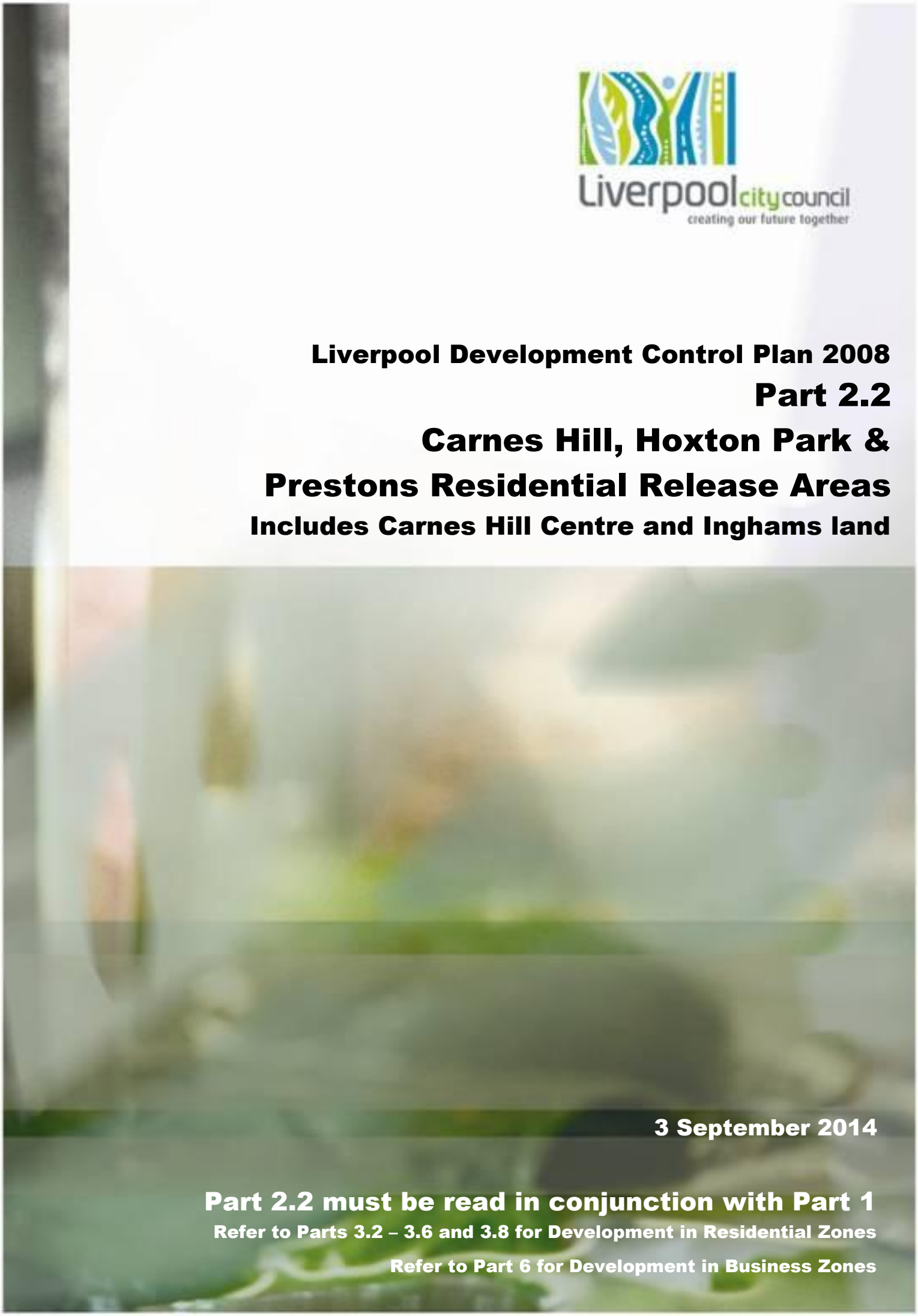

Liverpool city council
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Liverpool Development Control Plan 2008

Part 2.2

Carnes Hill, Hoxton Park & Prestons Residential Release Areas

Includes Carnes Hill Centre and Inghams land

3 September 2014

Part 2.2 must be read in conjunction with Part 1

Refer to Parts 3.2 – 3.6 and 3.8 for Development in Residential Zones

Refer to Part 6 for Development in Business Zones

Liverpool Development Control Plan 2008

Part 2.2 Carnes Hill, Hoxton Park & Prestons Residential Release Areas

Table of Contents

Table of Figures

1. Preliminary

Applies to

1. Part 2.2 applies to the land, shown in Figure 1.
2. Part 1 and Parts 3.3 - 3.6 applies to the land except as stated in point 3 below.
3. Part 1 and Chapter 4 of this Part (2.2) applies to the land shown in Figure 14.
4. Part 3.8 also applies for non residential development on the land.

Background

These release areas form parts of the Hoxton Park Stage 2 Release Areas Structure Plan. Hoxton Park was rezoned under Liverpool LEP No. 236 (Precinct 1) on 15 May 1992. Prestons was rezoned under Liverpool LEP 238 (Precinct 5) on 15 May 1992. Carnes Hill was rezoned under Liverpool LEP No. 237 (Precinct 4) on 10 July 1992. The area was originally subject to Liverpool Development Control Plan No 31, which adopted on 10 December 1995 and came into force on 11 March 1996.

A number of planning studies were undertaken prior to the preparation of the plan and form the basis of the controls in this plan. These studies included the following: Drainage / Flooding, Traffic, Retailing, Heritage, Archaeology, Open Space / Recreation and Vegetation

Objectives

a) A high quality standard of subdivision is carried out.

b) The subdivision of the many land parcels in the release areas is co-ordinated.

c) A framework for a high quality amenity and character for new neighbourhoods is set.

d) The requirements relating to development are clarified.

e) Greater certain outcomes for both applicants and the community are provided.

f) The environmental integrity of the area is protected.

g) The subdivision that facilitates solar design of residential development is encouraged.

h) High quality landscaped areas in public spaces are provided and maintained.

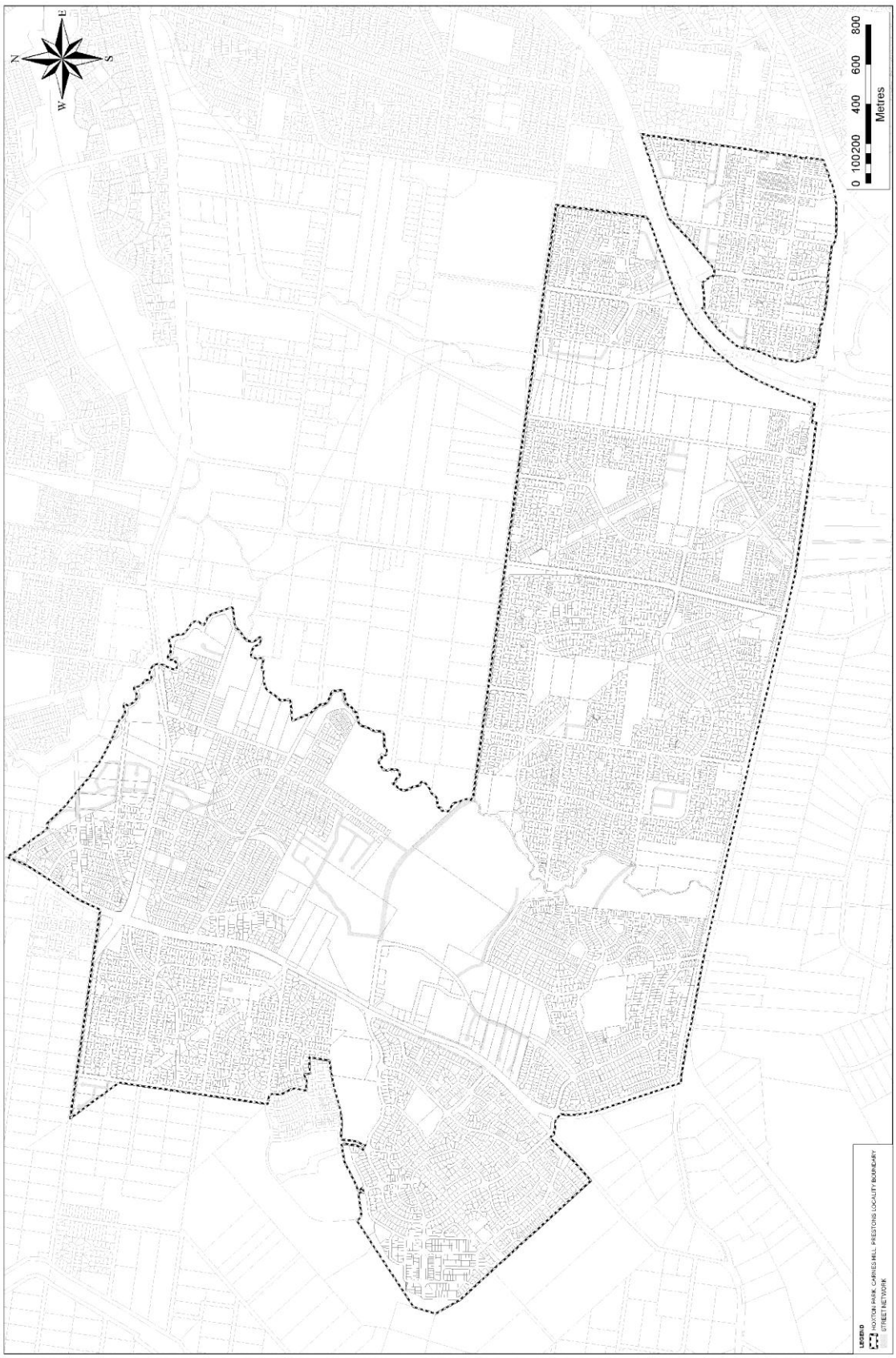


Figure 1 Land to which this Part applies

2. Controls for Public Domain

2.1 Street Network

Objectives

a) To provide an attractive residential street environment.

b) To provide for the safe and efficient circulation of traffic.

c) To provide for the safe and efficient movement of pedestrians with particular regard to the provision of clear and safe access routes for people who have a disability

d) To provide for efficient movement of local bus services and direct pedestrian access for all members of the community including those with disabilities.

e) To minimise the amount of through traffic in residential areas.

Controls

1. All applications to subdivide and/or develop land shall be consistent with the street network shown on Figure 2 unless a variation can be justified.

2. The design of the street network has generally been based on the *Australian Model Code for Residential Development 1990*, referred to in this plan as the "Model Code".

3. Any development of Lot B DP 418231 shall ensure vehicular access is provided to Lot 100 DP 1126218.

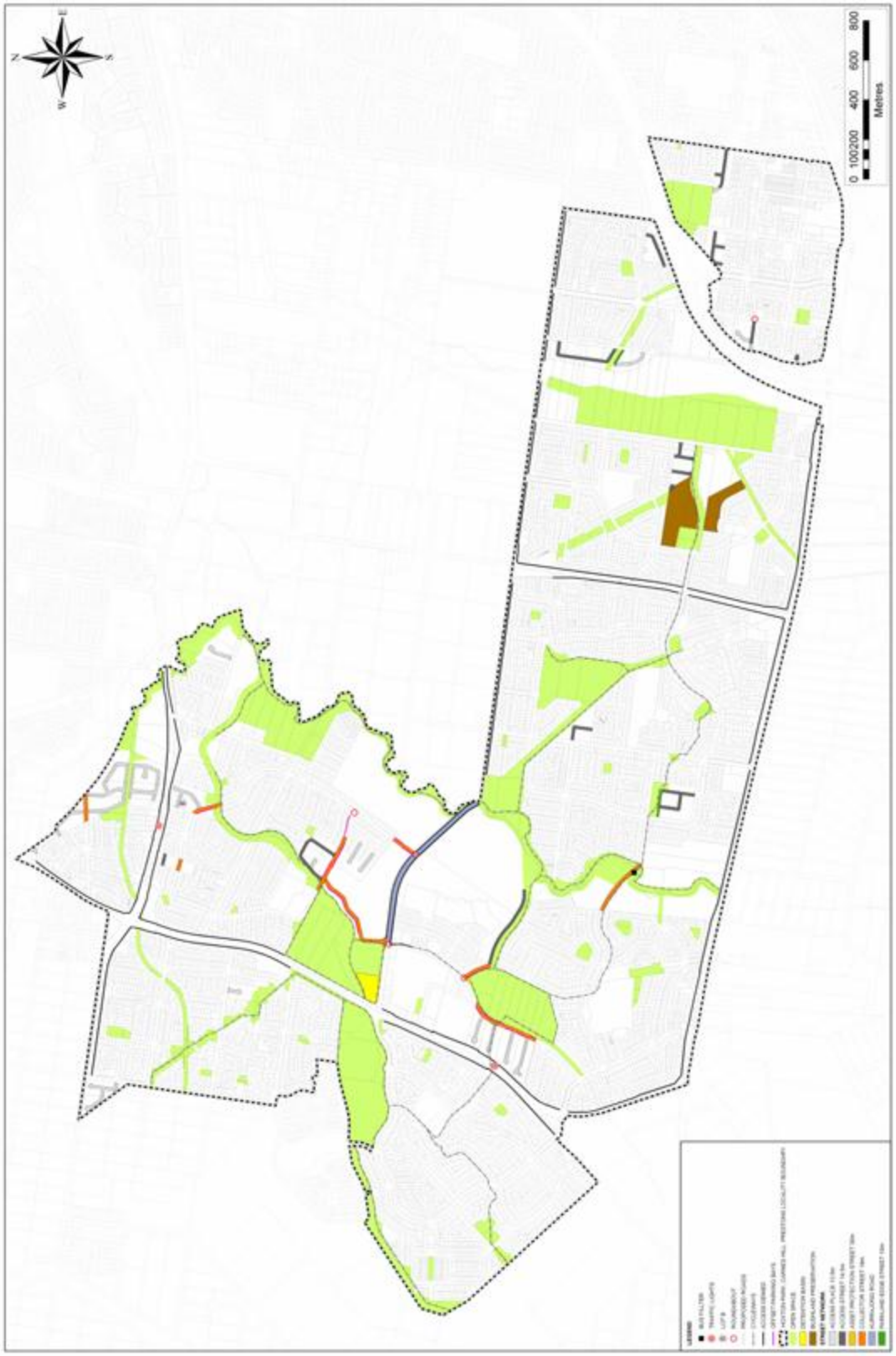


Figure 2 Street Network

Sub-Arterial Roads

Objectives

a) To minimise the impact of development on traffic capacity and safety, of the classified road and sub-arterial road.

b) To minimise the impact of a classified road or sub-arterial road on adjoining development.

c) To provide an attractive landscaped streetscape.

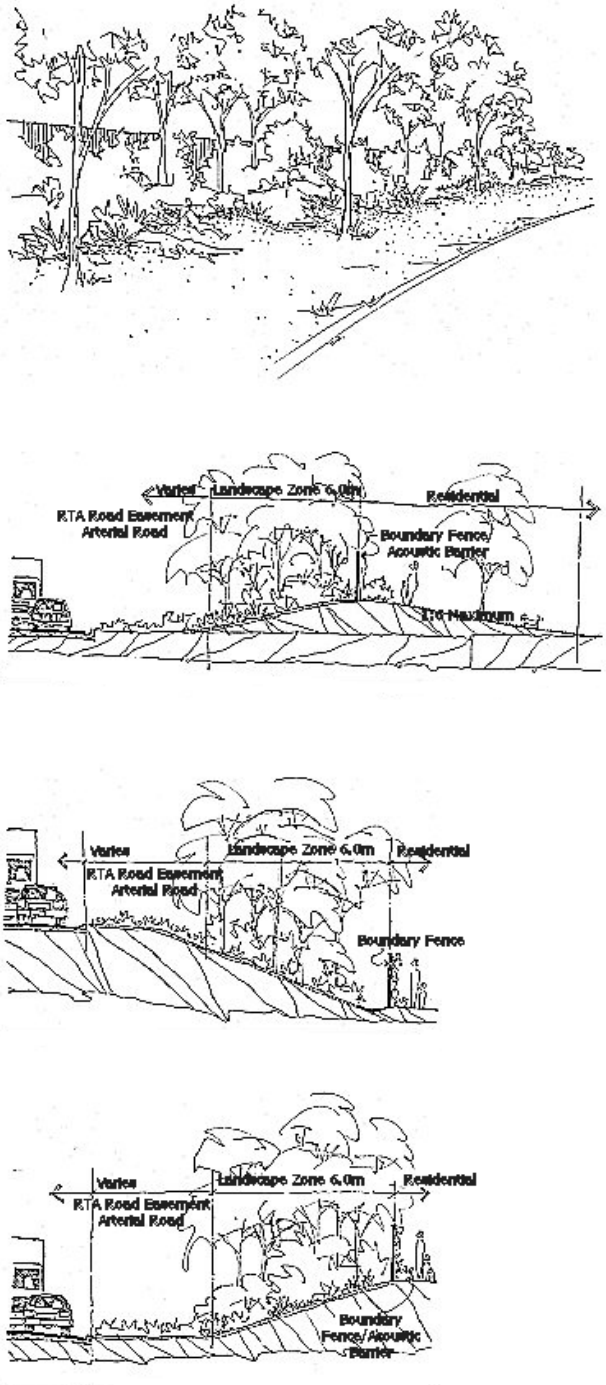


Figure 3 Classified Road Landscaping.

Controls

1. A 3m wide landscaped area and noise attenuation barrier shall be provided along the frontage to a sub- arterial road in accordance with the details give in drawing A4, A5 and Appendix 1.
2. No access will be permitted from land to a classified road.
3. No access will be permitted to a sub-arterial road from residential development.
4. Where land has an existing access from a Classified or sub-arterial road, any proposed subdivision shall provide access to that land from an alternate street and remove the existing access.

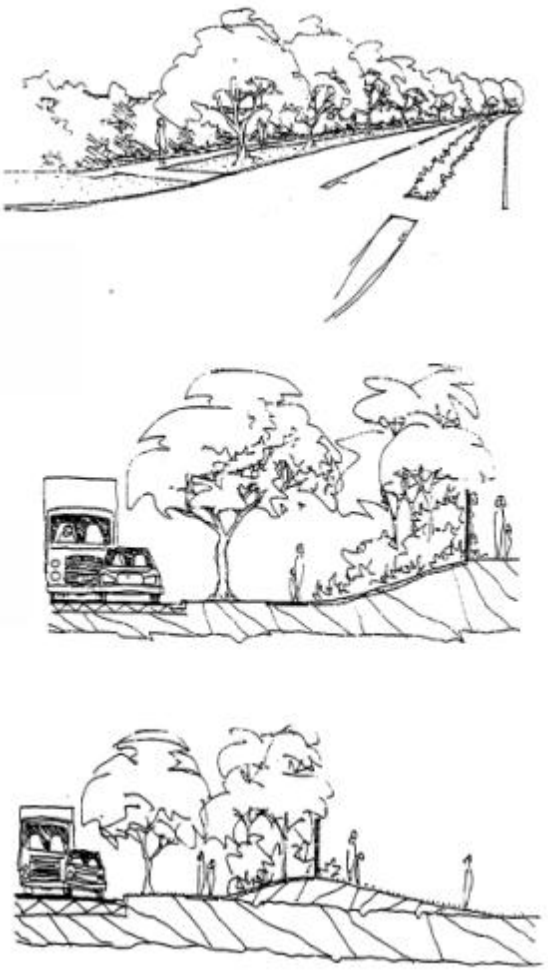


Figure 4 Landscaping

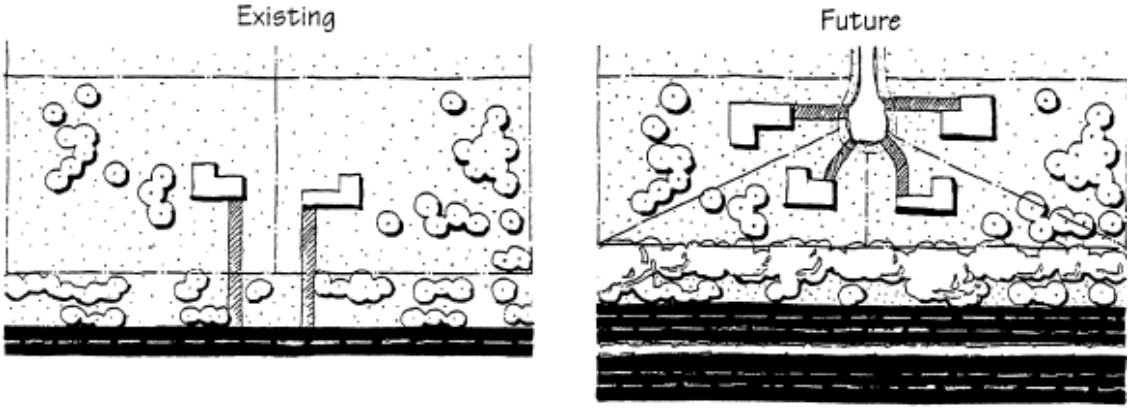


Figure 5 Subdivision of Land near Classified Road

Details of landscaping and the noise attenuation barrier shall be provided with the engineering plans.

Trunk Collector Streets

Objectives

a) To provide a controlled connection between traffic signals or roundabout, residential streets and the classified road system.

b) To concentrate local traffic to an outlet, but not to attract through traffic.

c) To form a gateway to the residential areas.

Controls

1. Access to Trunk Collector Streets is denied to residential lots.
2. All applications to subdivide and/or develop land shall be consistent with the street network shown on the maps, which show:
   - location and width of trunk collector streets;
   - width of landscaped area; and
   - location of entrance signage.
3. Trunk collector streets shall be constructed and landscaped in accordance with the details given in drawings A4, A5, A13 and A14 in Appendix 1.

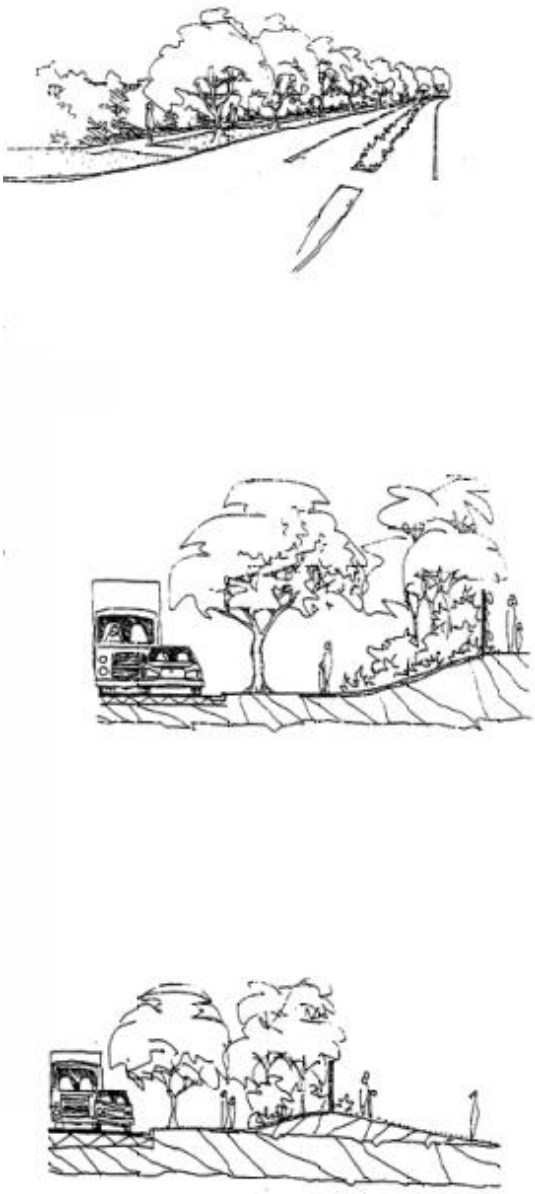
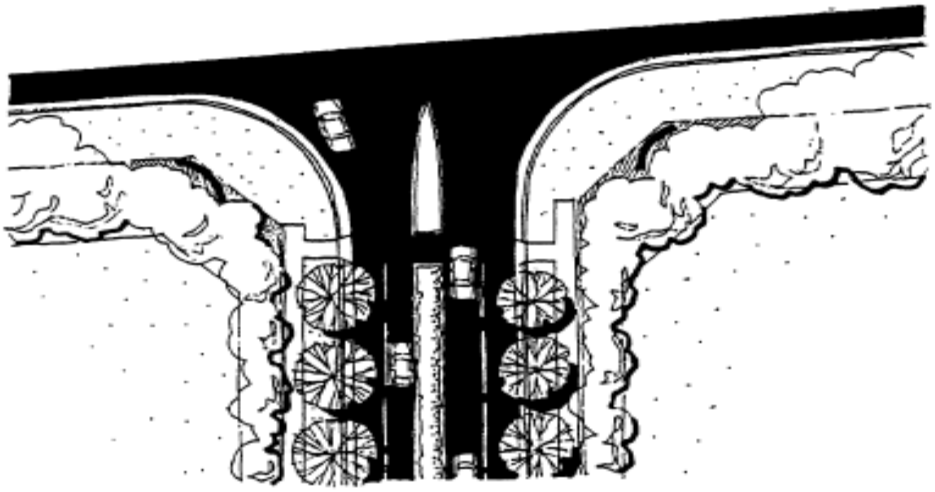
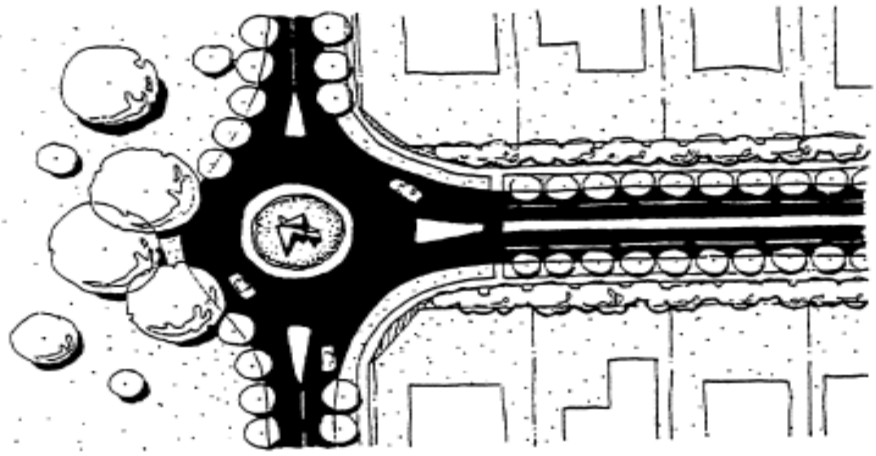


Figure 6 Trunk Collector Streets



Typical plan of intersection at Trunk Collector Street and Arterial Road



Typical plan of intersection at Trunk Collector Street and Collector Street

Figure 7 Trunk Collector Street and Collector Street

Collector Streets

Objectives

a) To provide the principal streets within residential areas, which collect and distribute traffic and provide for a bus route.

b) To provide an attractive streetscape.

c) To be visually prominent.

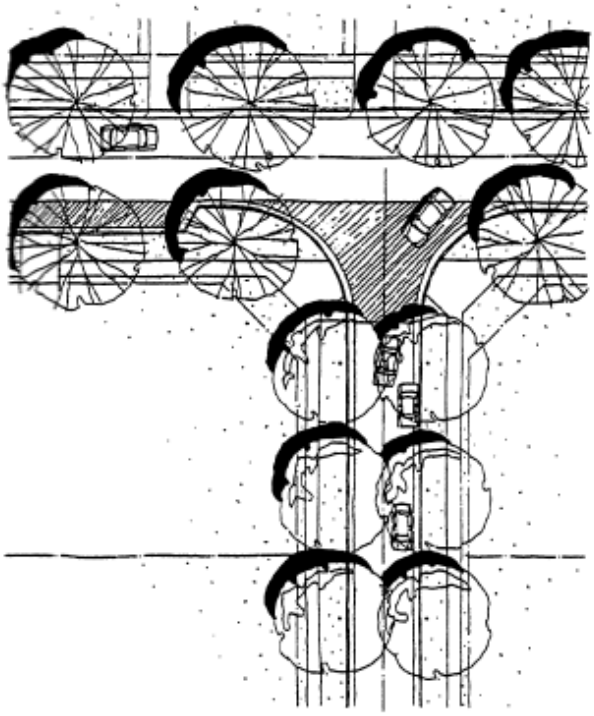
d) To maintain residential amenity and safety.

Figure 8 Collector Streets

Controls

1. All applications to subdivide and/or develop land shall be consistent with the street network shown on the maps, which show:-
   - location and width of collector streets;
   - variation in alignment of travelling lanes and car parking bays;
   - roundabouts; and
   - landscaped speed control devices.
2. Collector streets shall be constructed and landscaped in accordance with details as given in drawings A6, A7, A9-A12 in Appendix 1, which incorporates the following features:-
   - a 7.5m wide travelling carriageway;
   - distinctive pavement treatment at the entrance to all streets which intersect with collector streets;
   - a landscaped speed control device at each transition point between;
   - car parking bay location;
   - a tree island at approximately every 50m along the car parking bay; and
   - a distinctive pavement treatment for car parking bays.

Please note: Variations to the collector street network (other than minor variations to the
actual location of a collector street), are unlikely to be supported.



Typical plan of intersection at
Collector Street
and Access Street

Figure 9 Intersection of Access and Collector Streets

Access Streets and Access Places

Objectives

a) To create a low vehicle speed environment using the physical characteristics and geometry of the street layout and construction.

b) To provide a carriageway width and variation in alignment to help produce a low speed environment.

c) To provide innovative, cost effective designs in accordance with the spirit of the Model Code, except as amended by this Part.

For more information, refer to the Model Code. Some of the main points to be noted for these streets include:

Access Streets

- vehicle speeds are to be controlled by street length, speed control devices at intervals of 100m and / or alignment;
- speeds are to less than 30km/h for streets carrying less than 1000 vehicles per day (100 dwellings), with a carriageway width of 6.5m; and
- speeds are to less than 40km/h for streets carrying less than 2000 vehicles per day (200 dwellings), with a travelling carriageway width of 6.5 to 7.5m.

Access Places

- vehicle speeds are to controlled by street length and / or alignment;
- if they are a cul-de-sac they serve less than 30 dwellings;
- generally a uniform 6.5m width carriageway is preferred.

This is a variation of the Model Code proposed very narrow meandering carriageway with indented car parking and landscaping.

Controls

All applications to subdivide and / or develop land shall be consistent with the street network shown on the maps.

On some existing large allotments not all streets are shown. Where an application is submitted for part of the land, it will be necessary to submit an overall plan showing how the application relates to the rest of the land and the adjacent properties.

1. Speed control devices shall be constructed at intervals of generally 100m, subject to final lot layouts.
2. Access Streets shall be constructed and landscaped in accordance with the details given in drawings A6 and A8 in Appendix 1.
3. Pedestrian access between Kydra Close and Quamma Close, Prestons is to be maintained.

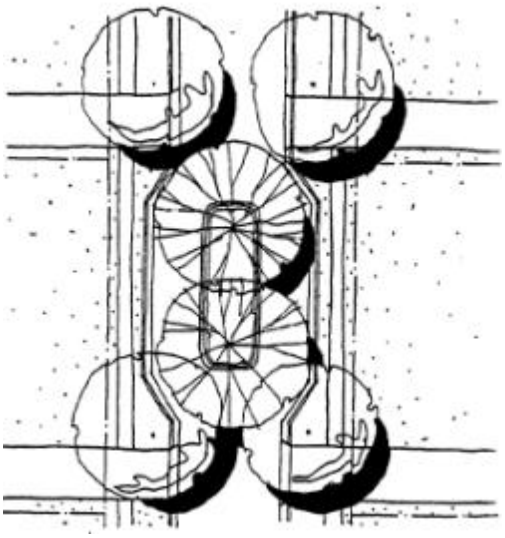


Figure 10 Traffic Calming Measures

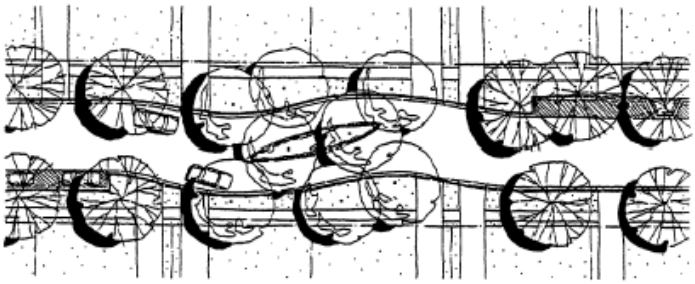


Figure 11 Example of Traffic Calming Device

Variation to Street Layout

Objective

To provide a degree of flexibility in the location of streets.

Council may consider applications, which do not conform to the street layout on the maps without the need to exhibit an amendment to the DCP, depending on the scale of the change.

The general location and layout of collector and trunk collector streets is fixed. The location and layout of the other streets (called access streets and access places) is more flexible. (See Appendix 2, which outlines how the overall street layout was determined).

Controls

1. Applications, which do not conform, to the street layout on the map shall provide justification for the variation. Refer to submission requirements in Part 1 for details.
2. Although traffic volumes on local streets may not be large, the impact of directing additional traffic onto a street designed as an access place may have a detrimental affect on pavement, traffic and residential amenity.
3. Applications, which vary the location and layout of, access streets or access places or vary the location of a collector street or trunk collector street to a minor extent, can be determined by Council without the need to exhibit an amendment the DCP.
4. Applications, which involve more major changes to the street layout, would require amendment to the DCP prior to Council determining the application. This will include exhibition of the changes to the DCP.

Subdivisions Adjoining Open Space

Objectives

a) To maximise public exposure to public open space.

b) To improve security and care of public open space.

Controls

1. Where land adjoins open space it shall be developed in one of the following ways:
   - Hatchet shaped allotments or multiple dwelling developments, which is oriented to the open space.
   - A street between the open space and the dwellings.
   - Cul-de-sacs, which are connected to open space.

Development, which is not oriented toward the open space, is unlikely to be permitted. Refer to Appendix 2 for details on how open space shall be developed.

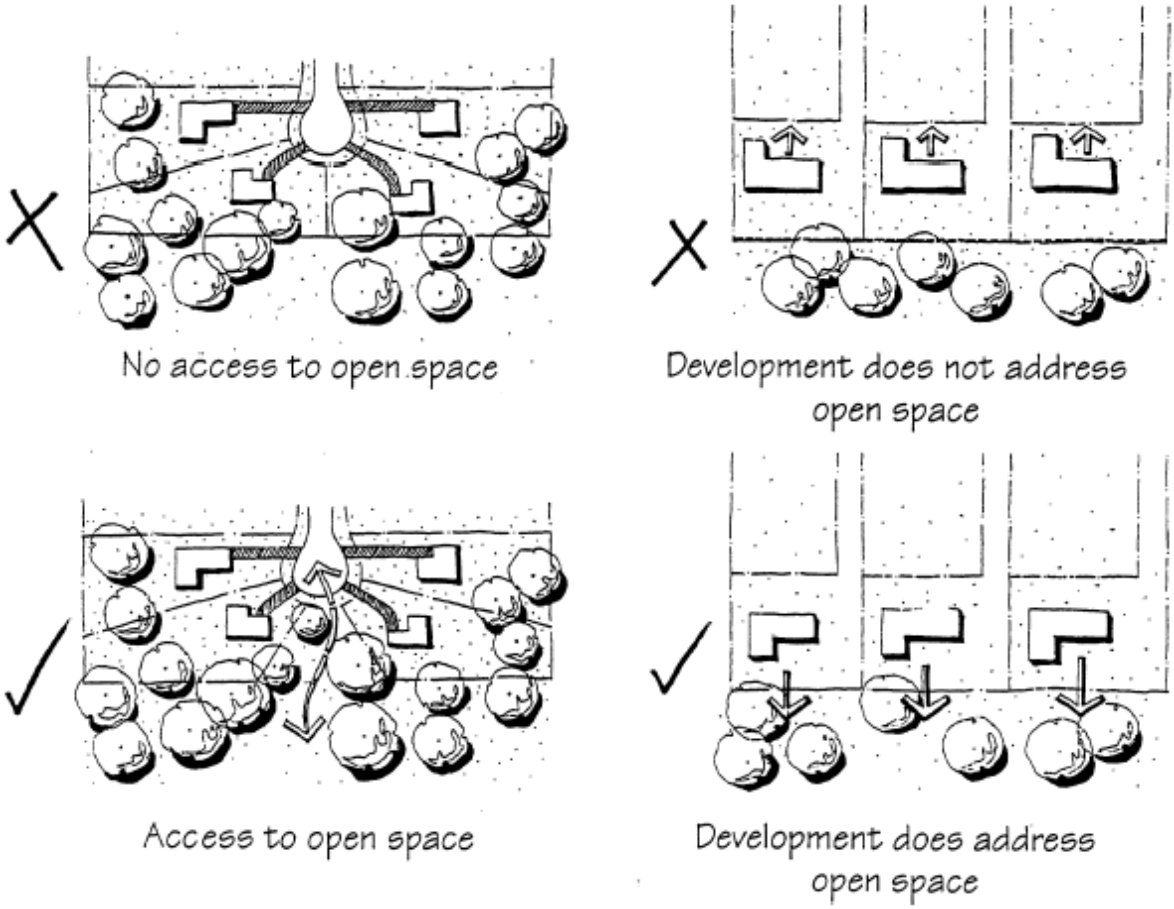


Figure 12 Appropriate subdivision patterns

Bikeways

Objective

To provide for the needs of cyclists within the release area.

It is proposed to have a network of bikeways throughout the release areas.

Controls

All applications to subdivide and / or develop land shall be consistent with the bikeway network shown on the maps. Where these are shown on proposed streets, they shall be constructed as an off-road shared pedestrian - bikeway on the side of the street shown.

1. Shared pedestrian - bikeways shall be constructed a minimum of 0.5m from the kerb and shall have a minimum width of 2.5m. Refer to Appendix 2 for details.
2. Where it is proposed to embellish land which is to be dedicated as public open space in conjunction with a proposed development, this shall take into account any proposed bikeways on the open space. Refer to Appendix 2 for details. A landscape plan shall be submitted in conjunction with the engineering plans.

2.2 Open Space

Objectives

a) To ensure adequate provision and distribution of public open space to meet the needs of the residents.

b) To provide links between major open space, community and retail facilities.

c) To preserve native bushland.

Controls

1. The provision of open space shall be consistent with the maps, which show:
   - size and location of major open space areas for active recreation and the retention of native bushland;
   - location of open space along the creek systems;
   - notional location of neighbourhood open space.
2. Where it is proposed to embellish land, which is to be, dedicated as public open space in conjunction with a proposed development, this shall be carried out in accordance with details in Appendix 2. A landscape plan shall be submitted with the engineering plans.

2.3 Street Tree Planting

1. Street trees shall be required to be planted in conjunction with the creation of a new street or the extension of an existing street.
2. One street tree shall be planted for each allotment created.
3. The street trees shall be planted prior to the release of the subdivision certificate.
4. The trees shall be provided with protection to ensure their survival during the construction of buildings in the street. Refer to Figure 12 for details.

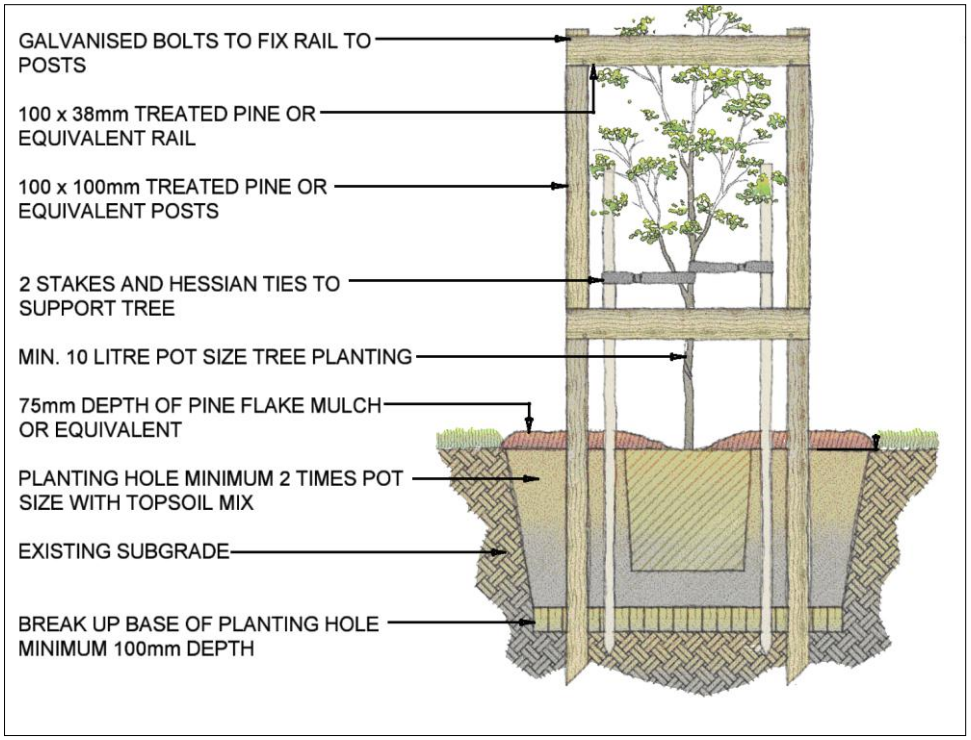


Figure 13 Tree Guard and Planting Details

3. Sites

3.1 Horningsea Park Heritage Area

Objectives

a) To ensure that new development in the vicinity of the Horningsea Park House site is undertaken in a manner sympathetic to, and does not detract from, the heritage significance of the Homestead and its cartilage.

b) To establish a minimum curtilage for the house, which protects its cultural significance.

c) To retain the cultural significance and character of the existing driveway, which connects the house with Camden valley Way.

d) To retain the visual axis to the house from Camden Valley Way.

e) To ensure the long-term conservation and use of the historic house.

f) To ensure the long-term conservation of the total cultural resource of the property.

g) To maximise the extent of open space around the main house, thereby retaining its semi rural setting.

h) To retain the visual prominence and identity of the large historic house in the locality.

i) To reduce the overall visual impact of the housing near the historic property.

The Horningsea Park property is subject to a permanent Conservation Order, issued under the NSW Heritage Act. As such the Heritage Council must give its approval prior to any consent being issued by Council. It is also included in the Register of the National Estate and has been classified by the National Trust of Australia (NSW).

Controls

Development in the vicinity of the Horningsea Park House shall be carried out in accordance with the following requirements.

Minimum Curtilage

1. The minimum curtilage for the historic house shall be as shown on the map. There shall be no development within this curtilage that is unrelated to the conservation and use of the house.

2. The existing, white painted fence shall be retained for the length of existing driveway that is retained.

3. The open grassed nature of the inner curtilage, with limited numbers of exotic and indigenous trees, shall be retained. The existing trees shall generally be retained, subject to a horticulturalist's report. If existing trees need to be removed because of their age or condition, they shall be replaced with specimens, which match the existing species.

4. Any new residential roads shall generally be located along the outer alignment of the landscaped margins. New housing shall then be located with frontage to such roads, facing into the landscaped open space. No new residential properties shall have their rear boundaries facing the landscaped margins.

Driveway

1. The semi rural nature of the driveway, with its gravel surface shall be retained to the greatest extent possible.
2. The visibility of the house from the main road shall be retained.
3. Any acoustic barriers constructed along the main road frontage, on either side of the identified curtilage, shall not be carried across the frontage of the curtilage. If required, they should be turned to follow the outer edges of the curtilage margins.

Homestead

1. The historic house shall be retained and conserved in accordance with contemporary heritage practice and with the requirements of the Heritage Council of NSW.
2. Any additions or new outbuildings associated with either the existing or new uses shall be designed in ways, which respect the historic significance of the place.
3. Alternative uses for the house shall not detract from the heritage significance of the place. Any proposed change of use of the main Horningsea Park House or alterations or additions to the house or new outbuildings within the curtilage shall be accompanied by a Conservation Plan prepared in accordance with The Burra Charter and Guidelines, issued by Australia ICOMOS. In addition, the Conservation Plan shall address the following issues:
    - The impact of any such change of use on the existing internal spatial organisation of the house.
    - The impact of any such change of use on the external form, mass and traditional architectural character of the main house.
    - The impact of any proposed new buildings or other structures on the traditional architectural character of the main house, in particular the dominance of its form and identity in the landscape.
    - The impact of any proposed site works, roadways, parking areas, signage and landscaping on the traditional architectural character of the main house and its setting, in particular the visual dominance of its form and identity in the landscape.

Site Elements

1. Sites of potential archaeological value, associated with former outbuildings, should be identified and investigated by documentary means. An Excavation Permit shall be applied for under the Heritage Act, if any disturbance is planned in their vicinity.
2. The alignment of existing or traditional fences, paths and gardens should be maintained and utilised as a basis for any replanting or reconstruction of the landscaping around the house.
3. The large exotic trees, in particular the Bunya Pines, Moreton Bay Figs and Peppercorn trees, shall be retained and conserved, subject to their age and health. Any new planting of this nature shall be limited in extent and should aim to achieve a long-term continuity of the existing landscape, not to supplement it.

Visual Prominence of the House

1. The maximum ridge height of any buildings to be erected on land between the existing Horningsea Park House and Cabramatta Creek or on the northern side of the curtilage is to be limited to RL 54 AHD, thus preserving the dominance of Horningsea Park House. Buildings shall also have a maximum ridge height of: 6m where the building is on land between RL 46 and RL 54 AHD and 8m where the building is on land below RL 46 AHD.
2. New housing within the above area shall be generally be designed with maximum roof pitches of 30 degrees, with roof materials of dark colours. Colour selections for brickwork and external wall cladding for any individual house or other building shall be from a limited colour range.
3. Future school buildings shall be located as far to the northwest and west of the proposed school site as possible. School buildings shall be generally of single storey design to minimise penetration into the visual catchment of the house.
4. Any new development on the existing golf course to the north of the Horningsea Park property shall be screened by a landscaped buffer zone of a minimum of 25m width from any road along the northern boundary of the property. There shall be no new buildings on land above RL 46 AHD in this vicinity.
5. New landscaping in the areas which surround the historic property, particularly in open spaces, school grounds and road reservations shall be selected from suitable or remnant native species in the locality and where possible should include Eucalyptus moluccana and Eucalyptus tereticornis.
6. Landscaping along the boundary of the curtilage shall be carried out in accordance with the Horningsea Park Revised Conservation Strategy approved by the Heritage Council on 6th July 1995.
7. The density of new trees in the school property and adjoining open space shall take account of the need to retain views from new public roads towards the historic house.

3.2 Carnes Hill Centre

Objectives

a) To identify land required for commercial and retail purposes to serve Carnes Hill and the Stage 2 Release Area generally.

b) To provide an attractive, accessible central focus for retail, commercial, recreation, community facilities and public transport in the Hoxton Park Stage 2 Release Area.

Controls

The shopping centre shall be designed to achieve the following:

1. Compatibility with adjoining residential area.
2. Capability to permit individual shops to trade out of normal business hours.
3. Car parking area and surrounds being landscaped to Council's satisfaction.
4. Design and location of loading area to minimise adverse impact on amenity of the adjoining residential area.
5. Convenient access from the adjacent bus routes.

6. The principles of the location and layout of this centre are as follows:

    - It is adjacent to sub-arterial roads but does not disrupt traffic movement by having direct frontage to these roads.
    - There is controlled access from the sub-arterial roads and collector streets to the centre.
    - It is accessible to likely bus routes.
    - It is adjacent to district sporting facilities and bikeways.
    - It incorporates district community facilities.
    - It incorporates a town square.
    - It provides for a shopping complex in various configurations.
    - It provides for retail uses, which rely on passing traffic without disrupting traffic on sub-arterial roads.
    - It provides a main street for the centre.
    - It provides a convenient location for a bus stop.

Pad Sites - Carnes Hill District Centre

PAD sites in general refer to commercial/retail sites located adjacent to Classified and sub-arterial roads or at gateway locations.

Controls

1. A minimum 2m wide landscape strip is required along the PAD site frontages to enhance streetscape. Further landscaping is required to screen building bulk and loading docks, and to soften expanses of hard paved areas as appropriate.
2. The building character, scale and bulk of PAD site developments are to reflect human scale by:

    - In the case of flat roofs, variations are required in parapet walls to provide relief in the massing of elevations. Articulation can be achieved by the incorporation of detail including stepping, landscaping, and increased fenestration.
    - Protruding elements such as porches, verandahs or canopy type structures shall be used to reinforce entry to the buildings.
    - For PAD sites adjacent to pedestrian and bikeway links the site's design shall address that link.

3. Signage for PAD site developments is to be part of an overall concept that provides for consistency.
4. A pole or pylon sign not exceeding 5m in height from the ground level is permitted at the rate of not more than one sign per PAD site. The sign is not to exceed 5sqm in area. The sign is to be located within an area of 5m (frontage dimension) by 3m (depth dimension) on either side of the ingress/egress points, subject to compliance with site distance requirements.
5. Signs are not permitted at locations where they are hazardous to traffic.

6. Roof signs or fins above the roofline are prohibited.
7. Signage is not to extend laterally beyond or vertically above the top of the wall to which it is attached and is not to cover any windows or architectural features.

Land on the southern side of Main Street and south of the Marketplace

1. Development of these sites should address the street with shop fronts directly to the public streets.
2. Car parking shall be provided at the side of the building, the rear or underneath the building.
3. Development should be generally in accordance with Part 6 of the DCP.

3.3 Bushland Preservation

Objectives

a) To protect and manage natural assets in association with the development of land.

b) To conserve the natural heritage of bushland in the Liverpool LGA.

c) To maintain and improve the amenity and scenic qualities of land within the Liverpool LGA.

d) To maintain and enhance the biodiversity and natural ecology of land within the Liverpool LGA.

Controls

1. Land shown on the map as Bushland Preservation has been identified as Endangered Ecological Communities, listed under the *Threatened Species Conservation Act (1995)*. The land shown, as Bushland Preservation shall not be cleared or disturbed for any purpose and shall be retained as bushland.
2. Development applications for land parcels, which include land shown on the map as Bushland Preservation shall be accompanied by a Plan of Management showing how the bushland shall be properly managed to maintain the bushland once residential subdivision takes place adjoining the land. Development in the vicinity of the bushland will need to comply with *"Planning for Bushfire Protection"* published by the *NSW Rural Fire Service*.
3. The *Department of Environment and Climate Change* has determined that Council may assume concurrence for those developments carried out in accordance with this Development Control Plan, provided that the following conditions are met:
   - The land identified in the DCP as reserves is transferred to Council ownership and managed as community land, designated as bushland, under the *Local Government Act 1993*.
   - A management plan is prepared and implemented for the land.
5. Accordingly development, which proposes to dedicate the land shown on the map as Bushland Preservation free of charge to Council will not be required to be referred to the *Department of Environment and Climate Change* under the *Threatened Species and Conservation Act (1995).*
6. Those developments, which include the land shown as Bushland Preservation and are not in accordance with these conditions, and which will have a significant effect on threatened species or ecological communities, will require the preparation of an SIS and the concurrence of the Director-General of the *Department of Environment and Climate Change*.

4. Controls for Residential Development for the areas as shown in Figure 14.

4.1 Land to which this chapter applies

This chapter applies to the land as shown in Figure 14.

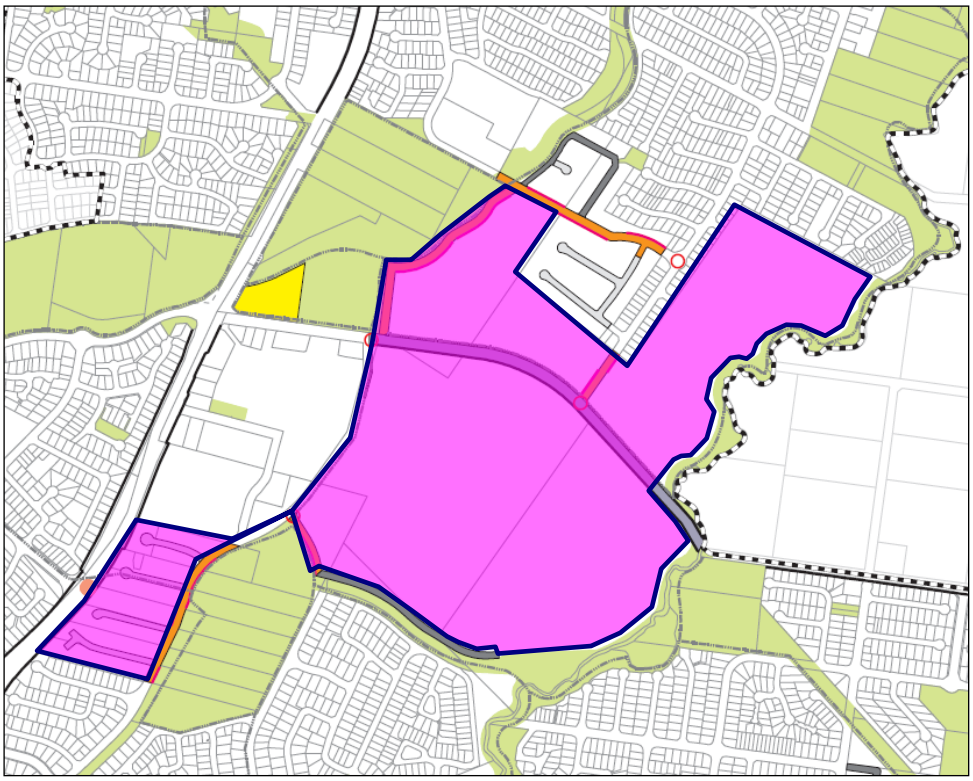


Figure 14 Land to which Chapter 4 applies

4.2 Site Planning

Objectives

a) To ensure that the dwelling house is sensitive to site attributes, such as streetscape character, natural landform, drainage, existing vegetation, land capability, slope, solar access and if relevant, heritage items.

b) To ensure privacy for residents and neighbours.

Controls

1. The dwelling layout must be designed around the site attributes such as slope, existing vegetation, land capability and / or solar access (See Figure 14).
2. There must be a direct link from at least one living area to the principal private open space.
3. The siting of windows of habitable rooms on the first floor shall minimise overlooking to the private open space of neighbouring properties.
4. Stormwater from the site must be able to be drained satisfactorily. Where the site falls away from the street, it may be necessary to obtain an easement over adjoining property to drain water satisfactorily to a Council stormwater system. Where stormwater drains directly to the street, there may also be a need to

incorporate on-site detention of stormwater where street drainage is inadequate. Refer to Water cycle management in Part 1.

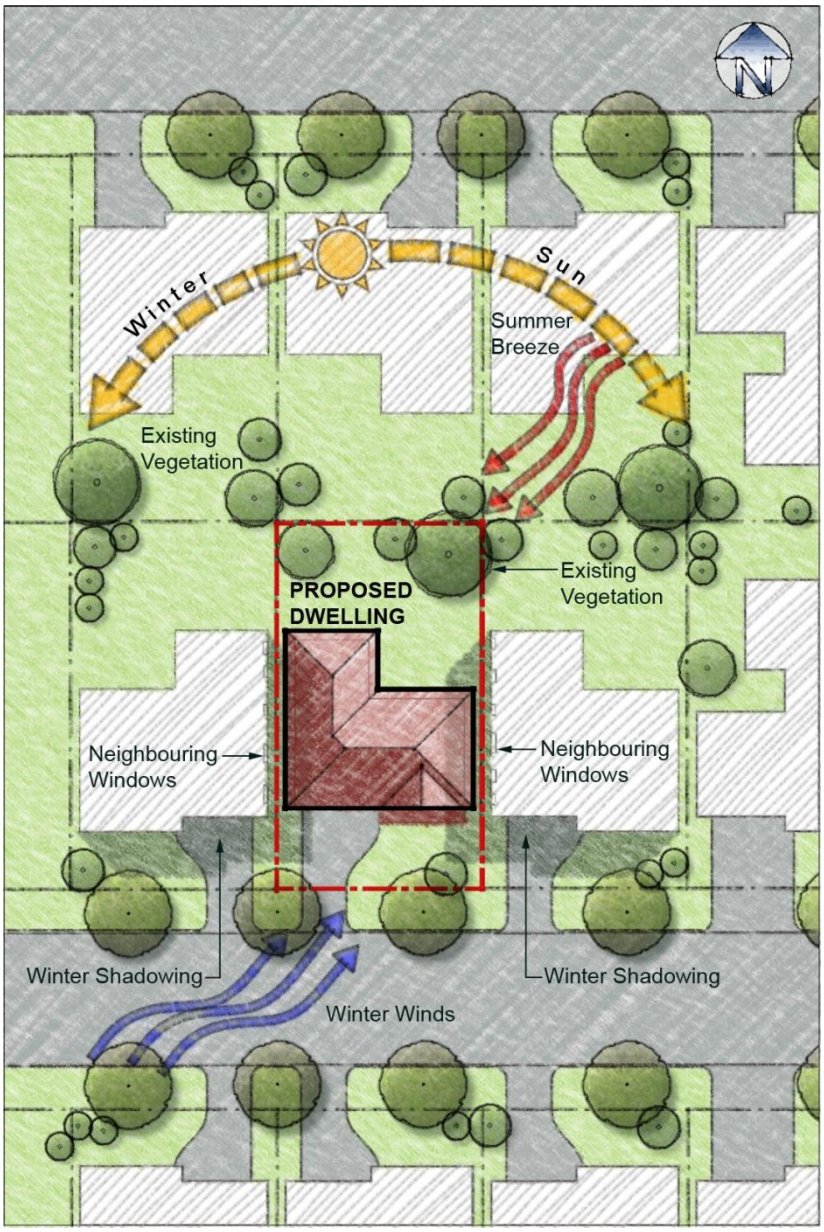


Figure 15 Example of a site analysis plan

4.3 Setbacks

Objectives

a) To set dwellings back from the street and adjacent properties to provide reasonable space for landscaping, private open space and solar access;

b) To set dwellings back from each other to provide visual and acoustic privacy;

c) To create a streetscape that provides a desirable and safe environment;

d) To establish a streetscape of a scale and sense of enclosure appropriate to the locality;

e) To provide an appropriate area capable of allowing the growth of trees and shrubs.

f) To discourage vehicular parking across street verges and footpaths

Controls

Front and Secondary Setbacks

1. Dwelling houses, semi detached dwellings, attached dwellings and Multi Dwelling Housing shall be setback in accordance with Table 1.

Table 1 Front and Secondary Setbacks

Height	Front Setback	Secondary Setback Lots under 450m^2	Secondary Setback Lots 450m^2 and over
Ground floor	4.5m	2.0m*	2.5m
First floor	4.5m	2.0m*	2.5m

* The dwelling setback may be reduced to 1m for a maximum length of 4m.

2. For dwellings fronting RE1 Public Recreation, the front setback may be reduced to 3m. A front verandah, porch or patio may be built to within 1.8m of the front boundary. The garage setback is to be maintained at a minimum of 5.5m.

3. Verandahs, balconies, eaves and other sun control devices may only encroach on the minimum front and secondary setback by up to 1m.

4. On the secondary setback encroachments must not be constructed within 1m from the property boundary.

5. The secondary setback is the longest length boundary.

6. Garages must be set back a minimum of 1m behind the main face of the dwelling. (The main face is the first wall of a habitable room)

7. Garages that address the secondary frontage must be setback 1m or 5.5m and greater. Garages are not permitted to be setback between 1 – 5.5m

8. Corner sites shall provide a frontage to both streets and should articulate their corner location with an architectural feature such as a wrap around verandah, bay window, corner entry or roof feature.

Side and Rear Setbacks

1. Buildings shall be setback from the side and rear boundaries in accordance with Table2.

Table2 Side and Rear Setbacks

Item	Side Setback	Rear Setback
Single storey dwelling houses	0.9 m	4.0 m
Second storey component of dwelling houses	1.2 m	7.0 m
Living room doors (including family rooms and rumpus rooms)	4.0 m	4.0 m

Note: Building encroachments may only occur if it is seen as beneficial for open space, solar access and the internal layout of the dwelling. The dwellings living areas should open out to open space.

Zero lot lines

1. Walls are generally to be 180mm clear of the side boundary to allow for gutter and eaves overhang.
2. The length of a zero lot line wall is limited to 50% of the adjacent side wall boundary.
3. No windows are permitted in a zero lot line wall.
4. A maintenance easement of at least 900mm shall be provided on the adjoining boundary. Refer to figure 15.

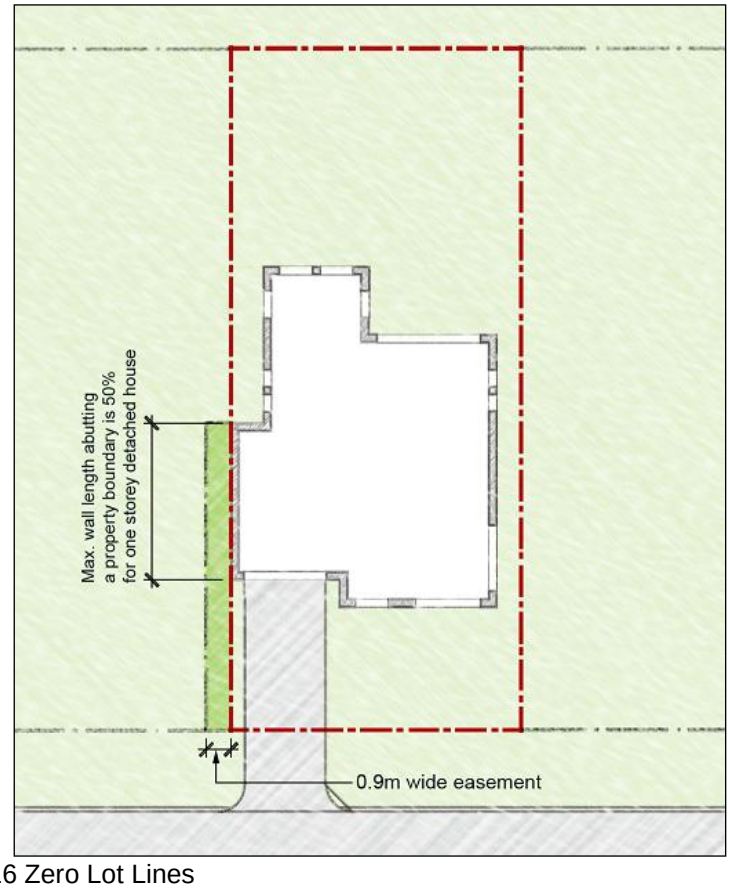


Figure 16 Zero Lot Lines

4.4 Landscaped Area and Private Open Space

Landscaped area is defined in *Liverpool LEP 2008.*

Private open space is an area within the site (usually at the rear) that is set aside for outdoor activities. Clotheslines, BBQ areas, pergola (unroofed structure), patio, garden sheds and pools can be included in the private open space.

Principal Private open space is an area that is directly accessible from at least one living room and is included in the private open space calculations (the principal private open space area may be paved or sealed).

Landscaped Area

Objectives

a) To provide an area to allow vegetation to mature.

b) To reduce the impact to neighbouring properties and natural waterways from stormwater runoff.

c) To reduce the amount of impervious areas.

d) To enhance the existing streetscape and soften the visual appearance of the dwelling.

e) To maximise the amount of landscaped area within the front setback of the dwelling.

f) Note: All proposed developments require a landscape plan prepared by a suitably qualified person to be submitted with the development application.

Controls

1. A minimum of 25% of the site area shall consist of Landscaped Area, this may include lawn, deep rooted trees, garden beds and mulched areas.
2. A minimum unincumbered area of 4 x 6m shall be provided in rear setback to accommodate deep rooted trees.
3. A minimum of 50% of the front setback area shall be Landscaped Area.
4. A minimum unincumbered area of 3 x 3m shall be provided in front setback to accommodate deep rooted trees.

Private Open Space

Objectives

a) To ensure that a minimum amount of Private Open Space is provided for outdoor activities.

b) To ensure that Private Open Space is clearly defined for private use.

c) To ensure that Private Open Space is private, landscaped, screened from overlooking and receives an adequate amount of solar access.

Controls

1. Each dwelling must provide a minimum of 50sqm of Private Open Space.
2. Areas less than 2.5m in width does not qualify as Private Open Space.
3. Private Open Space areas are not permitted within the primary street setbacks.
4. Private Open Space must have an area for clothes drying with at least 2 hours of full sun between 9.00am and 5.00pm at 21 June.
5. The Private Open Space shall include the Principal Private Open Space of 25sqm, which is directly accessible from the main living area and has a minimum dimension of 4m.

6. The Principal Private Open Space must receive 3 hours of sunlight to at least 50% of the area between 9:00am and 5:00pm on 21 June.
7. Where the Principal Private Private Open has a predominately northen aspect Clause 6 (above) does not apply.

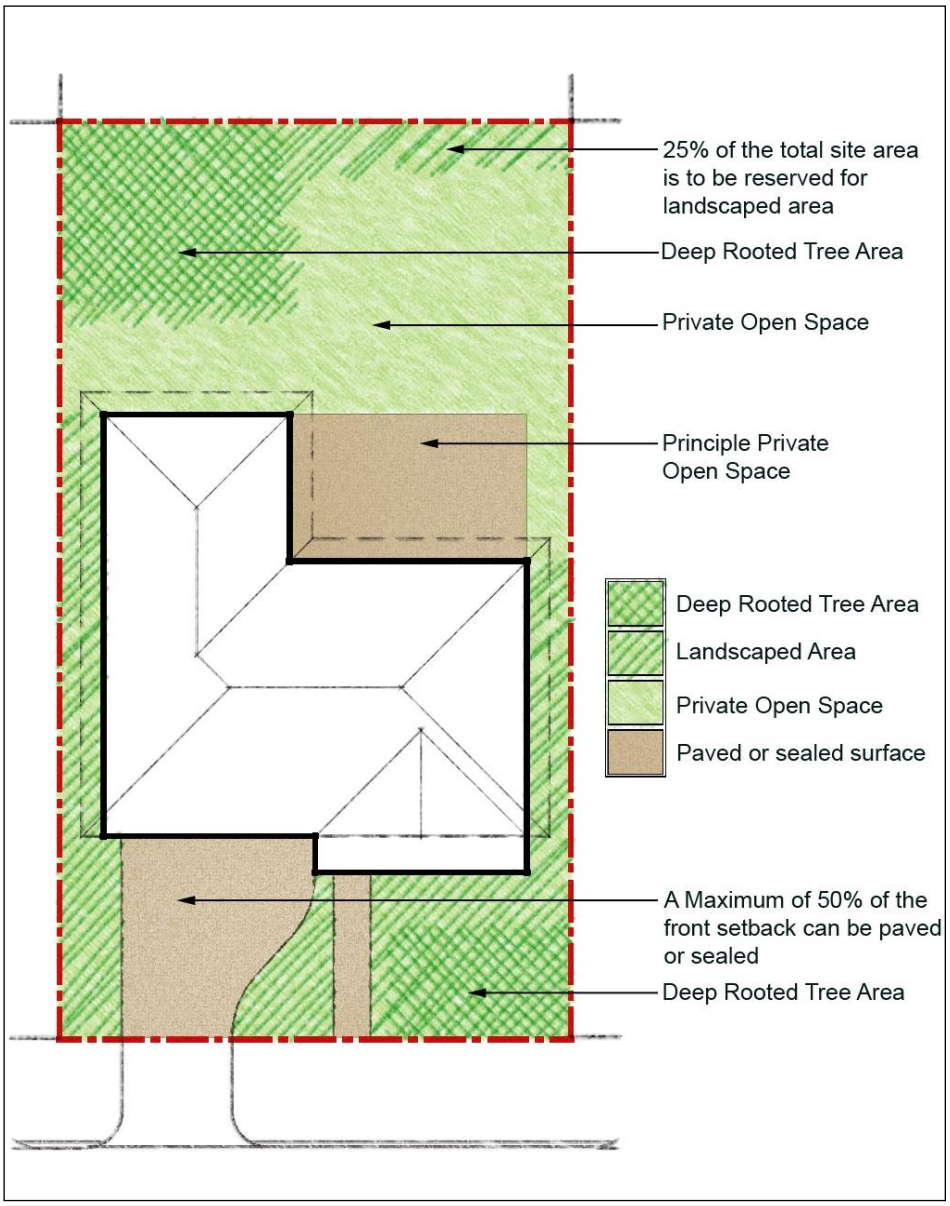


Figure 17 An example of Landscaped Area and Private Open Space

4.5 Cut and Fill, Building Design, Streetscape and Layout

Cut and Fill of Land

Objectives

a) To reduce the incidence of change in natural ground levels.

b) To encourage the architectural designs of dwellings which suit the contours of the land.

c) To provide controls for cut and fill of land designed to minimise the incidence of soil erosion and subsequent sedimentation of waterways.

d) To ensure that development on adjoining properties is not threatened or prejudiced by proposed cut and fill practices.

e) To discourage and eliminate, where possible, the construction of retaining walls on allotment boundaries.

f) To minimise overshadowing of neighbouring dwellings, their private open space or any solar panelling.

Controls

1. The maximum cut on a site must not exceed 600mm.

2. All retaining wall structures shall be masonry construction and designed by a suitably qualified person, or constructed as specified by the manufacturer of the product. The retaining wall shall be constructed wholly inside (within) the boundary of the site.

3. All slab constructions for dwellings that are above natural ground level are to be constructed using dropped edge beams to retain fill. The maximum fill within the confines of the slab must not exceed 1m. All fill must be contained within the dwelling footprint. Refer to Figure 24.

4. Contaminated fill, either imported or found on site is not permitted.

   Note: In the event of approval being granted to the erection of retaining wall(s) to contain proposed cut, Council will require the completion of such retaining wall(s) PRIOR TO the release of the occupation certificate.

5. Where an applicant considers that an allotment has characteristics which warrant exemption from this policy, an application for exemption may be made by the submission of a development application to Council for consideration. In addition to normal requirements the submission should include:

   - A plan showing existing contours (at 0.5m intervals) of the subject site and all adjoining sites.
   - A plan showing future contours (after proposed cut and fill) of the subject site and all adjoining sites.
   - Full details of any proposed retaining wall(s).

   Note: In the event of approval being granted to the erection of retaining wall(s) to contain proposed cut and fill, Council will require the completion of such retaining wall(s) PRIOR TO the commencement of any building works.

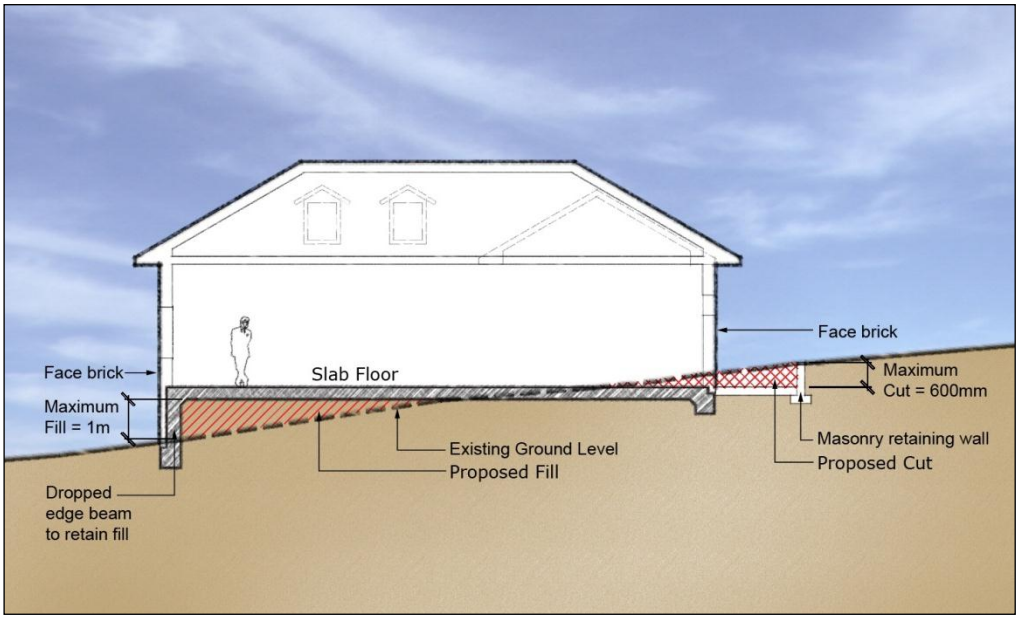


Figure 18 Cut and Fill requirements

Building Envelopes

Background

The orientation and site cover of a building has significant implications for residential amenity. Building envelopes determine the orientation and footprint of a dwelling, as well as the total volume of the dwelling.

Objectives

a) To facilitate the efficient use of the site area.

b) To maximise private amenity within the building.

c) To minimise the impacts of development on neighbouring properties in regard to views, privacy and overshadowing.

d) To ensure that buildings are sited so as to provide for solar access and both visual and acoustic privacy.

e) To provide an acceptable scale of development.

Controls

1. The building footprint for single detached dwellings is not to occupy more than 55% of the site and the total impervious area is not to exceed 75% of the total site area. A minimum of 25% of the site area must be pervious surfaces.

2. The building footprint for denser development (i.e. attached/zero lot housing, terrace, townhouse or villa development) is not to occupy more than 60% of the site and the total impervious area is not to exceed 75% of the total site area. A minimum of 25% of the total site area must be pervious surfaces.

Building Design and Appearance

Objectives

a) To encourage designs that will enhance the character of the neighbourhood.

b) To promote variation of building facade and design.

c) To ensure that the building enhances the streetscape through the use of suitable built form design and landscaping.

d) To ensure buildings address all street frontages.

e) To discourage garages and in particular garage doors, from visually dominating the streetscape.

f) To ensure that the building design, detailing, colour and finish shall add visual interest to the street and shall compliment the street.

g) To ensure habitable rooms address the street.

h) To encourage balconies over garages on two storey dwellings.

Controls

1. All dwelling houses are to be orientated to the street (See Figure 18).
2. The front pedestrian entrance must be visible from the street.
3. The front building facades shall be articulated, this articulation may include front porches, entries, wall indents, changes in finishes, balconies and/or verandahs.
4. Eave overhang must provide for sun shading and protect windows and doors. Eaves should have a minimum overhang of 400mm and be provided to a minimum of 70% of the dwelling.
5. Dwelling houses that face two street frontages or a street and public space shall address both frontages by the use of verandahs, balconies, windows or similar modulating elements.

Two storey dwellings

1. To break up the bulk of two storey dwellings balconies built above garages are encouraged (See Figure 18).
2. The maximum total length of the side walls of the first floor component of a dwelling shall be a maximum of 30m as measured from any point within 3m of that side wall (for example 12m + 18m = 30m) (See Figure 19).

Figure 19 Example of Building Appearance (Indicative Only – Not to Scale)

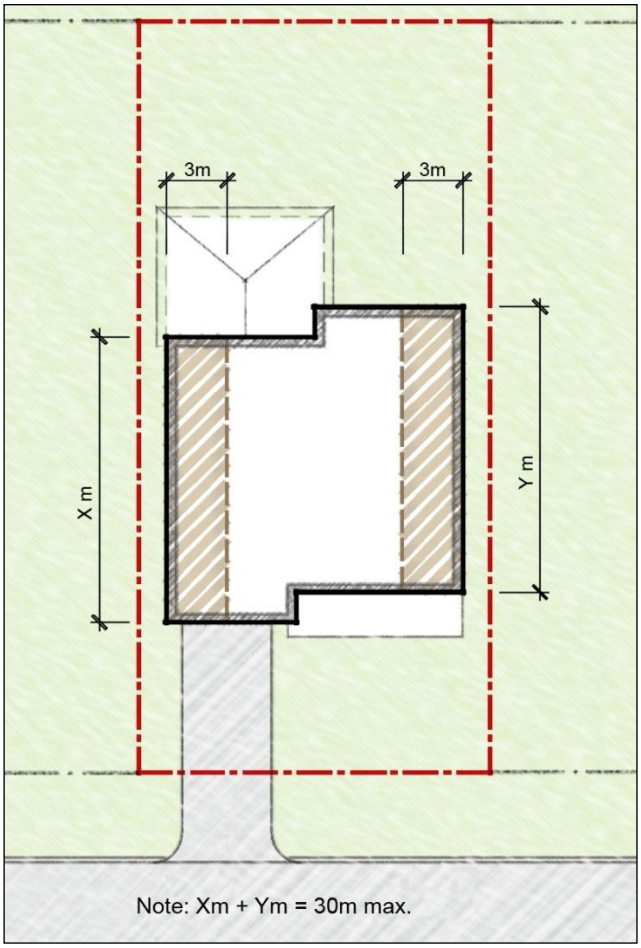


Figure 20 Maximum total first floor wall length of a two storey dwelling

Garages and Carports

1. The maximum width of garage doors or carports must be no greater than 50% of the building frontage width.
2. Garages and carports must be designed to be the minor element of the façade
3. Garage roofs shall be incorporated into the roof design of the house. Separate roofs for garages are discouraged, unless actually separated from the dwelling.
4. Garages and carports are to be compatible with the building design in terms of height, roof form, detail, materials and colours.
5. Carports may be built in front of the garage *only if* the carport is:
   - No larger than 5.5 x 6m.
   - Built of a similar colour and materials of the house.
   - Setback 2m from the front property boundary.
   - Compatible with the local streetscape.
6. The conversion of garages to living space may only be permitted if:
   - At least one car parking space is provided behind the front setback.
   - The additional living area does not result in the building exceeding the maximum permitted floor space ratio.

Internal Design of Dwellings

Objectives

a) The internal design must contribute to personal safety and to the protection of property by permitting casual surveillance of public spaces from private windows and entries.

b) To provide passive surveillance from rooms addressing the street or any adjoining open space.

c) To encourage the internal design of the dwelling to take advantage of cross ventilation.

d) To locate amenity rooms (such as laundries, bathrooms, toilets) to the side and rear of the development.

e) To ensure that each dwelling shall provide a sufficient amount of storage for elements such as garden and sports equipment.

Controls

1. All dwellings shall have habitable rooms located to the front of the dwelling for security and surveillance to the street.
2. Living rooms should take advantage of northern aspects.
3. Access to private open space must be from at least one living room.
4. The internal layout of the dwelling is encouraged to incorporate cross ventilation.
5. Bathrooms, ensuites, laundries and walk in wardrobes should be located to the side or rear of the dwelling.
6. Each dwelling must provide a minimum storage area of $8m^3$.
7. Locate active use rooms or habitable rooms with windows overlooking communal/public areas (e.g. playgrounds, gardens).
8. Dwelling entries must be oriented to the street.

4.6 Landscaping and Fencing

Landscaping

Objectives

a) To retain existing mature trees within the site in a way which ensures their ongoing health and vitality.

b) To provide privacy, summer shade and allow winter sun.

c) To enhance the existing streetscape and visual appearance of dwellings.

d) To encourage landscaping that is appropriate to the natural, cultural and heritage characteristics of its locality.

e) To ensure the visual impact of development is minimised and integrated into the streetscape.

Controls

1. A minimum of one tree is to be provided within the front setback area of every residential dwelling. This may include existing trees that are to be retained within the front setback area. Newly planted trees are to have a minimum pot size of five litres.
2. Trees planted on the northern side of private open space and habitable rooms are to be deciduous.

3. Planting of vegetation at the front of higher density development must consider the need for passive surveillance. Excessively dense vegetation that creates a visual barrier must be avoided.
4. Any tree with a mature height over 8 m should be planted a minimum distance of 3 m from the building or utility services.
5. A landscape plan must be lodged with all Das, and is to provide the following details
    - The location of any existing trees on the property, specifying those to be retained and those to be removed.
    - The location of any trees on adjoining properties that is likely to be damaged as a result of excavations of other site works.
    - The position of each shrub and tree species proposed to be planted. Each plant is to be identified by a code referring to a plant schedule on the plan.

Fencing

Objectives

a) To provide a clear transition between public and private areas.

b) To provide a visual element within the streetscape.

c) To ensure fencing enhances the streetscape.

Controls

1. Wall finishes must have low reflectivity.
2. Where noise insulation is required, consider the installation of double-glazing or other noise attenuation measures at the front of the building rather than construction of a high solid form fence.

Primary Frontage

3. The maximum height of a front fence is 1.2m.
4. Fences should not prevent surveillance by the dwelling's occupants of the street or communal areas.
5. The front fence must be 30% transparent. (See Figure 20)
6. Front fences shall be constructed in masonry, timber and/or vegetation and must be compatible with the proposed design of the dwelling.

Secondary Frontage

7. Side fences and walls must be a maximum of 1.8m in height, and constructed of masonry, timber and/or landscaped (see Figure 20).
8. For side walls or fences along the secondary frontage, a maximum height of 1.2m is required for the first 9m measured from the front boundary, the remaining fence / wall may then be raised to a maximum of 1.8m (see Figure 20). The secondary setback is the longest length boundary.
9. Side fencing facing a public street or open space must not be constructed of sheet metal.

Boundary Fences

10. The maximum height of side boundary fencing within the setback to the street is 1.2m.
11. Internal boundary fences shall be lapped and capped timber or metal sheeting.

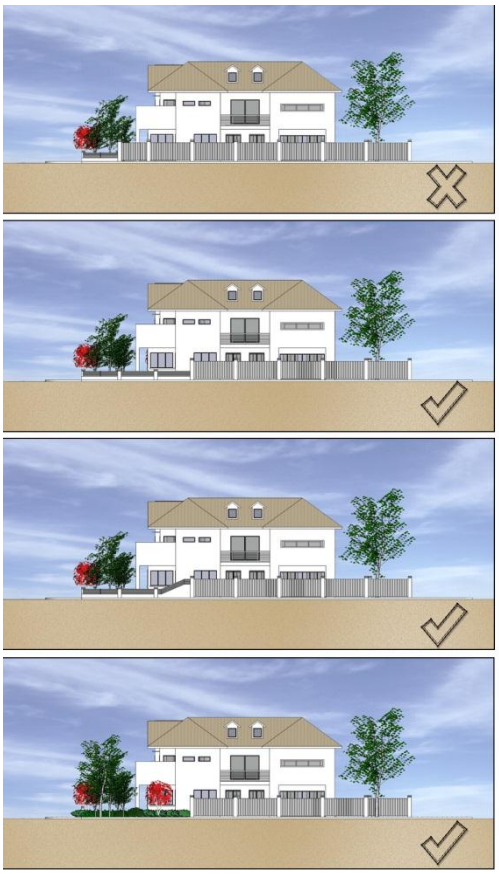


Figure 21 Fence treatments on secondary frontage

4.7 Car Parking and Access

Objectives

a) To provide car parking facilities on site that are convenient, safe and have sufficient space for vehicular manoeuvrability, whilst being visually unobtrusive.

b) To minimise the need for on-street car parking from new dwellings.

Controls

1. Two car parking spaces shall be provided for each dwelling.
2. At least one car parking space must be provided behind the front setback.
3. A car parking space is to have a minimum dimension of 2.5 x 5.5m.
4. A single garage is to be a minimum of 3m wide internally and unobstructed.
5. All parking spaces for adaptable housing units shall comply with AS 2890:1 for disabled car parking.

4.8 Amenity and Environmental Impact

Overshadowing

Objective

To minimise overshadowing of neighbouring dwellings and their private open space.

Controls

1. Adjoining properties must receive a minimum of three hours of sunlight between 9am and 5pm on 21 June to at least:

- One living room, rumpus room or the like.
- 50% of the private open space.

Privacy

Objective

To site and design buildings in a manner which protects the visual privacy of adjoining dwellings and their private open space.

Controls

1. Habitable room windows facing side boundaries are to be offset by at least 1m from any habitable room windows in an adjoining dwelling (See Figure 21).
2. Habitable room windows on the first floor that face the side boundary are to avoid unreasonable overlooking by having a minimum sill height of 1.5 m, except where they face a street or public open space (See Figure 21).
3. Building siting, window location, balconies and fencing must consider the importance of the privacy of on site and adjoining buildings and private open spaces.
4. Landscaping should be used where possible to increase visual privacy between dwellings and adjoining properties.

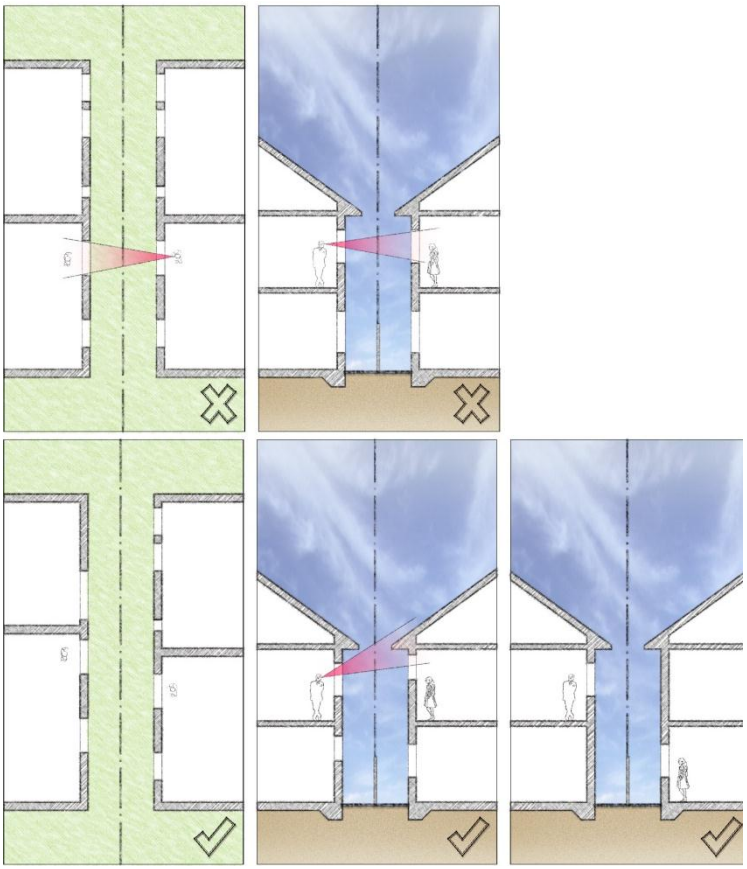


Figure 22 Privacy and Amenity

Acoustic Privacy

Objective

To ensure appropriate noise and vibration attention measures are incorporated into residential development.

Controls

1. Noise attenuation measures should be incorporated into building design to ensure acoustic privacy between on-site and adjoining buildings.
2. Developments in areas adversely impacted upon by traffic related noises must incorporate the appropriate noise and vibration mitigation measures into the design in terms of the site layout, building materials and design, orientation of the buildings and location of sleeping and recreation areas.
3. Where party walls are provided they must be carried to the underside of the roof covering and be constructed in accordance with Part F5 of the *Building Code of Australia*.
4. The proposed buildings must comply with the Department of Environment and Climate Change criteria and the current relevant Australian Standards for noise and vibration and quality assurance.

4.9 Site Services

Objectives

a) To ensure that the required services are provided.

b) To ensure that the services provided are easily protected or maintained.

Controls

Letterboxes

1. Letterboxes shall to be provided for each dwelling on site, easily accessible from the street, able to be securely locked and provided in accordance with Australia Post's requirements.
2. Freestanding letterbox structures should be designed and constructed of materials that relate to the main building.
3. Residential numbering should be attached to the letterbox so that it is clearly visible from the street frontage. Numbers should be 75 mm in height, reflective and in contrast to the backing material.

Frontage works and damage to Council infrastructure

4. Where a footpath, road shoulder or new or enlarged access driveway is required to be provided this shall be provided at no cost to Council.
5. Council must be notified of any works that may threaten Council assets. Council will assess any applications for works involving Council infrastructure.
6. Where there are no existing street trees in front of the site it may be a condition of consent that street trees be provided in the footpath area immediately in front of the site.

Electricity Sub Station

In some cases it may be necessary to provide an electricity sub station at the front of the development adjacent to the street frontage. This will involve dedication of the area as a public road to allow access by the electricity provider. The front boundary treatment used elsewhere on the street frontage.

4.10 Secondary dwellings (Granny Flats)

Objective

To provide housing choice within a standard residential lot for the use of a separate dwelling within the existing title.

Controls

1. A Secondary dwelling can be a maximum of one storey high, unless the granny flat is above the garage facing a rear laneway, where the granny flat must be one storey high above the garage.
2. A Secondary dwelling should be attached to the main dwelling, as provided by Part 2 of the DCP. However, Council may consider applications for detached granny flats on a merit base.
3. A Secondary dwelling should compliment the main dwelling design by using the same style of construction and a similar colour.

Note: Secondary dwellings are included in the overall floor space ratio of a property, and only one Secondary dwelling is permitted per lot.

Appendix 1 Street & Landscape Design

The following information assists developers in the detailed design layout of streets and adjacent landscaping. The guidelines are seen as the minimum acceptable standard. Developers may wish to exceed these standards to may wish to provide an alternative, subject to approval from Council.

The landscaping proposed reflects a road hierarchy. The Classified roads provide a native bushland appearance. The sub-arterial roads and trunk collector streets provide an "avenue" appearance consisting of street trees, and feature landscaped strips alongside the street.

It is advisable to consult Integral Energy regarding clearances to any existing or proposed electricity power lines.

Landscape Specifications

Sub arterial roads, trunk collector streets & access streets

- Where there are existing weed infestations in the landscape zone, spray weeds with a glyphosphate based herbicide (such as Roundup), in accordance with manufacturers specifications. Sprayed areas are to remain undisturbed for a period of two (2) weeks during the summer and four (4) weeks during winter.
- Remove large stones, building debris, rubbish or any material that may restrict the growth of plants.
- Apply gypsum at a rate of 300 kg/ha and cultivate it into the surface to a depth of 150mm.
- Place and consolidate a layer of clean imported topsoil to create a profile, as shown on the subsequent pages.
- Where applicable, install CCA treated timber edging to locations as shown on
- The subsequent pages.
- Plant trees and shrubs in all landscape zones in accordance with planting recommendations. Refer to the following section on Planting in mulched landscape areas and medians, and Street Tree Planting.
- Apply a continuous 75mm layer of organic mulch to the whole garden bed area.
- Provide continuous maintenance to all landscape zones for a period to 12 months to ensure plant establishment. Refer to section on Maintenance.

Planting

Planting in mulched landscaped areas & medians:

- Trees and shrubs are to be planted in a random fashion at a density of approximately:
- 1 tree for every 10sqm of landscaped zone minimum pot size 35L.
- 1 tree at every 8m interval within the median, (One species only with a minimum pot size 35L).
- 1 shrub for every 1sqm of landscaped zone with a minimum pot size of 150mm.
- 2 groundcovers for every 1sqm of median landscape.

Species List, for landscaped areas (excluding median)

Plant Name	% of total quantities to be planted	Plant Name	% of total quantities to be planted
Trees		**Shrubs**	
Eucalyptus tereticornis	15%	Acacia decurrens	10%
Eucalyptus moluccana	20%	Acacia falcata	10%
Eucalyptus crebra	20%	Acacia parramattenisis	5%
Eucalyptus maculata	30%	Melaleuca armillaris	10%
Angophora floribunda	5%	Melaleuca hypericifolia	5%
Casuarina glauca	10%	Melaleuca linariifolia	10%
		Pultenaea villosa	5%
		Banksia spinulosa	5%
		Lomondra longifolia	5%
		Leptospermum juniperinum	10%
		Hakea sericea	10%
		Kunzea ambigua	5%
		Kunzea baxteri	5%
		Indigophera australis	5%

Street Tree Planting

Provide street tree planting to locations and sizes as detailed below:-

- 100 litre trees at 10m intervals along both sides of Sub-Arterial Roads and Trunk Collector Streets.
- Trees are to be planted 600mm back from the kerb line.

Maintenance

Maintenance of mulched landscaped areas shall include the following activities:

- Topping of the mulch to maintain a continuous 75mm layer.
- Maintaining soil moisture levels during dry periods.
- Weeding and treating pest and disease infestations with the appropriate horticultural methods.
- Replacement of any container grown plants, which are dead or dying.

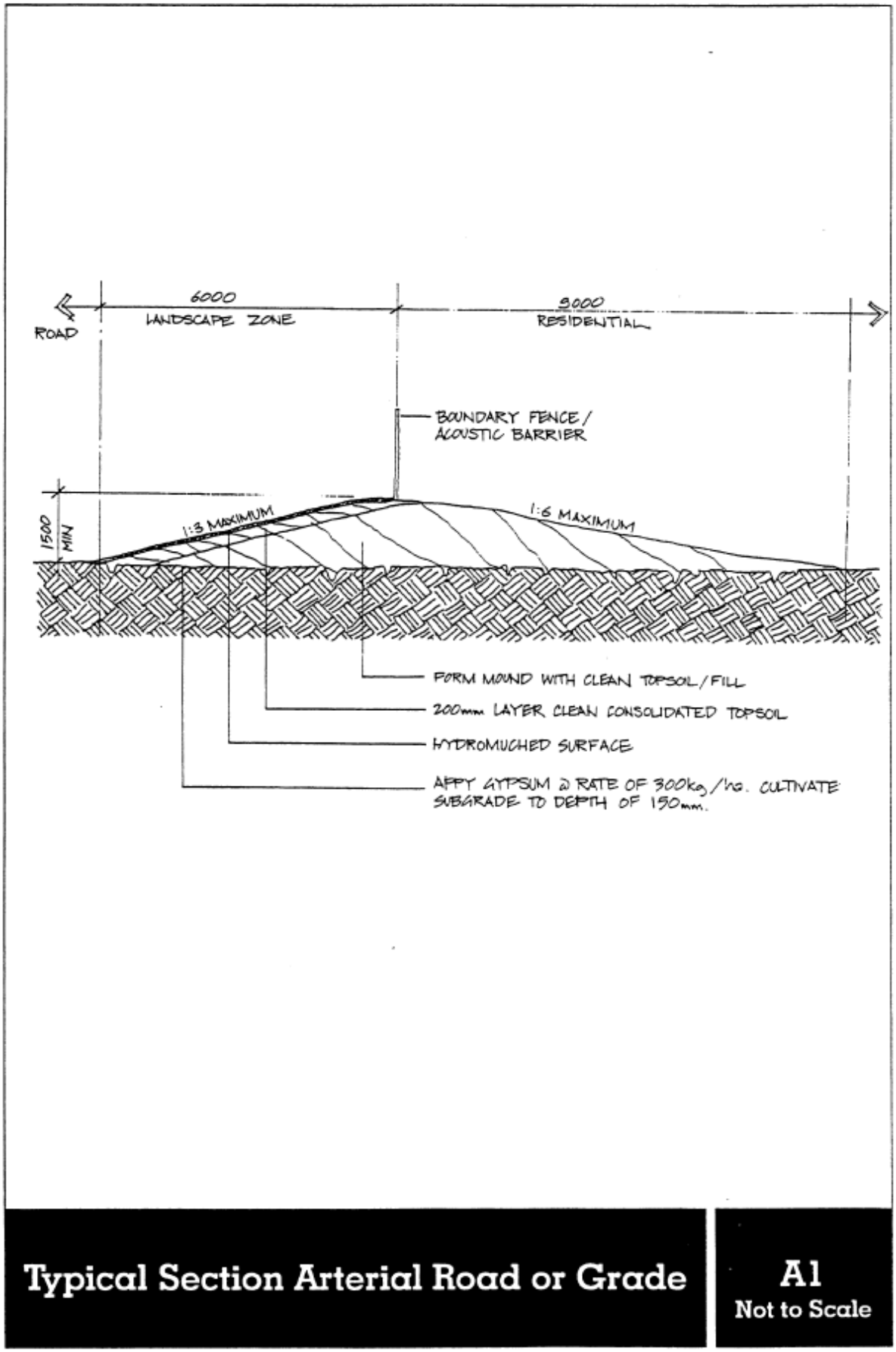


Figure 22 Typical Classified Road Grade

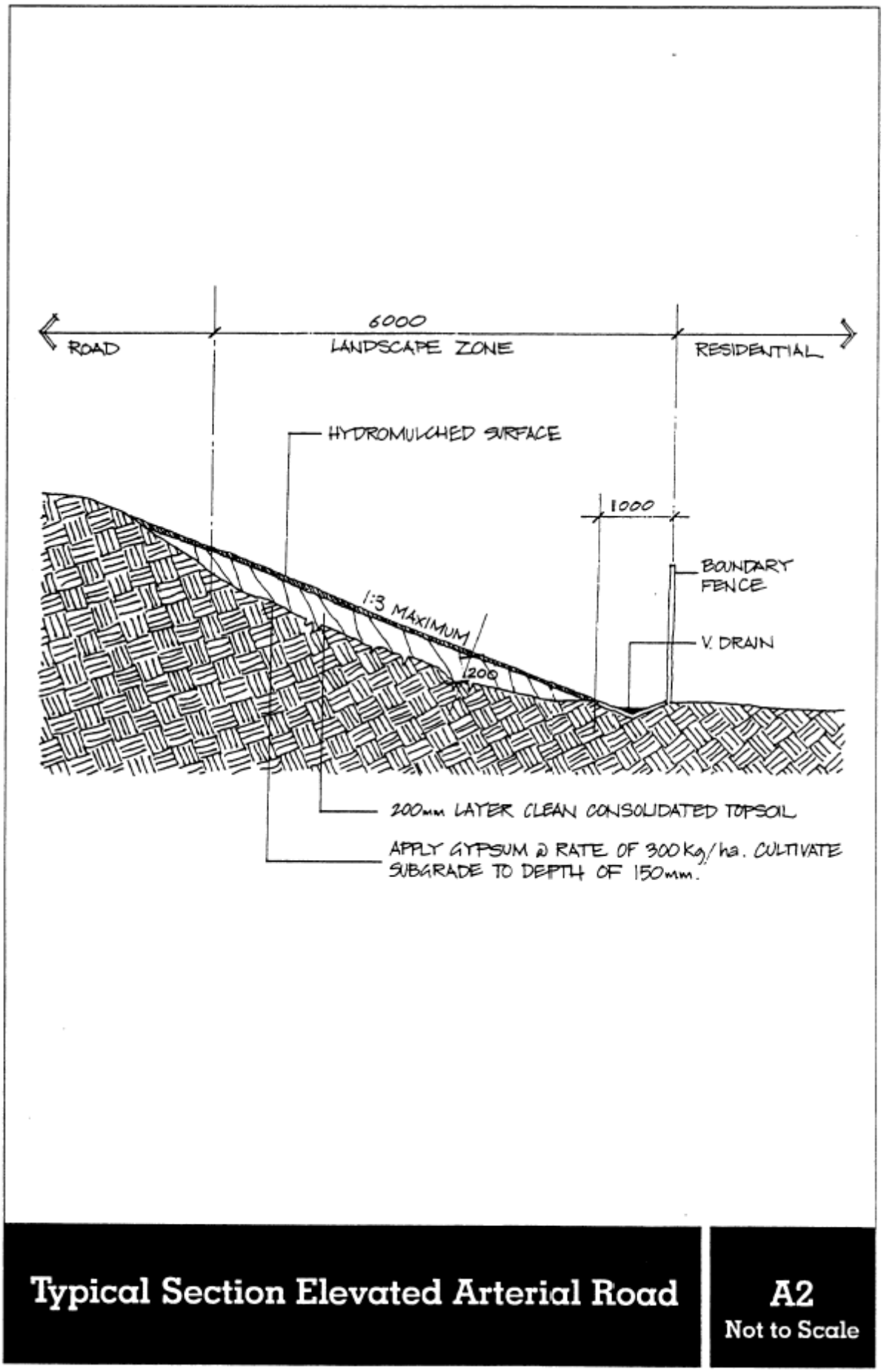


Figure 23 Elevated Classified roads

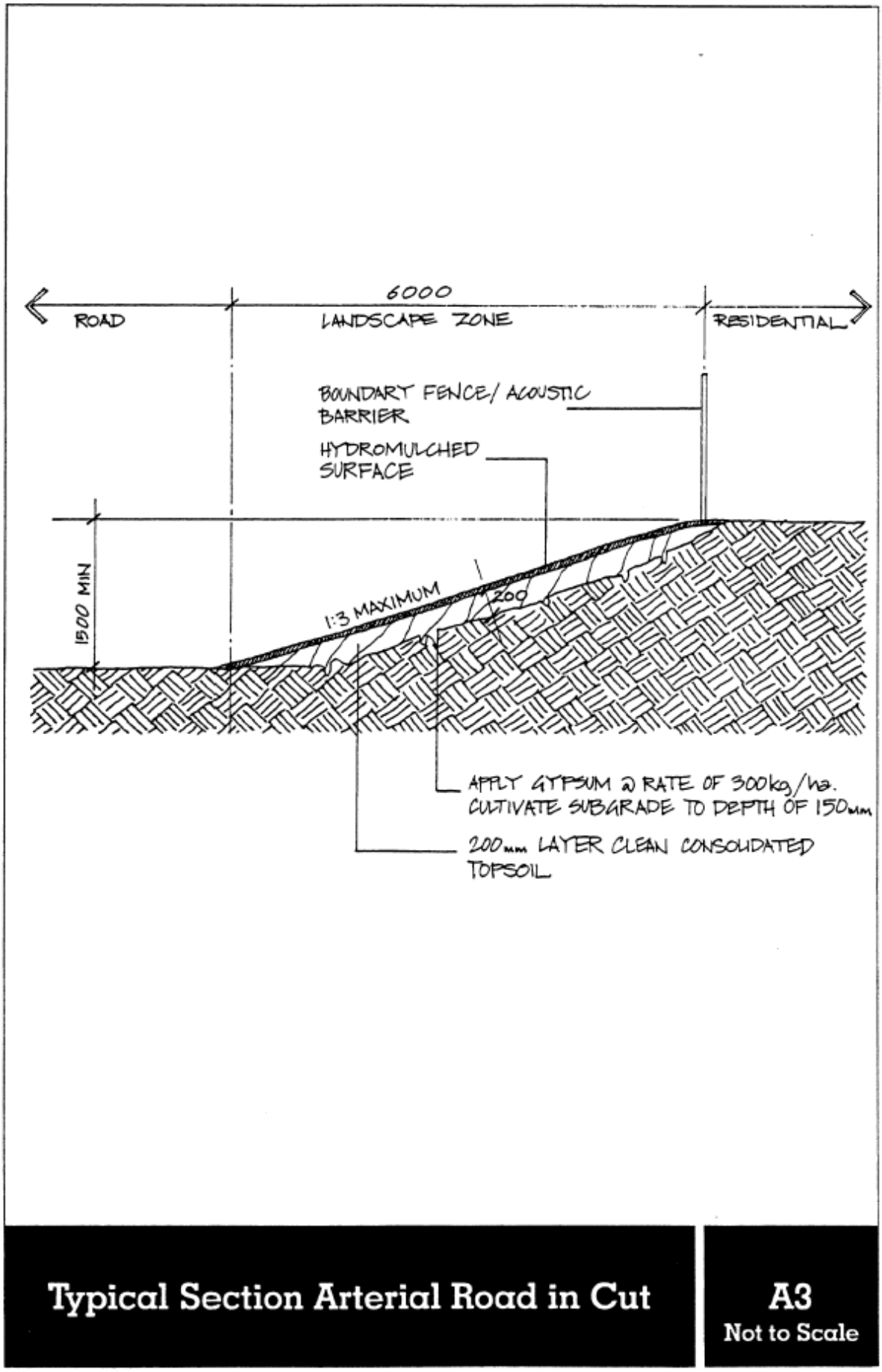


Figure 24 Classified roads in cutting

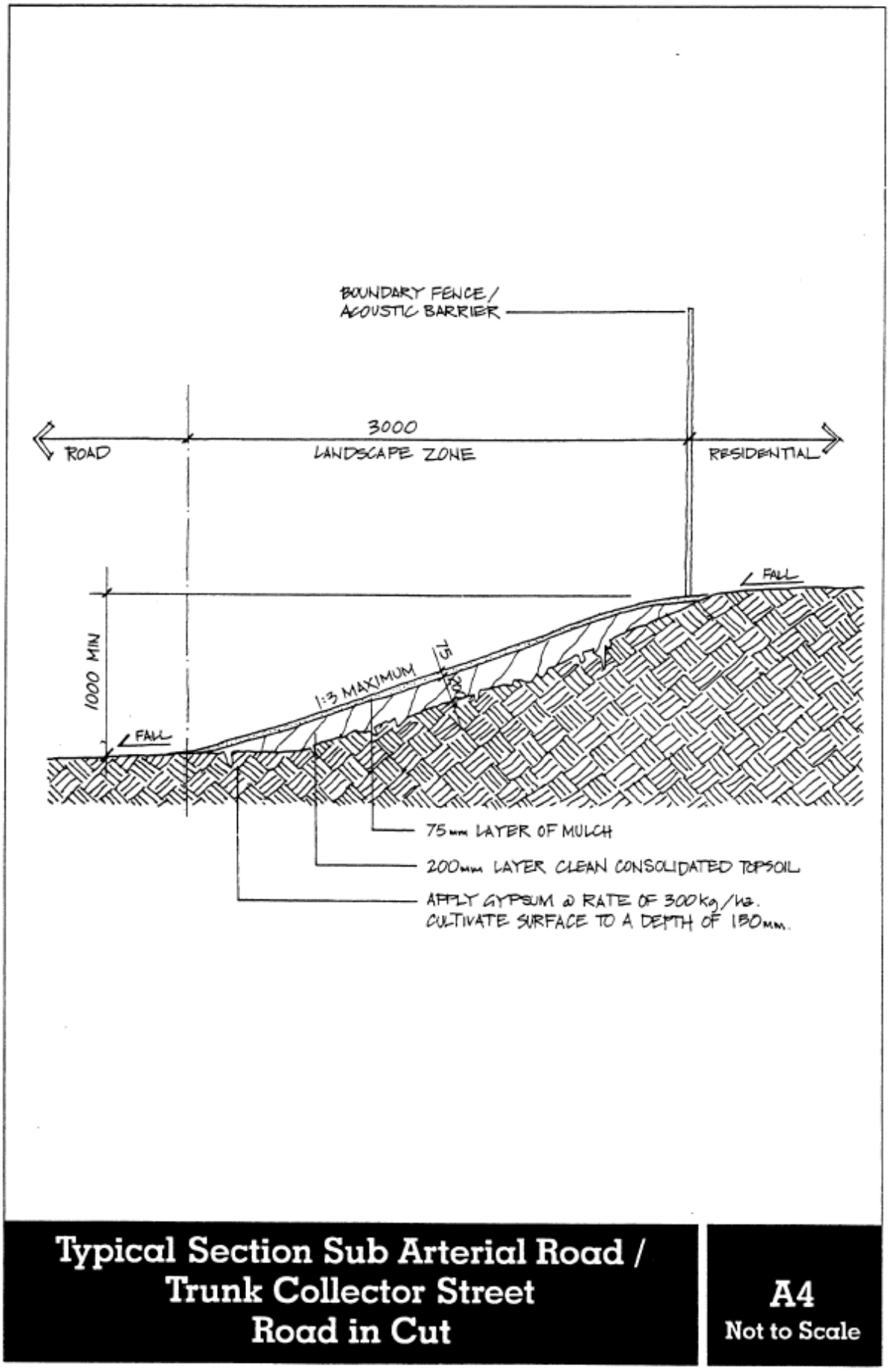


Figure 25 Trunk Collector Street in Cutting

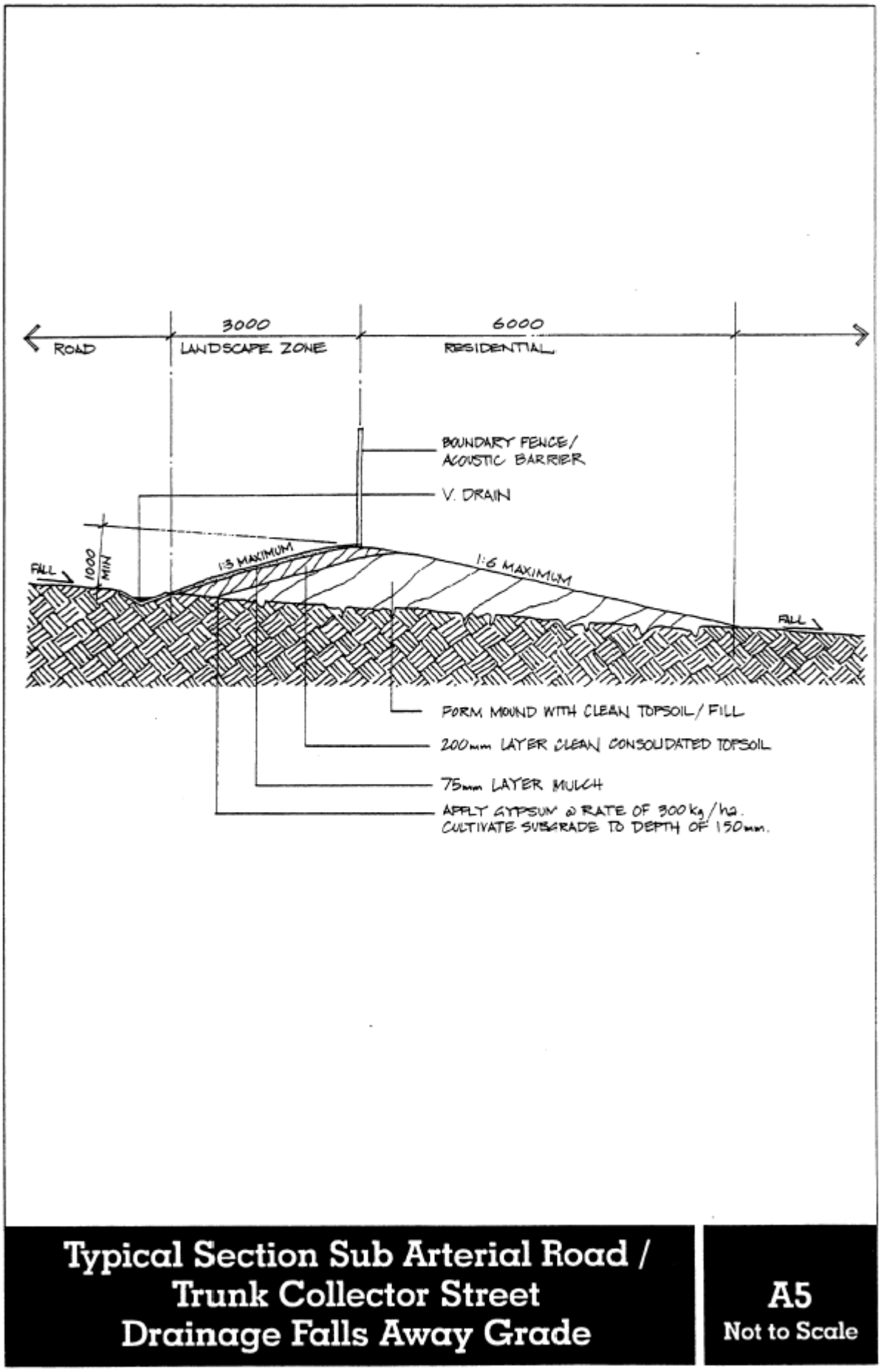


Figure 26 Drainage of road

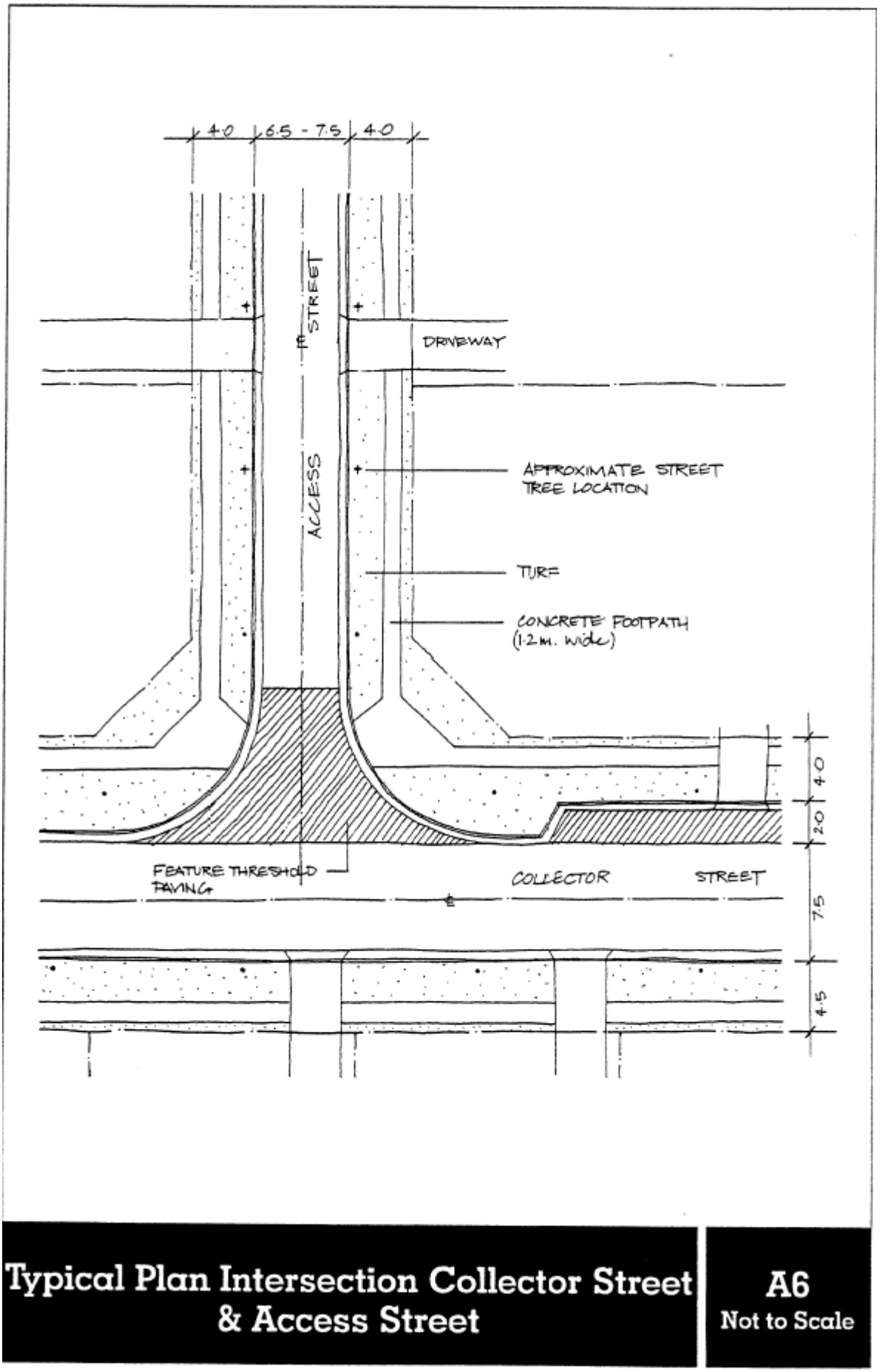


Figure 27 Intersections

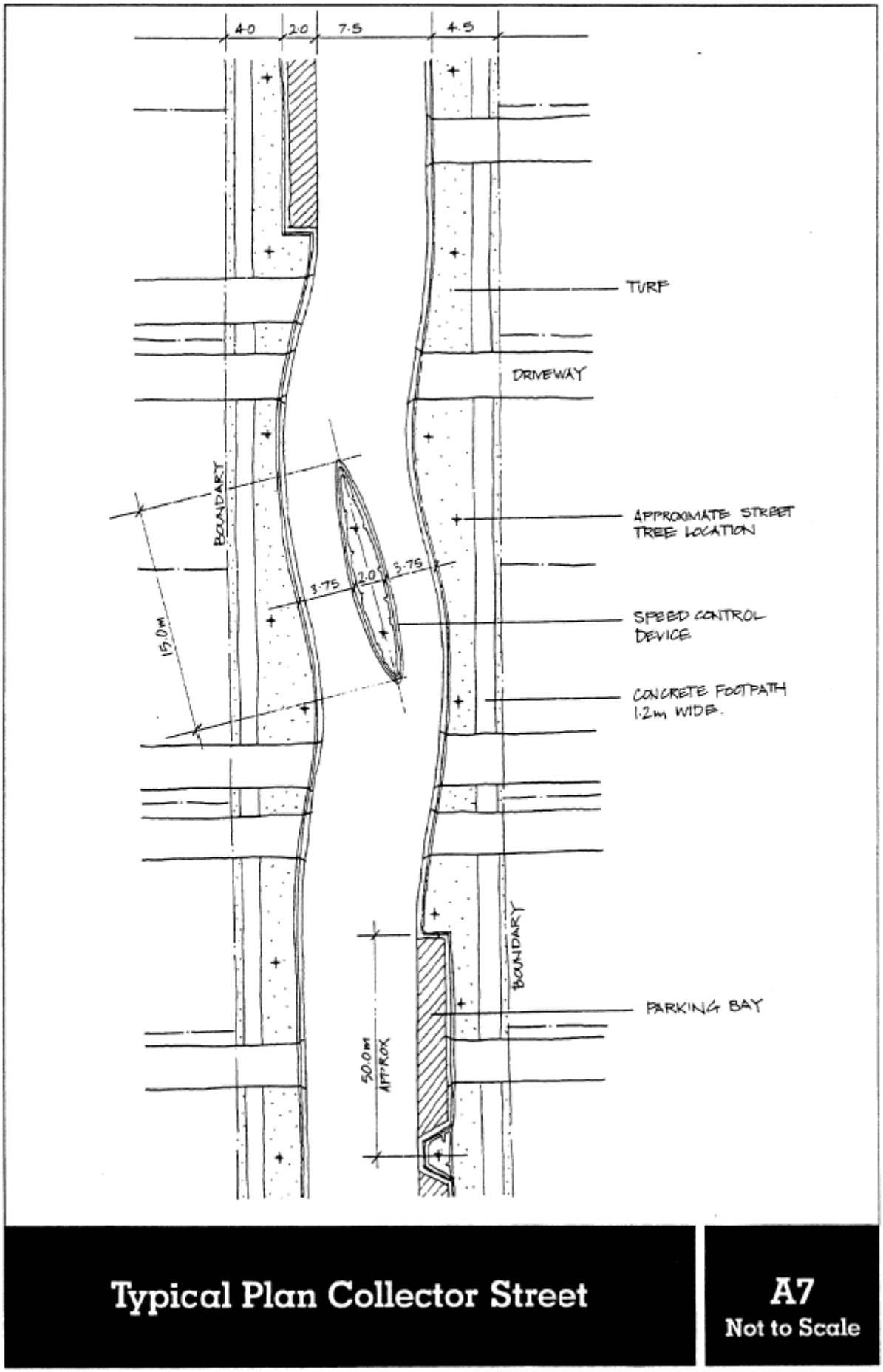


Figure 28 Typical collector streets

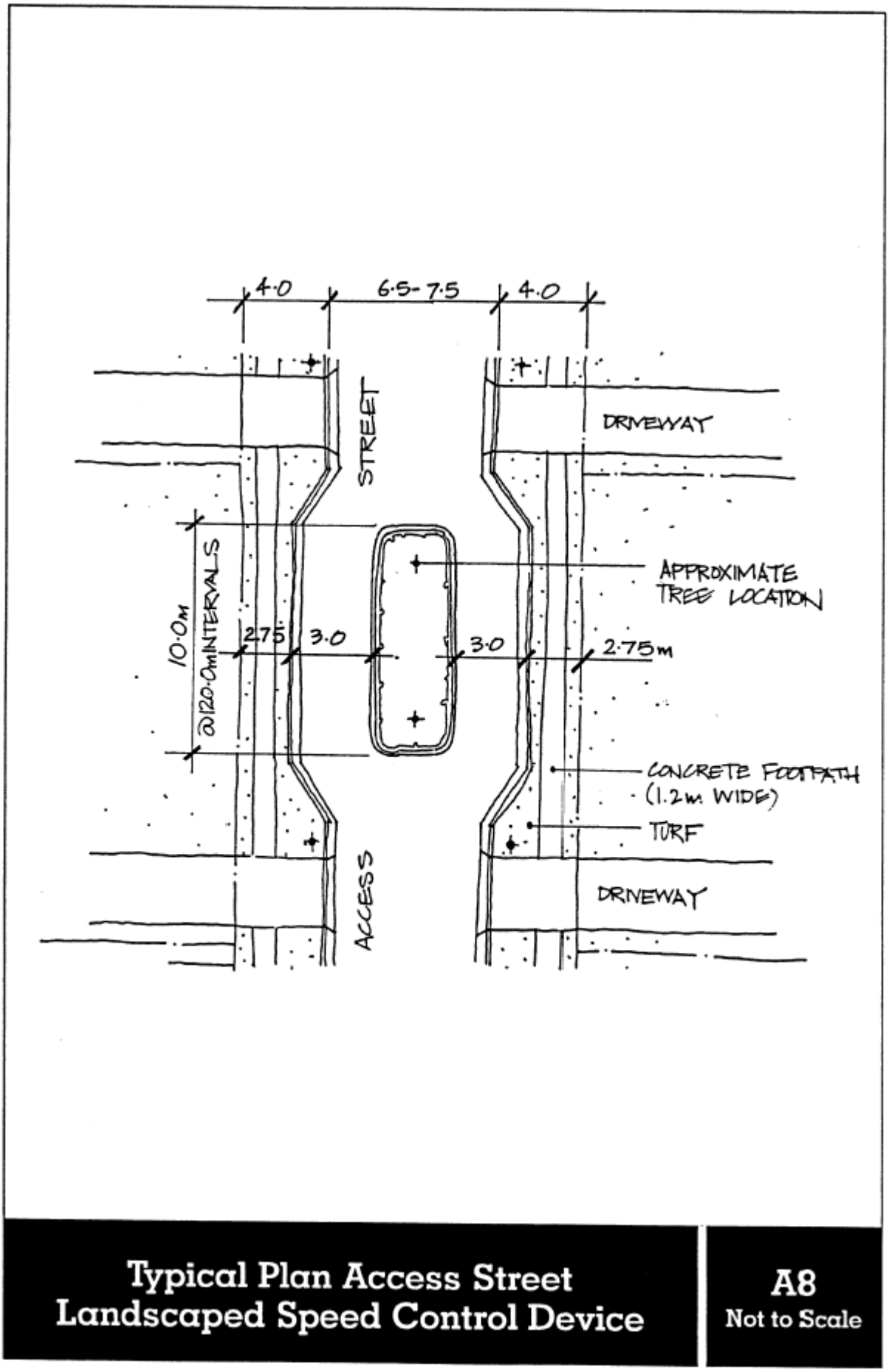


Figure 29 Landscape speed control device

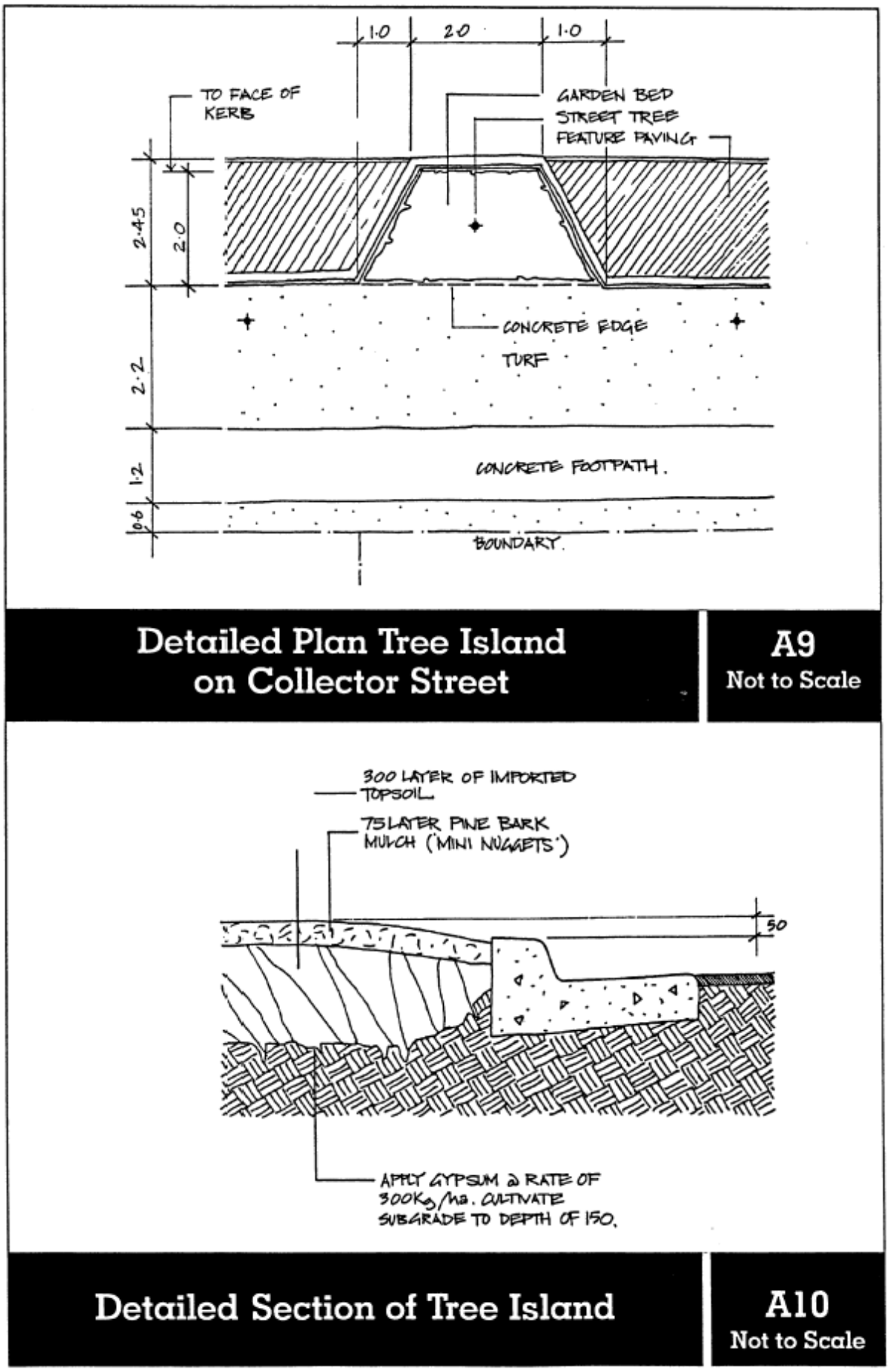


Figure 30 Tree Islands in roads

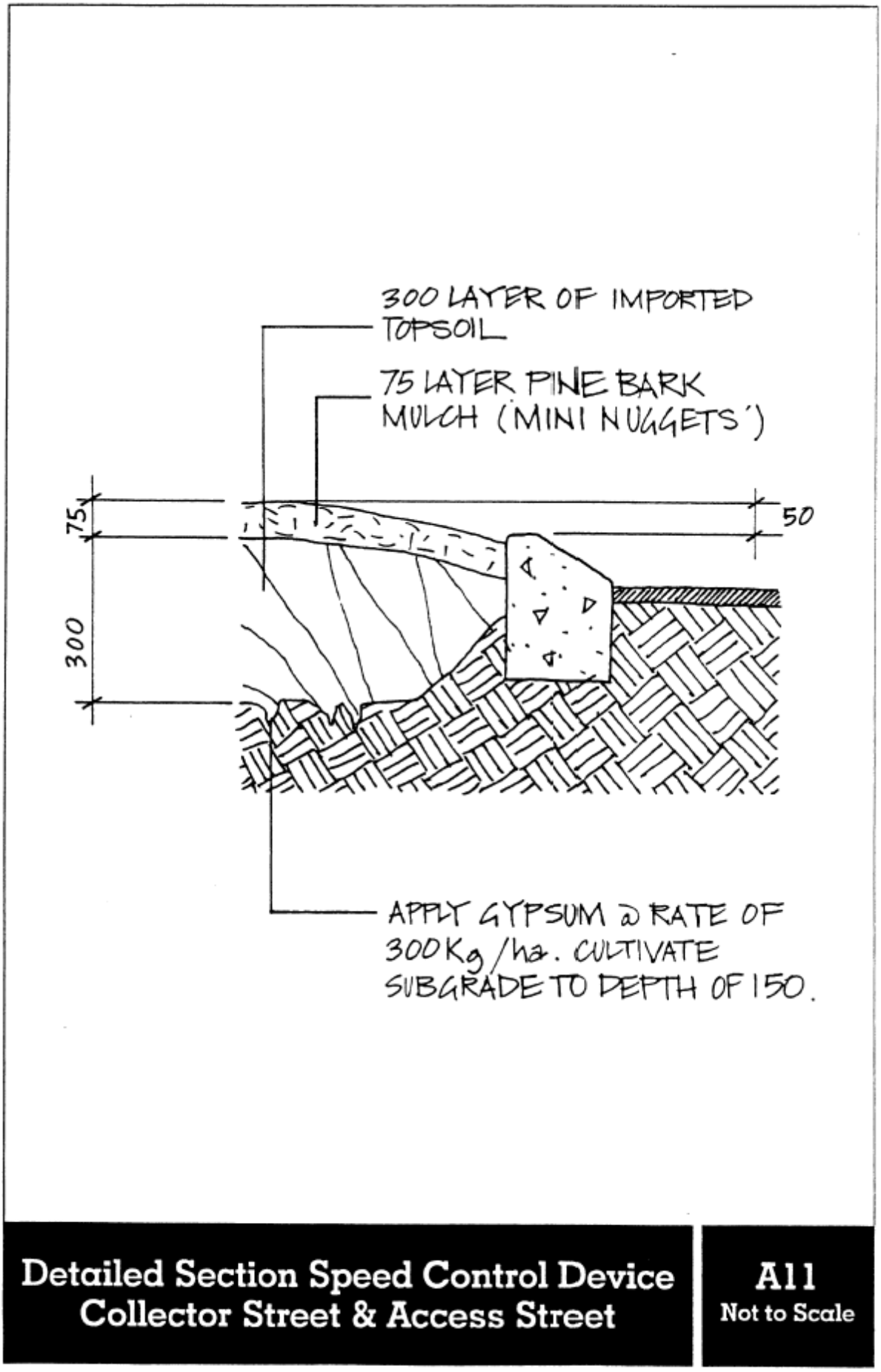


Figure 31 Speed control device

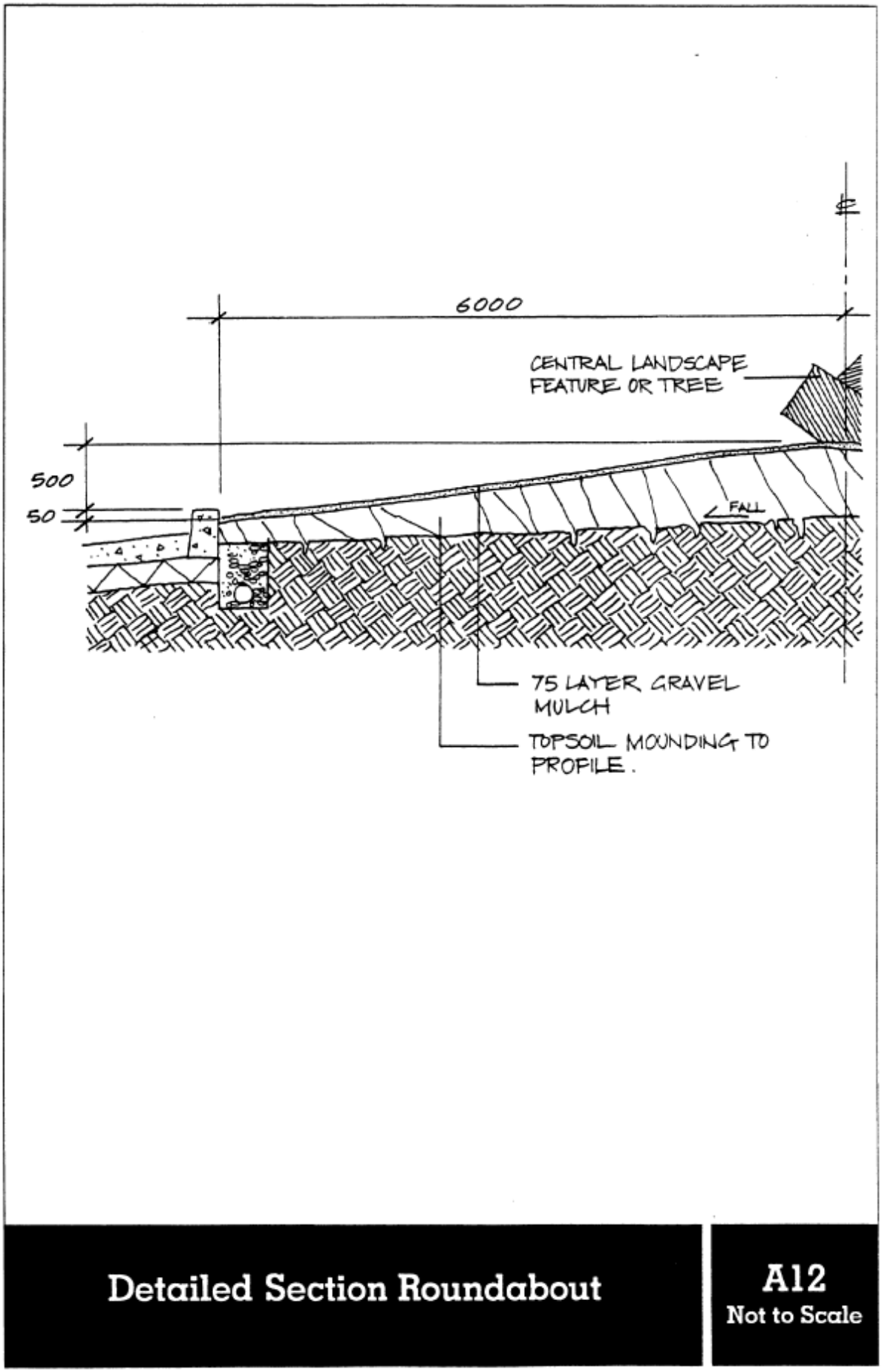


Figure 32 Roundabout

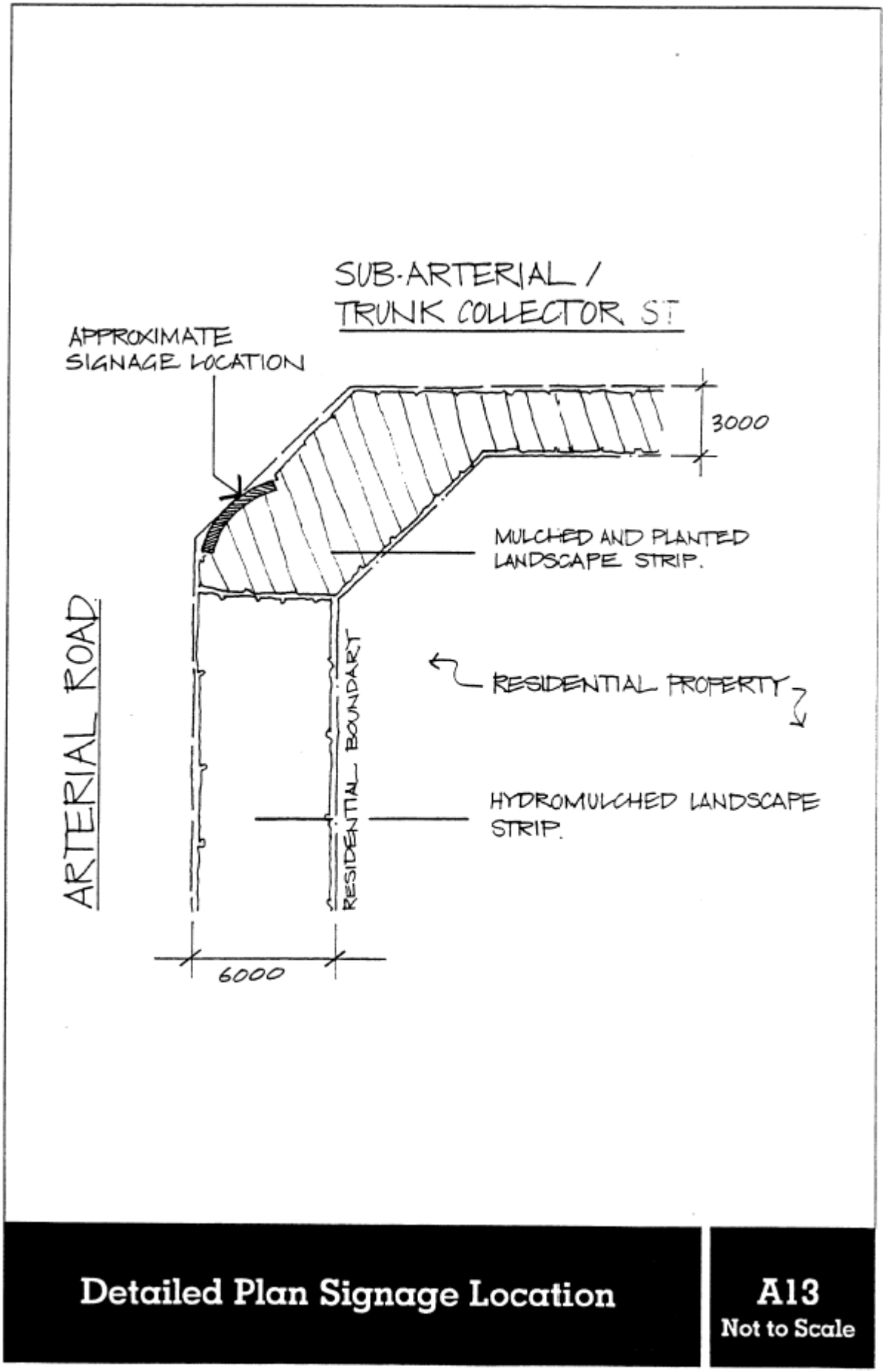


Figure 33 Signage

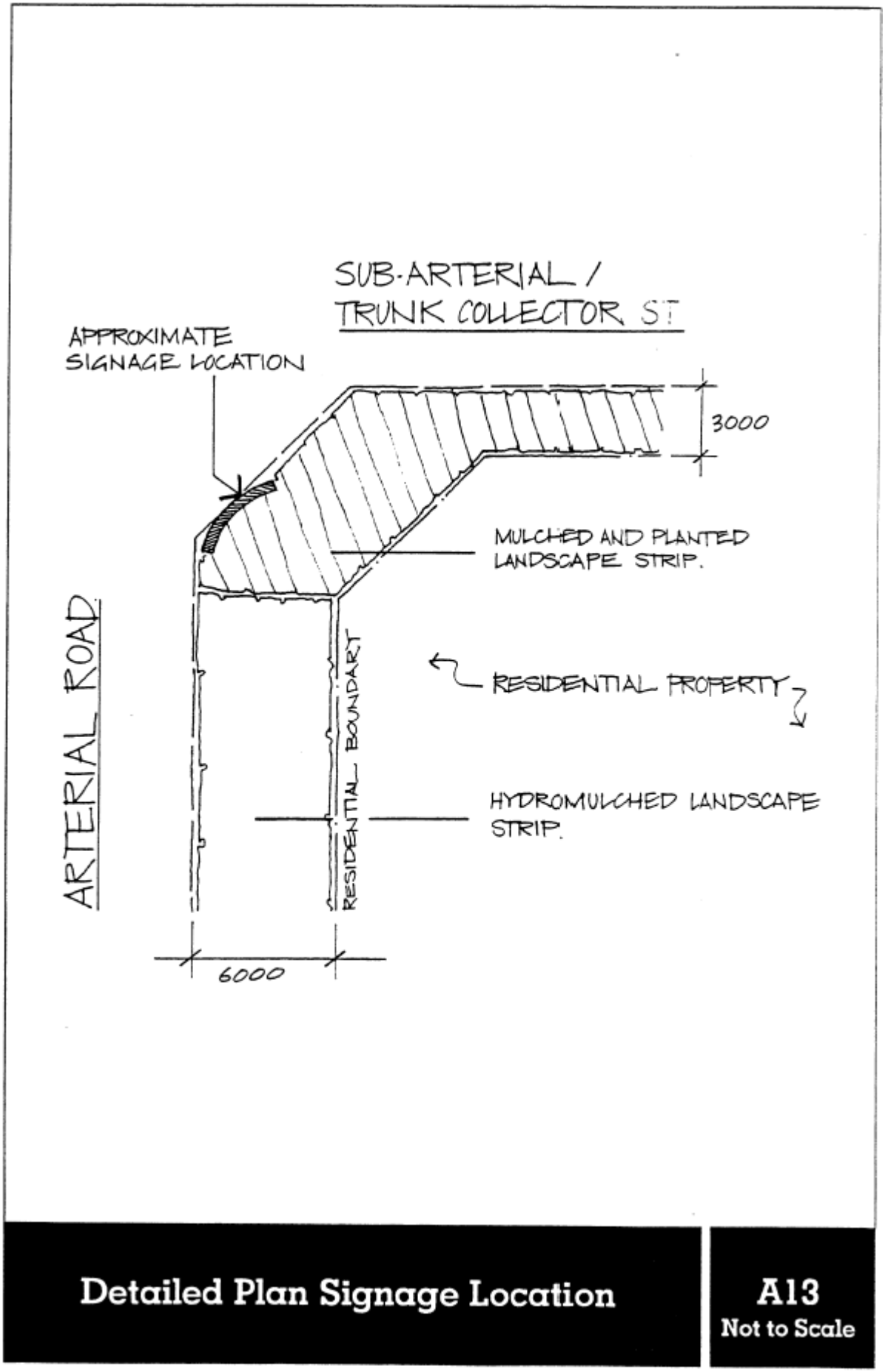


Figure 34 Signage

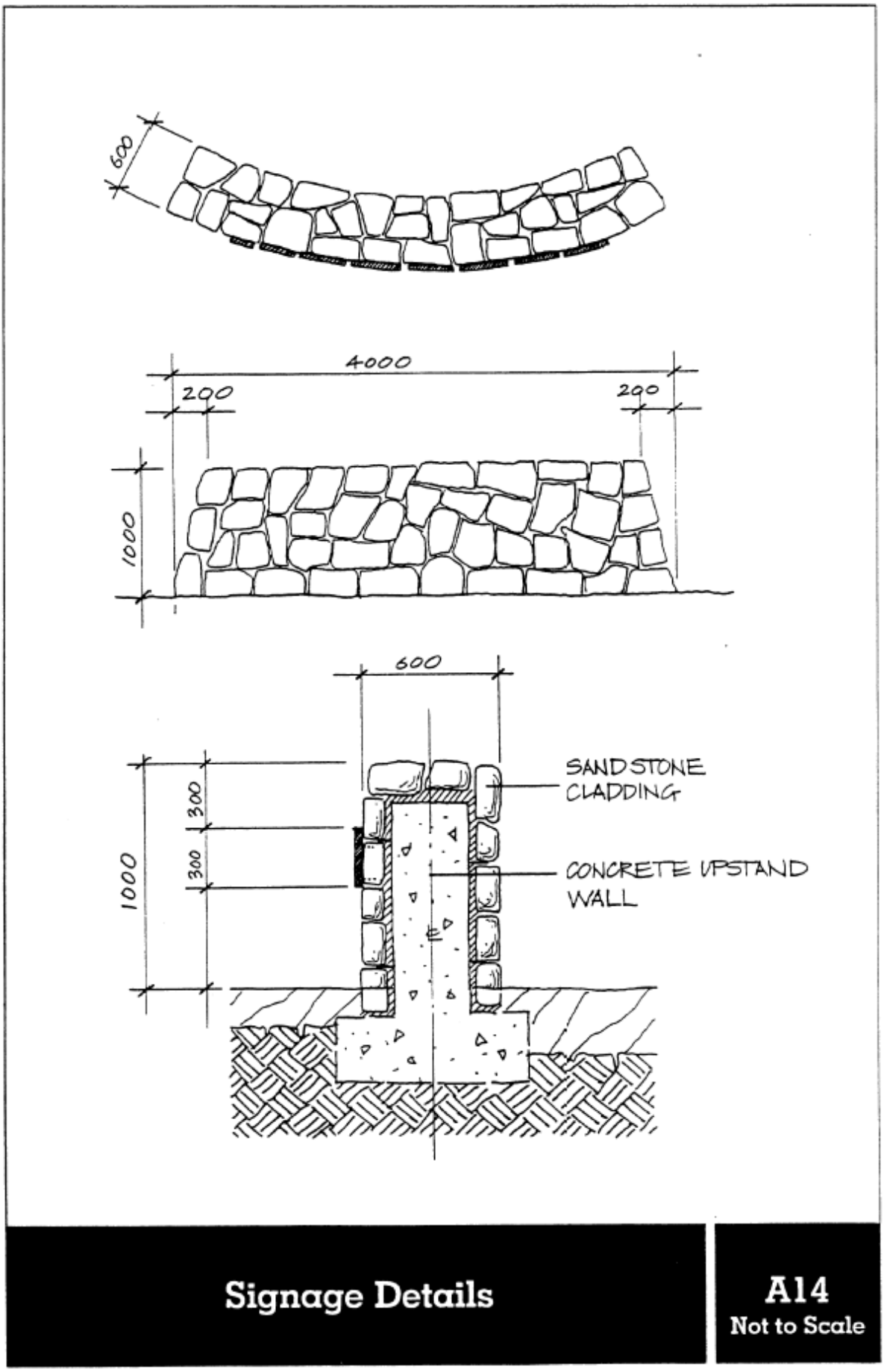


Figure 35 Signage

Appendix 2 Drainage and Open Space Landscape Design

The following assists developers in the detailed design and layout of drainage and open space. The guidelines are seen as the minimum acceptable standard. Developers may wish to exceed these standards or may wish to provide an alternative subject to approval from Council.

Applicants must seek advice from Council prior to the lodgement of any landscape plans (Landscape Plans are to be lodged in conjunction with the engineering plans). Applicants are also advised to consider following relevant design parameters prior to the preparation of any landscape plans:

Pedestrian and Bicycle Paths

Shared pedestrian and bicycle paths within open space areas must be designed in accordance with the guidelines as outlined in the document prepared by Austroads - Guide to Traffic Engineering Practice,

Underground Service Easements

Tree planting directly over underground service easements may cause future maintenance problems. Trees must not be planted closer than 3m to any underground easement.

Grasses Areas

Layout

Narrow strips of grassed areas are difficult to maintain and should be avoided where possible. Grassed areas should not be narrower than 3m. Areas less then 3m should be constructed as mulched garden beds planted with shrubs or groundcovers.

Gradients

Grassed embankments must not be steeper than 1:6.

All grassed areas are to finish level with adjoining surfaces. All grassed areas are to be detailed in the following way:

- Turf from recognised turf grower.
- 100 layer clean free draining topsoil.
- 100 depth cultivated sub grade.

Edging

To prevent the encroachment of grassed areas into garden beds, all grassed areas are to be edges with a suitable material.

Mounding

Grassed mounds must not be steeper than 1:6.

Planter beds

Gradients

Planter bed areas must not be steeper than 1:4.

Construction

All garden bed areas are to be detailed in the following way:

- 75mm layer mulch.

- 300mm layer, clean free draining topsoil mix.
- Gypsum at a rate of 300 grams/m^2 to sub grade and cultivate to a depth of 150mm.

Tree and Shrub Planting

General

Trees and shrubs should generally be planted in mulched garden bed areas and in sufficient densities to achieve a full coverage of the bed within two years of planting. Specimen trees planted in lawn areas are to be mulched around their bases to a depth of 75mm and appropriately protected from maintenance vehicles with the installation of a robust tree guard.

Selection

Tree and shrub selection should ensure the following:

- Suitability to the local environmental conditions.
- Low maintenance requirements.
- Drought resistance.
- Screen undesirable views i.e. rear fences.
- Provide seasonal interest.
- Maintain solar access to adjoining properties.
- Linear Open Space Corridors (along Creeks).
- Tree and shrub selection to be predominantly indigenous to the local area.
- Transmission Easements (including transmission lines in road reserves):
- Tree and shrub planting within transmission easements must be carried out in accordance with the guidelines set out by the appropriate/relevant electricity transmission authority, (either Integral Energy or Trans Grid).

Drainage corridors

- Tree planting within drainage corridors must not reduce the capacity of the drainage system.
- Minor Drainage links between streets.
- Tree planting within minor drainage links between streets is to be assessed on its merits.

Facilities/Furniture/Lighting

Applicants are advised to discuss the provision of public facilities, furniture and lighting with Council's Parks and Recreation assessment officers prior to the preparation of any landscape plans.

Maintenance

Applicants are required to provide a minimum of 12 months maintenance upon satisfactory completion of the landscape works. Maintenance will include all works necessary to promote the establishment of the plant material and grassed surface. This includes watering, weeding, mowing, treating pests and diseases and the replacement of any failed, stolen plants.

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