnels are lit in accordance with the relevant standard. Crossing points of pathways across roads or streets are lit in accordance with the relevant street standard. In addition to the through street lighting above, additional special lighting is provided, as necessary, at the following locations: (1) intersections; (2) roundabouts; (3) sharp bends; (4) traffic control devices; (5) pedestrian crossings; (6) cul de sac turn around areas; and (7) bridges.
Telecommunications	
SO 38 All developments are able to be provided with a telecommunications service which is designed to give a safe, cost effective, coordinated and efficient system that supports sustainable development practices.	**PS 38** Application for telecommunications reticulation is made and pre-provisioning confirmation is received prior to infrastructure works commencing. Telecommunications reticulation (i.e. conduits and pits) is installed in accordance with Telstra standards and a provisioning confirmation is provided for the works.
Alterations and Relocations	
SO 39 Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the ***Council*** or other person engaged in the provision of public utility services, is carried out at no cost to ***Council*** prior to the approval of the plan of subdivision.	**PS 39** Any alteration or relocation in connection with or arising from the development to any service, installation, plant, equipment or other item belonging to or under the control of the telecommunications authority, electricity authorities, the ***Council*** or other person engaged in the provision of public utility services, has been carried out at no cost to ***Council*** prior to the approval of the plan of subdivision.
As Constructed Information	
SO 40 As constructed information including test certificates for material quality (if required) and compaction is provided after completion of the works.	**PS 40** As constructed information including test certificates for material quality (if required) and compaction is provided to the relevant authority upon completion of the works.

Division 7 Landscape Design Code

7.1 Overall Outcomes

(1) The overall outcomes are the purpose of this code.

(2) The overall outcomes sought by the Landscape Design Code are the following:-

(a) Public health, access, safety and personal security is provided and enhanced;

(b) Landscape design complements and enriches the natural landscapes and built environment of Pine Rivers ***Shire***;

(c) Local identity and ***Shire*** image are enhanced;

(d) Landscape design integrates built form with its surroundings and adds to desired character;

(e) The amenity of development is enhanced and visual interest is provided;

(f) Cultural, historical and environmental values are enhanced;

(g) Stimulating and responsive human scale environments are created with a sense of place;

(h) Landscape design contributes to the preservation and enhancement of residential amenity;

(i) Landscape design is environmentally and ecologically sustainable and enhances or protects habitat for native flora and fauna;

(j) Ongoing maintenance and management is considered as an integral part of the overall landscape design; and

(k) Landscape design is functional, durable and versatile and ameliorates adverse impacts on adjacent premises.

7.2 Compliance with the Landscape Design Code

Assessable development that is consistent with the specific outcomes of the *Development Requirements Table 6.4.7 Assessment Criteria for Assessable Development* contained in Section 7.4 complies with the Landscape Design Code.

7.3 Development Requirements

The development requirements of this code relate to the following elements:-

(1) GENERAL LANDSCAPE REQUIREMENTS

(a) Site Master Planning, Public Open Space Suitability and Landscape Design
(b) Landscape Character, Image and Views and Vistas
(c) Access, Safety and Security
(d) Provision of Shade
(e) Design for Mobility
(f) Landform, Site Drainage and Stability
(g) Plant Selection, Design and Planting
(h) Ecological Planting
(i) Landscaping in Car Parks
(j) Screening and Landscape Buffers
(k) Services and High Voltage Easements
(l) Landscape Maintenance and Management
(m) Retention and Protection of Significant Vegetation
(n) Landscaping in Centre Development
(o) Energy Efficient Design

(2) LANDSCAPING IN PUBLIC OPEN SPACE

(a) Site Master Planning, Public Open Space Suitability and Landscape Design
(b) Wetlands

7.4 Development Requirements Table

Table 6.4.7 Assessment Criteria for Assessable Development

Specific Outcomes for Assessable Development	Probable Solutions
GENERAL LANDSCAPE REQUIREMENTS	
Site Master Planning and Landscape Design	
SO 1 Site master planning and landscape design: (1) is sensitive to ***site*** conditions; (2) respects natural landform; (3) retains significant vegetation; (4) protects and enhances existing ecological ecosystems; (5) is sustainable, functional, durable and versatile; (6) integrates with the built form; (7) minimises impacts to the natural environment and adjoining premises; (8) minimises impacts to the landscape values of the ***site***; (9) enhances the function and operation of the development; (10) is conducive to the requirements of the intended land use; and (11) has regard for the principles of urban design.	**PS 1** Site master planning and landscape design complies with the *Planning Scheme Policy PSP30 Landscape Design.*  ***Sites*** are conducive to the requirements of the intended land use
Landscape Character, Image and Views and Vistas	
SO 2 Landscape design which contributes to the achievement of a high quality landscape character and identifiable image for the ***Shire*** will:- (1) be sensitive to local character and landscaping themes; (2) maximise community benefit; (3) create a sense of place; (4) endorse significant cultural and heritage values; and (5) contribute to the continuity and uniformity of existing or proposed streetscapes.	**PS 2.1** Entry features reflect a local character that features vegetation rather than built forms and integrates within an overall landscape theme. Installation is in accordance with *Planning Scheme Policy PSP30 Landscape Design*. **AND** **PS 2.2** Fences, walls and landscaped frontages complement existing boundary treatments in the street in terms of scale and design. **AND** **PS 2.3** Tree selection contributes to the existing tree line, skyline or backdrop effect created by existing vegetation in the locality.  Landscape works reflect local landscaping themes
SO 3 Landscape works in centre development, including development in private and public open space, must reflect the existing or intended character of the centre, promote civic identity, be identifiable and unify the centre environment.	**PS 3.1** Where a centre has a specific design character, landscape works of a similar or complementary nature must be integrated into new development ***sites*** and adjoining park and public open space design.  New private development ***sites*** reflect centre character

Specific Outcomes for Assessable Development	Probable Solutions
	AND **PS 3.2** Landscape works in centre development are consistent with landscape character elements identified in *Planning Scheme Policy PSP30 Landscape Design* or at the discretion of ***Council***. **AND** **PS 3.3** Marker points, landmarks and signage will have a high standard of uniformity which contributes to the overall urban design of the centre.
SO 4 Local distinctiveness and identity is strengthened through landscape design.	**PS 4.1** Local distinctiveness and identity is strengthened through the:- (1) utilisation of local materials; (2) retention of historical associations; (3) installation of symbols or icons; and (4) incorporation of community art[1]. **AND** **PS 4.2** Community art contributes to the local distinctiveness and identity of an area by enhancing civic identity and adding a social and cultural dimension to the landscape. Art is designed and constructed in accordance with *Planning Scheme Policy PSP30 Landscape Design*.
SO 5 Landscape design enhances and reinforces landmarks, places of significance, gateways and views and vistas that exist to, from or within a development.	**PS 5.1** Landscape design must retain and enhance as far as practicable landmark vegetation including ridgeline vegetation. **AND** **PS 5.2** Landmark and gateway landscapes are provided to clearly delineate and/or reinforce significant landmarks, places of ***Shire*** significance and gateways. These statements must complement existing themes used in other parts of the ***Shire***.  Landscape design enhances views and vistas
Access, Safety and Security	
SO 6 Landscape design enhances access, user safety and security by: (1) accommodating equitable access; (2) accommodating vehicle, pedestrian and sightlines; (3) highlighting and screening possible hazard ***zones***; (4) directing pedestrian movement; (5) alerting users to changing road conditions; (6) preventing the entry of unauthorised users; (7) mitigating the impacts of bushfire and flooding; and (8) incorporating crime prevention through environmental design (CPTED) principles.	**PS 6.1** Landscape design accommodates appropriate hard surface treatments in accordance with *Planning Scheme Policy PSP30 Landscape Design*. **AND** **PS 6.2** All trees and shrubs within road reserve landscapes and along movement corridors are to be selected, located and maintained to provide adequate sight distance in accordance with traffic visibility requirements.  Landscape design provides adequate sight distances

Specific Outcomes for Assessable Development	Probable Solutions
	PS 6.3 Behind kerb or in road planting may be used to create a sense of enclosure to warn residents to reduce speed. **AND** **PS 6.4** Clear delineation must be made between dedicated bicycle paths and pedestrian corridors to minimise pedestrian/cycle conflict. **AND** **PS 6.5** Paths, hazard reduction devices (e.g. chicanes) or vegetation will be used to direct pedestrians and cyclists along intended desire lines and away from hazard areas.  Landscaping screens possible hazard ***zones*** **AND** **PS 6.6** Access, safety and security is in accordance with the *Planning Scheme Policy PSP30 Landscape Design*. **AND** **PS 6.7** Landscape design complies with the relevant criteria as described in the:- (1) *State Disabilities Act (1992)*; (2) *State Disabilities Anti-Discrimination Act (1991)*; and (3) *Australian Standard AS 1428.1 (2001) Design for Access and Mobility*.
Provision of Shade	
SO 7 Protective shade is appropriately provided:- (1) along pedestrian/cycle corridors; (2) around or over playground facilities; (3) around or over picnic areas and seating; (4) within car parks; and (5) along driveways and internal roadways.	**PS 7.1** The provision of built or natural shade is provided in accordance with the *Creating Shade at Public Facilities: Policy and Guidelines for Local Government* prepared by the Australian Institute of Environmental Health. **AND** **PS 7.2** Shade over playground equipment will generally be provided by artificial ***structures*** which are preferably integral with the equipment or by trees located to provide shade at peak usage times. Mid morning, noon and mid to late afternoon shade patterns will need to be accommodated for seasonal sun position. Shade needs also to be provided for observation/supervision areas overlooking playground facilities. **AND** **PS 7.3** Protective shade is in accordance with *Planning Scheme Policy PSP30 Landscape Design*.  Shade provided over picnic areas and seating

Specific Outcomes for Assessable Development	Probable Solutions
Design for Mobility	
SO 8 Landscape design facilitates the comfortable and convenient movement of users to, across and through a ***site*** by having regard for: (1) usability and functionally; (2) ***site*** navigation; (3) pedestrian and cycle desire lines; (4) potential pedestrian, cycle and vehicle conflict; (5) significant vegetation; (6) points of interest; (7) existing and proposed pedestrian, cycle and vehicular corridors; (8) the location of adjacent pedestrian crossings; (9) linkages between adjacent buildings; (10) linkages through boundary frontage landscape; (11) public transport infrastructure; and (12) other established or proposed infrastructure.	**PS 8.1** Landscaped centre median islands and road verges are designed to accommodate appropriate pedestrian, cycle and maintenance access.  Median islands designed for access **AND** **PS 8.2** Landscape design is in accordance with the *Planning Scheme Policy PSP30 Landscape Design*.
SO 9 Landscape design facilitates a high degree of legibility by creating environments that are discernable and distinguishable and enhance way-finding.	**PS 9.1** Landscape design has regard for common planting themes, pavement treatments and landscape materials that can be used to facilitate legibility.  Landscape design facilitates legibility **AND** **PS 9.2** Landscape proposals are designed so that the functions of its parts are clear and the need for signs, barriers and other associated infrastructure is minimised as far as practicable[1]. **AND** **PS 9.3** Access points must be located and designed for safety and convenience. **AND** **PS 9.4** Landscape design assists in appropriately integrating pedestrian and cycle circulation, car parking areas, driveways and roadways within the development by:- (1) highlighting entry points; (2) distinguishing private driveways from public roads through the use of paving treatments and landscaping; and (3) incorporating street trees and planting along newly created road, verge, median strips and roundabouts.

Specific Outcomes for Assessable Development	Probable Solutions
Landform, Site Drainage and Stability	
SO 10 Landscape works, including mounding, batters and steep rock slopes and retaining walls, incorporate measures to: (1) minimise impact upon stormwater flow; (2) maximise landform and soil stability; (3) maximise functionality and durability; (4) maximise stormwater harvesting; and (5) sensitively integrate drainage.	**PS 10.1** Landscape works including:- (1) mounding; (2) batters and steep rock slopes; and (3) retaining walls; are designed, constructed and maintained in accordance with the *Planning Scheme Policy PSP30 Landscape Design*. **AND** **PS 10.2** Areas of the ***site*** are drained through the provision and/or treatment of swales, spoon drains, field gullies, subsurface drainage and stormwater connections. **AND** **PS 10.3** Landscape works do not restrict the flow of water along overland flow paths. **AND** **PS 10.4** The opportunities for infiltration on ***site*** are maximised by: (1) draining portions of hard surfaced areas to permeable surfaces; (2) maximising areas of turf, garden beds and pervious paving types; (3) minimising the area of impervious surface finishes on the ***site***; and (4) providing permeable surface treatments for spill-over car parking areas. **AND** **PS 10.5** Sediments and chemicals are prevented from entering the stormwater system. **AND** **PS 10.6** Drainage lines and ***watercourses*** incorporate natural features and materials to create a natural appearance and where possible rehabilitate degraded areas.
Plant Selection, Design and Planting	
SO 11 Plant selection, design and planting:- (1) contributes to the amenity of the development and to the rural and urban characters; (2) recognises growing, maintenance, sustainability and durability requirements; (3) accommodates irrigation where appropriate; and (4) is appropriately accommodated for in parks, road reserves and roundabout and median islands.	**PS 11** Landscape works including:- (1) species selection and plant design; (2) plant siting; (3) pot size; (4) plant quality; (5) media and sub-grade preparation; (6) organic mulch; (7) turf; (8) hydro-mulching; (9) grass seeding; (10) staking; (11) irrigation; (12) street trees; and (13) roundabout and median island design are in accordance with *Planning Scheme Policy PSP30 Landscape Design.*

Specific Outcomes for Assessable Development	Probable Solutions
Ecological Planting	
SO 12 The ecological values of a ***site*** are enhanced by landscaping.	**PS 12.1** Landscaping buffering is provided to the edges of any significant vegetation on or adjacent to the ***site***. **AND** **PS 12.2** Plant selection utilises species indigenous to the area and compatible with existing ecological values. **AND** **PS 12.3** Landscaping is in accordance with *Planning Scheme Policy PSP30 Landscape Design.*
SO 13 The landscape design and planting for revegetation or ecological regeneration purposes reflects all stages of landscape regeneration and has regard for species diversity and density.	**PS 13.1** In early stages of growth, quick growing shrubs and groundcovers cover the area until slower growing and longer lived plants reach an advanced stage of growth. **AND** **PS 13.2** As the landscaping matures, faster growing short lived plants reach an advanced stage of growth.
Landscaping in Car Parks	
SO 14 Landscaping associated with car parks: (1) is appropriately sited; (2) enhances visual amenity; (3) is designed for long-term sustainability; (4) establishes an inviting micro-climate; and (5) provides shade areas.	**SO 14.1** Landscape design provides appropriate growing media volume, subsoil drainage and irrigation. **AND** **SO 14.2** Landscape design in car parks is in accordance with *Planning Scheme Policy PSP30 Landscape Design.*
Screening and Landscape Buffers	
SO 15 Landscape design improves amenity by enhancing the visual presentation of the development and screening undesirable features or incompatible uses.	**PS 15.1** Landscaped areas along and/or near retaining walls, long unbroken walls, blank walls, service areas, car parking areas and recreational areas comprise a combination of trees, shrubs and groundcovers. **AND** **SO 15.2** Landscape design respects natural landform and aesthetics by minimising earth cuts, filling and mounding and incorporating attractive natural features. **AND** **SO 15.3** A unified landscaping theme is provided through the development.
SO 16 Noise barriers, retaining walls, solid walls and fences above 1.5m along road reserve boundaries are visually softened and screened.	**PS 16.1** Amelioration of noise barriers is in accordance with *Planning Scheme Policy PSP6 Traffic Noise Attenuation*.
SO 17 Landscape buffers are established to:- (1) provide visual screening and acoustic attenuation between incompatible uses; (2) maximise the separation of potentially incompatible land uses from residential locations; (3) improve the visual appearance of the proposed development; (4) reduce noise pollution, minimise air pollution and deflect nuisance wind; (5) direct pedestrian access away from significant changes of grade; (6) provide appropriate screening of visually dominant services and trunk infrastructure; and (7) enhance landscape features.	**PS 17.1** Landscape buffers are designed and constructed in accordance with the *Planning Scheme Policy PSP30 Landscape Design.*

Specific Outcomes for Assessable Development	Probable Solutions
Services and High Voltage Easements	
SO 18 Landscaping is designed and constructed to: (1) mimimise adverse impact on the continued operation and future viability of existing and proposed electricity, water, stormwater, sewerage and communication infrastructure; and (2) have regard for the safe and efficient operation of high voltage easements.	**PS 18.1** Landscaping is designed and constructed to maintain regulated separation distances from electricity, water and communication infrastructure[2]. **AND** **PS 18.2** Landscaping is in accordance with *Planning Scheme Policy PSP30 Landscape Design.*
Landscape Maintenance and Management	
SO 19 Ongoing maintenance and management requirements, including fire and bushland management, are considered as an integral part of the landscape design and a sustainable maintenance regime is implemented.	**PS 19.1** Landscape design allows maintenance staff to perform their duties in a safe, economic and ergonomic manner.  Landscape design facilitates ongoing maintenance **AND** **PS 19.2** Landscape design and construction is capable of being efficiently and effectively maintained. **AND** **PS 19.3** Landscape works associated with Crown Land are capable of being maintained at a reasonable cost to ***Council***. **AND** **PS 19.4** Maintenance and management, including fire and bushland management, is in accordance with *Planning Scheme Policy PSP30 Landscape Design.*
Retention and Protection of Significant Vegetation	
SO 20 Landscape design retains and protects the canopy, trunk and root systems of significant vegetation including vegetation located within tree preservation areas.	**PS 20** Significant vegetation is retained and protected in accordance with *Planning Scheme Policy PSP30 Landscape Design.*
Landscaping in Centre Development	
SO 21 Landscape works associated with centre development reflect a high standard of urban design and are to be designed to strengthen the usability and versatility of the environment.	**PS 21.1** Centre development proposals are adaptable and have the ability to respond readily to alternative activities and uses, e.g. café dining and street performing. They should not segregate users, activities and land uses.  Landscape design responds readily to alternative activities and uses **AND** **PS 21.2** Proposals are designed to provide an array of passive recreational opportunities and experiences for users. These could include:- (1) quiet seating areas;

Specific Outcomes for Assessable Development	Probable Solutions
	(2) large open space areas with features to enhance their use and enjoyment; and (3) safe places for children to play. **AND** **PS 21.3** Where practicable, centre development proposals are designed to:- (1) prevent queuing or other associated activity from forming across footpaths or pedestrian thoroughfares; (2) foster social interaction; and (3) provide standing areas at bus stops, taxi ramps and display windows. **AND** **PS 21.4** Landscape Design is in accordance with the *Planning Scheme Policy PSP30 Landscape Design*.
Energy Efficient Design	
SO 22 Landscaping, including walls and fences, assist in microclimate management and energy conservation by:- (1) being located to keep summer sunshine (particularly western sun) off walls, windows, roofs and paved external areas; (2) allowing access of winter sun to living areas, north facing windows and to public areas (including north-east winter morning sun); (3) allowing exposure of living and public areas to prevailing north-east to southerly summer breezes and minimising exposure to prevailing west to south-west winter winds; (4) minimising glare; and (5) minimising potential overshadowing impacts.	**PS 22** No solution provided.
LANDSCAPING IN PUBLIC OPEN SPACE	
Site Master Planning, Public Open Space Suitability and Landscape Design	
SO 23 Parks and reserves:- (1) are suitability located; (2) meet existing and proposed community needs in terms of function and area; (3) reflect the function and character of the intended park category; (4) provide appropriate infrastructure including electricity and sewerage infrastructure; (5) support structurally sound and safe trees; (6) are designed to protect life and adjoining property; (7) provide functional, quantifiable and high quality bushland environments; and (8) incorporate best practice bushfire management.	**PS 23.1** Land selected for parks and reserves should:- (1) form part of the green open space network; (2) be integrated with existing and proposed pedestrian and bikeway facilities and public transport nodes; (3) be successfully integrated in residential development and commercial/retail centres; and (4) not include contaminated land, power line easements or land that is flood prone, or with unsuitable topography. **AND** **PS 23.2** Parks and reserves should provide a focal point for the community and be multi-functional and flexible enough to accommodate the changing needs of the population. **AND** **PS 23.3** Landscape design is in accordance with the Desired Standards of Service for Community Infrastructure Policy relative to park category and *Planning Scheme Policies PSP30 Landscape Design* and *PSP33 Works in Public Open Space.* **AND** **PS 23.4** Bushfire management is in accordance with current state planning policies specifically looking at mitigating the adverse impacts of bushfire and flooding.

Specific Outcomes for Assessable Development	Probable Solutions
Wetlands	
SO 24 Wetlands:- (1) are suitably located and functional; (2) have regard for public health and safety and the control of disease vectors; (3) have regard for long term management and maintenance costs and requirements; (4) minimise risk to users; (5) protect and enhance the environmental values of the ***site***; (6) maximise the retention and enhancement of natural drainage lines; (7) provide adequate opportunity for public access and utilisation; (8) have regard for in-stream habitat values and wetland character; (9) maintain the pre development velocity and quality run-off from the ***site***; (10) do not adversely impact upon upstream or down stream land; (11) provide appropriate planted edge treatments; (12) preserve and enhance water quality; (13) incorporate rainwater harvesting and reuse as far as practicable; and (14) maximise water sensitive urban design.	**PS 24** No solution provided. ***Note:*** *Wetland design is in accordance with appropriate ANZECC Water Quality Standards.*

[1] Llewelyn-Davies (2000) *Urban Design Compendium*, London: English Partnerships and The Housing Corporation.

[2] Landscaping is in accordance with current electrical safety legislation.