PROPOSED INDUSTRIAL SUBDIVISION DESIGN GUIDELINES

1110 Healesville - Koo Wee Rup Road, Pakenham

APPROVED
DEVELOPMENT PLAN SP010
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Officer's Signature

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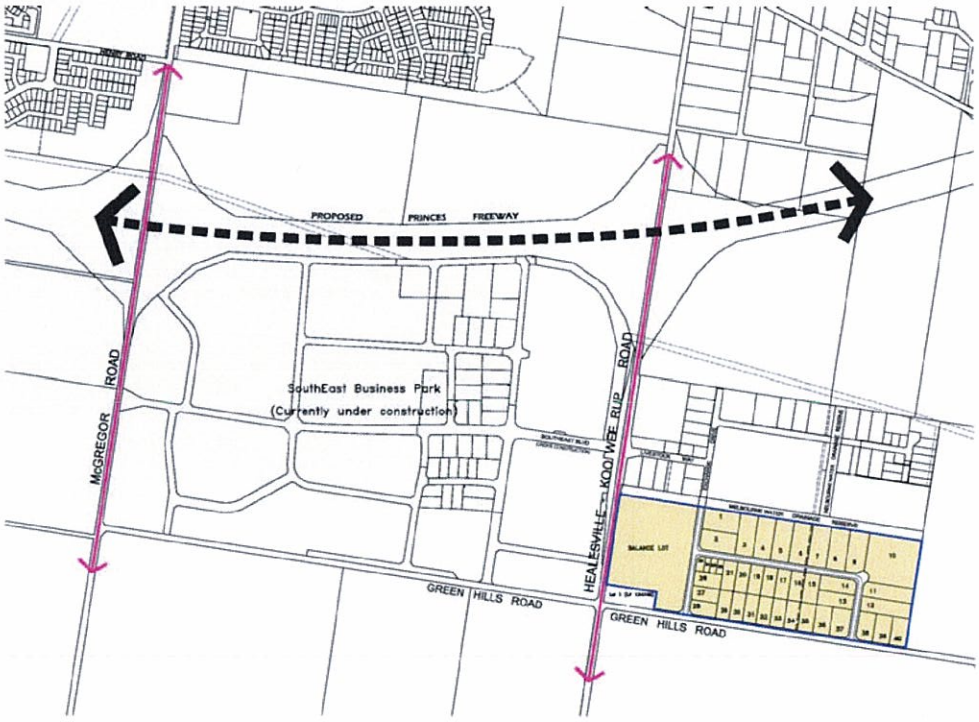
1 INTRODUCTION

1.1 A vision for the proposed industrial estate

The proposed development seeks to achieve an urban design standard consistent with the general objectives of the nearby SouthEast Business Park. As such, it will be identifiable by its attractive and co-ordinated treatment of building forms, landscaping and entry statements to create a pleasant place in which to cater for a range of businesses.

These design guidelines are a mechanism to encourage the design vision to become a reality. By providing guidance about the development outcome, property values are likely to be higher than in uncontrolled industrial estates and property values are likely to grow more quickly.

It is important that these guidelines accord with the Shire of Cardinia's Industrial *Strategy and Landscape Design Guidelines*. Development proposals that observe these guidelines will therefore help create a unified and attractive image for the entire area.



1.2 Objectives of the Guidelines

The guiding objectives for new development at the proposed industrial estate are not mandatory but represent a preferred set of standards that contributes to achieving the desired vision, in particular:

- To accomplish development which is responsive to the estate's context, in particular the landscape character.
- To optimise the potential for new industrial and commercial development on the site, through the active promotion of industries and associated office space.
- To attract high-calibre occupiers and tenants by providing a quality business environment and the security of long-term ownership and tenancy.
- To promote an aim for future development to contribute to the creation of a high quality landscape environment on the site.
- To encourage sustainability objectives through environmentally responsible architectural design and function.
- To create a focus for a wide variety of businesses that offers employees and visitors a lively and attractive environment, becoming more than just a "place of work" but one that compliments and connects business activities with each other, and with high quality public space.

The proposed industrial estate layout.

1.3 Application of the Guidelines

These guidelines apply to all proposals for building and development on land within the proposed industrial estate. New development proposals will be assessed against the guidelines prior to an approval being issued.

These guidelines have been prepared to promote the high standards envisaged for the development of allotments within this industrial estate, and to encourage on-going care by lot owners.

The overall aim of the guidelines is to establish a set of clear standards to guide future development of allotments in respect of:

- building siting and design
- building setbacks
- materials and finishes
- landscaping setbacks
- tree planting and landscape design
- advertising signage
- environmental awareness
- transportation efficiency

The guidelines are not intended to be applied as prescriptive controls but rather as a set of performance based standards.

1.4 The approval process

A planning permit is required to construct a building or to carry out any construction works. The proposal must comply with the relevant sections of the Cardinia Planning Scheme.

Prior to a planning application to Council for any buildings and works on an allotment within the estate, a Site Context plan & Building Proposal plan must be prepared and submitted to the Estate Development Panel (EDP) for approval in accordance with the Covenants.
The purpose of the EDP will be to ensure that proposals observe the guidelines, or to consider variations to the guidelines where applicable.

A Pre-Application meeting is advised prior to the preparation of plans for the proposed works. The EDP will offer support and assistance on design guideline issues to encourage consideration of the desired outcomes.

The guidelines are not mandatory but represent a set of preferred objectives. Variations to the suggested performance measures may be acceptable where an improved design result can be demonstrated.

Assistance will also be available during the planning permit application process should input from the EDP be required.

An application for a Building Permit should be assessed in conjunction with these guidelines, and should be consistent with the plans approved by the EDP.

The Site Context plan should detail how the proposed development of an allotment relates to adjoining existing buildings to ensure compatibility of height, bulk, landscape planting and vehicle access.

Example of Site Context plan:

A Visitor entry
B Floor space (sqm)
C Waste storage
D Employee Parking
E Visitor parking
F Existing driveways
G Loading area
H 4m Office set-back

The Building Proposal plan should indicate a design response to the guidelines. This plan must also be drawn at an appropriate scale and must show:

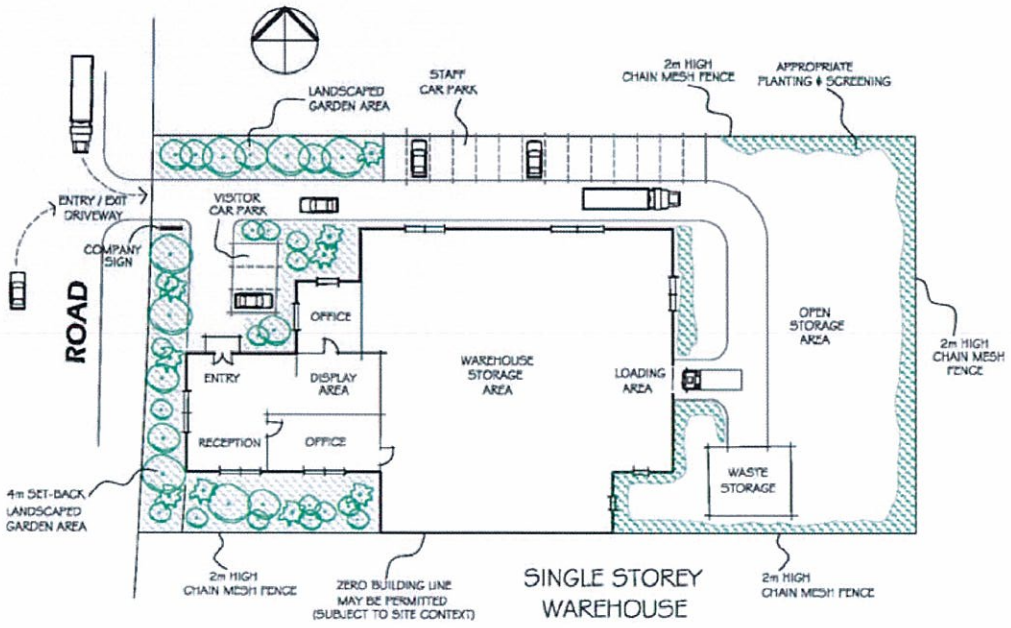
- A fully dimensioned drawing which includes:

  - the boundaries and dimensions of the site
  - the proposed use and development of the land
  - the position and elevations of proposed buildings and fences
  - the setback of buildings from all site boundaries
  - the layout of driveways, car parking and loading areas
  - proposed landscape concept and planting schedule
  - waste collection areas
  - proposed locations and size of signage structures including other dedicated sign areas visible from the street frontage and sideage.
  - proposed external lighting

- Front, side and rear elevations and a description of the proposed external building materials and finishes.

- Proposed rooftop structures to be listed

Example of Building Proposal plan main elements
(This is a guide only)



2.1 Private Realm objectives

- Building design that offers distinctive architectural style consistent with the estate identity. Building codes to be observed.
- Building permits to gain pre-approval by the Estate Development Panel to ensure appropriate set-backs, height, materials and signage are in accordance with the estate building codes.
- On-site car-parking provision should demonstrate adequate provision for employees and visitors **without impacting on yard space**. Siting of car-parking to avoid conflict with the movement of delivery vehicles. Frontages to be landscaped to provide attractive interface to the streetscape.
- Appropriate access to delivery and loading docks to the rear of buildings is encouraged. Separate entry and exits points.
- Emphasis upon energy efficient building design and the principles of sustainability.

2.2 Sustainability objectives (to be encouraged)

The Guidelines also reflect the proposed industrial estate's recognition of the importance of maximising sustainability throughout the development. Care is being taken to provide for the future with less reliance upon fossil based fuels and natural resources, and minimising greenhouse gas generation.

The following details key aspects of sustainable objectives that are recommended for consideration in the preparation of plans for building works.

Water Conservation, water sensitive urban design & landscaping

- Retention of rainwater to be required and incorporated into building design to enable on-site recycling for internal uses where alternatives to potable water can be acceptable.
  A rainwater tank of 5000 litre capacity minimum is required and should be plumbed for toilet flushing and/or garden area irrigation.

- Low volume irrigation systems to be installed across the site with computer controlled night time watering. Drought-tolerant Australian native plants to be prioritised in landscaping design

- Minimising impervious areas.
  Porous surfaces to maximize on-site filtration

- Consideration for provision of bio-retention swales to accommodate run-off from car parking and hard-stand areas.

Energy Efficiency

- Built form to reinforce and compliment sustainability objectives. Buildings to include passive solar design elements to encourage optimal site orientation, together with natural ventilation systems to reduce dependency upon artificial heating and cooling.

- Buildings to be orientated to maximize natural light and give further reductions in energy consumption.

- Buildings to incorporate renewable energy systems

- Landscape plans to include types of vegetation to assist the reduction of energy use such as deciduous trees on the nth side of buildings.

3 GUIDELINES FOR BUILDINGS

3.1 Building envelope and orientation

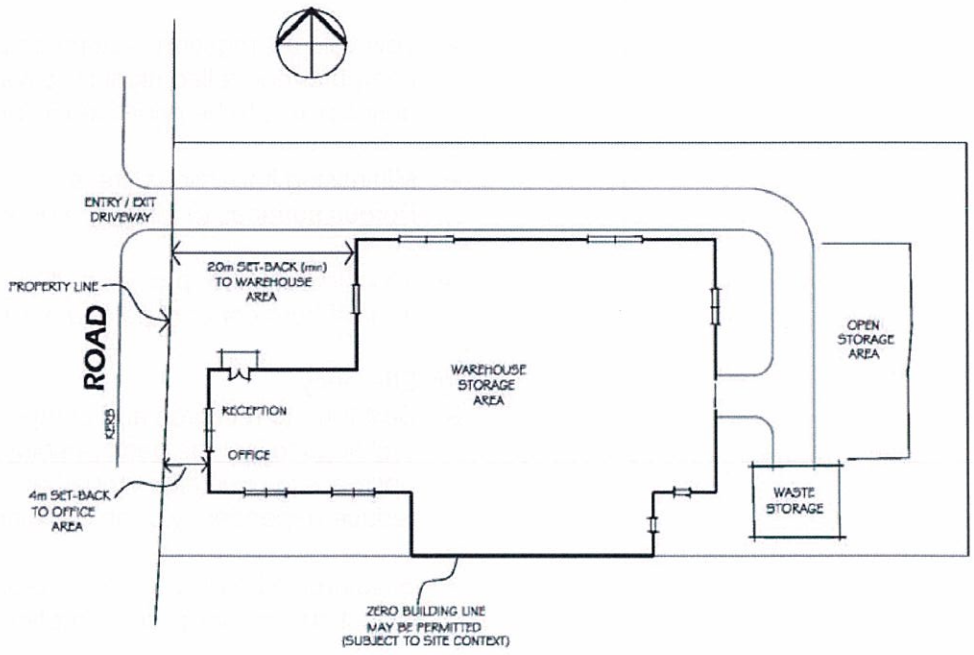
Buildings shall be set back from the street boundary of the lot at least the distance shown in the table below or such distance that may be approved by the Estate Development Panel:

Street frontage	*Office Set-back (metres)*	*Landscape Set-back (metres)*	*Warehouse Set-back (metres)*
All roads	4	3	20
Sideage of corner lots	4	3	7

Buildings may be of any height (STCA) however rooftop structures should be suitably screened using a parapet or other alternative architectural forms.

Office Buildings should be oriented towards the street frontage. No car-parking within the landscape set-back.

Indicative example:



3.2 Building design and appearance

The design, appearance, external colours and materials of each building or extension to same should be architecturally sensitive and every effort should be made to break up the bulk of the buildings by articulation of the building mass and the use of colour.

Front facades, especially should provide some visual interest, for example, the use of panels of colour, banding, rebates, mouldings, and projecting and recessed panelling. Areas of large plain wall surfaces of dark colour in the front facades are discouraged.

Clearly defined entrances

Combining architectural elements to achieve visual appeal and energy efficiency

3.3 Building materials

100% of the area (save for the provision of windows and doors) of wall surfaces facing a street or road should be either:

- full height painted, rendered or pigmented precast concrete;
- full height rendered blockwork

Side or rear walls:

- full height painted, rendered or pigmented precast concrete;
- full height rendered blockwork; or
- painted, rendered or pigmented precast concrete panels to 2.1 m high with color bonded metal sheeting above.

Secondary materials for walls may include:

- Anodised metal window frames (incorporating thermal blocks)
- Colorbond stormwater pipes or painted plumbing
- Glass and glass blocks

The following wall materials are discouraged:

- timber
- corrugated galvanised metal sheeting
- full height sheet metal

Proposals using materials other than those encouraged above will be assessed on merit, and will be considered in context with the overall development proposal.

3.4 Minor building elements

Acceptable minor building elements include:

- sunscreens to windows
- rooftop air conditioning plant, if screened from public view
- solar collectors
- flag poles
- metal framed entrance and exit canopies
- antennae and dishes, where discreetly positioned
- fire service static storage tanks, (to rear of site or appropriately screened)
- shade sails
- walls with climbing plants for visual appeal and prevention of graffiti

Unacceptable minor elements include:

- above-ground electricity and telephone cables
- conduits, wiring or pipes (other than stormwater) on external walls
- wall-mounted air conditioning plant
- canvas awnings and blinds
- timber arbours and pergolas

Baffle screening on north-facing windows

Tree canopies on north side

4 GUIDELINES FOR EXTERNAL WORKS

4.1 General

Plans for external works shall be submitted to the Estate Development Panel for approval. All external areas must be constructed, planted and maintained in accordance with the approved plans.

Completion of approved external works must be completed within 90 days of the occupancy of the lot, or substantial completion of building works, whichever occurs first.

All utility services shall be installed underground.

Locations for debris/recycling bins or piles shall be nominated on the submitted plans. Construction debris shall only be placed in these locations. Recycling of surplus materials is encouraged.

4.2 Vehicle access, parking and loading and unloading areas

Access to each site shall be via a paved crossover from the street carriageway to the lot. The crossover width should be less than 7.5m, (excluding splays).

Vehicle access between the lot and the street shall be prevented except at crossovers by a kerb, low fence or other barrier.

Design of access areas should consider the following functional demands:

—Staff and disabled parking
—Service vehicles
—Goods delivery
—Goods dispatch
—Visitor parking
—Courier and short term parking
—Bicycle parking
—Footpaths and pedestrian traffic

Adequate provision for on-site parking for employees and visitors should be provided, based on the nature and scale of activities planned.

Visitor parking shall be located convenient to administration and office areas.

Truck parking areas shall be separate from car parking areas.

All loading and unloading must occur within the lot at least as far back from the street as the front wall of the warehouse building.

The submitted design must show how these demands are accommodated, especially truck travel paths, to demonstrate that adequate provision has been made for access, parking, loading and unloading.

4.3 Storage and waste disposal areas

All service areas, storage areas and waste disposal areas must be adequately screened from public view by proper siting and screening with fences, courtyard walls or landscaping.

Equipment, goods/products and raw materials should be stored in areas screened from public view and from the ground floor of adjacent buildings, and should preferably be within a building.

Areas screened from public view should be provided for incinerators, waste storage tanks, refuse containers and similar equipment, and should be accessible for servicing vehicles.

Vehicle wash-down areas should be fitted with triple-interceptor traps.

Care should also be taken to ensure there are no adverse impacts upon adjoining owners caused by noise emission or effects from dust or odours.

4.4 Garden areas and planting

Except for driveways and footpaths, garden areas shall occupy the front of each lot from the street boundary* of the lot to at least the distance shown in the table below or such distance that may be approved by the Estate Development Panel:

Street frontage	*Min distance (metres)*
All roads	3

Where a lot has a frontage to a side street, except for driveways and footpaths, garden areas shall occupy the first 3 metres of that lot measured from the side street boundary.

A landscape plan shall be submitted showing details of levels, materials, plant species, spacing and size, lighting and irrigation. Plants used shall be chosen from the plant list given in this document.
Landscape plan to be approved by the Estate Development Panel.

Drought tolerant native trees/shrubs should be considered. Irrigation of gardens using recycled water is encouraged. Planting types to also assist with moderating the micro-climate such as deciduous trees.

Periodical garden maintenance to ensure regular weed control, and where appropriate, replanting using locally indigenous plants and trees.

Example:

Refer following list for trees and shrubs to be encouraged for use within the proposed industrial estate

Suggested Plant Species (Not limited to)

Botanical Name	Common Name	Mature Size (H x W)
SHRUBS		
Acacia melanoxylon	Blackwood	25 x 6
Acer freemanii 'Autumn Blaze'	Lipstick Maple Cultivar	12 x 9
Acer rubrum 'October Glory'	Red Maple 'Cultivar'	8 x 5
Allocasuarina cunninghamii	River Sheoak	7 x 4
Allocasuarina littoralis	Black Sheoke	8 x 4
Acacia verticillata	Drooding Sheoak	11 x 6
Corymbia citriodora	Lemon-Scented Gum	36 x 20
Eucalyptus camaldulensis	River Red Gum	40 x 30
Eucalyptus elata	River Peppermint	25 x 15
Eucalyptus leucoxylon 'Rosea'	Pink flowering Yellow Gum	10 x 6
Eucalyptus obliqua	Messmate	40 x 20
Eucalyptus ovata	Swamp Gum	12 x 7
Eucalyptus radiata	Narrow Leafed Peppermint	20 x 7
Eucalyptus scoparia	Wallangarra White Gum	10 x 7
Eucalyptus sideroxylon 'Rosea'	Red Flowering ronbark	10 x 6
Eucalyptus viminalis	Manna Gum	50 x 15
Gleditsia triacanthos 'Sunburst'	Golden Honey Locust	7 x 5
Lagerstroemia indica	Crepe Myrtle	5 x 4
Melaleuca ericifolia	Swamp Paperbark	10 x 4
Melaleuca squarrosa	Scented Paperbark	10 x 4
Platinus orientalis digitata	Cut-Leraf Plane	15 x 8
Populus simonii 'Fastigiata'	Simon Poplar	10 x 6
Pyrus calleryana 'Chanticleer'	Chanticleer Pear	6 x 6
Pyrus calleryana 'Glensform'	Chanticleer Pear	6 x 6
Quercus pallustris	Pin Oak	12 x 8
Tristaniopsis laurina	Kanooka	8 x 6
Ulmus parvifolia 'Todd'	Chinese Elm, 'Todd'form	10 x 6

SHRUBS	
Acacia dealbata	Silver Wattle
Acacia mearnsii	Black wattle
Acacia melanoxylon	Blackwood
Acacia verticillata	Drooding Sheoak
Allocasuarina paludosa	Scrub Sheoak
Allocasuarina littoralis	Black Sheoke
Banksia marginata	Silver Banksia
Banksia spinulosa	Hairpin Banksia
Bursaria spinosa	Sweet Bursaria
Callistemon 'Kings Park'	Bottlebrush Cultivar
Cassinia aculeata	Common Dogwood
Convolvulus cneorum	Bush Morning Glory
Correa glabra	Rock Correa
Daviesia latifolia	Hop Bitter-pea
Goodenia ovata	Hop Goodenia
Kunzea ericoides	Burgan
Leptospermum continentale	Prickly Tea-tree
Leptospermum lanigerum	Woolley Tea-tree
Olearia lirata	Snowy Daisy Bush
Philotheca myoporoides	Long Leaf Wax Flower
Solanum aviculare	Kangaroo Apple
Ozothamnus ferrugineus	Tree Everlasting
Westringia fruticosa	Native Rosemary

Continued next page

Plant species listing continued

GROUND COVERS / TUFTING PLANTS

Acrotriche prostrata	Trailing Ground-berry
Acrotriche serrulata	Honey-pots
Austrodanthonia geniculata	Kneed Wallaby-grass
Austrodanthonia laevis	Smooth Wallaby-grass
Austrodanthonia setacea	Bristly Wallaby-grass
Austrostipa pubinodis	Tall Spear-grass
Brachyscome multifida	Cut-Leaf Daisy
Burchardia umbellata	Milkmaids
Caesia calliantha	Blue Grass-lily
Caesia parviflora	Pale Grass-lily
Carex apressa	Tall Sedge
Carex breviculmis	Short-stem Sedge
Convolvulus cneorum	Bush Morning Glory
Correa 'Dusky Bells'	Correa Cultivar
Dianella longifolia	Pale Flax-lily
Dianella revoluta	Black-anther Flax-lily
Dichondra repens	Kidney-weed
Drosera peltata	Tall Sundew
Drosera whittakeri	Scented Sundew
Eleocharis acuta	Hair Grass
Eleocharis sphacelata	Tall Spike Sedge
Epacris impressa	Common Heath
Festuca glauca	Blue Fescue
Gahnia radula	Thatch Saw-sedge
Gonocarpus tetragynus	Common Raspwort
Goodenia lanata	Trailing Goodenia
Goodenia Ovata Prostrata	Prostrate Goodenia
Grevillea lanigera 'Mt.Tamboritha'	Prostrate Grevillea
Helichrysum scorpioides	Button Everlasting
Hibbertia riparia	Erect Guinea-flower
Hypericum gramineum	Small St John's Wort
Joycea pallida	Silvertop Wallaby-grass
Lepidosperma laterale var. laterale	Variable Sword-sedge
Lomandra filiformis	Wattle Mat-rush
Lomandra longifolia	Spiny-headed Mat-rush
Microlaena stipoides	Weeping Grass
Myoporum parvifolium	Creeping Boobialla
Phormium tenax spp.	Flax Species'
Pimelea humilis	Common Rice-flower
Poa labillardierei	Common Tussock-grass
Poa sieberiana	Grey Tussock-grass
Pteridium esculentum	Austral Bracken
Themeda triandra	Kangaroo Grass
Viola hederacea	Ivy-leaf Violet
Xanthorrhoea minor	Small Grass-tree
Xanthosia dissecta	Cut-leaf Xanthosia

CREEPERS / CLIMBERS

Billardiera scandens	Common Apple-berry
Comesperma volubile	Love Creeper
Glycine clandestina	Twining Glycine
Rosa sp. Banksia	Banksia Rose
Solanum jasminioides	Potato Vine

NOTE *:- Other species may be suggested at detailed design stage for Council Approval*

SOURCES:

Cardinia Shire Council Indigenous Plant List-Zone 3; Flora and Fauna Assessment (ERM 2002)
Selection List - Aquatic Plants (Pat Condina & Assoc. 2002)
Cardinia Shire Vegetation Communities (Rik Brown - Botanical Consultant January 2005)

4.5 Fencing / Screening

Fencing along street boundaries forward of the landscape set-back is discouraged.

A fence or feature wall may be constructed within the front building setback provided the structure is no more than 1.5 metres in height, and is constructed of masonry with an applied finish and is approved by the EDP.

Where a lot has a side boundary to a street, fencing to the street boundary shall be a maximum of 2.1 metres high and set back from the side street boundary by at least 3 metres to allow for landscape requirements.

Fencing along side & or rear boundaries (not having street abuttal) is to be a minimum of 2.1 metres high and a maximum of 2.5 metres high.

Encouraged fencing materials include:

- materials to match the walls of the building
- black plastic coated chain wire mesh fencing
- steel pickets

Encouraged screening materials include:

- colour bonded sheet metal in earthy tones
- materials to match the walls of the building

Discouraged materials include:

- galvanised chain wire fencing
- corrugated iron
- cement sheet

4.6 Signs

One freestanding company sign or complex identification sign, may be used for the street frontage of each lot. The colour, form and finish of the sign shall match or be compatible with colours and materials used in the building form.

Building facades should incorporate an area for sign placement, such as a recessed or projecting panel or a band of smooth render on a rough render wall.

Signs on building walls shall be of colours, materials, size and position appropriate to the façade. Appropriate techniques may include painting directly onto the surface or applying three dimensional letters directly to the surface. Painted applied panels or illuminated sign boxes are strongly discouraged unless carefully proportioned and coloured to match the façade.

Sky signs, pole signs, animated signs or bunting are strongly discouraged.

All proposed signage is required to be approved by the Estate Development Panel. Driveway entry signage to be of consistent specifications as directed by the Panel, and must display estate logo.

Integration of sign with façade

Driveway entry sign

Ground level signage

4.7 Lighting

Lighting of buildings, signs and landscaping will be incorporated into the structure or landscaping so that the lighting equipment is discreet. Lighting shall highlight chosen elements and not wash over the entire building, sign or landscaping.

Light standards and bollards shall be a simple, bold contemporary style finished in natural metal or in earth toned powder-coat.

All car parking and access ways shall be illuminated. Lighting shall be no higher than the height of the building and shall be baffled to prevent light spill to adjoining lots.

4.8 Graffiti Control

Building facades abutting road reserves, public open spaces and the Melbourne Water Reserve shall be constructed in a manner and of a material type and/or finish that discourages graffiti and vandalism.

5 CONSTRUCTION & ENVIRONMENTAL MANAGEMENT

During the civil works phase of the development, environmental impacts due to construction will be carried out in accordance with the requirements of a site specific Environmental Management Plan (EMP) approved under the planning permit for subdivision of the estate.
In addition, building works carried out by contractors during development of individual allotments must consider the requirements of the Shire of Cardinia Local By-Laws and any relevant controls imposed by the EPA.
It is the responsibility of the building contractor to ensure compliance with these regulations in order to minimise the effects of construction activity upon the environment, in particular:

- Prevention of wind blown litter
- Silt Traps, soil erosion control
- Avoid off-site drainage contamination