

Township Approaches Planning Controls and Guidelines Study

MANSFIELD

DESIGN GUIDELINES

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MANSFIELD SHIRE



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PART A - INTRODUCTION

Introduction

1. About the Guidelines

1.1 Why prepare Planning Controls and a Guideline Study for the Mansfield Township?

The Township Approaches Study provides the opportunity to develop built form and landscape guidelines to ensure appropriate design outcomes along approaches into the Mansfield Township.

The project is focused on the four main approaches into Mansfield Township (refer Figure 1). Broadly the project involves:

- Review of the current planning controls relevant to the four township approaches; and
- Development of guidelines for built form and landscaping along the four approaches into the Mansfield Township.

The guidelines aim to ensure that the future design of developments and subdivisions along the four approaches contribute to an attractive, inviting and memorable entry experience for residents, businesses and visitors.

The guidelines consider the look and function of adjacent land uses and how they should respond to the character of the approaches, the local environment and the surrounding context.

The objectives of the Guidelines are:

- To identify the preferred future character of the four township approaches.
- To ensure future development makes a positive impact on the amenity and environment along the township approaches.
- To ensure future development along the four township approaches have regard to their local context and reinforces the valued character of the township.
- To clearly define township approaches through built form and landscaping treatments within the private realm.
- To provide clear, logical and useful guidelines for all - including developers, residents, Council officers and Councillors.

The four main approaches into the Mansfield township include:

1. Maroondah Highway (west);
2. Mount Buller Road (east);
3. Midland Highway (north); and
4. Mansfield Whitfield Road (north).

These approaches are identified opposite.

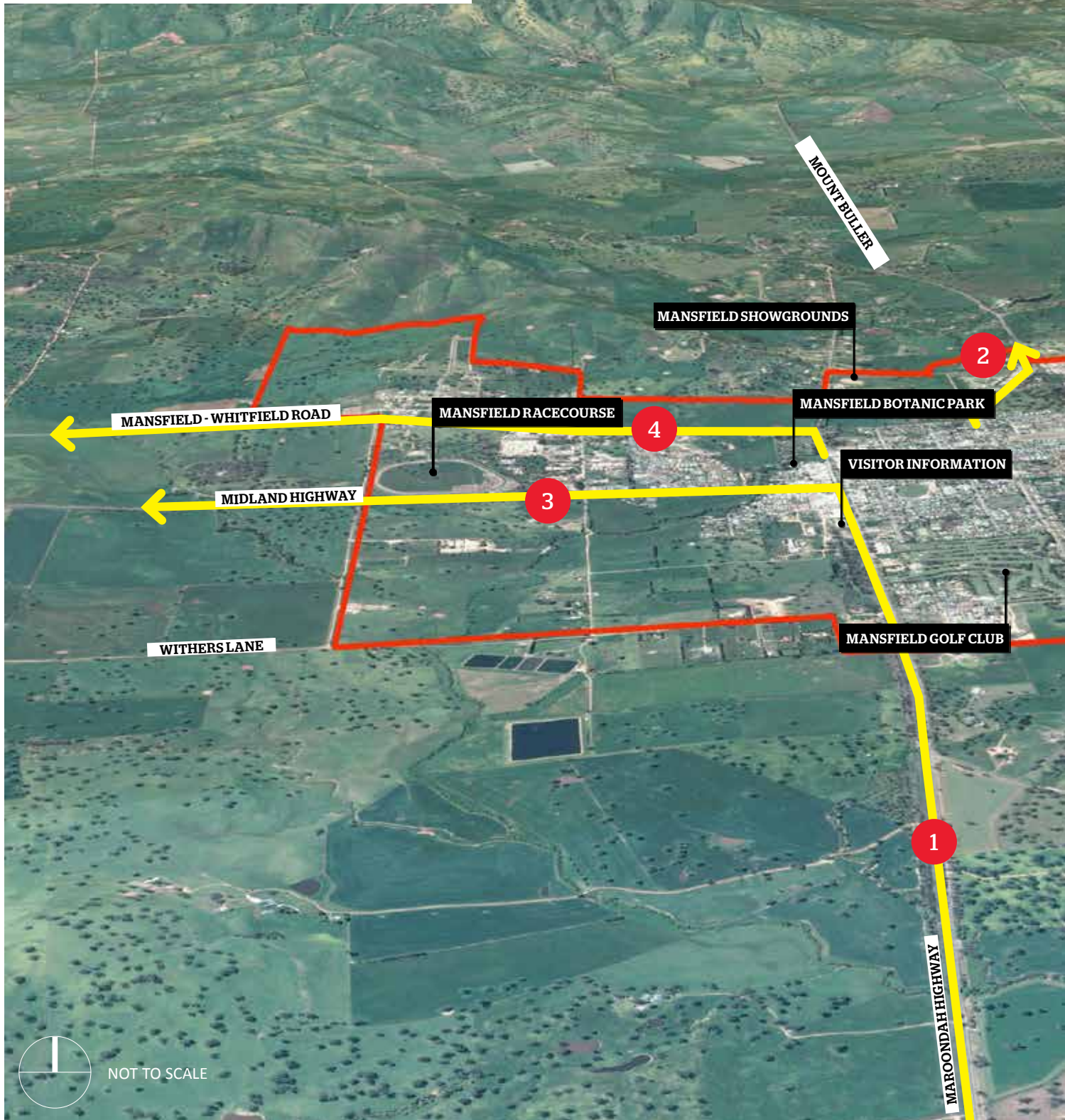
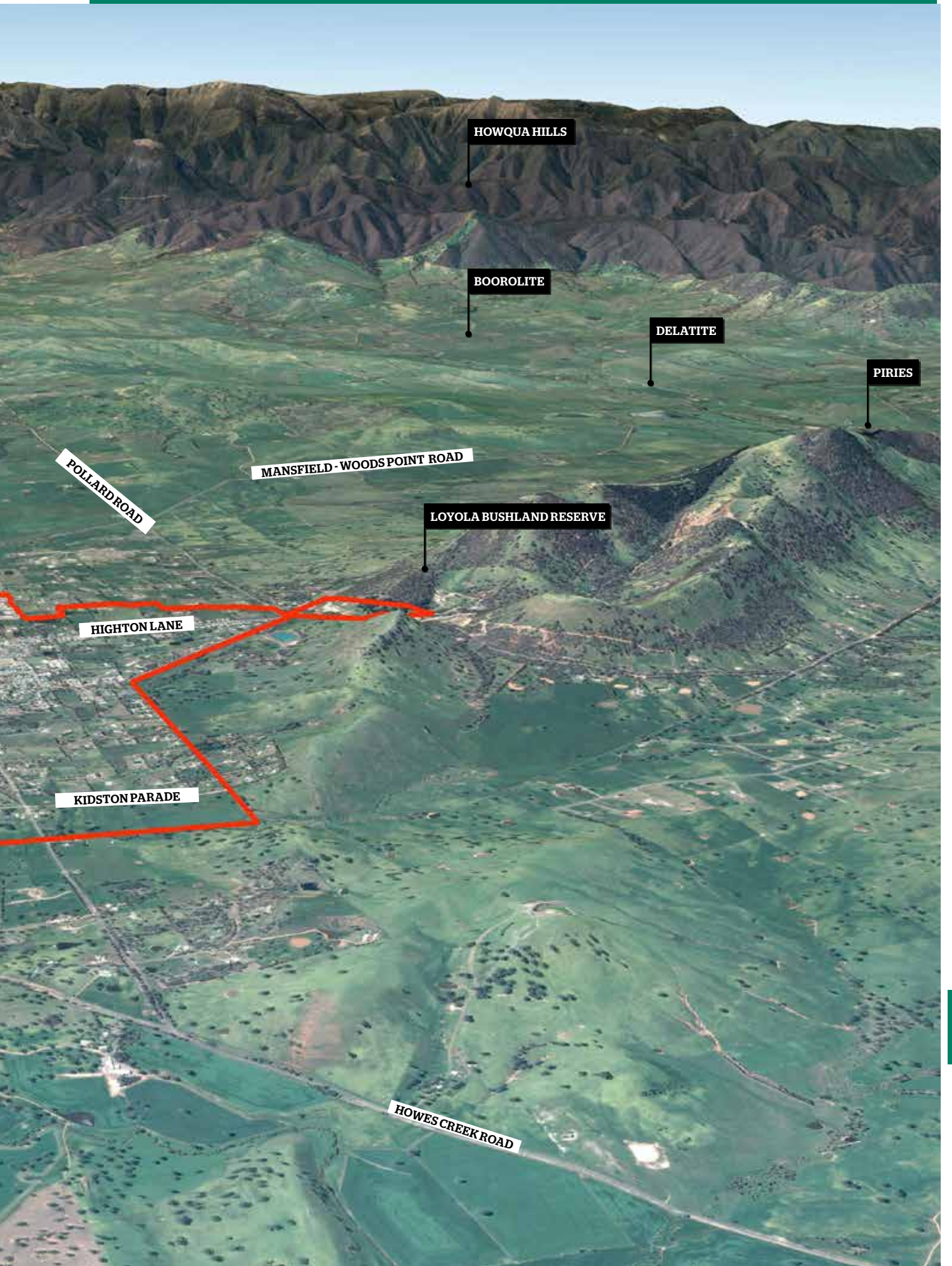


Figure 2 Township Approaches



2. How to use the Guidelines

2.1 Where the Guidelines apply

The Guidelines apply to the following existing and future land use zones within the township approaches boundaries:

Residential Zones

- Mixed Use
- General Residential
- Low Density Residential
- Rural Living

Industrial, Commercial and Farming Zones

- Farming
- Urban Floodway Zone
- Industrial 1
- Commercial 1
- Commercial 2

Figures 3-6 outline the township approach boundaries and these areas.

2.2 How the Guidelines apply

These guidelines provide a set of easy to use steps, illustrations and general design principles to assist in preparing a development proposal.

The guidelines will be used by Council officers when assessing planning permit applications for development within the township approaches (refer to Figures 3-6). Even if a proposal does not require a planning permit, the Guidelines provide a valuable resource for creating a successful design outcome that fits harmoniously with its surrounds.

The Guidelines must be considered for development where a permit application is required for:

- Subdivision, building and works (including fences), within the township approach areas;
- Business identification signs in the township approach areas;
- Car parking spaces in accordance with Clause 52.06 within the township approach areas;
- Removal of native vegetation under Clause 52.17 within the township approach areas.

The Guidelines will only apply to existing, developed properties where a planning permit is required for alterations and additions, or alternatively for buildings and works associated with a new or replacement dwelling.

2.3 How the Guidelines are Structured

The guidelines are structured in three parts as described below:

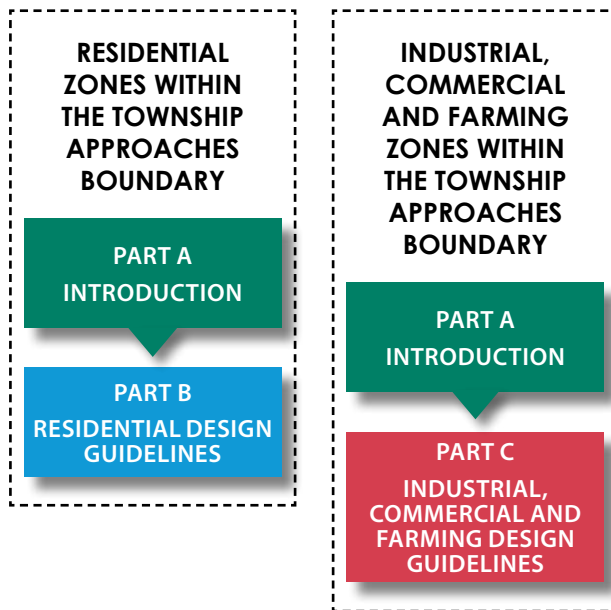
Part A - Provides the overall objectives for the guidelines and instructions on how they apply and should be used.

Part B - Provides guidelines for buildings and works and signage permit applications for residential zones within the township approaches boundary.

Part C - Provides guidelines for buildings and works and signage permit applications for industrial, commercial and farming zones within the township approaches boundary.

The diagram below outlines the sections of the guidelines that need to be considered for each type of permit application.

Figure 3 Guideline Structure



3. The Approvals Process

3.1 Approvals Process

Applications for subdivision and development within the township approach areas will be subject to the standard approvals process. Applicants will however be required to accord with the design guidelines in preparing planning permit applications for subdivision, buildings and works or signage. The Council will consider how the application has responded to the guidelines when assessing permit applications.

Applicants are encouraged to meet with Council officers to discuss application requirements and to discuss the relevance of the guidelines for their particular application.

3.2 Assessing permit applications

Council will consider each development proposal on its merits, taking into consideration the individual context and site characteristics. Council may also refuse a permit application for a development that does not comply with the guidelines. Council may also impose permit conditions that require the development to meet the guidelines.

3.3 Requirements for permit applications

Applications for subdivision and development will require the following drawings and reports to be prepared as part of the permit application.

Subdivision Applications

1. Site context plan
2. Site analysis plan
3. Design response plan
4. Subdivision plan
5. Landscape plan
6. An assessment against the Township Approach Guidelines
7. Any other reports and plans requested by Council, these may include: vegetation removal plan, road and site cross sections etc.

Development Applications

1. Site context plan
2. Site analysis plan
3. Design response plan
4. Site layout plan
5. Landscape plan
6. Building layout plans
7. Elevations and cross sections
8. Signage plan (if required)
9. An assessment against the Township Approach Guidelines
10. Any other reports requested by Council, these may include: traffic report, stormwater management plan, site management plan, aboriginal cultural heritage management plan, vegetation removal plan, land capability assessment etc.

4. The Approaches

The following provides a summary of the preferred character and desired future qualities of the four township approaches.

Future development along these approaches should compliment this preferred character.

4.1 Approach One - Maroondah Highway

Preferred Character Description

Maroondah Highway is the key entry road into the township. The descending topography and linear nature of the road allows for long views to the distant landscape beyond.

A range of tourism, community and recreational land uses are provided along the approach and complement its role as a gateway to the alpine region.

New developments will provide an appropriate transition between the adjacent agricultural uses and more intensive uses towards the town centre. The spacious character is considered an important element of the approach that will be built upon. This will be achieved by providing generous front and side setbacks that allow for landscaping and through the use of native and indigenous species that reinforce the environmental qualities of Mullum Wetlands.

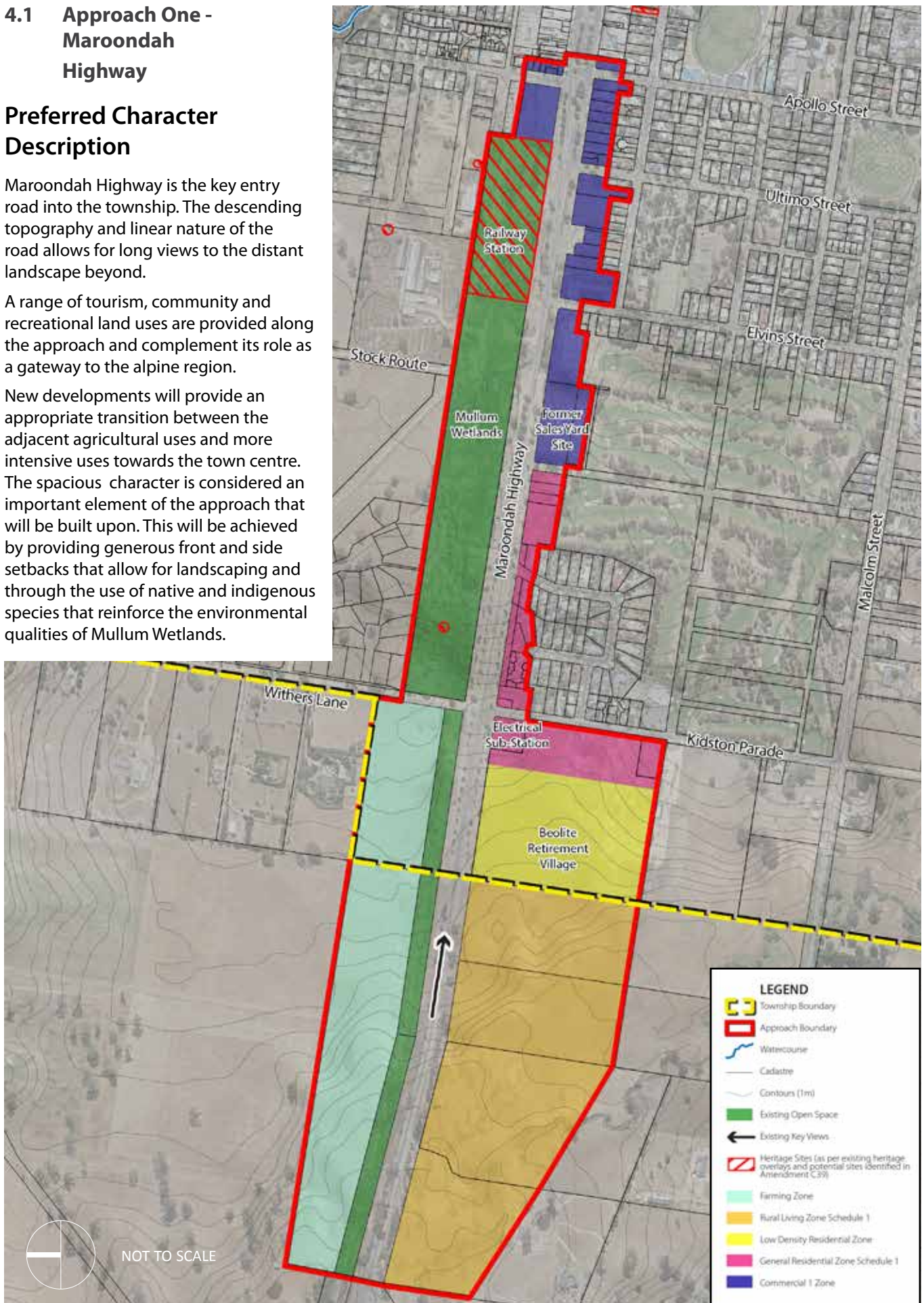


Figure 4 Maroondah Highway (west) Approach

4.2 Approach Two - Mount Buller Road

Preferred Character Description

Mount Buller Road forms part of the entry experience to Mount Buller and the alpine region. A range of tourism and commercial land uses are provided along the approach and complement its role as a gateway to the alpine region.

The presence of low scale built form and the detached pattern of development along the approach enable intermittent views to the surrounding local hills and are a key feature of this approach.

The approach has a spacious character facilitated by large front and side setbacks, as well as limited front fencing that allows for views to established front garden planting. On-site car park areas, loading and storage areas, particularly associated with industrial / commercial uses, are sited to the rear or side of buildings, allowing a stronger presence of landscaping within the front setback and along driveways.

Buildings along the approach are high quality, contemporary and respond to the alpine aesthetic of the approach and provide visual interest.

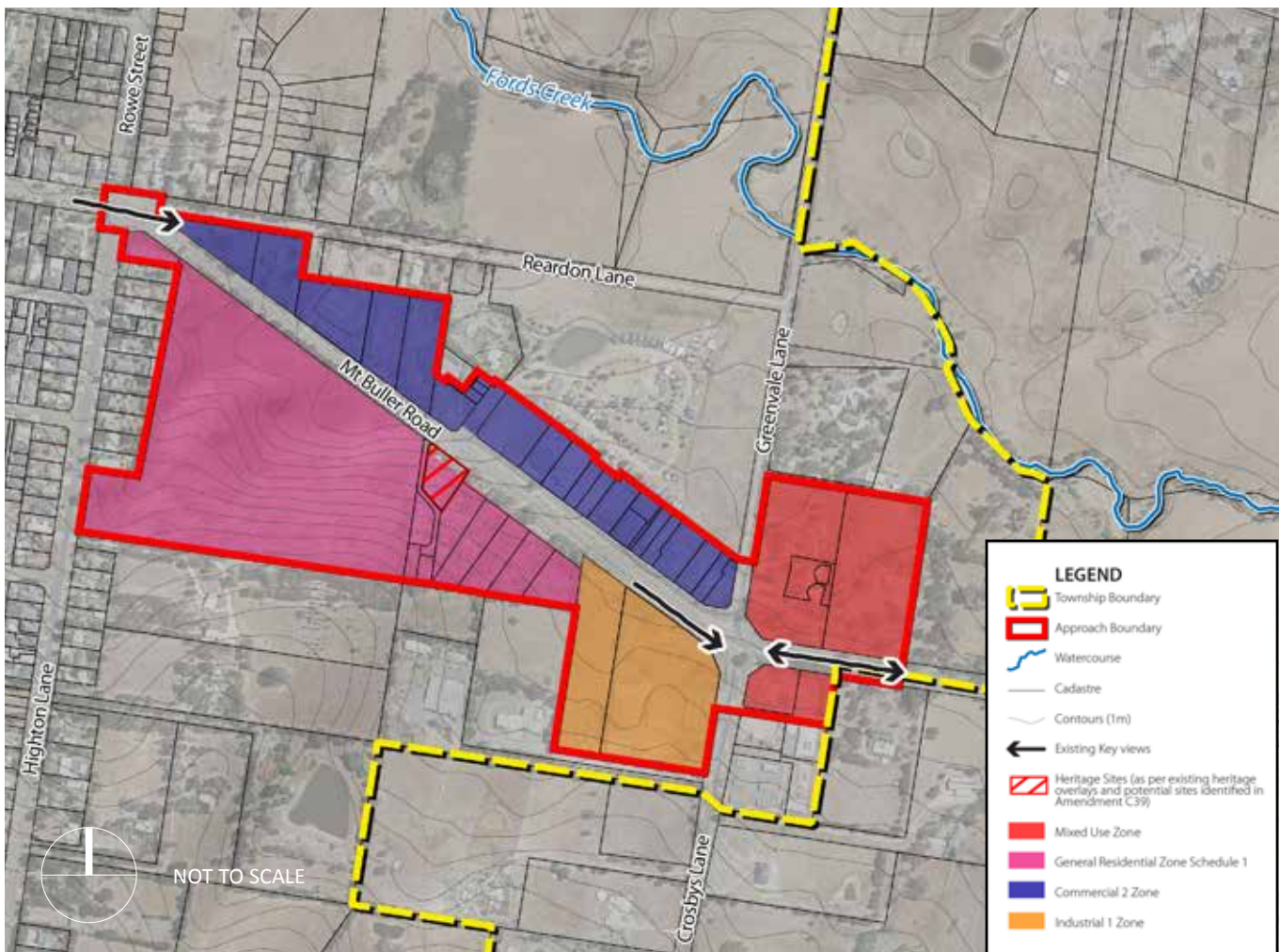


Figure 5 Mount Buller Road (east) Approach

4.3 Approach Three - Midland Highway Preferred Character Description

The sense of enclosure and presence of Mansfield Racecourse and Fords Creek are important elements of the approach that will be built upon. This will be achieved through the use of native and indigenous species that reinforce the environmental qualities of Fords Creek and the retention of existing street trees.

New residential areas sit comfortably next to established residential areas and provide an appropriate transition between the adjacent agricultural uses and more intensive development towards the town centre. Industrial areas are discrete with mounding and landscaping used to screen these uses along the approach.

Buildings are high quality and contemporary, while the approach has a spacious character facilitated by generous front and side setbacks that allow for landscaping. On-site car park areas, sheds, loading and storage areas particularly associated with industrial / commercial uses and rural residential lots, are sited to the rear or side of buildings, allowing a stronger presence of landscaping along the approach.

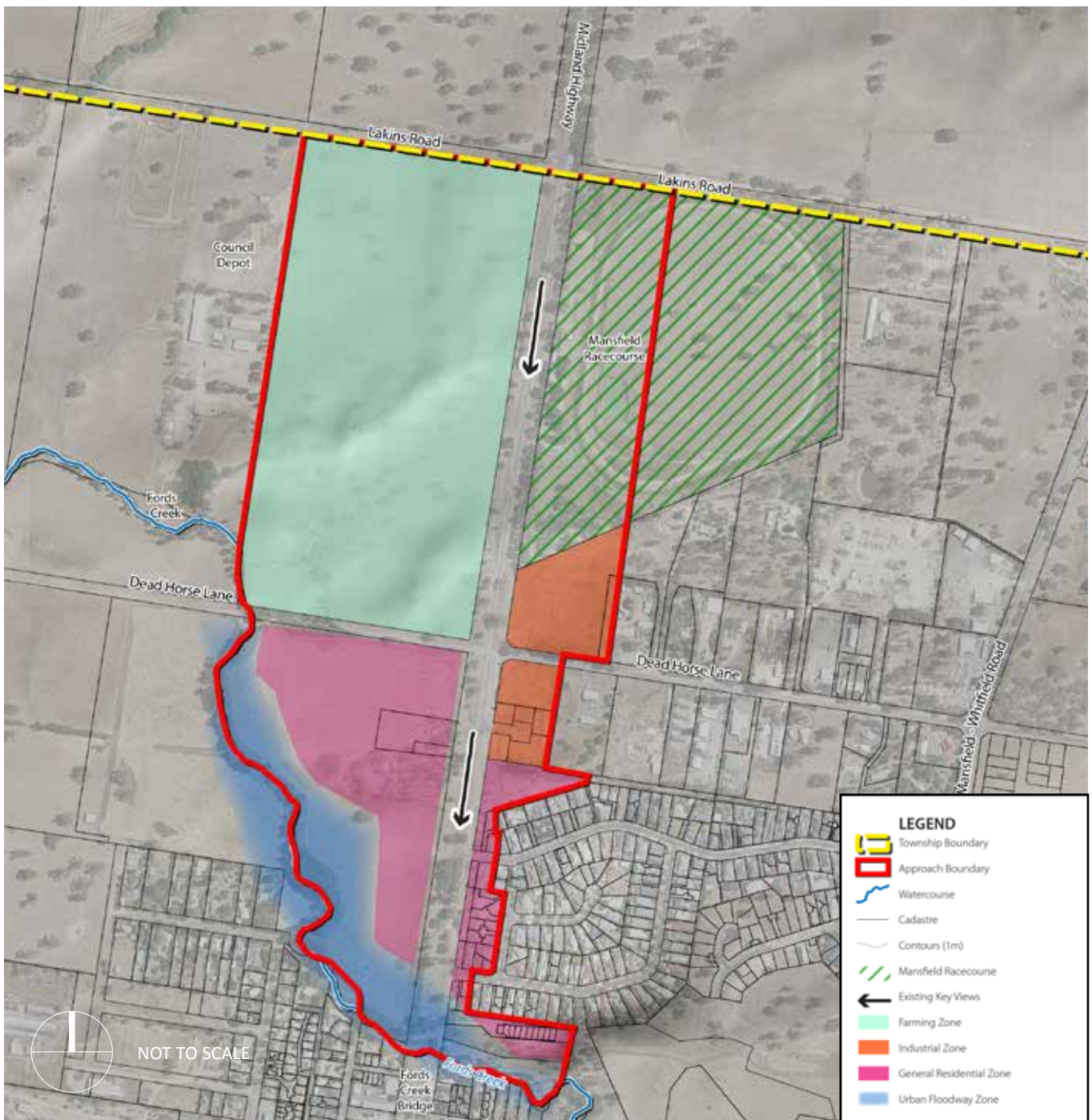


Figure 6 Midland Highway (north) Approach

4.4 Approach Four- Mansfield Whitfield Road

Preferred Character Description

The sloping topography, views to the surrounding localised hills and connections to Fords Creek and Botanic Park provide a strong focus for this approach. Buildings are orientated towards these features capturing views and providing for passive surveillance.

New residential areas sit comfortably next to established residential areas and provide an appropriate transition between the adjacent agricultural uses and more intensive development towards the town centre. Industrial areas are discrete with mounding and landscaping used to screen these uses along the approach.

Buildings are high quality and contemporary, with generous side and rear setbacks that allow space for landscaping.

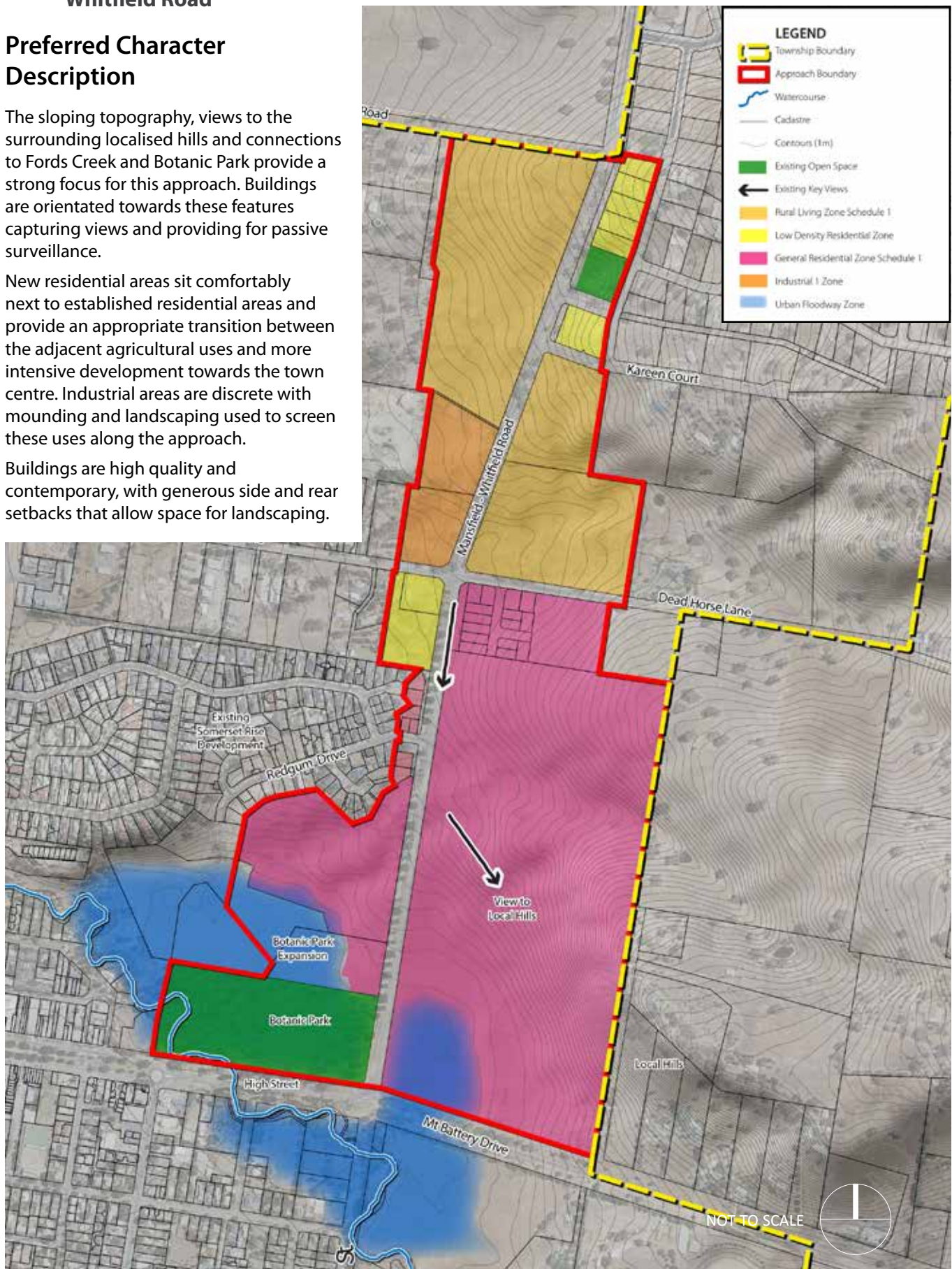


Figure 7 Mansfield Whitfield Road (north) Approach



**PART B - RESIDENTIAL
DEVELOPMENT
DESIGN GUIDELINES**

Residential Development Design Guidelines

1. Overview

These Guidelines apply to the following existing and future land use zones within the township approaches boundary:

Residential Zones

- Mixed Use
- General Residential
- Low Density Residential
- Rural Living

Refer to Figures 3-6 in Part A of this document for the township approach boundaries.



Figure 8 View to Mount Buller and surrounding hills.

2. Site Responsive Design

Objectives

- 02.1.1** To ensure new residential subdivisions and developments are designed to respond to the local characteristics of the site and its context.
- 02.1.2** To reinforce the preferred character of the adjacent township approaches.

Guidelines

- G2.1.1** Before any development design is undertaken, a thorough investigation of the site and its context should be undertaken. This will include an analysis of:
 - Surrounding existing and future land uses - sensitive interfaces, key land uses etc.
 - Surrounding existing and future transport networks - road, pedestrian and cycle paths, and public transport.
 - Surrounding built form character and heights.
 - Areas of vegetation.
 - Natural and man-made features within the site - landform, exposed geological features, wind row planting etc.
 - Predominant landscape and cultural heritage character of the area.
 - Understanding of drainage systems both within and beyond the site.
 - Views both from within and to the site from the township approach.
 - Climatic conditions including solar access and prevailing winds.

It will need to be demonstrated that the subdivision and/or development design responds to each of these elements.

3. Subdivision Interface Treatments

Objectives

G3.1.1 To ensure residential subdivisions appropriately address adjoining township approaches.

Guidelines

G3.1.1 Design the road network of future residential subdivisions to ensure that development will front onto the township approach. This may be achieved by utilising service roads or an internal road network. Uses that provide for higher quality built form outcomes should be located along this interface. Side fencing may be permitted, where direct access or a service road is not appropriate or a precedent exists. Rear fencing fronting the street should be avoided.

G3.1.2 Where a service road is provided as the interface to an approach, incorporate elements of the preferred character. This includes:

- Retain existing significant vegetation within the streetscape.
- Street trees spaced at a maximum of 10m apart and as near as possible to the centre of each allotment.
- Utilise native or indigenous canopy trees that require minimal irrigation and reflect the local character of the area. Exotic species may be used for feature planting or if appropriate to the preferred character of the adjacent approach, provided the trees can be irrigated without utilising the potable water supply.
- Low level shrubs and grasses in conjunction with canopy trees.

G3.1.3 Residential lots may side onto the approach provided:

- The length of side fencing does not exceed 60m in length without a break.
- A 5m landscape buffer is provided along this interface to screen side fencing. This buffer should consist of a variety of trees, shrubs, grasses, sedges and groundcovers in accordance with Section 6 of these Guidelines. Landscaped mounding combined with planting of shrubs and canopy trees is encouraged for effective screening.
- Side fencing is unobtrusive and does not exceed 1.5m in height.



Figure 9 Subdivision Interface Treatment - Service Road - Preferred

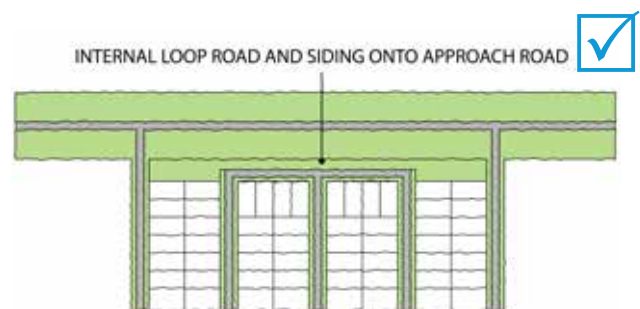


Figure 10 Subdivision Interface Treatment - internal Road Network - Preferred



Figure 11 Subdivision Interface Treatment - Side / Rear Fencing

4. Access and Circulation

4.1 Street Design

Objectives

- 04.1.1** To provide safe, convenient and efficient access for all vehicles between residential subdivisions and the township approaches.
- 04.1.2** To ensure the number of roads connecting onto the approaches (vehicle access points) are minimised.

Guidelines

- G4.1.1** Locate vehicle access points to residential subdivisions (including service roads) in a location that enables clear sight lines along the road and vehicles to enter and exit safely and efficiently.
- G4.1.2** Where possible limit vehicle access point along approaches in order to minimise disruption to footpaths and to avoid the need to remove mature street trees.
- G4.1.3** Clear sight lines should be provided at the vehicle exit points, with shrub planting restricted within the immediate vicinity to a maximum of 900mm in height.



Figure 12 Low level planting allows for clear sight lines at vehicle exit points.

4.2 Pedestrian and Cyclist Access

Objectives

- 04.2.1** To provide safe access for pedestrians and cyclists along township approaches.

Guidelines

- G4.2.1** Design driveway access to minimise vehicle and pedestrian / cyclist conflicts by maintaining clear sight lines between exiting or entering vehicles, and pedestrians. Landscaping, fencing and building design are key considerations.

4.3 Vehicle Access, Car Parking Layout and Design

Objectives

- G4.3.1** To minimise the visual impact of car parking and access from the approach so that it does not adversely affect streetscape character.

Guidelines

- G4.3.2** Vehicle access should not present as a dominant element when viewed from the township approaches. Appropriate and innovative screening and screen planting should be incorporated where necessary.
- G4.3.3** Undercroft car parking should be screened from the street with landscaping and / or articulated screening. It should be designed to provide security gates, conceal service pipes and ducts, to improve the appearance of car park entries from the street.
- G4.3.4** Car parks should be landscaped in accordance with Section 6 of these Guidelines.

5. Building Siting and Design

5.1 Setbacks

Objectives

- 05.1.1** To ensure the siting of buildings reinforces the preferred character of the township approaches.
- 05.1.2** To ensure buildings are sited and designed to consider existing views along approaches including to the surrounding hills.
- 05.1.3** To create cohesive streetscapes that are characterised by consistent building setbacks.
- 05.1.4** To provide vibrant and pedestrian friendly streets.
- 05.1.5** To ensure the siting of buildings provides adequate space for landscaping and planting and strengthens the landscape character of the approach streetscape.
- 05.1.6** To minimise the impacts of overshadowing on the adjoining approach streetscape.

Guidelines

Setbacks

- G5.1.1** For infill development, front building setbacks that address an approach are to be consistent with the predominant front setback of the street, if the surrounding lot sizes and uses are consistent with the subject site.
- G5.1.2** Where there is no predominant front setback along an approach, front setbacks should be no less than 6 metres from the front property boundary to enable sufficient space for landscaping and building access.
- G5.1.3** Front setbacks that address an approach should be landscaped in accordance with Section 6 of these Guidelines.
- G5.1.4** Garages and car ports should be setback from front facades and should not present as a dominant element when viewed from the approaches.
- G5.1.5** Where development sides onto an approach, provide a minimum of 3 metres side setback to enable sufficient space for landscaping and building access and to improve the preferred character of the approach. This setback may be reduced if the facade addressing the approach is articulated through the use of techniques such as recessing and projecting elements of the building, utilising changes in materials and providing windows.

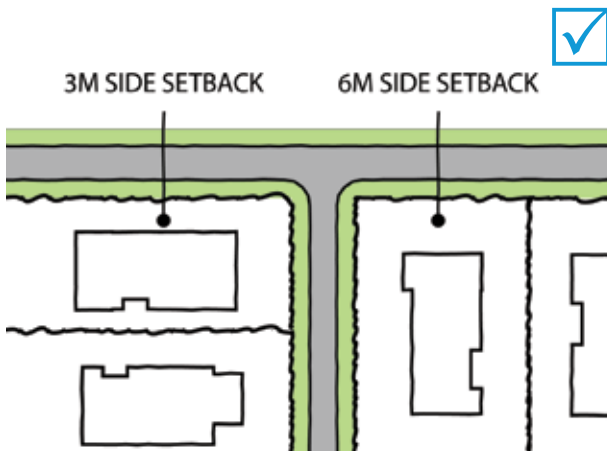


Figure 13 Typical front and side setbacks

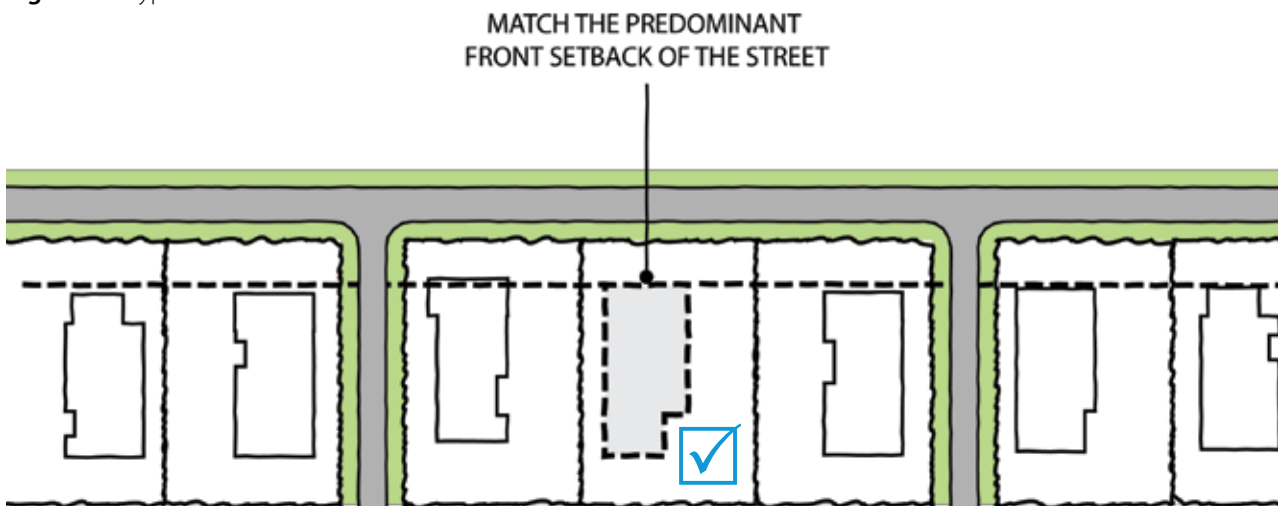


Figure 14 Residential infill development to be consistent with predominant front setback along approach.

5.2 Building Address

Objectives

- 05.2.1** To provide development which addresses the approaches and enhances the vibrancy of the street.
- 05.2.2** To provide a reasonable level of privacy to building occupants while encouraging passive surveillance of the approaches.

Guidelines

- G5.2.1** Buildings should be orientated so that the building frontage (i.e. entrance, foyer etc) is parallel with the approach streetscape.
- G5.2.2** Provide opportunities for engagement with the approach through ground level occupation and the presence of habitable rooms and balconies at all levels. Inactive uses, such as laundries, garages and bathrooms, should be located away from street-facing facades where practicable.

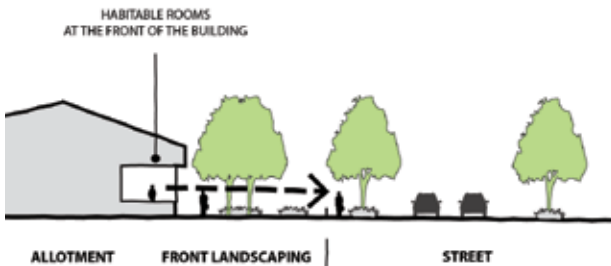


Figure 15 Provide habitable rooms along the approach to provide opportunities for engagement.

5.3 Building Design and Detail

Objectives

- 05.3.1** To reinforce the preferred character of the approaches through the design of new buildings.
- 05.3.2** To minimise the impact of garage doors and driveways to both the building and the approach by locating vehicle access appropriately.

Guidelines

- G5.3.1** Articulate building facades through the considered design of openings, balconies, varied materials, recessed and projected elements, and revealing structural elements such as beams.
- G5.3.2** Facade articulation should respect rhythm and grain of adjacent buildings along the approach.
- G5.3.3** Buildings along long boundaries and on consolidated lots, should break up the building bulk through significant articulation of the building mass.
- G5.3.4** Design sheds, car ports, garages and outbuildings to be consistent with the overall design theme of the site.



Figure 16 Examples of building articulation.

5.4 Colours, Materials and Finishes

Objectives

- 05.4.1** To ensure colours, materials and finishes are compatible with the preferred character of the approaches.

Guidelines

- G5.4.1** Utilise materials that reinforce the preferred built form and landscape character of the approaches. Refer to Part A: Chapter 4, Preferred Character. Avoid the excessive use of heavy looking materials and render. Building facades should use a minimum of 2 different primary cladding materials. (NB: Use of a wide variety of cladding types is no substitute for meaningful building articulation).
- G5.4.2** Materials should utilise muted, earthy tones or other colours approved by the Responsible Authority. Avoid the use of bright, bold colours that are not compatible with the muted tones of the natural landscape.
- G5.4.3** External finishes should be of low reflectivity to minimise glare and reflection along the adjacent approach. Zinalume materials are prohibited.

5.5 Building Heights

Objectives

- 05.5.1** To ensure building heights respond to the predominant 1-2 storey scale of built form along the approach.
- 05.5.2** To ensure buildings are appropriately scaled to maintain key views from the approaches.

Guidelines

- G5.5.1** Building heights should respond to the scale of existing development along the approach, and incorporate lower elements towards this interface to relate to the pedestrian scale.
- G5.5.2** Building heights should generally not exceed 9m above natural ground level in accordance with Rescode. Allowance for roof forms, architectural features and detailing and services may be permitted, if required. In this case, it will need to be demonstrated that these elements will have minimal visual impact on views from the approach and views to and from significant landscapes.



Lightweight Cladding types - vertical panel



Lightweight Cladding types - timber



Brick, stone, and rammed earth

Figure 17 Examples of suitable building materials

5.6 Roof Forms

Objectives

- 05.6.1** To provide articulated roof forms that create visual interest and variation along the approach streetscape.
- 05.6.2** To integrate the roof form into the overall design of the building.
- 05.6.3** To ensure roof forms reflect the prevailing character of the approaches.
- 05.6.4** To minimise the impact of roofing and building infrastructure on adjoining approaches.

Guidelines

- G5.6.1** Utilise varied roof forms to provide visual interest along the approach whilst providing forms that are compatible with the character of the building.
- G5.6.2** Roof forms should be designed to integrate with the prevailing roof forms of the approach.
- G5.6.3** Roofs should be constructed with a pitch of 7 degrees from horizontal or greater. Roof forms may include gable, skillion or hipped designs. These forms may be combined with flat roof forms to provide articulation.
- G5.6.4** Building infrastructure which is located on the roof including air conditioning units, solar panels etc. is to be screened from the adjoining approach utilising roof forms or parapets that integrate with the overall design of the building.



Figure 18 Examples of articulated roof forms.

5.7 Garages

Objectives

- 05.7.1** To ensure the location and treatment of garages, garage doors and carports contribute positively to design of the building and the approach streetscape.
- 05.7.2** To ensure the design of each building minimises the visual appearance of the garage and/or carport.

Guidelines

- G5.7.1** Each building is limited to a single crossover for a single residential vehicle crossing.
- G5.7.2** The architectural character of garages and car ports must complement the main body of the building.
- G5.7.3** Garages should be recessed behind the main building line and not a prominent feature of the building.
- G5.7.4** Garages on lots wider than 20m that exceed 33% of street frontage or 40% for lots less than 20m wide, are discouraged.
- G5.7.5** Triple garages are strongly discouraged.



Figure 19 Garage should be recessed and not a prominent feature of the building.

5.8 Signage and Advertising

Objectives

- 05.8.1** To limit signage clutter within the streetscape.

Guidelines

- G5.8.1** Signage in residential lots, should be discreet and meet the requirements of the Planning Scheme.

6. Landscaping

6.1 Subdivision Entry Statements

Objectives

- 06.1.1** To allow for entry statements that respond to the preferred character of the adjacent township approach.

Guidelines

- G6.1.1** Where appropriate, incorporate low key entry features that utilise landscaping rather than large built elements to define the entry to a residential estate.



Figure 20 Examples of low level planting utilised as an entry statement for a residential estate.

6.2 Landscape Design

Objectives

- 06.2.1** To reinforce the preferred character of the approaches through compatible and ample landscaping within adjacent residential areas.
- 06.2.2** To minimise the area of hardstand (e.g. driveways and paving) and maximise the amount of soft landscape (e.g. garden beds, turf and permeable surfaces).
- 06.2.3** To provide opportunities for the planting of shade trees and screening plants that enhances the setting of the building along the approach.
- 06.2.4** To encourage planting that reinforces the preferred character of the approach.

Guidelines

Landscaped Setbacks

- G6.2.1** Front setbacks should be planted with a minimum of one canopy tree per standard residential lot frontage combined with lower scale planting. The canopy tree should be capable of reaching a minimum of 7m in height.
- G6.2.2** Side setbacks that address and / or are visible from an approach (i.e. not located behind a landscape buffer) should be landscaped to the satisfaction of the Responsible Authority.
- G6.2.3** Where canopy trees are to be provided, deep soil zones should be a minimum of 4.5 metres in width to enable sufficient space for root zones. Landscaped areas of shrub, grasses, sedges and groundcovers should be a minimum of 2 metres in width to provide suitable space for planting.
- G6.2.4** Vehicle access ways should be offset from the side boundary by a minimum of 1m to provide sufficient space for landscaping. Meander the driveway where practicable to provide large planting spaces for trees within the driveway area.

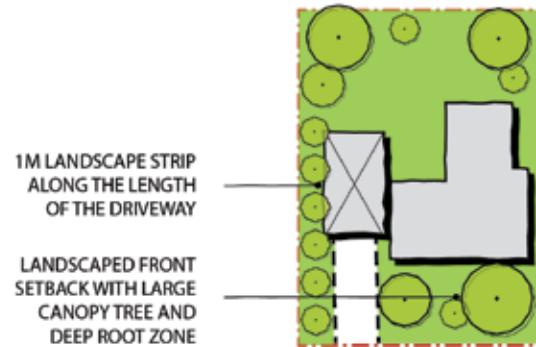


Figure 21 Front and side landscape setting

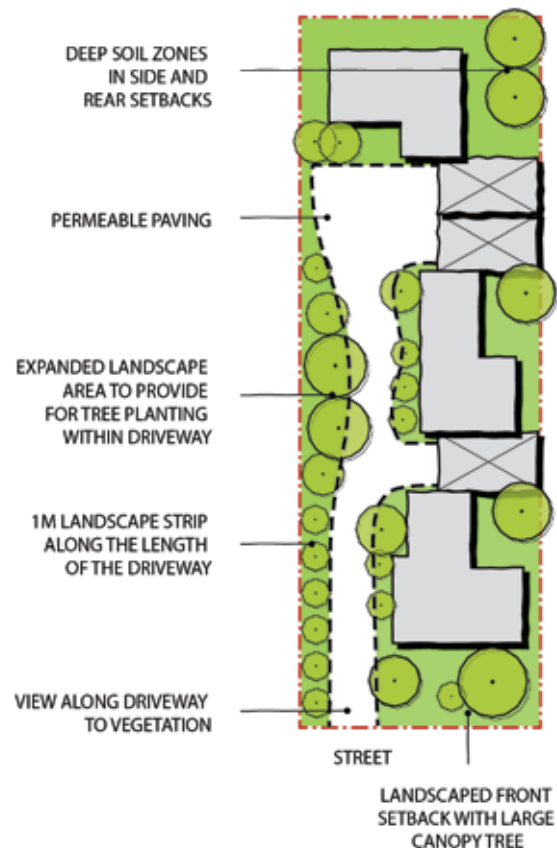


Figure 22 Driveway landscaping

Species Selection

- G6.2.5** Species should be selected to integrate and connect with character of the adjacent approach, where appropriate.
- G6.2.6** Trees should be carefully selected and sited to allow scope for expected growth and structural protection of buildings and so not to impact negatively on assets or users within the adjacent approach.
- G6.2.7** Landscape areas should be planted with species that are low maintenance and hardy, and do not require irrigation from the potable water supply. Species selection should generally provide an emphasis on native and indigenous plants that are appropriate to the site and landscape character of the approach.
- G6.2.8** Exotic species may be utilised in areas where they are considered to be an important element of the preferred character or for emphasis planting provided the plants do not require potable water supply for irrigation.

Visual and Acoustic Screening

- G6.2.9** Screen planting should be provided where an undesired element of the site will be visible from the approach. Elements to be screened include solid fencing, sheds / outbuildings, waste and recycling storage and goods storage areas.

Vegetation Retention

- G6.2.10** Retain and protect existing mature trees where possible and integrate into the overall site planning.
- G6.2.11** Buildings should be setback from existing trees by the width of the canopy of the mature tree in order to protect tree root zones.

Establishment

- G6.2.12** Landscaping should generally be completed within 3 months of building construction completion and be carried out in accordance with the approved landscape plan. Planting may be delayed during summer months as agreed to by the Responsible Authority.



Figure 23 Example of remnant vegetation retained within a residential development.

6.3 Fencing

Objectives

- O6.3.1** To ensure the front boundary treatment contributes positively to the appearance of the approach and clearly delineates the public and private realms.
- O6.3.2** To ensure fencing is coordinated with the design of the building and landscaping and the preferred character of the approach.

Guidelines

- G6.3.1** Fencing along the front boundary, where it interfaces with an approach, should generally be avoided. Utilise landscaping where possible to delineate the front property boundary instead.
- G6.3.2** Where front or side fencing is provided along the interface to an approach, it should be unobtrusive, not exceed 1.5m in height, be constructed from predominantly lightweight natural materials and have a transparency of 30%. Solid, brick or rendered fences and light coloured fences are discouraged.



Figure 24 Example of semi transparent fencing with low level planting.

7. Site Amenity

7.1 Waste Storage

Objectives

- 07.1.1** To ensure waste storage areas do not detrimentally impact on the amenity of the approaches.

Guidelines

- G7.1.1** Waste storage and recycling areas should be located away from direct view lines from the adjacent approach. They should not be located at the front of the building, within landscaped areas or driveways.
- G7.1.2** Waste and recycling storage areas should be adequately screened from the approaches utilising landscaping as outlined in Section 6.



Figure 25 Example of waste storage area screening.

7.2 Goods Storage / Building Services

Objectives

- 07.2.1** To ensure goods storage areas, sheds and building services are appropriately sited and designed to minimise impacts on the approaches.

Guidelines

- G7.2.1** Goods storage areas and sheds should be located behind the building line. Goods storage areas and sheds should not be located within landscaped areas and driveways.
- G7.2.2** Water tanks, satellite dishes, television antennae, clothes lines, hot water services, evaporative units must be located away from direct view lines from approaches.
- G7.2.3** Meter boxes and gas meters shall be located in the least visually obtrusive location from the approach.
- G7.2.4** Goods storage areas and sheds should be appropriately screened from the approach. Refer to Section 6 for visual screening guidelines.

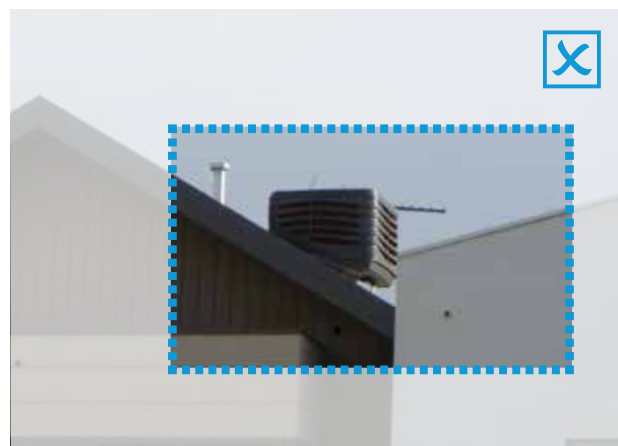


Figure 26 Satellites, air conditioning units, and evaporative cooling units should be located away from direct views along the approach.

7.3 Lighting

Objectives

- 07.3.1** To minimise the spill of light onto the adjoining approach.

Guidelines

- G7.3.1** Lighting should be designed so that it does not adversely impact on the safety of road users along approaches.
- G7.3.2** Utilise sensor lighting where appropriate to reduce energy consumption and impacts on the adjoining approach streetscape.

7.4 Acoustic Treatments

Objectives

- 07.4.1** To ensure acoustic treatments are designed to achieve their purpose and integrate with the adjoining approach streetscape.
- 07.4.2** To ensure acoustic treatments match in with the site design.

Guidelines

- G7.4.1** Where practical, utilise acoustic treatments internal to the building through the design of the building layout, and the use of acoustic insulation or suitable building materials.
- G7.4.2** Where external acoustic treatments are required, utilise tree and shrub planting, mounding, acoustic walls or a combination of each as required. The acoustic treatment areas should be accessible and maintained.
- G7.4.3** Design the acoustic treatment so that it contributes positively to the adjoining approach streetscape, and integrates with the design of the building and landscaping.



Figure 27 Example of tree and shrub planting and mounding acoustic treatments.



**PART C - INDUSTRIAL,
COMMERCIAL
AND FARMING
DEVELOPMENT
DESIGN GUIDELINES**

Industrial, Commercial and Farming Development Design Guidelines

1. Overview

The Guidelines apply to the following existing and future land use zones within the township approaches boundaries:

Industrial, Commercial and Farming Zones

- Farming
- Urban Floodway Zone
- Industrial 1
- Commercial 1
- Commercial 2

Refer to Figures 3-6 in Part A of this document for the township approach boundaries.

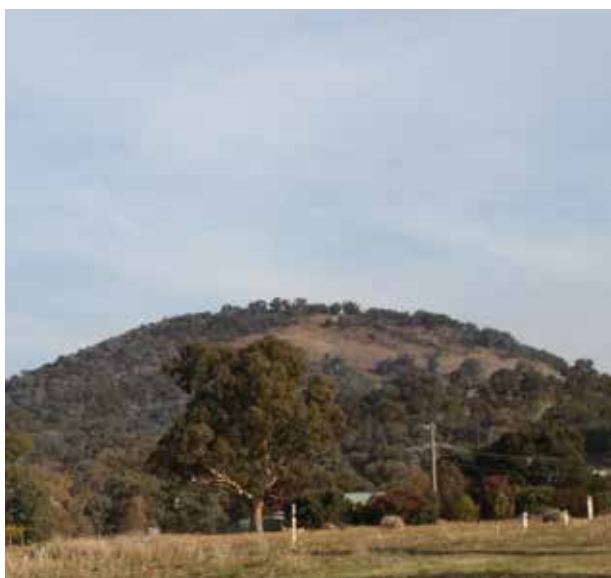


Figure 28 Example of key view to surrounding hills to be maintained.

2. Site Responsive Design

Objectives

- 02.4.1** To ensure new developments are designed to respond to the local characteristics of the site and its context.
- 02.4.2** To reinforce the preferred character of the adjacent township approaches.

Guidelines

G2.4.1 Before any development design is undertaken, a thorough investigation of the site and its context should be undertaken. This will include an analysis of:

- Surrounding existing and future land uses - sensitive interfaces, key land uses etc.
- Surrounding existing and future transport networks - road, pedestrian and cycle paths, and public transport.
- Surrounding built form character and heights.
- Areas of vegetation.
- Natural and man-made features within the site - landform, exposed geological features, wind row planting etc.
- Predominant landscape and cultural heritage character of the area.
- Understanding of drainage systems both within and beyond the site.
- Views both from within and to the site from the township approach.
- Climatic conditions including solar access and prevailing winds.

It will need to be demonstrated that the subdivision and/or development design responds to each of these elements.

3. Subdivision Interface Treatments

Objectives

- 03.1.1** To ensure industrial and business uses appropriately address the adjoining township approach.
- 03.1.2** To ensure the number of access points to approaches is minimised.

Guidelines

G3.1.1 Design the road network of future industrial and business uses to ensure that development will front onto the township approach. This may be achieved by providing direct access to the approach where considered appropriate, or by utilising service roads (preferred option). Uses that provide for higher quality built form outcomes should be located along this interface. Side fencing may be permitted, where direct access or a service road is not appropriate. Rear fencing should be avoided.

G3.1.2 Where a service road is provided as the interface to an approach, incorporate elements of the preferred character. This includes:

- Existing significant vegetation within the streetscape.
- Street trees spaced at a maximum of 10m apart and as near as possible to the centre of each allotment.
- Utilise native or indigenous canopy trees that require minimal irrigation and reflect the local character of the area. Utilise exotic species for feature planting or if appropriate to the preferred character of the adjacent approach, provided the trees can be irrigated without utilising the potable water supply.
- Low level shrubs and grasses in conjunction with canopy trees.

G3.1.3 Where direct access or a service road is not appropriate, industrial and business uses may side onto the approach provided:

- The length of side or rear fencing does not exceed 60m in length.
- A 5m landscape buffer is provided along this interface to screen side fencing. This buffer should consist of a variety of trees, shrubs, grasses, sedges and groundcovers in accordance with Section 6 of these Guidelines. Landscaped mounding combined with planting of shrubs and canopy trees is encouraged for effective screening.
- Side fencing is unobtrusive and does not exceed 1.5m in height.

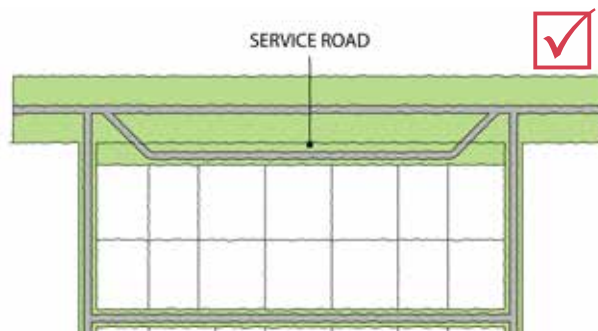


Figure 29 Service Road providing access to industrial / commercial allotments along the approach.

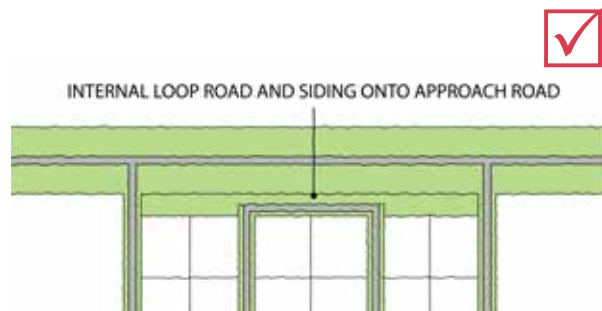


Figure 30 Internal loop road provides access to industrial / commercial allotments, fronting and siding onto the approach.



Figure 31 Side or rear fencing exceeding 60m in length is discouraged.

4. Access and Circulation

4.1 Pedestrian and Cyclist Access

Objectives

- 04.1.1** To provide safe access for pedestrians and cyclists along township approaches.

Guidelines

- G4.1.1** Design driveway access to minimise vehicle and pedestrian / cyclist conflicts by maintaining clear sight lines between the exiting or entering vehicle and pedestrians. Landscaping, fencing and building design are key considerations.

4.2 Vehicle Access

Objectives

- 04.2.1** To provide safe, convenient and efficient access for all vehicles to and from industrial and business sites and the township approaches.
- 04.2.2** To minimise the impacts of driveway crossovers on pedestrian / cyclist access and the adjoining approaches streetscape.

Guidelines

- G4.2.1** Where direct access to the approach is provided, developments should be designed to allow all vehicles to enter and exit a site in a forward motion. This applies to all sites regardless of lot size.
- G4.2.2** Where direct access to the approach is provided, locate vehicle access points to the industrial or business site in a location that enables clear sight lines along the road enabling vehicles to enter and exit safely and efficiently.
- G4.2.3** For sites where direct B-double access is required, a Traffic Engineer's report should be provided to demonstrate that the vehicle can enter and exit and manoeuvre within the site safely and efficiently, and with minimal impact on the approach streetscape.
- G4.2.4** Limit driveway crossovers to one consolidated entry and exit point for each site along approaches in order to minimise disruption to footpaths. This applies to standard single lots and consolidated lots. Re-use existing crossovers where possible, particularly to avoid the need to remove mature street trees. Additional crossovers may be permitted for larger sites where a loop road circulation network is required.
- G4.2.5** Clear sight lines should be provided at the vehicle exit points, with shrub planting restricted within the immediate vicinity to a maximum of 900mm in height.
- G4.2.6** Vehicle access should not present as a dominant element when viewed from the township approaches. Appropriate and innovative screening and screen planting should be incorporated where necessary.
- G4.2.7** Drive thru sales facilities are discouraged within view of the town approaches.



Figure 32 Low level planting allows for clear sight lines at vehicle exist points.

4.3 Loading and Servicing

Objectives

O4.3.1 To minimise the visual impact of loading bays and service areas when viewed from the township approaches.

Guidelines

G4.3.1 Loading bays and service areas should generally be located to the rear or side of the property and away from direct view lines from the adjacent approach.

G4.3.2 Where practical, integrate loading areas into the design of the building so that loading occurs internally. Where external loading areas are visible from the township approach, they should be screened with landscaping or articulated built form.

G4.3.3 Loading and servicing should occur with the vehicle completely contained within the site. No part of the vehicle should extend into the adjacent approach.

G4.3.4 Where practical, provide a rear lane for service and loading traffic so that it is separated from customer access and parking i.e. factoryette developments.

G4.3.5 Ensure storage and loading areas are of sufficient size and dimensions to avoid the use of car parks for temporary storage of goods. Refer to Clause 52.07 of the Mansfield Planning Scheme for size and dimension requirements.



Figure 33 Loading area diagram

4.4 Car Parking Provision

Objectives

- O4.4.1** To provide sufficient car parking for the needs of the business or industry within the site without adverse impacts on the amenity and appearance of the adjoining approach.

Guidelines

- G4.4.1** When the end use of the site is known, car park spaces will be provided for customers and occupants in accordance with the provisions specified in Clause 52.06 of the Mansfield Planning Scheme.
- G4.4.2** A reduction in car park provision may be considered where a development is being purpose built for a known end user and it can be demonstrated that lower car park numbers are required on the basis of employee numbers, alternative transport options and likely client / customer numbers. An area on the site will need to be set aside so that the full car parking requirements can be met to the Responsible Authorities satisfaction in the future if necessary. This area will need to be landscaped and maintained in the interim.
- G4.4.3** Customer car parking spaces should be permanently reserved for customer access and not utilised for storage etc.



Figure 34 Example of landscaping within car park area

4.5 Car Parking Layout and Design

Objectives

- O4.5.1** To provide attractive industrial and office areas so that parking is not a dominant element of the adjoining approach streetscape.
- O4.5.2** To provide landscaped car parks that integrate with the design of the site and adjoining approach.

Guidelines

Siting

- G4.5.1** Car parking directly adjacent or within the direct view line of the township approaches should generally be restricted to customer parking. Customer spaces should be clearly distinguished with suitable signage or pavement markings and should be made permanently available for customer use. Staff parking may be provided in the front setback if it can be demonstrated that sufficient car parks have been provided for customers.
- G4.5.2** Large expanses of car park of greater than 6 spaces should be located away from direct views lines from the adjacent approach, unless a justified exemption is sought to the satisfaction of the Responsible Authority.
- G4.5.3** Car parking should be avoided within 3m of the property boundary adjacent to an approach to allow sufficient space for landscaping. Refer to the landscape guidelines in Section 6.
- G4.5.4** Uses which require the parking and the regular movement of trucks should provide designated truck parking areas. This does not include truck movements within loading areas.

Design

- G4.5.5** Undercroft car parking should be screened from the street with landscaping and / or articulated screening. It should be designed to provide security gates, conceal service pipes and ducts, to improve the appearance of car park entries from the street.
- G4.5.6** Car parks should be landscaped in accordance with Section 6 of the guidelines.
- G4.5.7** Car parks and vehicle turning areas should be constructed and sealed with an all weather pavement surface and adequately drained. Unsealed surfaces may be permitted for low trafficked areas to the satisfaction of the Responsible Authority.
- G4.5.8** Utilise Water Sensitive Urban Design (WSUD) techniques between rows of car parking to treat stormwater before it is discharged from the site and passively irrigate vegetation.

5. Building Siting and Design

5.1 Setbacks

Objectives

- 05.1.1** To ensure the siting of buildings reinforces the preferred character of the township approaches.
- 05.1.2** To ensure buildings are sited and designed to consider existing views along the approaches including to the surrounding hills.
- 05.1.3** To create cohesive streetscapes that are characterised by consistent building setbacks.
- 05.1.4** To provide active and pedestrian friendly streets.
- 05.1.5** To ensure the siting of buildings provides adequate space for landscaping and planting and strengthens the landscape character of the approach streetscape.
- 05.1.6** To minimise the impacts of overshadowing on the adjoining approach streetscape.

Guidelines

Setbacks

- G5.1.1** For infill development, front building setbacks that address an approach are to be consistent with the predominant front setback of the street, if the surrounding lot sizes and uses are consistent with the subject site.
- G5.1.2** Where there is no predominant front setback along an approach, front setbacks should be no less than 6 metres from the front property boundary to enable sufficient space for landscaping and building access. The 6 metre minimum setback is only permitted if car parking (including customer parking) is provided to the side or rear of the building.

5.2 Building Address

Objectives

- G5.1.3** Front setbacks should be landscaped in accordance with Section 6 of these Guidelines and should not be used to store goods, materials or waste.
- G5.1.4** Buildings with a width of greater than 30 metres should be set back a minimum of 3m from both side boundaries in order to minimise the impact of a continuous built wall to the street. Side setbacks should not be used for the storage of materials, goods etc.
- G5.1.5** Where development sides onto an approach, provide a minimum of 4 metres side setback to enable sufficient space for landscaping and building access and to improve the preferred character of the approach. This setback may be reduced if the facade addressing the approach is articulated through the use of techniques such as recessing and projecting elements of the building, utilising changes in materials for instance lightweight cladding other than colourbond and providing windows. A reduction will not be considered where the side boundary is opposite a residential zone.

- O5.2.1** To provide development which addresses the approaches and enhances the vibrancy of the street.
- O5.2.2** To minimise the impact of car parking and loading areas on the streetscape through the orientation of buildings.
- O5.2.3** To ensure development provides adequate activation and passive surveillance of adjoining approaches.

Guidelines

- G5.2.1** Buildings should be orientated so that the building frontage (i.e. entrance, reception, customer service area) is parallel with the approach streetscape.
- G5.2.2** Buildings should be orientated so that loading and servicing, and large areas of car park (greater than 6 spaces) will occur to the rear or the side of the site.
- G5.2.3** Pedestrian generating uses including customer service and retail components, should be located to address the adjoining approach to provide visual interest to the street, create a more pedestrianised scale and assist in passive surveillance of the streetscape.
- G5.2.4** Buildings that side onto an approach should address this street frontage with articulated facades.
- G5.2.5** Factoryette developments should provide built form that addresses the approach streetscape as well as the internal access lanes.
- G5.2.6** Avoid blank, unarticulated walls directly adjacent to an approach, where practical.

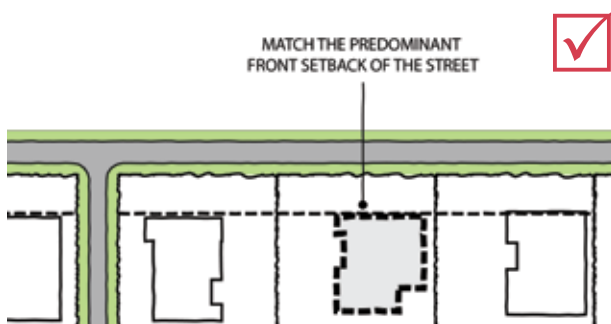


Figure 35 Industrial / Commercial infill development to be consistent with predominant front setback along approach.



Figure 36 Building should address the street

5.3 Building Design and Detail

Objectives

- 05.3.1** To reinforce the preferred character of the approaches through the design of new buildings.
- 05.3.2** To provide buildings that are simple in detail, and representative of the preferred industrial or business built form.

Guidelines

- G5.3.1** All building walls that are visible from the street should be articulated to provide visual interest. Avoid excessive blank walls.
- G5.3.2** Articulation can be achieved by varying building setbacks or projecting building elements, varying roof forms, utilising glazing, and varying building materials, finishes and colours.
- G5.3.3** Buildings constructed along long boundaries, should be separated to reflect the existing detached character of the approaches.
- G5.3.4** Buildings should provide a minimum of 30% glazing in the facade that fronts an approach. Where this is not practical, it will need to be demonstrated that the facade contributes positively to the approach streetscape and provides for passive surveillance.
- G5.3.5** Design sheds / outbuildings to be consistent with the overall design theme of the site.



Figure 37 Examples of building articulation

5.4 Colours, Materials and Finishes

Objectives

- 05.4.1** To ensure colours, materials and finishes are compatible with the preferred character of the approaches.
- 05.4.2** To provide visual interest and a sense of address.

Guidelines

- G5.4.1** Utilise materials that reinforce the preferred built form and landscape character of the approaches. Refer to Part A: Chapter 4, Preferred Character. Avoid the excessive use of heavy looking materials, and render.
- G5.4.2** Utilise a mix of materials and colours particularly within the visible facades, to provide articulation to the buildings and visual interest along the approach.
- G5.4.3** Materials should utilise muted, earthy tones or other colours approved by the Responsible Authority. Avoid the use of bright, bold colours that are not compatible with the muted tones of the natural landscape.
- G5.4.4** Where the rear or side of a building is visible from an approach, provide articulation or utilise a textured surface treatment in order to provide visual interest.
- G5.4.5** External finishes should be of low reflectivity to minimise glare and reflection along the adjacent approach.



Figure 38 Examples of suitable building materials

5.5 Building Heights

Objectives

- O5.5.1** To ensure building heights respond to the predominant 1-2 storey scale of built form along the approach.
- O5.5.2** To ensure buildings are appropriately scaled to maintain key views from the approaches.
- O5.5.3** To ensure industrial and office building heights have minimal impact on the amenity of the adjoining approach.

Guidelines

- G5.5.1** Building heights should respond to the scale of existing development along the approach, and incorporate lower elements towards this interface to relate to the pedestrian scale.
- G5.5.2** Where an industrial development is located opposite a residential area, building heights along the approach frontage should relate to the scale of adjacent residential buildings.
- G5.5.3** Building heights should generally not exceed 9m above natural ground level, unless a taller built form is required for the purpose of the industry or business. In this case, it will need to be demonstrated that the taller element will have minimal visual impact on views from the adjoining approach and views to and from significant landscapes.

5.6 Roof Forms

Objectives

- O5.6.1** To provide articulated roof forms that create visual interest and variation in the approach streetscape.
- O5.6.2** To integrate the roof form into the overall design of the building.
- O5.6.3** To ensure roof forms reflect the prevailing character of the approaches.
- O5.6.4** To minimise the impact of roofing and building infrastructure on adjoining approaches.

Guidelines

- G5.6.1** Utilise varied roof forms to provide visual interest along the approach whilst providing forms that are compatible with the character and function of industrial and office buildings.
- G5.6.2** Roof forms should be designed to integrate with the prevailing roof forms of the approach.
- G5.6.3** Roof forms should generally be of a low pitch unless necessitated by the particular industry function. Steeper, pitched roof elements may also be utilised to reduce the apparent bulkiness of a large roof area and to respond to the prevailing character.
- G5.6.4** Utilise roof forms to differentiate between the various elements of the building. This could include the transition between the office / sales area through to the larger shed behind.
- G5.6.5** Building infrastructure which is located on the roof including air conditioning units, plant room, lift motor rooms, exhaust systems, rooftop car parking etc. is to be screened from an adjoining street utilising roof forms or parapets that integrate with the overall design of the building.

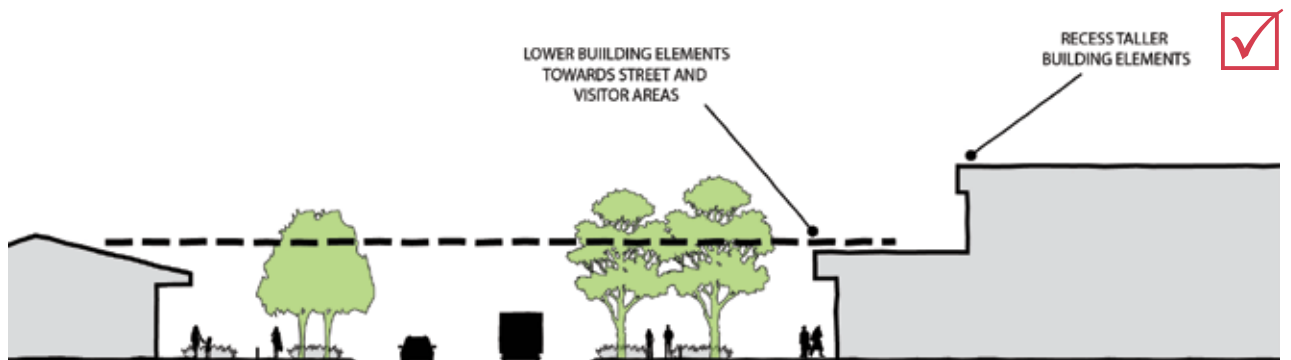


Figure 39 Example of building heights responding to scale

5.7 Signage and Advertising

Objectives

- 05.7.1** To ensure signage and advertising is designed and located to be compatible with the preferred character of the approach.
- 05.7.2** To provide for the identification of businesses in a way that maintains the preferred character of the approach.

Guidelines

- G5.7.1** Signage should be integrated into the design of buildings by forming a logical element of the facade. It should also be in keeping with the scale of the facade.
- G5.7.2** Signage should be limited in numbers along approaches to avoid visual clutter and unnecessary repetition.
- G5.7.3** Where there are multiple business occupancies within the one site, one shared sign should be provided that details the location of the businesses. A small identification sign may be provided for each business so that it is coordinated with the shared sign in terms of style and materials.

- G5.7.4** Freestanding signage should be avoided and will only be permitted if it can be demonstrated that signage on the building facade will not provide effective business identification. If freestanding signage is permitted, it should integrate with the overall design of the site in terms of scale, form, landscaping and materials, and should not detract from the preferred character and key views to landscape features.
- G5.7.5** Signage attached to front fences and temporary A-Frame signage on footpaths should be avoided.
- G5.7.6** Signage should not unduly diminish key views along township approaches.
- G5.7.7** Directional signage should be provided within sites to delineate entries and exits, staff and customer parking, office /reception areas, and loading areas. Directional signage within the site should be consistent in style and form.

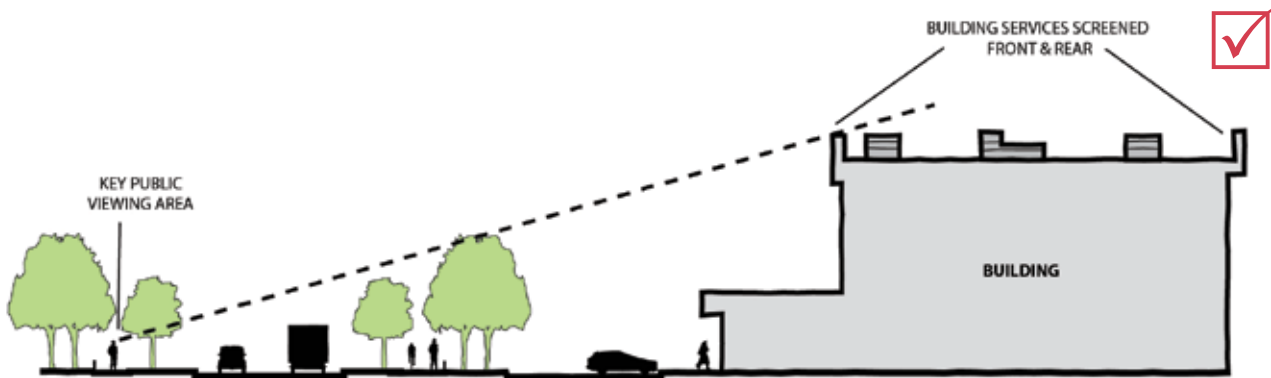


Figure 40 Rooftop services should be screened from street view

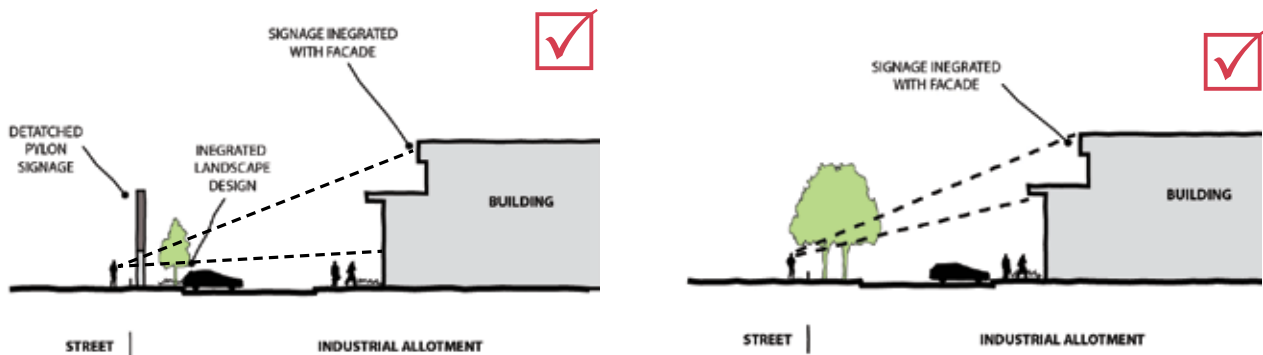


Figure 41 Signage diagrams

Figure 42 Signage diagrams

6. Landscaping

6.1 Subdivision Entry Statements

Objectives

- 06.1.1** To allow for entry statements that respond to the preferred character of the adjacent township approach.

Guidelines

- G6.1.1** Where appropriate, incorporate low key entry features that utilise landscaping rather than large built elements to define the entry to an industrial or business estate.



Figure 43 Example of landscaping provided as an entry statement

6.2 Landscape Design

Objectives

- 06.2.1** To reinforce the preferred character of the approaches through compatible and ample landscaping within adjacent industrial or business areas.
- 06.2.2** To minimise the area of hardstand (e.g. driveways and paving) and maximise the amount of soft landscape (e.g. garden beds, turf and permeable surfaces).
- 06.2.3** To provide opportunities for the planting of shade trees and screening plants that enhances the setting of the building along the approach.
- 06.2.4** To ensure the ongoing maintenance of landscaped areas.

Guidelines

Landscaped Setbacks

- G6.2.1** Front setbacks adjacent to an approach, should be designed with at least a 3 metre wide landscape strip that incorporates clean trunk canopy trees that will reach over 7m in height, and enable clear views between the street and the front of the building. Low shrubs, grasses, sedges and ground covers can be utilised, in combination with the canopy trees, provided uninterrupted views at ground level are maintained. Semi-mature trees should be utilised when appropriate.
- G6.2.2** Where canopy trees are to be provided, landscaped areas should be a minimum of 3 metres in width to enable sufficient space for root zones. Landscaped areas of shrub, grasses, sedges and groundcovers should be a minimum of 2 metres to provide for the effective impact of planting.
- G6.2.3** Utilise planter boxes in locations where there is insufficient space to establish a landscaped area. Boxes should be integrated into the overall design of the building and landscape, and be of an adequate size to maintain plants.
- G6.2.4** Side setbacks that address and / or are visible from an approach (i.e. not located behind a landscape buffer) should be landscaped to the satisfaction of the Responsible Authority.

- G6.2.5** Consolidate landscape areas to maximise the effect of the landscape and allow sufficient space for tree growth.
- G6.2.6** Provide elements adjacent to an approach that will encourage the use of the space by staff and customers. This could include landscaped areas incorporating seating and grassed areas.
- G6.2.7** Landscaping in rear setbacks should be provided if the rear of the site adjoins and is visible from an approach.

Car park landscaping

- G6.2.8** For customer car parking within front setbacks adjacent to an approach, provide one canopy tree for every 6 car parking spaces. The species should be selected to provide shade for vehicles and pedestrians, and allow clear views between pedestrians and the vehicles.
- G6.2.9** A landscape strip of at least 1 metre should be provided to separate car parks from side and rear boundaries.
- G6.2.10** For large car parks with greater than 20 spaces, provide canopy tree planting for every 8 car parking spaces. The species should be selected to provide shade for vehicles and pedestrians, and allow clear views between pedestrians and the vehicles.
- G6.2.11** Landscaped areas should be separated from vehicle access through the use of kerbs or raised edging to ensure the maintenance of vegetation.
- G6.2.12** Utilise water sensitive urban design techniques to treat stormwater run-off from car parks and passively irrigate vegetation.

Species Selection

- G6.2.13** Species should be selected to integrate and connect with the character of the adjacent approach, where appropriate.
- G6.2.14** Trees should be carefully selected and sited to allow scope for expected growth and structural protection of buildings and so not to impact negatively on assets or users within the adjacent approach.
- G6.2.15** Landscape areas should be planted with species that are low maintenance and hardy, and do not require irrigation from the potable water supply. Species selection should generally provide an emphasis on native and indigenous plants that are appropriate to the site and landscape character of the approach.
- G6.2.16** Exotic species may be utilised in areas where they are considered to be an important element of the preferred character or for emphasis planting provided the plants do not require potable water supply for irrigation.

Visual and Acoustic Screening

- G6.2.17** Screen planting should be provided where an undesired element of the site will be visible from the approach. Elements to be screened include, solid fencing, loading areas, goods storage areas, waste and recycling areas, electrical substations and heavy machinery.
- G6.2.18** Utilise landscaped mounding in combination with planting of shrubs and canopy trees for effective screening.

Vegetation Retention

- G6.2.19** Retain and protect existing mature trees where possible and integrate into the overall site planning.
- G6.2.20** Buildings should be set back from existing trees by the width of the canopy of the mature tree in order to protect tree root zones.

Establishment and Maintenance

- G6.2.21** Landscaping should generally be completed within 3 months of building construction completion and be carried out in accordance with the approved landscape plan. Planting may be delayed during summer months as agreed to by the Responsible Authority.
- G6.2.22** Provide for the ongoing maintenance of landscaped areas and generally utilise low maintenance and durable landscaping techniques.

6.3 Fencing

Objectives

- 06.3.1** To ensure the front boundary treatment contributes positively to the appearance of the approach and clearly delineates the public and private realms.
- 06.3.2** To ensure fencing provides for adequate site security.
- 06.3.3** To ensure fencing is coordinated with the design of the building and landscaping and the preferred character of the approach.



Figure 44 Landscape planting delineating front property boundary



Figure 45 Front fencing with street tree planting

Guidelines

- G6.3.1** Fencing along the front boundary, where it interfaces with an approach, should generally be avoided unless accepted by the Responsible Authority. Utilise landscaping where possible to delineate the front property boundary instead.
- G6.3.2** Where front or side fencing is provided along the interface to an approach and is not required for security purposes, it should be unobtrusive, not exceed 1.5m in height, be constructed from predominantly lightweight natural materials and have a transparency of 30%. Solid, brick or rendered fences are discouraged.
- G6.3.3** If security fencing is required, it should have a high degree of transparency and be constructed with black plastic coated chain link wire or black steel post style. Provide landscaping around the fencing to soften the visual impact and avoid the use of razor or barbed wire fencing.
- G6.3.4** If security fencing is required, it should be provided at or behind the building line to enable stronger visual and physical connection between the approach and building entries.
- G6.3.5** Where screen fencing is required, it should be designed to integrate with the materials and colours utilised throughout the site.

7. Site Amenity

Refer to Clause 52.10 of the Mansfield Planning Scheme for setback requirements for industrial and warehouse uses with adverse amenity potential.

7.1 Waste Storage

Objectives

- 07.1.1** To ensure waste storage and treatment areas do not detrimentally impact on the amenity of the approaches.

Guidelines

- G7.1.1** Waste storage and recycling areas should be located away from direct view lines from the adjacent approach. They should not be located in front of the building, within landscaped areas, driveways, car and truck parking spaces and vehicle turning areas.
- G7.1.2** Waste and recycling storage areas should be adequately screened from the approaches utilising landscaping as outlined in Section 6.

7.2 Goods Storage

Objectives

- 07.2.1** To ensure goods storage areas are appropriately sited and designed to minimise impacts on the approaches.

Guidelines

- G7.2.1** Sites should be of a sufficient size to enable all storage, including goods, vehicles etc, to be completely contained within the site.
- G7.2.2** Goods storage areas should be located behind the building line. This includes vehicle storage associated with Motor Vehicle Repairs / Auto Electrician uses. Goods storage areas should not be located within landscaped areas, driveways, car and truck parking spaces and vehicle turning areas.
- G7.2.3** Goods storage areas should be appropriately screened from the approach. Refer to Guideline 6 for visual screening guidelines.

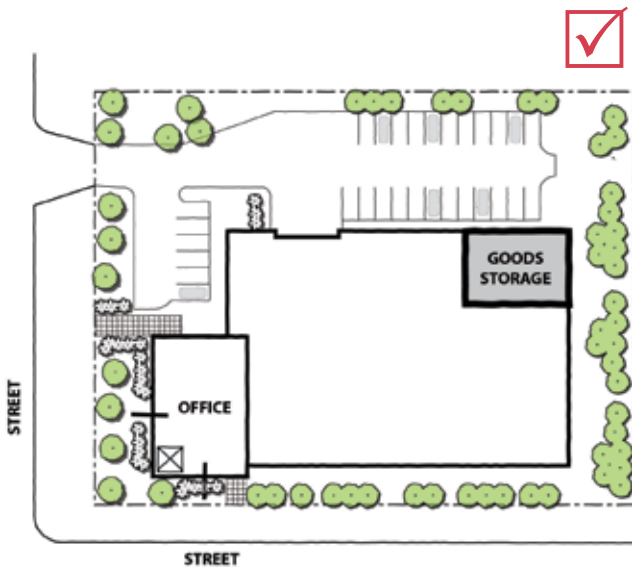


Figure 46 Preferred location of stored goods, away from the street



Figure 47 Screening for goods storage when visible from the street

7.3 Lighting

Objectives

- 07.3.1** To minimise the spill of light onto the adjoining approach.

Guidelines

- G7.3.1** Lighting should be designed so that it does not adversely impact on the safety of road users along approaches.
- G7.3.2** Utilise sensor lighting where appropriate to reduce energy consumption and impacts on the adjoining approach streetscape.

7.4 Acoustic Treatments

Objectives

- 07.4.1** To ensure acoustic treatments are designed to achieve their purpose and integrate with the adjoining approach streetscape.
- 07.4.2** To ensure acoustic treatments match in with the site design.

Guidelines

- G7.4.1** Where practical, utilise acoustic treatments internal to the building through the design of the building layout, and the use of acoustic insulation or suitable building materials.
- G7.4.2** Where external acoustic treatments are required, utilise tree and shrub planting, mounding, acoustic walls or a combination of each as required. The acoustic treatment areas should be accessible and maintained.
- G7.4.3** Design the acoustic treatment so that it contributes positively to the approach, and integrates with the design of the building and landscaping.



Figure 48 Example of tree and shrub planting and mounding acoustic treatments.