MELBOURNE AIRPORT

Tract

MELBOURNE AIRPORT LANDSIDE

PLANNING & URBAN DESIGN STRATEGY

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For:

MELBOURNE AIRPORT

List of Figures

PART A
INTRODUCTION

1.1 About this document

Purpose

The purpose of this document is to provide strategic planning and design guidance for landside development at Melbourne Airport.

Located approximately 23km north west of the Melbourne CBD, Melbourne Airport is Victoria's principal air gateway, catering for around 30 million passengers a year. Passenger movements through the airport are forecast to more than double by 2033. Melbourne Airport's high level planning to support this growth is captured in the *Melbourne Airport Master Plan 2013 (2013 Master Plan)*.

The *2013 Master Plan* identifies concepts for growth and development in the short-term (2018), medium-term (2033) and ultimate optimal development. Whilst these master plan concepts offer snapshots of how the airport will be developed into the future; the detailed timing and scope of identified projects will be determined in response to changing demand and needs.

The *Melbourne Airport Landside Planning and Urban Design Strategy* provides an additional level of detail and is designed to ensure that the principles identified in the *2013 Master Plan* are spatially mapped and understood across Melbourne Airport's landside precincts (comprising the areas known as the Landside Main Precinct and Landside Business Precinct, as identified in the *2013 Master Plan*.

Part C of this document outlines the planning Overlays affecting landside development at Melbourne Airport. These Overlays have been developed in consultation with Melbourne Airport's Planning and Development Department (PD) and have been designed to align with the Victoria Planning Provisions (VPPs) and the National Airports Safeguarding Framework (NASF), where appropriate. The specific nature of use and development at Melbourne Airport has necessitated the development of a number of bespoke Overlay controls.

The Vision, Strategies (Part B) and Overlays (Part C) established in this document have informed a suite of Urban Design Guidelines (Part D) that have been developed to guide the design and assessment of development within Melbourne Airport Landside precincts. The Urban Design Guidelines seek to ensure that future development contributes to the vision of Melbourne Airport, compliments preferred precinct profiles, provides a high level of amenity for workers, visitors and neighbours, sets benchmarks for design quality, and safeguards the ongoing operation of the airport.

This strategy contains many statements that are aspirational and desirable, but are not necessarily mandatory requirements. The strategy aims to provide direction and targets for development, acknowledging that flexibility and practicality will be required in some cases.

Why a Landside Planning and Urban Design Strategy is needed

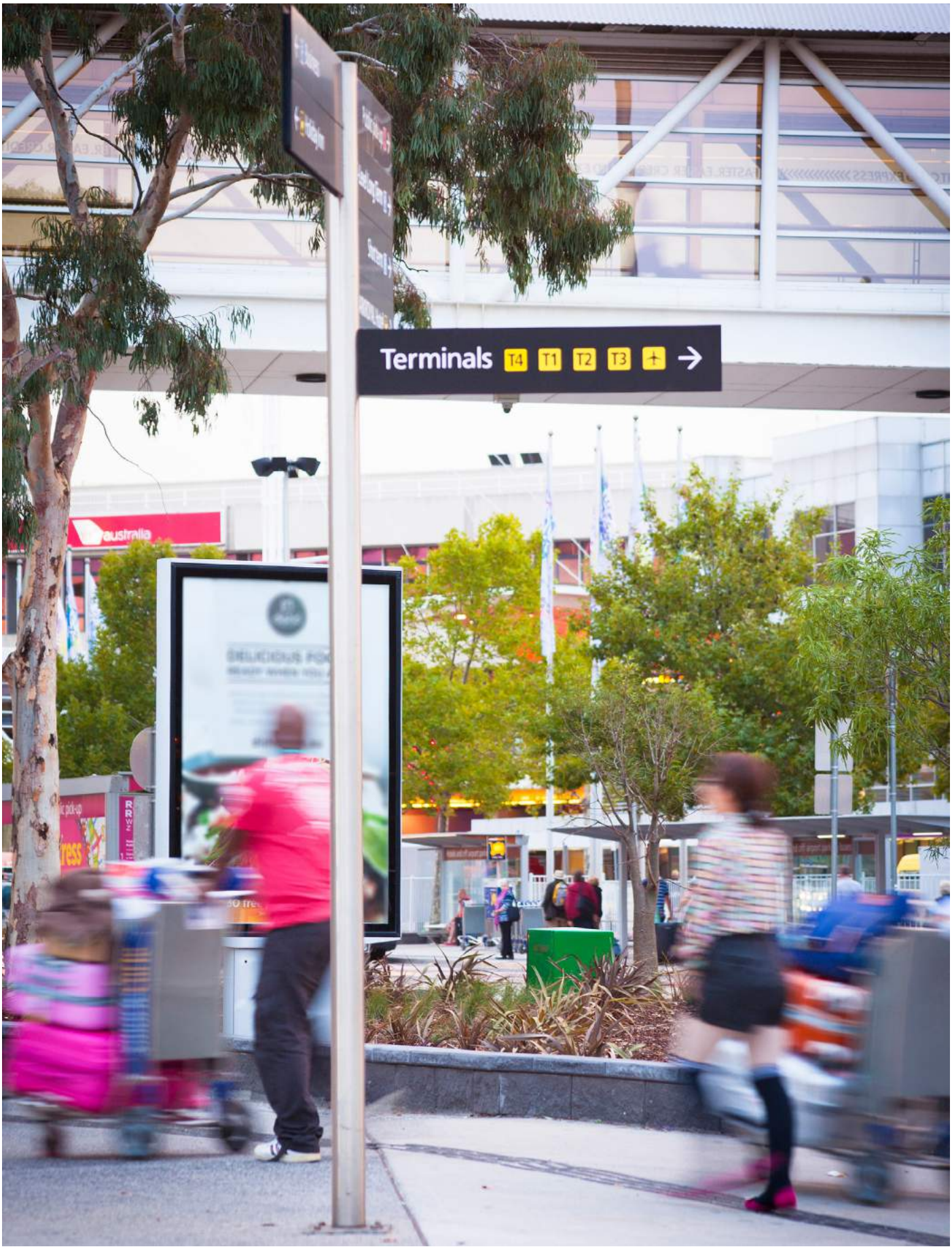
Melbourne Airport's Landside precincts are undergoing significant development involving a variety of proposed uses including office, retail and industrial operations.

Melbourne Airport Landside Planning and Urban Design Strategy seeks to ensure that a cohesive sense of place is delivered across all landside precincts, consistent with Melbourne Airport's strategic vision to be Australia's airport of choice by delivering a superior customer experience.

Document objectives

The objectives of the *Melbourne Airport Landside Planning and Urban Design Strategy* are to:

- support orderly and logical development of high quality public realm
- ensure that a high level of amenity is provided for all visitors, workers and other users of the airport
- encourage the development of a cohesive pedestrian and cycle network
- respond to a range of current and future needs
- support existing Federal and State planning objectives
- support the aims of the *2013 Master Plan*
- support the APAM vision for Melbourne Airport to be Australia's airport of choice by delivering a superior customer experience


Terminals
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1.2 How to use this document

How the document is structured

The *Melbourne Airport Landside Planning and Urban Design Strategy* is structured in four parts as described below:

Part A - Introduction - Describes the purpose and application of the strategy.

Part B - Vision & Strategies - Outlines the vision and strategies that will guide landside development and spatial change at Melbourne Airport.

Part C - Planning Overlays - Outlines the Overlays that apply at Melbourne Airport and describes the implications for land use and development within areas affected by the Overlays.

Part D - Urban Design Guidelines - Sets out the urban design guidelines that apply to landside development at Melbourne Airport. The guidelines are organised into four Urban Design (UD) Precincts:

- UD Precinct 1 - Terminal & Surrounds
- UD Precinct 2 - Car Parks & Freeway
- UD Precinct 3 - Gateway
- UD Precinct 4 - Business Park

How the vision and strategies apply

Part B - Vision & Strategies should be considered in all Landside development at Melbourne Airport. In some instances developments with an airside interface, such as terminal developments, may also require consideration of **Part B - Vision & Strategies.**

How the Overlays apply

Part C - Planning Overlays identify areas of land which are subject to certain requirements and conditions. The requirements of an Overlay apply to any development in an area affected by that Overlay unless specific exemption has been granted by the Manager of Planning (in writing).

Designers and proponents should check if their project is affected by an Overlay early in the concept development process. Clarification on any issues that are unclear should be sought from PD as early as possible.

How the urban design guidelines apply

Part D - Urban Design Guidelines apply to any development within the Melbourne Airport Landside Main and Business Precincts, as identified in the *2013 Master Plan* unless specific exemption has been granted by the Manager of Planning (in writing). A map showing the areas to which the urban design guidelines apply can be found at Figure A.3 and A.4 of this document.

How the guidelines are structured

The urban design guidelines for each UD Precinct are structured in four sections as described below:

Section 1 - Precinct & site response - Establishes a preferred character for each Urban Design Precinct, provides guidance on how development should be sited and orientated on sites, and how open space and landscaping should be provided.

Section 2 - Building form & design - Provides guidance on elements such as building height and form, street interface, roof form and materials.

Section 3 - Infrastructure & signage - Provides guidance in relation to site and building services, and the design of signage and advertising material.

Section 4 - Car parking & access - Provides guidance on pedestrian and cycle access as well as car parking and vehicle movement.


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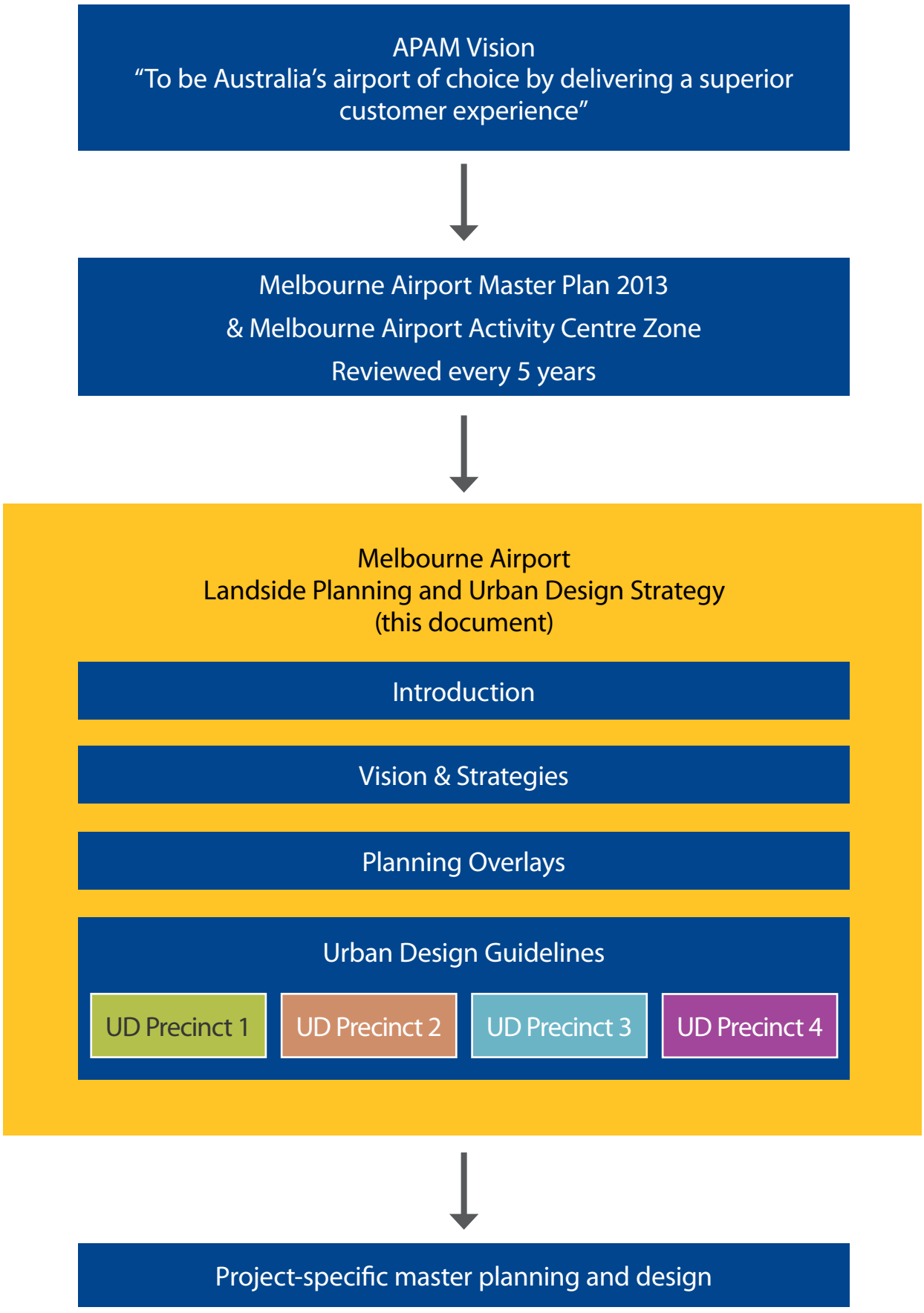
Figure A.1 - Melbourne Airport Planning Hierarchy



1.3 Reference documents

Melbourne Airport Master Plan 2013

The *2013 Master Plan* is a guiding document for development at Melbourne Airport.

Melbourne Airport Master Plan 2013
Date: 18 December 2013
Responsible department(s): Planning and Development

External standards

All developments must be compliant with the relevant provisions of the National Construction Code (NCC) and its referenced Standards. Assessment of compliance against these Codes and Standards occurs at the Building Activity Consent and Buidling Permit stages of the PDA process (see Figure A.2).

Standards that may be considered as part of the PDA assessment processes are outlined below.

National Airports Safeguarding Framework
Responsible authority: Dept. of Infrastructure and Regional Development

Victoria Planning Provisions
Responsible authority: Dept. of Environment, Land, Water and Planning

Hume Planning Scheme
Responsible authority: Hume City Council

PD may reference other standards and guidelines not listed in this document, as required.

Melbourne Airport standards

Melbourne Airport standards are referenced throughout these guidelines at relevant clauses.

A list of Melbourne Airport standards is outlined below. This list is to be updated regularly as standards are amended, and new standards are developed. This is a guide only, and users are required to check that they are referring to the most recent version of all standards. Standards that are not listed below may also be applicable to particular developments.

Melbourne Airport Sustainable Buildings and Infrastructure Guide
Current version: 1
Date: 14 July 2014
Responsible department(s): Environment
Relevant consultant(s): -

Melbourne Airport Planting Guidelines
Current version: 12
Date: August 2014
Responsible department(s): Environment
Relevant consultant(s): Ecology and Heritage Partners

Melbourne Airport Wayfinding and Signage Guidelines
Current version: 2
Date: May 2013
Responsible department(s): Planning and Development
Relevant consultant(s): Diadem

1.4 Acronyms and terms

List of acronyms

Acronym	Meaning
APAM	Australia Pacific Airports (Melbourne) Pty Ltd
CASA	Civil Aviation Safety Authority
CASR	Civil Aviation Safety Regulations 1998
DDA	Federal Disability Discrimination Act 1992
DIRD	Department of Infrastructure and Regional Development
ESD	Ecologically Sustainable Design
MACE	Melbourne Airport Cargo Estate
MDP	Major Development Plan
NASF	National Airports Safeguarding Framework
NCC	National Construction Code
PDA	Planning and Design Approval
PD	Melbourne Airport Planning and Development Department (or equivalent department)
UD	Urban Design
VPP	Victoria Planning Provisions
WSUD	Water Sensitive Urban Design

List of terms

Term	Meaning
Australian Standard	Standard issued by Standards Australia International Ltd
Melbourne Airport	Australia Pacific Airports (Melbourne) Pty Ltd
Road, Street	The terms 'road' and 'street' are used interchangeably
2013 Master Plan	Melbourne Airport Master Plan 2013

1.5 The approvals process

Approvals process

Applications for use and development within Melbourne Airport Landside Precincts area will follow the approvals process outlined in Figure A.2 of this document. Full details of the approvals process is outlined in Section 5.11 of the *2013 Master Plan*.

Applicants will be required to accord with the ***Urban Design Guidelines*** in preparing PDA Applications for buildings and works. Melbourne Airport Planning and Development (PD) will consider how the applicant has responded to the guidelines in assessing permit applications.

Before applying for a planning permit or Major Development Plan (MDP), applicants are encouraged to meet with PD and relevant Referral Departments to:

- determine what information is required for the application
- discuss relevant development constraints
- confirm which guidelines are relevant to the application

Assessing permit applications

PD will consider each development proposal on its merits and take into account the particular characteristics of the development and its context. Greater flexibility may be provided for sites where the existing conditions and constraints of the site do not allow for the applicable guidelines to be met.

PD may refuse a permit for an application for a development that does not comply with the guidelines or, may impose permit conditions that will enable the development proposal to meet the guidelines.

In order to seek an exemption from compliance with a particular guideline, the applicant must clearly demonstrate:

- that the guideline is inappropriate in relation to their particular proposal; or
- that the objective of the guideline can still be satisfied even if the guideline provisions cannot be met

Referral

PD may refer any proposal to internal and/or external department/authorities. This may include Airservices Australia and CASA as required.

Appeal process

Where a permit applicant is dissatisfied with a decision made my P&D (eg. refusal of an application or permit conditions) the applicant may appeal to the relevant APAM committee (TBA) for review of the decision.

Requirements for permit applications

For development applications the following drawings and reports are to be prepared and submitted as part of the permit application:

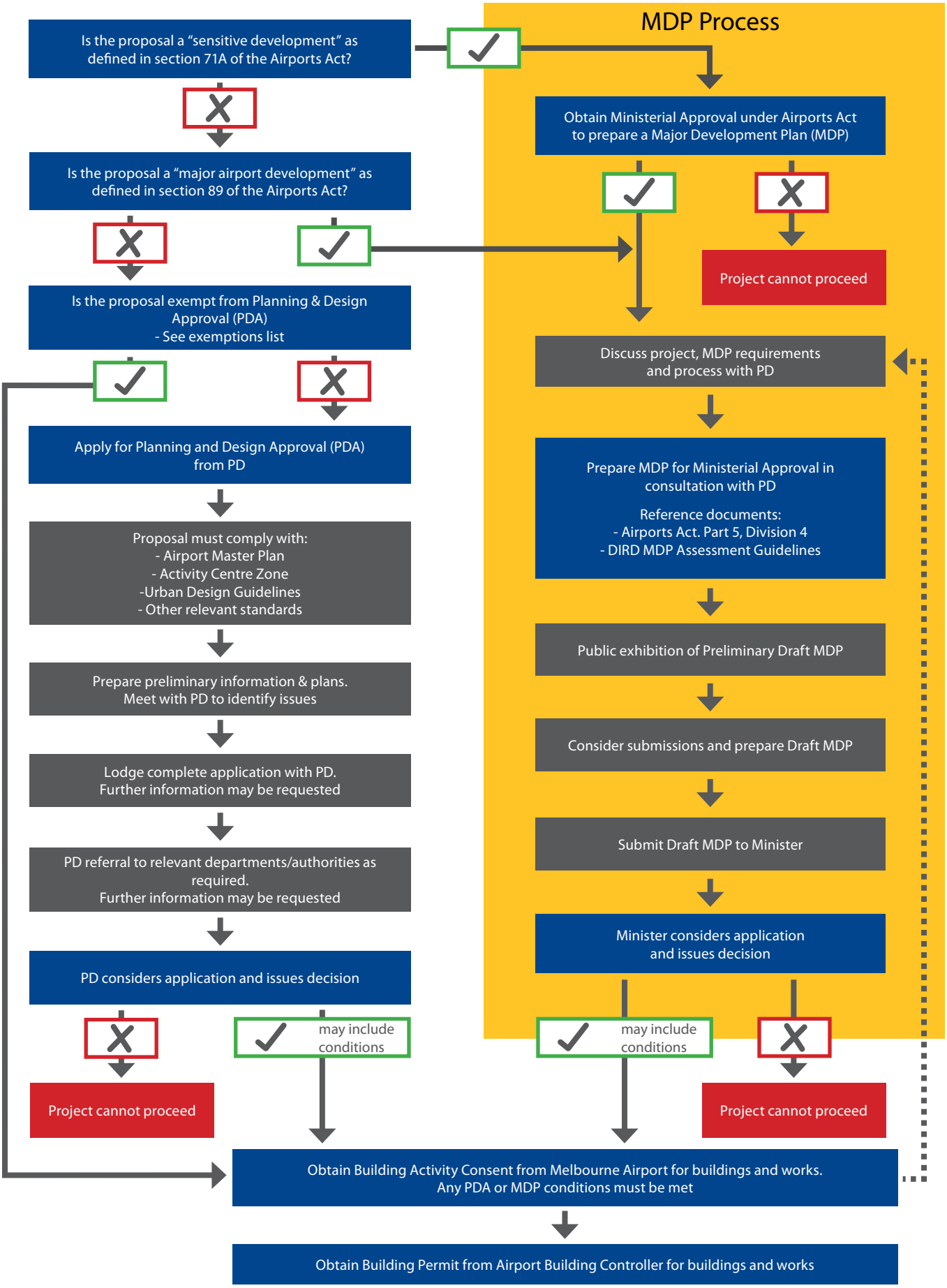
- **Site context plan** - Identifies surrounding land uses, built form siting, landscape elements and transport networks.
- **Site analysis plan** - Provides analysis of the characteristics of the site including landform (contour plans), drainage networks, vegetation, existing buildings, climate (sun paths, wind patterns), easements, planned nearby development.
- **Design response plan** - Provides an overview of how the proposed development responds to the analysis and context of the site.
- **Site layout plan** - Details the boundaries and dimensions of the site, adjoining roads, relevant ground levels, the layout of existing and proposed buildings and works (including Kiosk Substations), driveways and vehicle parking and loading areas, proposed landscape areas, and external storage and waste management areas.
- **Landscape plan** - includes a description of vegetation to be planted, the surfaces to be constructed, a site works specification and the method of preparing, draining, watering and maintaining the landscape area. The landscape plan is to be prepared by a qualified Landscape Architect.
- **Floor plans** - Functional building layout plans including basement and mezzanine levels.
- **Roof plans** - Showing access provisions, roof mounted services and materials.
- **Elevations and cross sections** - Required as necessary to show the dimensions, heights (AHD), colours and materials of all buildings and works.
- **Lighting plan and details** - Showing a plan for lighting across the site and details of lighting products proposed.

For developments at key corners and interfaces, the following additional requirements may be required:

- **Streetscape perspectives** - Demonstrating the proposed development in context with nearby buildings on either side of the subject site.

Other plans and reports may be requested by PD and/or Referral Departments during the permit assessment process.

Figure A.2 - Melbourne Airport Planning & Design Approval Process



1.6 Zones and Overlays

Zones and Overlays

Melbourne Airport has implemented the Activity Centre Zone (ACZ) across its Landside precincts to control land use. Land use must comply with the ACZ which is contained within the *2013 Master Plan*.

In order to control development outcomes and safeguard airport operations, Melbourne Airport has also implemented a series of Overlays.

The following table outlines the Overlays applicable to Landside precincts at Melbourne Airport, and describes key responses required if development is located within an area covered by an Overlay:

Overlay	Response
Windshear Envelope Overlay (WEO)	Any development must comply with the requirements of *NASF Guideline B - Managing Risk of Building Generated Windshear and Turbulence at Airports.*
Public Safety Zone Overlay (PSZO)	No development is permitted unless specific approval has been granted by the Manager of Planning (in writing).
Special Building Overlay (SBO)	No development is permitted unless specific approval has been granted by the Manager of Planning (in writing) and the Manager of Environment. Any development approved within the SBO must consider overland flow and stormwater management at Melbourne Airport.
Melbourne Airport Environs Overlay 1 (MAEO1)	Any building for which a permit is required under this overlay must be constructed so as to comply with any noise attenuation measures required by Section 3 of Australian Standard AS 2021-2000, Acoustics - Aircraft Noise Intrusion - Building Siting and Construction, issued by Standards Australia International Ltd.* **Prohibited uses** Land must not be used for: • Accommodation (other than Backpackers lodge, Dwelling, Dependent person's unit, Host farm and Residential hotel), Child care centre, Drive-in theatre, Education centre, Hospital.
Melbourne Airport Environs Overlay 2 (MAEO2)	Any building for which a permit is required under this overlay must be constructed so as to comply with any noise attenuation measures required by Section 3 of Australian Standard AS 2021-2000, Acoustics - Aircraft Noise Intrusion - Building Siting and Construction, issued by Standards Australia International Ltd.*
Environmental Significance Overlay (ESO)	An application for PDA must be referred to the Manager for Environment for advice. Applicants are encouraged to seek advice from the Environment team early in the design process.
Heritage Overlay (HO)	An application for PDA must be referred to the Manager for Environment for advice. Applicants are encouraged to seek advice from the Environment team early in the design process.
Lighting Management Overlay (LMO)	All development must be in accordance with NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports.
Prescribed Airspace Overlay (PANS OPS) (OLS)	All development must be referred to the Manager of Operations to confirm the proposed development is in accordance with *Part 12 of the Airports Act- Protection of airspace around airports* and *NASF Guideline F - Managing the risk of Intrusions into the Protected Operational Airspace of Airports.* Melbourne Airport Landside precinct is also subject to Essendon Airport Prescribed Airspace.

* Note: In Section 3 of Australian Standard AS 2021-2000, Table 3.3 refers to both building types and activities within those buildings. Each building type listed has its ordinary meaning.


Long term car park bus pick-up
Crew buses

Figure A.3 - Melbourne Airport Master Plan (2013) Landside Precincts (not to scale)

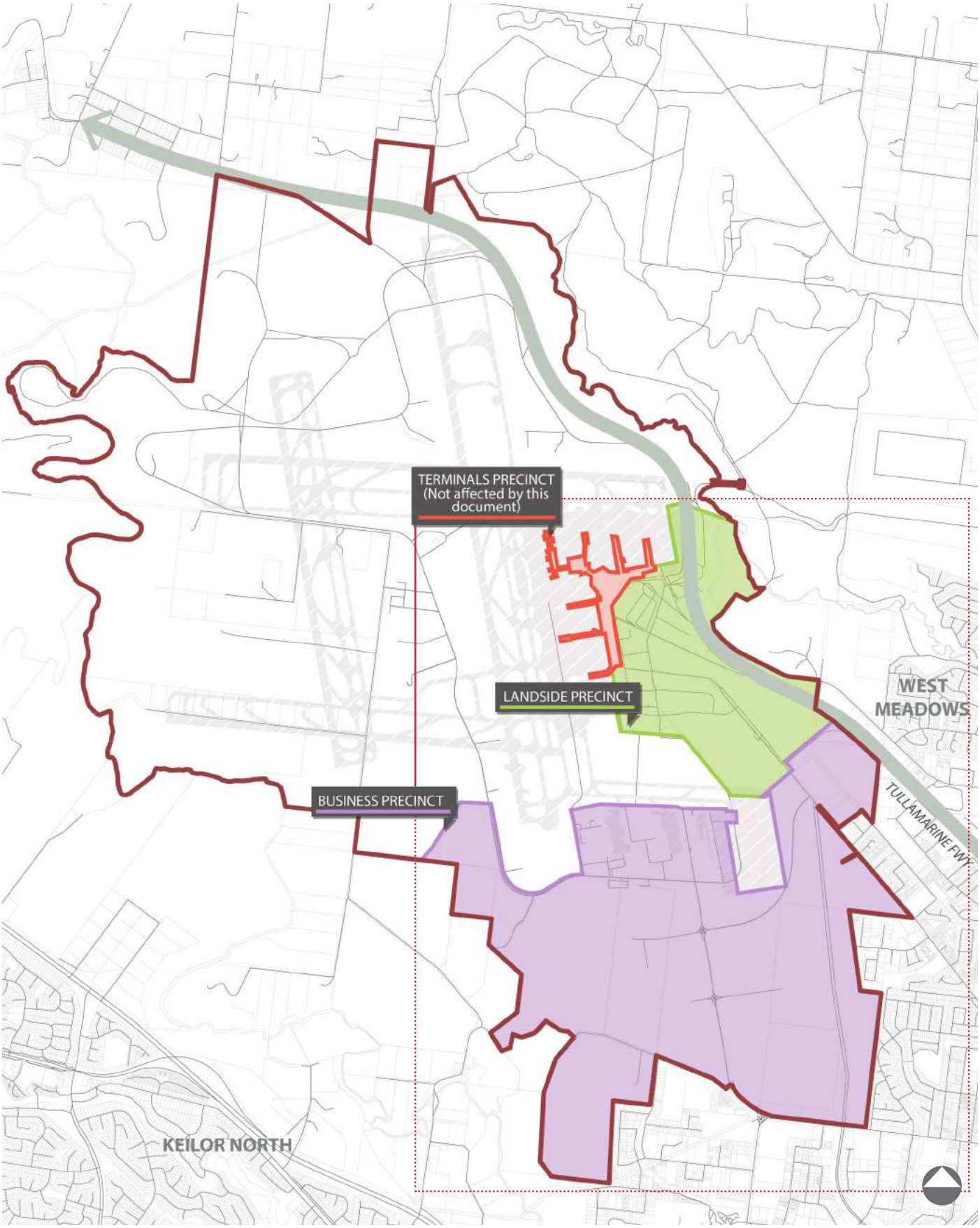
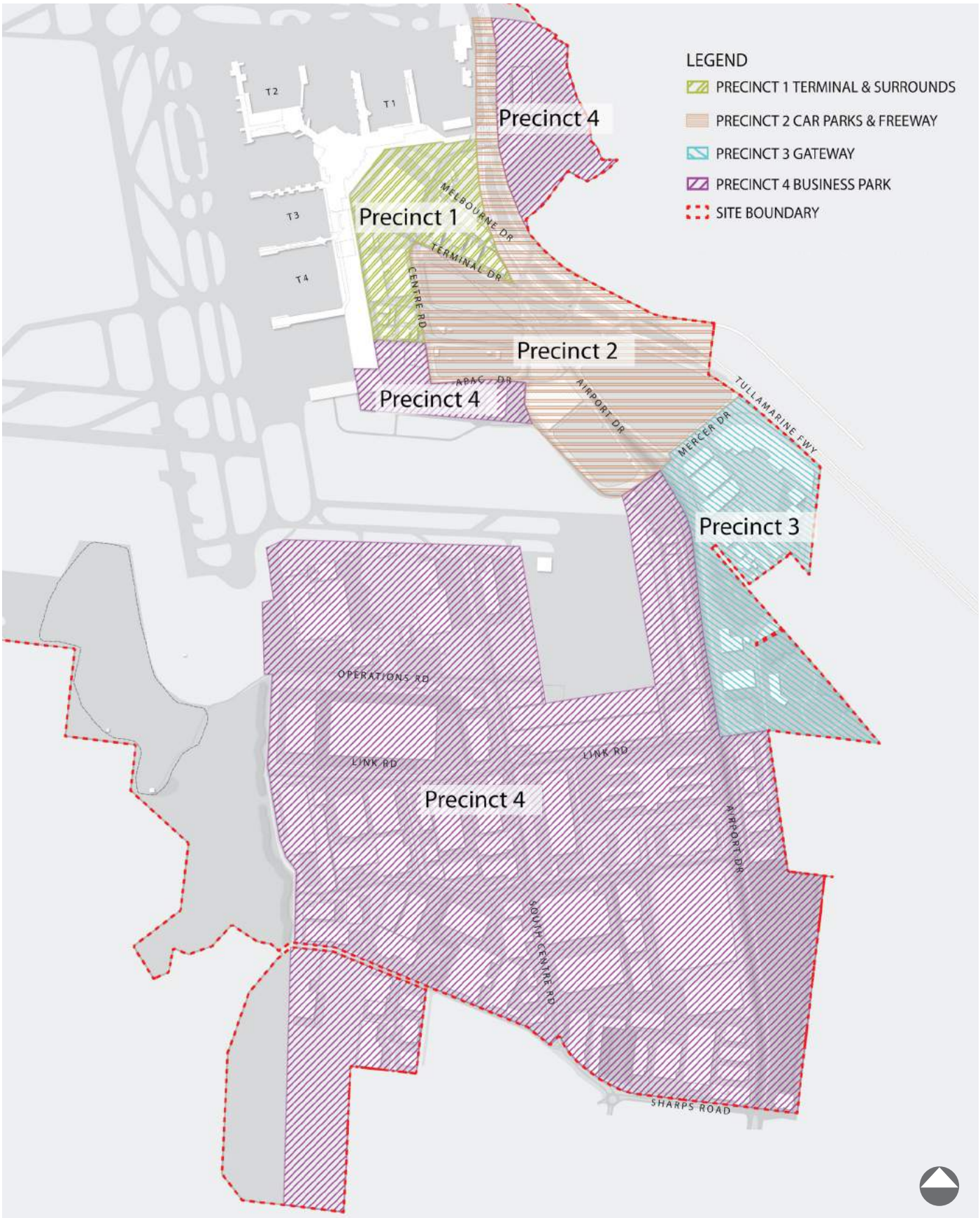


Figure A.4 - Melbourne Airport Urban Design Precincts (not to scale)



PART B
VISION
& STRATEGIES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T4


Public pick-up
Multi-Level Long Term
Short term
PARKROYAL Hotel
ess
ay Inn
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1.1 Vision

Overview

Landside development will play a vital role in achieving Melbourne Airport's vision.

Land use at Melbourne Airport's Landside Main Precinct and Landside Business Precinct must be consistent with the Master Plan (2013) and the Activity Centre Zone (ACZ).

The *Melbourne Airport Planning and Urban Design Strategy* has been developed to provide guidance for development in Melbourne Airport's Landside Precincts, primarily in respect to built form and public realm.

2013 Master Plan

The ***2013 Master Plan*** sets out a plan for change and growth at Melbourne Airport over the short, medium and longer term. The Master Plan is high-level and encompasses all facets of the Airport and its operations.

Customer experience

Melbourne Airport has a vision to be Australia's airport of choice by delivering a superior customer experience.

The role of the *Melbourne Airport Planning and Urban Design Strategy* is to ensure all landside development supports Melbourne Airport's vision to be Australia's airport of choice.

The *Melbourne Airport Planning and Urban Design Strategy* is underpinned by the following principles:

People first

Clear, intuitive wayfinding and an integrated network of transport alternatives should be supported at Melbourne Airport. This can improve movement efficiency and support improved customer and staff experience.

Placemaking

Landside development at Melbourne Airport will support place leadership by improving visual amenity and making places for people.

Managing change

Landside development at Melbourne Airport will support capacity growth by managing change through placemaking, and planning for change in a co-ordinated and strategic manner.

Safeguarding

A diversification of the commercial offer at Melbourne Airport will be supported, whilst ensuring the safeguarding of airport operations now and into the future.


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1.2 Strategy

The following themes describe how landside development at Melbourne Airport will support the APAM Vision and *2013 Master Plan*.

1.3 Road network - at grade

Principles

01 **Support an efficient and safe road network to, from and within Melbourne Airport.**

02 **Ensure that future development considers planned road network developments.**

03 **Ensure that roads are planned in an integrated manner.**

Strategies

1.3.1 Consider future bus and rail terminal locations in the planning of road infrastructure.

1.3.2 Consider pedestrian and cycle links when planning development road projects to ensure that mode conflicts are minimised and that the integrity of all modal networks is maintained and improved.

1.3.3 Where off-road cycle paths are not possible, consider providing clearly marked on-road cycle lanes where appropriate.

1.3.4 Develop a detailed ground transport plan that identifies bus, car, cycle and pedestrian priority areas, and ensures that future designs align with the priorities identified in the plan.

1.3.5 Ensure that road development does not impede future rail access to Melbourne Airport.

1.3.6 Ensure that safe, functional and legible pedestrian and cycle access is provided during road construction projects.

1.3.7 Consider providing bus-priority lanes at Melbourne Airport and advocate for improved bus-priority on the Tullamarine Freeway.

Areas of textured, raised paving indicates shared public realm

Figure B.1 - Melbourne Airport Landside Road Network - At Grade (not to scale)

1.4 Road network - elevated loop

Principles

01 **Support an efficient and safe road network to, from and within Melbourne Airport.**

02 **Ensure that future development considers planned road network developments.**

03 **Ensure that roads are planned in an integrated manner.**

04 **Ensure that spaces under the elevated loop road make a positive contribution to public realm.**

Strategies

1.4.1 Ensure that road development does not impede future rail access to Melbourne Airport.

1.4.2 Ensure that safe, functional and legible pedestrian and cycle access is provided during road construction projects.

1.4.3 High quality public realm should continue underneath elevated infrastructure.

1.4.4 Investigate opportunities for public art integration under the elevated loop road at key areas of public realm.

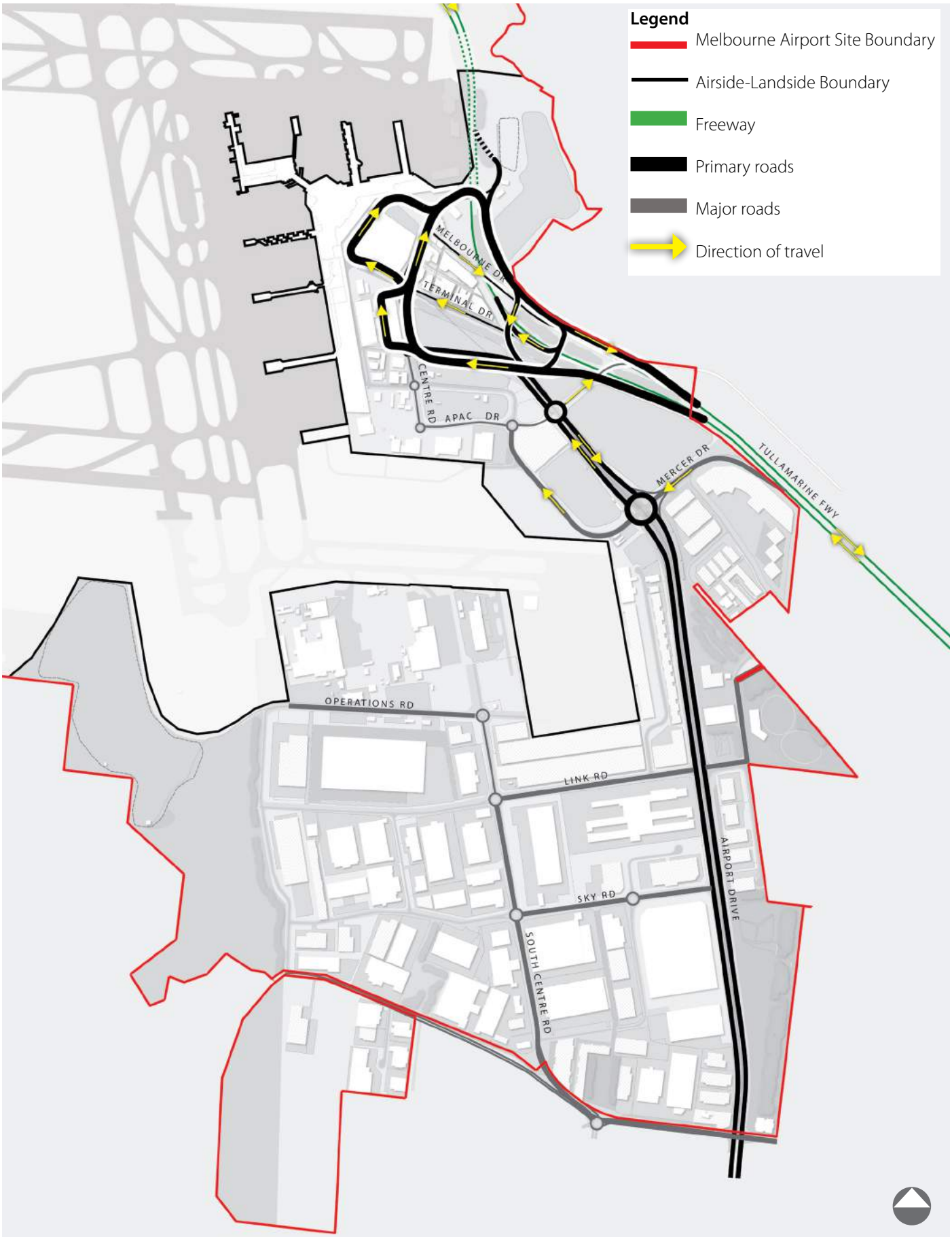
1.4.5 Design high visibility sections of the elevated loop road to be visually interesting.

Areas under elevated infrastructure can be enlivened through site responsive public art

Areas under elevated infrastructure offer opportunities for activation and temporary events

High quality public realm should extend under elevated infrastructure

Figure B.2 - Melbourne Airport Landside Road Network - Elevated Loop (not to scale)



1.5 Pedestrian and cycle network

Principles

01 **Encourage active transport to, from, and within Melbourne Airport.**

02 **Ensure that future development considers pedestrian and cycle movements.**

03 **Ensure that pedestrian and cycle paths, and associated facilities are planned in an integrated manner.**

Strategies

1.5.1 Implement shared and pedestrian paths at the time of undertaking development and redevelopments.

1.5.2 Identify gaps in existing path network and improve connections.

1.5.3 Consider future bus and rail terminal locations in the planning of active transport infrastructure.

1.5.4 Develop an Active Travel Plan for Melbourne Airport that considers opportunities to facilitate cycle commuting and internal active transport.

1.5.5 Design pedestrian pathways between terminals, car parks, hotel and conference facilities to accommodate large groups of people, including families, tour groups and travellers with luggage.

1.5.6 In some high traffic areas, such as near terminals and car parks, pedestrian and cycle traffic should be separated.

1.5.7 Investigate opportunities to provide a pedestrian connection between Gowrie Park and the T2 forecourt. This connection may run through the multi-storey car park.

1.5.8 Where possible, provide raised paved surfaces at pedestrian and cycle crossings to delineate non-car priority areas.

1.5.9 Provide good levels of lighting along key pedestrian and cycle routes.

Note: Figure B3 is indicative of possible future network. Aspirational.

Pedestrian paths should be clearly defined and raised at areas where cars are moving at slow speeds.

Principal bicycle routes should be separated from high traffic roads

Figure B.3 - Melbourne Airport Landside Indicative Pedestrian and Cycle Network (not to scale)

1.6 Public realm

Principles

01 **Provide high quality public realm in keys areas to support a superior customer experience.**

02 **Ensure that future development considers appropriate provision of public realm.**

03 **Provide public realm that is appropriate to the needs of visitors and staff.**

04 **Support activation of public realm at key locations.**

05 **Ensure that future development contributes to an integrated and cohesive public realm.**

Strategies

1.6.1 Prioritise public realm improvements witin the Terminals and Surrounds Precinct and along high visibility access routes, including the Tullamarine Freeway and Airport Drive.

1.6.2 Develop a landscape strategy for the area in front of the terminals, to provide an integrated plan for the development of a series of linked forecourts as terminals are redeveloped, and uncontrolled vehicles are restricted from forecourt areas. Require all future development proposals in the vicinity of the terminals to demonstrate compliance with the strategy.

1.6.3 Support a boulevard character along Airport Drive, Terminal Drive and Link Road.

1.6.4 Safeguard adequate public space around a future train station.

1.6.5 Consider temporary activation of public spaces. Uses could include coffee carts, pop-up cafés, musical performances and/or art exhibitions.

1.6.6 Investigate opportunities to partner with art galleries and cultural festivals to develop a program of public events and/or displays at Melbourne Airport.

Coffee carts can provide effective activation of public realm

Areas of high quality outdoor space contribute to a pleasant and calm environment

Figure B.4 - Melbourne Airport Landside Public Realm (not to scale)

1.7 Key built form and gateways

Principles

01 **Provide high quality built form and landscape design in keys areas to support a superior customer experience.**

02 **Ensure that built form expresses the use and internal function of buildings.**

03 **Support built form design that is innovative and contemporary.**

04 **Support activation at lower levels, where appropriate.**

05 **Ensure that built form at Melbourne Airport is designed to respond to its context.**

Strategies

1.7.1 Promote exemplar developments at key corners and wayfinding opportunity sites to strengthen arrival experience and sense of place.

1.7.2 Require development fronting major arterial routes (ie. Tullamarine Freeway, Terminal Drive and Airport Drive) to be designed to a high standard.

1.7.3 Consider the implementation of architecturally-designed wall treatments at key entry points, in particular in areas where buildings back on to major arterial roads.

1.7.4 Promote high quality landscaping at and around gateway sites.

Well-designed sound walls and gateway features can contribute to a sense of arrival

Large building facades can provide a 'canvas' for wayfinding and public art

Figure B.5 - Melbourne Airport Landside Key Built Form and Gateways (not to scale)

1.8 Rail access

Principles

01 **Safeguard potential rail access corridors.**

02 **Safeguard potential station locations.**

03 **Ensure that potential rail access is designed to contribute to a superior customer experience.**

Strategies

1.8.1 When designing developments consider proximity to, and conflicts with, potential rail corridors and future station locations.

1.8.2 Work to identify potential station location(s) that not only meet technical engineering requirements but are located within a 5 minute walk (400m) of all major passenger terminals.

1.8.3 Ensure that future potential train station(s) will be complimented with appropriate high quality public realm.

1.8.4 Consider weather protection and intuitive wayfinding when designing future train station(s).

1.8.5 Ensure that the design of the future forecourt and public spine incorporates provision for the future potential station(s).

Note: At the time of preparing this document there was limited information available in regard to rail access planning for Melbourne Airport. Figure B.6 outlines the various rail corridor options under consideration at the time.

High quality protected spaces support easy and efficient modal changes

Figure B.6 - Melbourne Airport Indicative Landside Rail Access (not to scale)

PART C
PLANNING OVERLAYS

1.1 Windshear Envelope Overlay (WEO)

Purpose

01 **To identify areas where land development may be affected by the requirements of *NASF Guideline B: Managing Risk of Building Generated Windshear and Turbulence at Airports.***

02 **To ensure compliance with *NASF Guideline B: Managing Risk of Building Generated Windshear and Turbulence at Airports.***

03 **To manage the risk of building generated windshear and turbulence on runways at Melbourne Airport.**

Requirements

1.1.1 Any development within this overlay is to comply with the requirements of *NASF Guideline B - Managing Risk of Building Generated Windshear and Turbulence at Airports.*

Reference Documents

01 **NASF Guideline B: Managing Risk of Building Generated Windshear and Turbulence at Airports.**

Note: Windshear envelopes are applicable to all runway ends.

Figure C.1 - Melbourne Airport Landside - Windshear Envelope Overlay (not to scale)

1.2 Public Safety Zone Overlay (PSZO)

Purpose

01 **To identify areas where land use and development may be affected by the Melbourne Airport Public Safety Zones.**

02 **To ensure that risk to public safety is minimised at the ends of runways.**

Requirements

1.2.1 Uses that provide for large numbers of people on site will be discouraged.

1.2.2 The strategic framework and land use strategies in a local planning instrument should ensure that future land uses and development do not increase risk to public safety by avoiding:

- significant increases in people living, working or congregating in a public safety area (PSA)
- the use or storage of hazardous, explosive or flammable materials in a public safety area (PSA)

1.2.3 No development is permitted unless specific approval has been granted by the Manager of Planning (in writing).

Note: Public safety areas (PSA) are applicable at all runway ends.

Figure C.2 - Melbourne Airport Landside - Public Safety Zone Overlay (not to scale)

1.3 Special Buildings Overlay (SBO)

Purpose

01 **To identify areas where land development may be affected by overland flow constraints.**

02 **To control development of land used to manage overland flow events.**

03 **To ensure that development in these areas considers the natural environment and flora and fauna habitats.**

Requirements

1.3.1 No development is permitted unless specific exemption has been granted by the Manager of Planning (in writing).

1.3.2 Any proposed development must be referred to Melbourne Airport Environment and Infrastructure and Utilities Teams for review.

Note: This overlay has been prepared using information from MDPs provided to the consultant team at the time of preparing this document.

This overlay may need to be amended upon completion of the *Beca Master Drainage Study*, to incorporate the findings of that study.

Figure C.3 - Melbourne Airport Landside - Special Buildings Overlay (not to scale)

1.4 Melbourne Airport Environs Overlay (MAEO)

Purpose

01 **To ensure that land use and development are compatible with the operation of Melbourne Airport in accordance with the relevant airport strategy or master plan and with safe air navigation for aircraft approaching and departing the airfield, having regard to aircraft noise exposure forecasts.**

02 **To assist in shielding people from the impact of aircraft noise by requiring appropriate noise attenuation measures in noise sensitive buildings.**

03 **To provide for appropriate levels of noise attenuation depending on the level of forecast noise exposure.**

Requirements

1.4.1 Any building affected by MAEO1 or MAEO2 must be constructed so as to comply with any noise attenuation measures required by Section 3 of *Australian Standard AS 2021-2000, Acoustics - Aircraft Noise Intrusion - Building Siting and Construction.*

1.4.2 Land under MAEO1 must not be used for:

- Accommodation (other than Backpackers lodge, Dwelling, Dependent person's unit, Host farm and Residential hotel)
- Child care centre
- Drive-in theatre
- Education centre
- Hospital

Reference Documents

01 **Australian Standard AS 2021-2000, Acoustics - Aircraft Noise Intrusion - Building Siting and Construction, issued by Standards Australia International Ltd.**

02 **Victoria Planning Provision 45.08 Melbourne Airport Environs Overlay.**

Figure C.4 - Melbourne Airport Environs Overlay (not to scale)

1.5 Environmental Significance Overlay (ESO)

Purpose

01 **To identify areas where land development may be affected by environmental constraints.**

02 **To ensure that development in these areas considers the natural environment and flora and fauna habitats.**

Requirements

1.5.1 Any proposed development must be referred to Melbourne Airport Environment Team for review.

1.5.2 No development is permitted unless specific approval has been granted by Manager of Planing (in writing).

Figure C.5 - Melbourne Airport Landside - Environmental Significance Overlay (not to scale)

1.6 Heritage Overlay (HO)

Purpose

01 **To identify areas where land development may be affected by heritage constraints.**

02 **To ensure that development in these areas considers heritage values.**

Requirements

1.6.1 Any proposed development must be referred to Melbourne Airport Environment Team for review.

1.6.2 No development is permitted unless specific approval has been granted by Manager of Planing (in writing).

1.6.3 Any proposed developments must be assessed againsts a Cultural Heritage Management Plan (if applicable).

Figure C.6 - Melbourne Airport Landside - Heritage Overlay (not to scale)

1.7 Lighting Management Overlay (LMO)

Purpose

01 **To manage the risk of distractions to pilots from lighting in the vicinity of airports, in accordance with *NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports.***

Requirements

1.7.1 Any proposed development must be referred to Melbourne Airport Operations Department for review.

1.7.2 In some circumstances Melbourne Airport may seek advice from CASA and/or Airservices Australia.

1.7.3 Lighting must comply with NASF Guideline E.

1.7.4 No development is permitted unless specific approval has been granted by Manager of Planing (in writing).

Reference Documents

01 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

02 **Civil Aviation Safety Regulations 1998 - Manual of Standards, Part 139 – Aerodromes**

Note: The Lighting Management Overlay applies at all runway ends.

Figure C.7 - Melbourne Airport Landside - Lighting Management Overlay (not to scale)

1.8 Airspace Protection Obstacle Limitation Surface (OLS)

Purpose

01 **To protect Melbourne Airport's airspace for the safe arrival and departure of aircraft, providing protection for visual flying. (These surfaces may also protect airspace around the navigational aids that are critical for instrument flying).**

Requirements

1.8.1 Any proposed development within the Melbourne Airport Landside Precinct must be referred to the Melbourne Airport Operations Department to confirm if it results in intrusion into Melbourne's Airports Prescribed Airspace. Melbourne Airport Landside precincts are also subject to Essendon Airport Prescribed Airspace.

1.8.2 In some circumstances Melbourne Airport may seek advice from CASA and/or Airservices Australia.

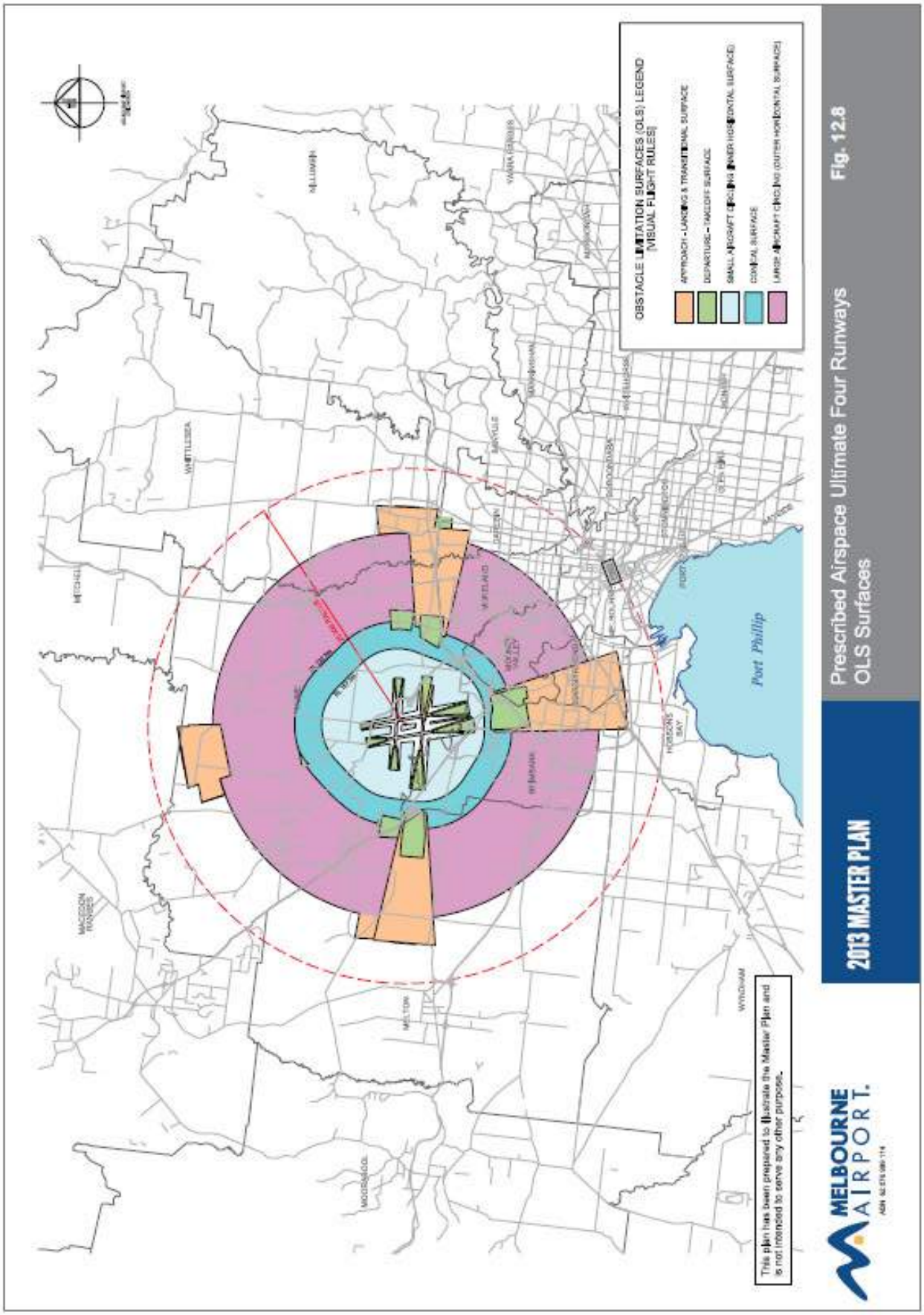
Reference Documents

01 **Melbourne Airport Master Plan 2013**

02 **NASF Guideline F - Managing the risk of Intrusions into the Protected Operational Airspace of Airports.**

03 **Airports (Protection of Airspace) Regulations 1996.**

Figure C.9 - Prescribed Airspace Ultimate Four Runways OLS Surfaces extract from Melbourne Airport Masterplan 2013 (not to scale)



1.9 Airspace Protection: Procedures for Air Navigational Services-Aircraft Operations (PANS-OPS)

Purpose

01 **To protect Melbourne Airport's airspace for the safe arrival and departure of aircraft, providing protection for instrument flying. (These surfaces may also protect airspace around the navigational aids that are critical for instrument flying).**

Requirements

1.9.1 Any proposed development within the Melbourne Airport Landside Precinct must be referred to the Melbourne Airport Operations Department to confirm if it results in intrusion into Melbourne's Airports Prescribed Airspace. Melbourne Airport Landside precincts are also subject to Essendon Airport Prescribed Airspace.

1.9.2 In some circumstances Melbourne Airport may seek advice from CASA and/or Airservices Australia.

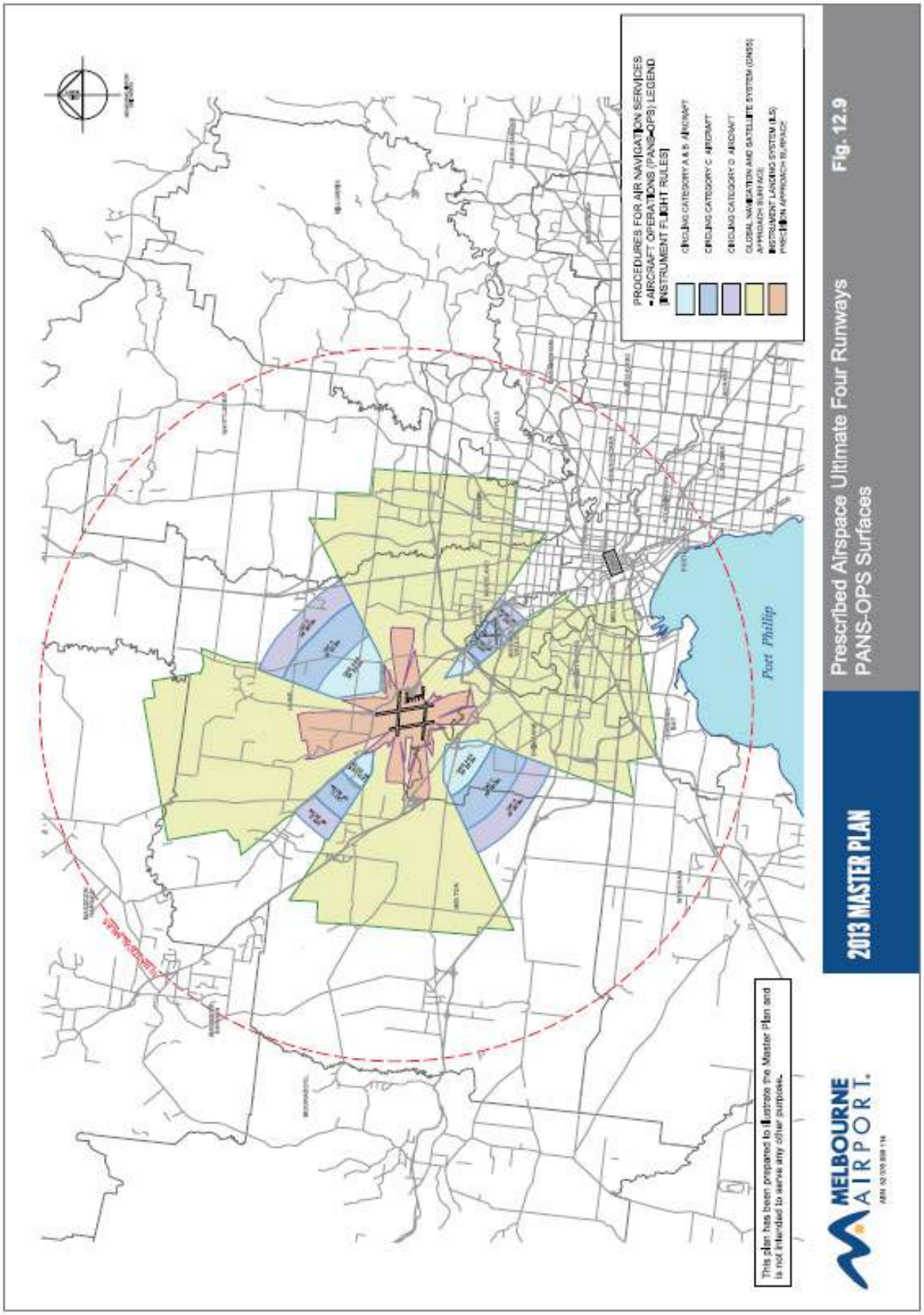
Reference Documents

01 **Melbourne Airport Master Plan 2013**

02 **NASF Guideline F - Managing the risk of Intrusions into the Protected Operational Airspace of Airports**

03 **Airports (Protection of Airspace) Regulationas 1996**

Figure C.8 - Prescribed Airspace Ultimate Four Runways PANS-OPS Surfaces extract from Melbourne Airport Masterplan 2013 (not to scale)



MELBOURNE AIRPORT LANDSIDE

URBAN DESIGN GUIDELINES

PRECINCT 1

TERMINAL & SURROUNDS

Figure D.1.1 - Melbourne Airport Urban Design Precincts (not to scale)

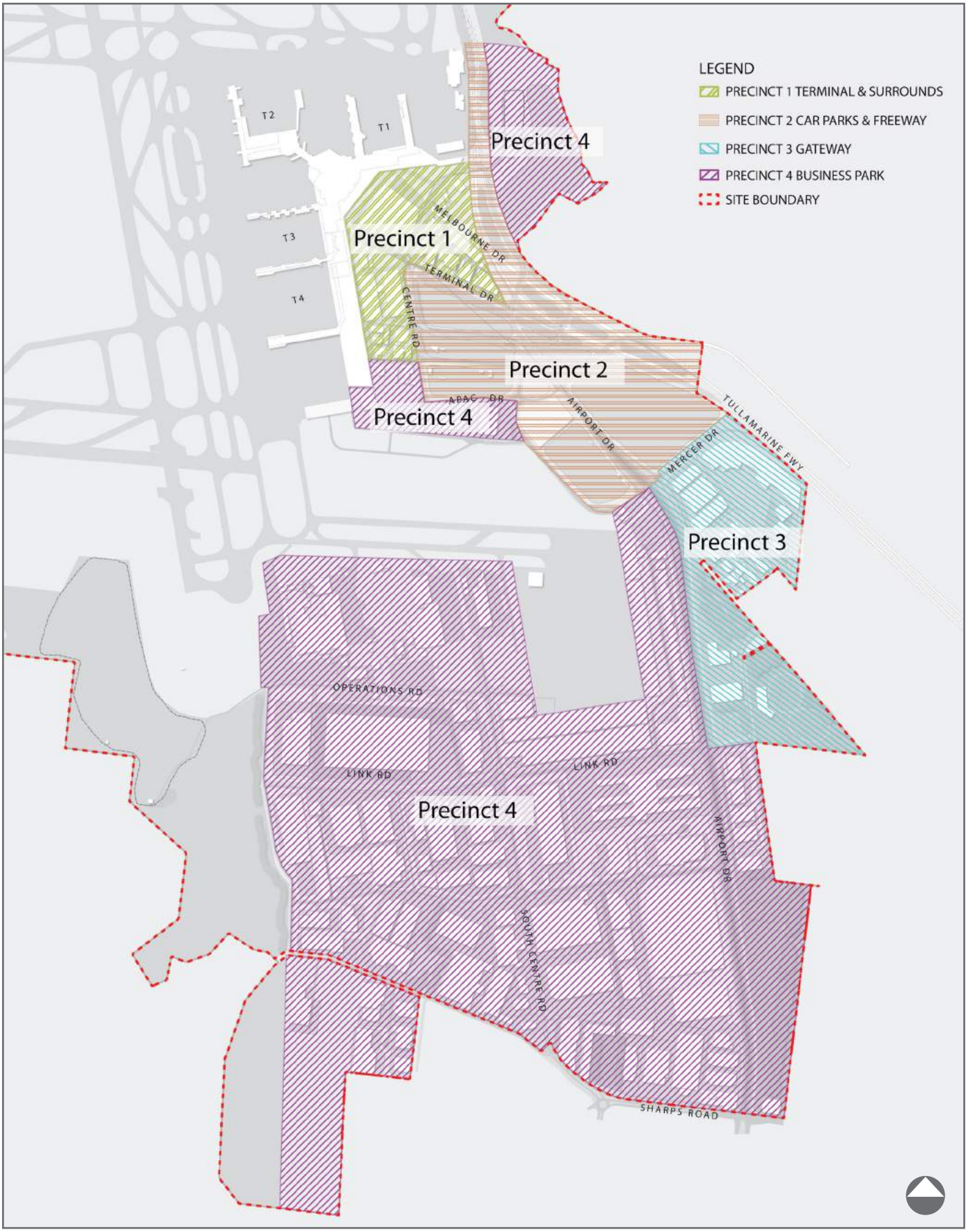
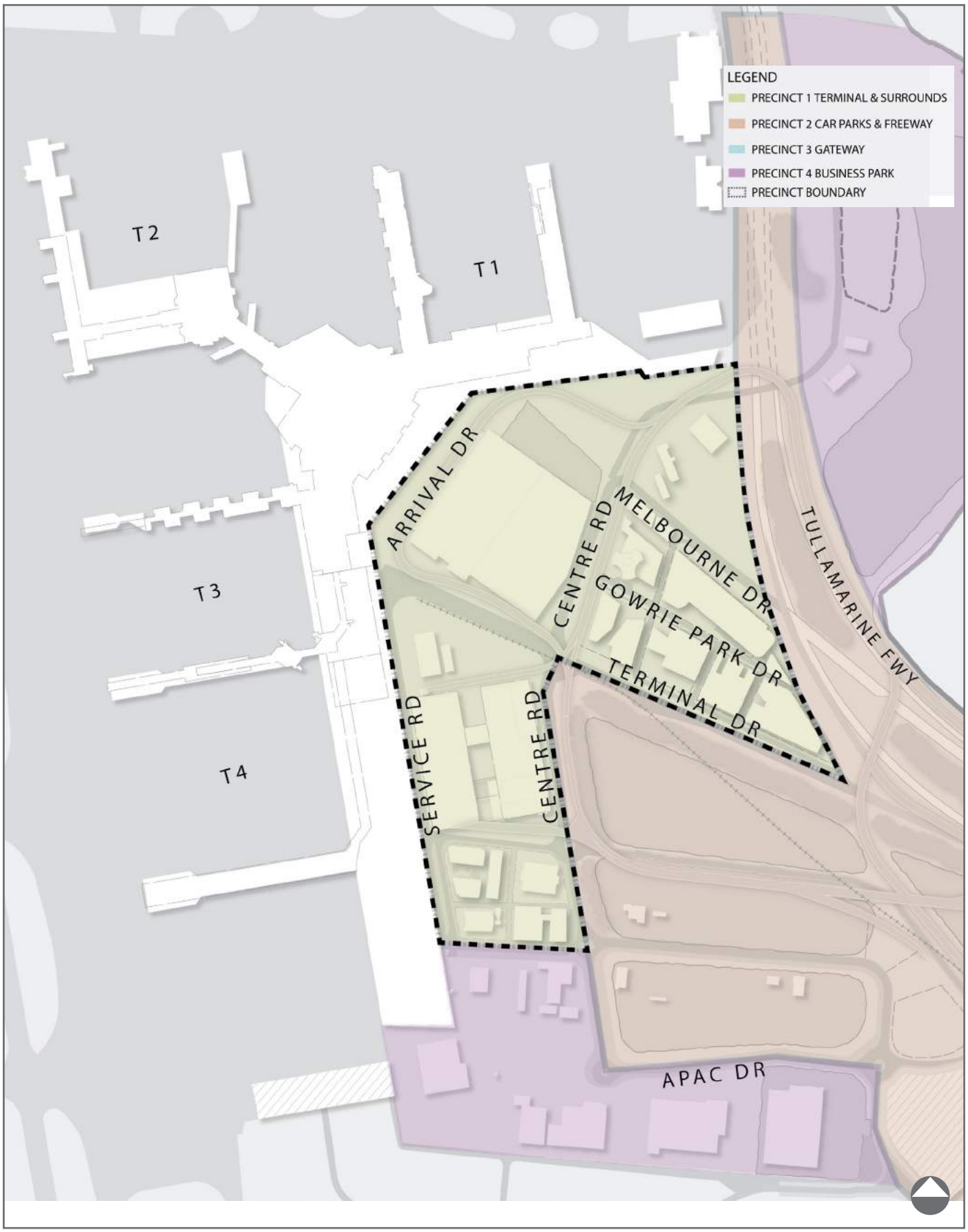


Figure D.1.2 - Melbourne Airport Urban Design Precinct 1 Terminal and Surrounds (not to scale)



1. PRECINCT & SITE RESPONSE

1.1 Precinct profile

Gowrie Park, The Square and the terminal forecourt form Precinct 1. The precinct covers a range of supporting landside functions including multi-storey car parking, ground transport hub, hotel accommodation, commercial and office spaces.

Incorporating the main entry and exit points of Melbourne Airport, Precinct 1 is highly visible and has a significant influence on customer experience. These guidelines will ensure that new development will convey and support a positive sense of arrival to Melbourne Airport. Elegant, consistent design and high quality infrastructure will produce an efficient, attractive and pleasant public realm.

An integrated movement network will provide legible and convenient connections for passengers, visitors and staff. A pedestrian priority spine, running south from the terminals, and a public square adjacent to the terminals, will become the central organising elements of the pedestrian network. Contemporary buildings will provide visual connections and wayfinding cues making key destinations identifiable and accessible. These improvements will create a comfortable public realm that supports people in moving safely and efficiently to their destination.

New development will be held to high quality architecture, urban design and place making standards. This will support Melbourne Airport's vision to be Australia's airport of choice by delivering a superior customer experience.

1.2 Site response

Objectives

01 **To ensure the Terminal and Surrounds precinct supports a superior customer experience for passengers, visitors and staff at Melbourne Airport, consistent with Melbourne Airport's vision.**

02 **To ensure infrastructure and the public realm support the efficient processing of arriving and departing passengers, visitors and staff.**

03 **To ensure development responds to street interfaces, particularly along key arrival and departure routes and contributes to an increased level of amenity in the surrounding public realm.**

04 **To ensure new buildings have regard to the future development potential of adjoining sites and their ability to gain access to reasonable light, views, and prevailing winds, where appropriate.**

05 **To ensure development responds to the site conditions and is compatible with the objectives outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

06 **To reflect key principles established for specific sites in master planning for Gowrie Park and the Square, where appropriate.**

07 **To utilise ESD initiatives in all development to minimise environmental impacts, improve commercial viability and improve customer experience at Melbourne Airport.**

Guidelines

1.2.1 Development should respond to existing conditions including adjoining uses, topography, vegetation and views.

1.2.2 Buildings should be sited and oriented to maximise opportunities for solar access to both indoor and outdoor amenity areas.

1.2.3 Siting of development should allow for adequate light and sun penetration to existing and future developments on adjoining properties.

1.2.4 Where possible, orientate large building openings to the east to avoid strong winds and hot sun.

1.2.5 Buildings situated on key routes should be sited to front the street, with building entrances located on pedestrian paths and windows overlooking the street.

1.2.6 Direct pedestrian connections at street level, should be provided within the precinct; particularly between the terminals, Gowrie Park, the Square and car parking areas.

1.2.7 Development should be generally compliant with the master plans developed for Gowrie Park and the Square.

Reference Documents

01 Melbourne Airport Sustainable Building and Infrastructure Guide (latest version)

02 Melbourne Airport Master Plan 2013 (latest version)

03 Melbourne Airport Commercial Masterplan Report, November 2013

Referral Departments

01 Melbourne Airport Infrastructure and Utilities

1.3 Setbacks

Objectives

01 To ensure all future development is of high design quality and contributes to a legible and activated "street wall", particularly along highly visible entry and exit roads such as Gowrie Park Drive, Terminal Drive and Centre Road.

02 To provide adequate space for a high quality landscape treatment in key areas of public realm.

03 To ensure sufficient space is allocated within the setback in the case when a footpath can not be accommodated within the existing road reserve.

04 To protect solar access to key areas of public realm by using upper level setbacks, where appropriate.

05 To ensure development does not impede daylight access and natural ventilation on adjoining sites.

06 To ensure that emergency service vehicles can access the site in a safe and efficient manner.

Guidelines

1.3.1 Future development should be generally consistent with the existing street wall, but allow for the provision of tree canopy cover, bike racks, seating, raised garden beds, lighting or other hard and soft landscaping elements that contribute to the streetscape, where appropriate.

1.3.2 Provide visual interest and promote passive surveillance of the public realm by locating retail uses and office entrances at the street frontage.

1.3.3 Protect the tree root zone of existing trees by ensuring new buildings are setback by the canopy width of the mature tree.

1.3.4 Protect solar access to key areas of public realm throughout the year. Setbacks to upper levels of buildings may be required to achieve this.

1.3.5 Minimise noise and visual intrusion between sensitive and non-sensitive uses through compatible use transition interface design.

1.3.6 All planting is to be in accordance with the latest version of the *Melbourne Airport Planting Guidelines.*

Referral Documents

01 Melbourne Airport Planting Guidelines (latest version)

1.4 Airside interfaces

Objectives

01 To ensure that Melbourne Airport airside security is maintained.

Guidelines

1.4.1 Any buildings and works located airside are subject to compliance with the *CASR Manual of Standards Part 139 – Aerodromes*.

Reference Documents

01 CASR - Manual of Standards, Part 139 – Aerodromes

1.5 Outdoor amenity space

Objectives

01 To provide well located, integrated areas of attractive outdoor space with weather protection, lighting and seating for staff and customers.

02 To ensure that outdoor amenity space is a pleasant and a functional environment.

03 To support the location of outdoor amenity space in areas that contribute to an activated public realm.

Guidelines

1.5.1 Developments are to incorporate a minimum of 40m^2 of outdoor space for staff and customers. Larger areas of outdoor amenity space may be required, depending on staff numbers, timing of breaks and shift changes, and proximity to alternative amenity areas.

1.5.2 The area must be capable of containing a rectangle of 3m x 4m and have minimal level changes.

1.5.3 Outdoor amenity space should be located to take advantage of northern aspect (where practicable), be connected to pedestrian paths, be landscaped with shade trees and seating, and incorporate baffled, energy efficient external lighting.

1.5.4 Where possible, provide consolidated outdoor amenity space across multiple developments to support improved social cohesion and larger, higher quality spaces.

1.5.5 Services such as air conditioning units, rainwater tanks and hot water units must not encroach into staff amenity space areas if they are less than 40m^2.

A well facilitated area surrounding a commercial building supports an activated public realm.

1.6 Terminal Forecourts & Pedestrian Spine

Objectives

01 **To strengthen place making opportunities through the design of a landmark terminal forecourt, public square, pedestrian spine and a cohesive pedestrian network.**

02 **To strengthen way-finding by designing a central public square as a key orientation node.**

03 **To ensure the terminal forecourt supports connections to integrated transport options.**

04 **To ensure the terminal forecourt supports efficient pedestrian circulation and connections to the wider pedestrian network.**

05 **To implement a pedestrian priority spine, running south from the Terminals along Service Road, as a key movement space, connecting key nodes at street level.**

06 **To reinforce a strong sense of identity by integrating public art and an events space into the design of the terminal forecourt public space.**

Guidelines

1.6.1 Design a public square adjacent to the terminal forecourt as a central organising element. A 40-50m setback from the landside edge of the terminals should be reserved when the terminals are redeveloped, for provision of the public square.

1.6.2 Any future train station should be integrated into the terminal forecourt. To ensure access to the terminals for people of all mobility levels, the train station should be located no more than 300m (a 4 minute walk) from the terminal entrances.

1.6.3 The terminal forecourt should become the major public space providing connections to taxi, private vehicle, bus, bicycle, pedestrian and future train services.

1.6.4 As part of a holistic wayfinding strategy, design the public square to:
- provide intuitive way finding
- link the terminal forecourts
- link to transport connections
- direct people to pick-up and drop-off zone nodes
- direct people to car parking facilities
- provide public toilets
- provide sheltered open space and covered walkways

1.6.5 Locate a 6m wide pedestrian priority shared path (pedestrian spine) running south from the terminals along Service Road. This will provide connections from the terminals to multi level ground transport hub (outside T4), the Square, future terminals and integration into the wider pedestrian network.

1.6.6 Investigate opportunities to incorporate multi-media displays in the public square to provide live information on flight and transport schedules, as well as events, news and entertainment.

1.6.7 Design the terminal forecourt public square to be an activated meeting point that supports staging performances, events and exhibitions, as well as commercial activity.

1.6.8 Develop a program of public art and events at Melbourne Airport through partnerships with cultural organisations, to strengthen sense of place and identity.

Bourke Street Mall in Melbourne is of a similar scale and successfully acts as pedestrian spine running through Melbourne's CBD.

Webb Bridge (Melbourne Docklands) integrates public art into the public realm whilst also acting as a significant way finding device.

1.7 Landscape design

Objectives

01 **Use consistent landscaping treatments to provide clearly defined movement networks and convey a strong sense of unity throughout the precinct.**

02 **Use soft and hard landscaping elements, including sheltered seating, bins (subject to security advice) and drinking fountains to provide comfortable and functional meeting, rest and pick-up and drop-off areas.**

03 **When the elevated road network is constructed, investigate soft and hard landscaping opportunities to improve the pedestrian network and public realm at street level.**

04 **To support improved tree canopy coverage and boulevard treatments along major access routes.**

05 **To support the provision of public art at key intersections, as a way of conveying a strong sense of arrival and identity.**

06 **To promote landscaping treatments, including WSUD that is consistent with the aims of the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

07 **To ensure safe airport operation by requiring that planting is compatible with *NASF Guideline C* and the *Melbourne Airport Planting Guidelines.***

Guidelines

1.7.1 Prioritise public realm improvements, particularly along key pedestrian routes.

1.7.2 Increase amenity along the major pedestrian routes by providing appropriate public realm infrastructure such as paved footpaths, seating, drinking fountains and directional signage.

1.7.3 Provide deep soil zones in road reserves and building setbacks, where appropriate, compliant with the *Melbourne Airport Planting Guidelines*.

1.7.4 Trees should be carefully selected and sited to allow scope for growth and structural protection of buildings.

1.7.5 Landscaped areas of shrub, grasses and ground-covers should be a wide enough to provide for the effective impact of planting.

1.7.6 Landscape areas should be planted with low maintenance species that do not require irrigation from the potable water supply.

1.7.7 Landscaping treatments along pedestrian paths and in the public realm should pay particular attention to providing summer shade, winter sun and wind protection.

1.7.8 Use a consistent paving palette to delineate vehicle, access, pedestrian and cycling paths and define non-car priority areas.

1.7.9 Locate swales, rain gardens and retarding basins in verges and setbacks, where appropriate, to provide passive storm water infiltration systems.

1.7.10 Protect landscaped areas abutting car parks through provision of appropriate barriers.

1.7.11 Landscaping should use consistent vegetation types, particularly those indigenous to the local region, as specified in the *Melbourne Airport Planting Guidelines.*

1.7.12 Plant species should be selected to integrate with the surrounding streetscape character, the landscape of adjoining sites and be compliant with the *Melbourne Airport Planting Guidelines.*

1.7.13 Retain, integrate and protect existing mature trees, where possible, in accordance with the *Melbourne Airport Planting Guidelines.*

1.7.14 The landscape plan should respond to the site soil types, drainage conditions, other climatic factors, in accordance with the *Melbourne Airport Planting Guidelines.*

1.7.15 The specification, design and management of all planting must comply with the requirements of the *Melbourne Airport Planting Guidelines and NASF Guideline C.*

Reference Documents

01 **Melbourne Airport Planting Guidelines (latest version)**

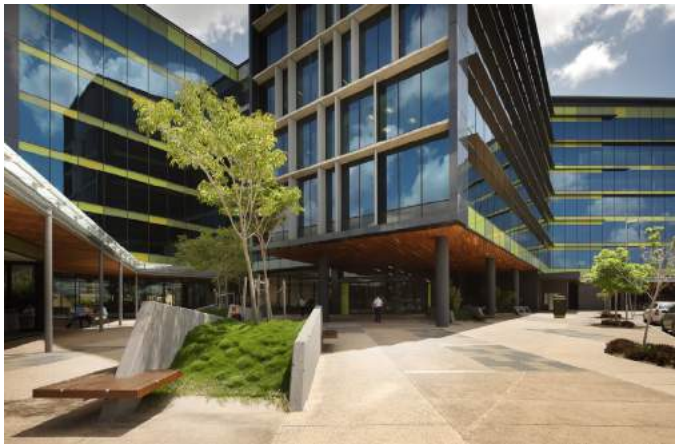
02 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

03 **NASF Guideline C - Managing the Risk of Wildlife Strikes in the Vicinity of Airports**

Referral Departments

01 **Melbourne Airport Environment Department**

02 **Melbourne Airport Infrastructure and Utilities**



Soft and hard landscaping elements provide a high quality public realm.

Employing WSUD strategies such as locating a swale in a public space to attenuate and treat stormwater run off.

2. BUILDING FORM & DESIGN

2.1 Building height

Objectives

01 **To ensure future built form conveys a sense of arrival to the terminals, positioning Melbourne Airport as Australia's airport of choice, in line with leading edge architecture, urban design and place making.**

02 **To ensure future built form responds appropriately to the surrounding context.**

03 **To ensure that buildings and structures do not penetrate Melbourne Airport's Prescribed Airspace.**

Commercial buildings of appropriate height and scale within their context.

Guidelines

2.1.1 All proposed buildings and structures must be referred to Melbourne Airport Operations Department to undertake a Prescribed Airspace assessment.
Note- Melbourne Airport Landside precincts are also subject to Essendon Airport Prescribed Airspace.

2.1.2 All buildings and associated infrastructure (including but not limited to signage, antennas, roof mounted air handling units) must not interfere with the Melbourne Airport Prescribed Airspace.

2.1.3 Buildings greater than 2 storeys in height are encouraged in this precinct.

2.1.4 To ensure that development is in accordance with *NASF Guideline F*.

Reference Documents

01 **Melbourne Airport Master Plan 2013 - 12.3.1- Prescribed Airspace Regulations**

02 **NASF Guideline F - Managing the Risk of Intrusions into the Protected Operational Airspace of Airports**

Referral Departments

01 **Melbourne Airport Operations Department**

02 **Airservices Australia - Airport Regulations Branch**

03 **Civil Aviation Safety Authority (CASA)**

2.2 Building form

Objectives

01 **To improve the arrival experience and sense of place by promoting exemplar developments on highly visible streets and key intersections.**

02 **To support a progressive and environmentally sustainable airport by ensuring future development utilises innovative and contemporary design and achieves leading edge environmental standards.**

03 **To ensure development appropriately addresses the public realm by ensuring building entrances connect to the pedestrian network and building form responds to the surrounding context.**

04 **To promote passive surveillance by ensuring building façades have a high level of transparency and activation at lower levels, in appropriate locations.**

05 **To ensure the upper floors of new developments are designed to consider their relationship with existing and future elevated road infrastructure.**

06 **To ensure built form appropriately expresses the use and internal function of the building.**

07 **To ensure future car parking development, particularly podium car parking, uses considered contemporary materials and screening techniques to create visual interest.**

08 **To ensure that development complies with *NASF Guideline B.***

Guidelines

2.2.1 Development located on arrival routes should use built form to define the street and strengthen the arrival experience.

2.2.2 Development situated on key corner sites should be designed as street holding buildings. Buildings situated on key routes should be sited to front the street, with building entrances located on pedestrian paths and windows overlooking the street. *(Figure D1.3)*

2.2.3 All buildings are to be contemporary and progressive in design, concept and finish. Applied decorative elements to buildings, which are not integrated with the overall design are discouraged.

2.2.4 Design building façades with gestural articulation to provide visual interest at both whole of building scale and at smaller street scale.

2.2.5 Development should use building technologies, considered façade treatments and building form to minimise mechanical heating and cooling.

2.2.6 Any development affected by the *Windshear Envelope Overlay (WEO)* must comply with the requirements of *NASF Guideline B.*

Referral Documents

01 **Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part C 1.1 - Windshear Envelope Overlay (WEO)**

02 **NASF Guideline B - Managing Risk of Building Generated Windshear and Turbulence at Airport**

Referral Departments

01 **Melbourne Airport Operations Department**

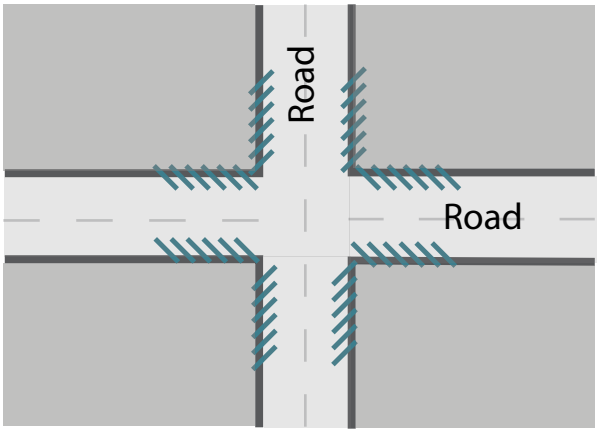


Figure D.1.3 - Development situated on key arrival intersections should become important street holding buildings.

2.3 Public realm & street interface

Objectives

01 **To promote engaging streetscapes and legible building interfaces through the use of visually permeable and active façades, where appropriate.**

02 **To improve the definition of streets and corners, and reinforce the airport arrival sequence, by encouraging street holding buildings at key intersections.**

03 **To ensure building entries are easily accessible, identifiable, functional, complement the overall architectural design and connect with the pedestrian network.**

04 **To encourage passive surveillance of the public realm by providing opportunities for pleasant and engaging outlooks over surrounding pedestrian paths.**

Guidelines

2.3.1 Principal building entrances shall be designed to be accessible to people of all mobility levels, in accordance with the *Federal Disability Discrimination Act 1992.*

2.3.2 Integrate pedestrian access ramps with the overall design and landscape and use similar materials and colour palettes as the building.

2.3.3 To ensure a legible street wall, building entries should have a minimal setback with direct connection from footpath to building entry.

2.3.4 Footpaths are to be provided as follows (as specified in the Gowrie Park Master Plan):

Street/road type	Footpath width (m)
Boulevard (Terminal Drive)	8.5
Main (Gowrie Park Drive)	7.0
Service	2.8

2.3.6 Public realm elements such as seating, lighting and bins must not obstruct pedestrian movement or visibility. Landscaping at public realm interfaces may be integrated into building interfaces.

2.3.7 Public realm elements must be set back from the kerb by a minimum of 400mm to allow for parked vehicles to easily open their doors.

2.3.8 Building entries, foyer and office spaces should contain a high percentage of transparent façade treatments in order to provide passive surveillance of the street.

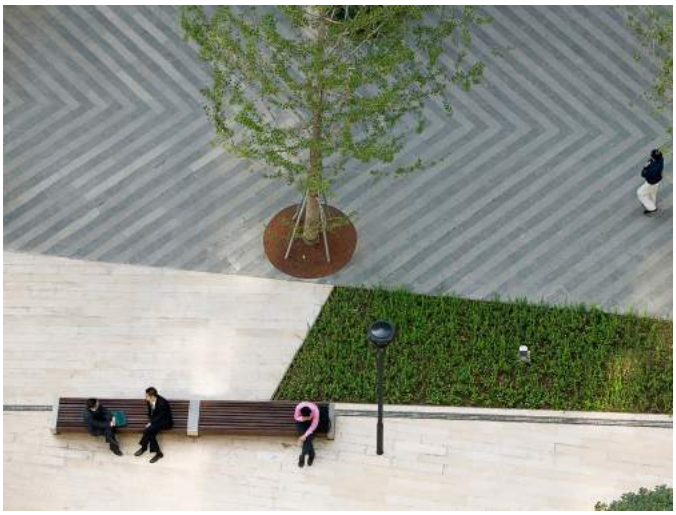
2.3.9 To provide weather protection along key pedestrian routes, building façades should have integrated awnings over building entries.

2.3.10 Consider the use of site specific public art located at key entry/exit points, particularly the Centre Road/ Departure Drive intersection, to support a gateway experience.

Reference Documents

01 **Federal Disability Discrimination Act 1992**

02 **Melbourne Airport Commercial Masterplan Report, November 2013**



High quality, well defined public realm encourages people to sit for longer.

By opening onto the street the building façade contributes to the public realm.

2.4 Roof design

Objectives

01 **To encourage roof forms that compliment the preferred contemporary and progressive character of Melbourne Airport.**

02 **To ensure roof design is integrated with the proportions and façade of the building.**

03 **To ensure that roof finishes and materials are compatible with *NASF Guideline E***

04 **To ensure that roof designs and equipment are compatible with *NASF Guideline F.***

Guidelines

2.4.1 Roof forms should be integrated with the overall building façade design.

2.4.2 Roofs should be simple in form and detailed to reflect the non-residential character.

2.4.3 Where the underside of roofs are visible, such as covered walkways and awnings, they should be designed to be attractive and well-detailed.

2.4.4 All roof mounted mechanical equipment shall be designed to integrate with the whole building design or shall be screened from the street by parapet walls or screening. Screens shall be designed to compliment the architecture of the building. All screening shall be a minimum height of the roof mounted mechanical equipment.

2.4.5 Consider site orientation in the design of roof forms so that elements such as eaves can respond to solar access requirements.

2.4.6 All metal deck roofing should be of a matt finish and non-reflective and non-distracting to pilots.

Reference Documents

01 **NASF Guideline E - Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports**

02 **NASF Guideline F - Managing the Risk of Intrusions into the Protected Airspace of Airports**

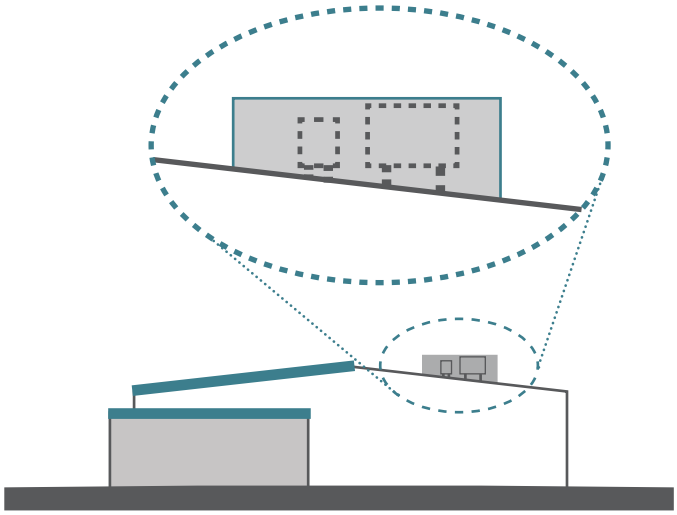


Figure D.1.4 - Roof forms for entry and office areas should be distinct from industrial parts of the building and appropriately screened.

2.5 Materials and detailing

Objectives

01 **To support a contemporary airport character and engaging public realm through specification of appropriate materials and façade articulation.**

02 **To maintain a high quality airport character through the use of materials that are durable, robust and require low maintenance.**

03 **To support the desired high quality, contemporary character of Melbourne Airport through the use of appropriate colours, materials and finishes.**

04 **To encourage ESD, including the use of sustainable and recyclable construction materials as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

Guidelines

2.5.1 Development should use a colour palette on new buildings that compliments the surrounding context and must be approved by Melbourne Airport.

2.5.2 External finishes should be of low reflectivity, using non-reflective cladding materials to minimise glare and reflection to surrounding areas, in accordance with *NASF Guideline E*.

2.5.3 All metal finishes must be Alucobond, Colorbond (or equivalent), or other high quality finishes.

2.5.4 Provide an engaging street interface through the use of high quality materials and detailing.

2.5.5 Concrete walls should have an applied texture finish or other suitable cover or finish such as high quality textured or patterned concrete.

2.5.6 Consistent paving materials that are durable, easy to replace and can withstand vehicle loading must be used.

2.5.7 Substitution of approved materials will only be allowed if a material of the equivalent quality and specification can be provided.

2.5.8 Specify sustainable materials and services, where possible, as outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.

2.5.9 Reduce the construction carbon footprint by using locally produced materials with low embodied energy, where possible.

Referral Documents

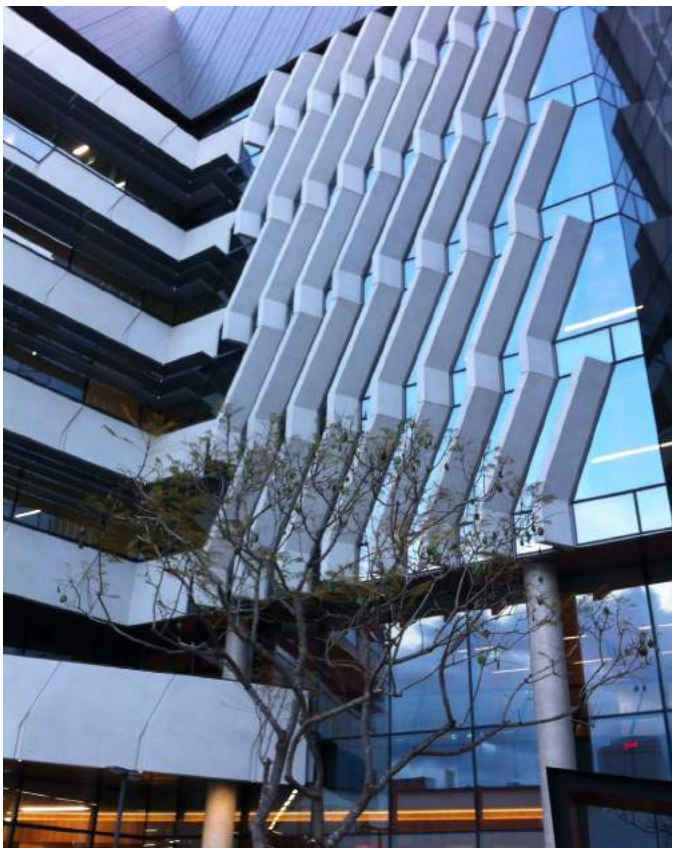
01 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

02 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

Referral Departments

01 **Melbourne Airport Engineering Standards Department**

02 **Melbourne Airport Environment Department**



Building materials articulate the building façade and contribute to an interesting street interface.

3. INFRASTRUCTURE & SIGNAGE

3.1 Site services

Objectives

01 **To ensure site services, including water, power, gas, communications and waste are not visually dominant at street level and can be easily accessed and maintained.**

02 **To ensure site services are incorporated into the design of new developments.**

03 **To encourage best practice ESD to meet the sustainability indicators as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide* and the *Melbourne Airport Master Plan 2013*.**

04 **To ensure that site services are compatible with Melbourne Airport standards.**

Guidelines

3.1.1 Adequate space is to be provided within developments and road reserves to accommodate the installation and maintenance of services.

3.1.2 Confirm location of easements for infrastructure and utilities prior to seeking PDA.

3.1.3 Discuss planned infrastructure requirements and capacities with Melbourne Airport Infrastructure and Utilities prior to seeking PDA.

3.1.4 Enable the installation of future site services, such as communications infrastructure and 'third pipe' water infrastructure to be installed in redundant space, where possible.

3.1.5 Site services, such as substations and fire fighting equipment should be incorporated into the design of the overall site.

3.1.6 Solar boosted hot water systems are to be provided where practicable.

3.1.7 Incorporate rainwater tanks into each building to collect runoff from roof areas. The water should be used for landscape irrigation, cleaning and toilet flushing. Grey and black water treatment and re-use systems must be designed and installed in accordance with EPA requirements and the *Melbourne Airport Sustainable Buildings and Infrastructure Guide.*

3.1.8 Utilise stormwater harvesting and stormwater retention systems to improve stormwater quality and reduce potable water consumption, as outlined in the *Melbourne Airport Stormwater Management Plan*.

3.1.9 Waste bins must be provided within 3-14m of all locations within public spaces. Recycling bins should be located within 2m of every rubbish bin. This is in accordance with the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.

3.1.10 Undertake waste management planning to reduce waste and increase recycling.

3.1.11 Tenants must not install antennas or towers on sites or buildings for lease to third party operators.

Reference Documents

01 **Melbourne Airport Stormwater Management Plan (latest version)**

02 **Melbourne Airport Master Plan (latest version)**

03 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

Referral Departments

01 **Melbourne Airport Engineering Standards Department**

02 **Melbourne Airport Infrastructure and Utilities**

03 **Melbourne Airport Electrical Assets Manager**

3.2 Signage

Objectives

01 **To ensure wayfinding strategies are intuitive, informative and consistent across Melbourne Airport.**

02 **To support customers in the easy identification of facilities, services and businesses throughout the precinct.**

03 **To ensure signage and advertising supports the desired contemporary and progressive character of the precinct, particularly in visually sensitive areas.**

04 **To ensure that business signage does not interfere with airport-related and VicRoads wayfinding.**

05 **To ensure signage complies with *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E.***

Guidelines

3.2.1 Use signage to inform pedestrians of approximate walking times between key destinations.

3.2.2 Directional signage should be provided within sites to delineate entry and exit, staff and visitor parking, office /reception areas, and loading areas. Directional signage within the site should be consistent in style and form.

3.2.3 Advertising and corporate signage should be integrated into the design of buildings by forming a logical element of the front façade and be in keeping with the scale of the façade. The building fascia between ground and first levels is generally a good location for signage.

3.2.4 Signage should be limited to avoid confusion and visual clutter.

3.2.5 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 that it is co-ordinated with the shared sign in terms of style and materials.

3.2.6 Free-standing advertising and corporate signage should be avoided and will only be permitted if it can be demonstrated that signage on the building façade will not provide effective business identification. If free-standing 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 streetscape character and key views to the area.

3.2.7 Signage attached to front fences and temporary A-Frame signage on footpaths should be avoided.

3.2.8 Signs must not be animated (eg. move, rotate, flash)

3.2.9 Advertising and corporate signage should not obstruct or detract from passenger/visitor movements, regulatory and safety related signage, or impede lines of sight associated with wayfinding

3.2.10 Advertising and corporate signage should be dissimilar to Melbourne Airport signage, in particular, use of black background colour should be minimised.

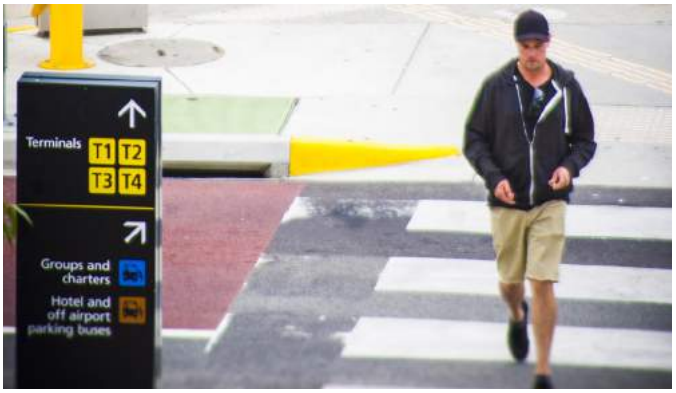
3.2.11 All signage must be compliant with the *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E*..

3.2.12 No advertising signs are permitted outside premises on nature strips, verges or outside of the propety boundary within the road reserve.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

02 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**



3.3 Miscellaneous advertising and promotional features

Objectives

01 **To ensure that advertising and promotional materials support the desired contemporary and progressive character of the precinct.**

02 **To ensure that advertising and promotional materials are compliant with the *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E.***

Guidelines

3.3.1 Moving and inflatable structures or advertising features are generally discouraged. Such features will only be allowed where it can be demonstrated, to the satisfaction of Melbourne Airport PD that they will not detract from the character or the safe and efficient operation of the airport.

3.3.2 Displays and events, such as outdoor vehicle displays or product demonstrations, must be approved by Melbourne Airport PD.

3.3.3 There should be a maximum of one flag pole per site. PD may not approve flag poles in strategic locations.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

02 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

03 **CASR - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations Department**

3.4 External Lighting

Objectives

01 **To support a safe and secure public realm, particularly along pedestrian and cycling routes, through the provision of efficient and functional street lighting.**

02 **To compliment building design and form with appropriate external, integrated lighting.**

03 **To support Melbourne Airport's commitment to reduce energy consumption and operational greenhouse gas emissions by providing high-efficiency external lighting solutions.**

04 **To ensure that external lighting solutions are designed to minimise distractions to pilots, in accordance with *NASF Guideline E.***

Guidelines

3.4.1 Use appropriate street lighting types to create a safe and secure pedestrian network and reinforce the movement network hierarchy.

3.4.2 High efficiency external lighting such as LED solutions should be used in streets, building surrounds, public space and car parks.

3.4.3 Steps must be taken to prevent lighting from casting glare onto adjacent sites, streets and into adjacent building windows.

3.4.4 In order to maintain the integrity of Melbourne Airport's Airport Lighting System, and to reduce light emissions to aircraft, lighting should not spill above the horizontal plane. In instances where lighting could move as a result of wind events or misalignment during maintenance, ensure it will not spill above the horizontal plane.

3.4.5 Any proposal incorporating coloured lighting, even where lighting is low-intensity, must be referred to Melbourne Airport Operations Department for approval. In some circumstances Melbourne Airport may seek advice from *CASA*.

Reference Documents

01 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

02 **CASA - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations Department**

02 **CASA**

External street lighting contributes to a safe and pleasant public realm.

External street lighting defines the pedestrian path.

3.5 Acoustic protection

Objectives

01 **To ensure that noise impacts on building occupants are minimised.**

Guidelines

3.5.1 Buildings must conform to Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

3.5.2 Buildings located near busy roads and other sources of noise should be designed to minimise noise impacts to office areas and other habitable spaces.

3.5.3 Consider the acoustic impacts from future planned road and rail infrastructure when designing buildings.

3.5.4 Solutions to minimising noise impacts may include double glazing, operable screening, and landscape planting and mounding.

3.5.5 All development must be compliant with *NASF Guideline A*.

Reference Documents

01 **Melbourne Airport Master Plan (latest version)**

02 **NASF Guideline A: Measures for Managing Impacts of Aircraft Noise**

03 **Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021)**

3.6 Plume Rise Assessment

Objectives

01 **To manage the potential impacts of vertical exhaust plumes on airport operations at Melbourne Airport.**

Guidelines

3.6.1 Building design and operation must conform to *CASR Advisory Circular AC139-5(1) Plume Rise Assessments* (latest version).

3.6.2 Vertical exhaust plumes (smoke, steam etc.) from stacks, vents and cooling towers in excess of 4.3 meters per second velocity, must be assessed by PD.

3.6.3 PD may refer the proposal to external departments for assessment and may impose conditions.

Reference Documents

01 **CASR Advisory Circular AC139-5(1) Plume Rise Assessments (latest version)**

4. PARKING & ACCESS

4.1 Pedestrian access

Objectives

01 **To provide a safe, convenient, legible, efficient and where appropriate, sheltered pedestrian network that connects passengers, visitors and staff to key destinations.**

02 **To prioritise the strengthening of the pedestrian network, especially links between Gowrie Park, the Square, terminals and transport nodes.**

03 **To minimise conflict between vehicles and people by providing appropriately located pedestrian crossings.**

04 **To minimise conflict between vehicles, bikes and people through the provision of off-road cycling paths, where possible.**

05 **To consider connectivity between existing and planned ground transport hubs, bus stops and train station(s).**

06 **To support the use of space beneath elevated roads to strengthen the pedestrian network.**

07 **To ensure future roads have provision for shared footpaths within the road reserve, where appropriate.**

Guidelines

4.1.1 Pedestrian routes must be accessible to people of all mobility levels with minimal variation in grade and adequate space for luggage trolleys, wheelchairs, prams, families and large groups.

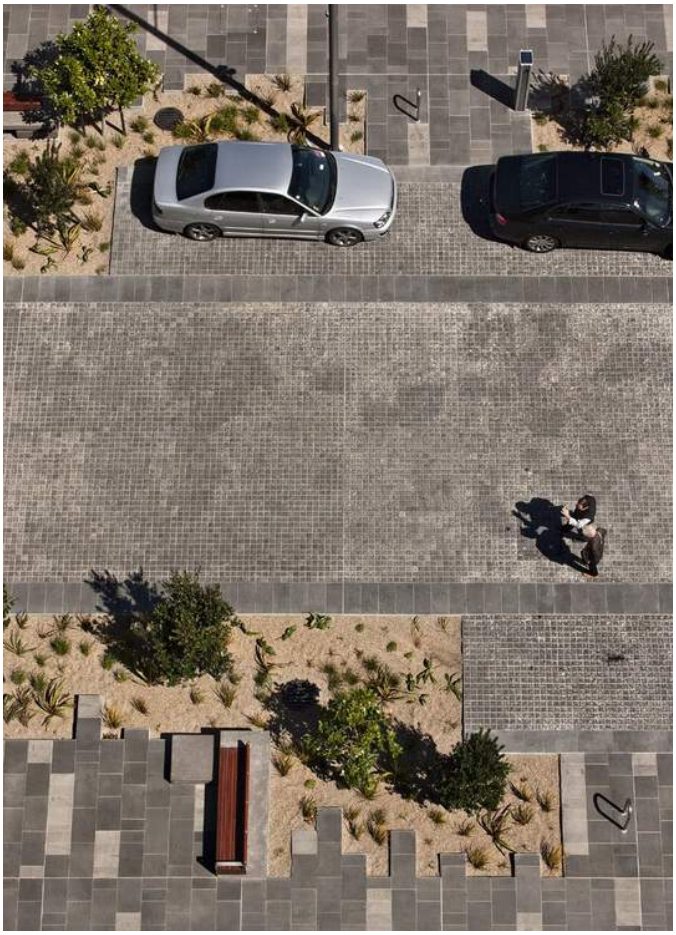
4.1.2 The pedestrian network must be legible and accessible to people of all mobility levels by using a consistent paving treatment, kerb access ramps, tactile paving and appropriate way finding and signage strategies.

4.1.3 The pedestrian network should provide passengers and visitors with links between public areas, parking areas, transport hubs and building entries.

4.1.4 The pedestrian network should provide staff with efficient and legible connections between staff car parks, staff courtesy bus pick-up and drop-off points and places of employment.

4.1.5 To minimise congestion on pedestrian routes there should be adequate trolley storage bays for uncollected trolleys.

4.1.6 The pedestrian network must be safe and secure through the use of appropriate external lighting.



A combination of sizes and textures of high quality paving materials articulates the public realm.

Materials and textures are utilised to define the pedestrian path.

4.2 Cycle access

Objectives

01 **To support cycling at Melbourne Airport by providing off road paths and connections to surrounding bicycle networks.**

01 **To ensure cyclists have safe access to bicycle parking areas and appropriate end of trip facilities.**

02 **To consider future growth of cycling when planning bicycle parking areas and facilities.**

Guidelines

4.2.1 Provide a legible cycling network by using consistent lane widths, road markings, colours and paving treatments throughout the precinct.

4.2.2 Provide off road cycle paths throughout the precinct, in accordance with *Part B - Vision and Strategies - 1.5 Pedestrian and cycle network* of this document.

4.2.3 Encourage employees who live locally to cycle to work by ensuring there are links to existing bicycle networks, particularly connections from Airport Drive to the M80 Ring Road paths, the Moonee Ponds Creek Trail, Maribyrnong path and existing Principal Bicycle Network routes to Sunbury, Broadmeadows and Keilor.

4.2.4 The provision of a bicycle space for an employee must be either in a bicycle locker or at a bicycle rail in a lockable compound. A bicycle rail must be provided for visitors, compliant with *Clause 52.34 of the Hume Planning Scheme.*

4.2.5 Locate short term bicycle parking, such as bicycle hoops, set back from kerbs and close to building entrances.

4.2.6 Locate long term bicycle storage where it is easily accessible from the street, at ground level and a maximum of 70 meters from the building entrance. Locate the storage entrance to minimise conflict with pedestrians and vehicles.

4.2.7 Bicycle storage facilities should be adequately lit during periods of use, secure and located in an area subject to passive and/or active surveillance.

4.2.8 Showers, lockers and change rooms should be provided for employees who cycle in accordance with *Clause 52.34 of the Hume Planning Scheme.*

4.2.9 Bicycle parking is to be provided on-site in accordance with the following table:

Bicycle parking requirements

Use	Ratio
Office Areas	1:300m^2 if net floor area exceeds 1000m^2
Research & development	2.9 :100m^2
Bulky Goods/Retail	1:1000m^2
Industrial / Warehouse	1:1000m^2

Reference Documents

01 **Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part B - 1.5 Pedestrian and cycle network**

02 **Hume Planning Scheme - Clause 52.34 - Bicycle Facilities**

Bicycle rails located close the building entrance for convenience and safety.

4.3 Vehicle access and parking

Objectives

01 **To ensure the location, design and layout of car parking and car park access is integrated with the overall site planning and building design and meets the maximum safety standards for pedestrians and vehicles.**

02 **To provide safe and secure car parking.**

03 **To provide adequate car parking for a variety of business and industry uses.**

04 **To manage potential conflict between vehicles, building occupants, pedestrians and cyclists.**

05 **To minimise the visual impact of car parking from the street.**

06 **To ensure future car parking development, particularly podium car parking, uses considered contemporary materials and screening techniques to create visual interest.**

07 **To support integrated road planning with consideration of future rail and bus terminals.**

08 **To ensure there are provisions for electric vehicle parking.**

09 **To consider integration of future alternative transport modes, including autonomous vehicles, in public realm and infrastructure design.**

Guidelines

4.3.1 There must be separate pedestrian entrance and exit points to car parking areas. Car park entrance and exit points, as well as internal circulation must be wide enough to comfortably accommodate luggage trolleys, bikes, wheelchairs, prams, families and large groups.

4.3.2 The internal layout of car parks must have clear sightlines for ease of circulation, safety and security.

4.3.3 Disabled car parking should be provided close to the main entrance of buildings and be connected to the entry with a DDA compliant *(AS 1428.1-2009)* path.

4.3.4 Shrub planting at car park entry and exit points is to be a maximum of 500mm in height to ensure there are clear sight lines.

4.3.5 Design driveway access to minimise conflict between vehicles, pedestrians and cyclists by maintaining clear view lines between the exiting/entering vehicles.

4.3.6 Minimise vehicle crossovers by consolidating access with adjacent sites, where possible.

4.3.7 Security lighting should be provided in vehicle parking areas and entries. Light spillage to buildings and adjacent sites should not impact on amenity.

4.3.8 Vehicle access ways located within the front setback and areas shared by vehicles and pedestrians should be a dressed surface treatment other than standard grey concrete.

4.3.9 Truck and delivery access must be separate from visitor and staff access.

4.3.10 Loading and servicing areas should be located to the rear of building and, where possible, consolidate service lanes with adjoining land holdings.

4.3.11 Car parking bays and access for people with disabilities should be designed and provided in accordance with the *AS 1428.1-2009*.

4.3.12 Where car parking requirements are undefined, car space allocation should be provided for visitors and occupants in accordance with the provisional rate indicated at *Clause 52.06 of the Hume Planning Scheme*.

4.3.13 Car parking is to be provided on-site in accordance with the following table:

Car parking Rates

Use	Ratio
Office	3.5 :100m^2
Research & development	3.5 :100m^2
Retail/Shop	4 :100m^2
Restricted Retail Premises	3:100m^2
Industrial	2.9 :100m^2
Warehouse	2+ 1.5:100m^2

These carparking rates are can be varied at the discretion of the relevant Melbourne Airport authorities, where a positive case is made for a variation from the above rates.

4.3.15 Conveniently locate passenger pick-up and drop off points and 'Ring and Ride Zone' between terminals and major arrival and departure arterial roads.

4.3.16 Basement car parks should be designed with the following considerations:
- Provide natural ventilation where practicable
- Integrate ventilation grilles or security gates into the façade and landscape design
- Provide security gates, conceal service pipes and ducts, to improve the appearance of basement entries from the street.

Reference Documents

01 **Australian Standard 1428.1-2009 - Design for access and mobility - General requirements for access - New building work (AS 1428.1-2009)**

01 **Hume Planning Scheme - 52.06 - Car Parking**

02 **NASF Guideline E - Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports (AS2890.1, 2004)**

4.4 Loading and Servicing

Objectives

01 **To provide safe and efficient loading and servicing of commercial and operational premises.**

02 **To minimise the visual impact of loading bays and service areas when viewed from the surrounding streets and other existing and planned viewing opportunities.**

Guidelines

4.4.1 Loading areas should be located to the rear or side of the property away from the primary street frontage.

4.4.2 Where practicable, integrate loading areas into the design of the building so that loading occurs internally. Where external loading areas are visible from adjoining land uses, they should be screened with landscaping or architectural screening.

4.4.3 Loading and servicing should occur with the vehicle completely contained within the site. No part of the vehicle should extend into the public road reserve.

4.4.4 Loading and servicing areas should be designed to service a range of vehicle types in order to provide for flexibility pursuant to *Clause 52.07 of the Hume Planning Scheme*.

4.4.5 Access to loading areas should be clearly separated from pedestrian and bicycle access routes, and where practical, separated from vehicle access routes.

4.4.6 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 Hume Planning Scheme* for size and dimensions.

4.4.7 Loading areas should be clearly defined with line marking, designed to allow unobstructed vehicle access and provide appropriate turning areas in accordance with *AS 2890.2*.

4.4.8 Areas need to be set aside for truck queuing on site. Melbourne Airport will not allow truck queuing to occur on its roadways adjoining the site. Tenants will need to demonstrate truck space demand requirements at the busiest time of day.

4.4.9 Only two vehicle crossings points are permitted per site to each road abuttal. These are as follows: One combined entry/exit for visitor & staff vehicles. One combined entry/exit for trucks and heavy vehicles.

4.4.10 Adequate provision for loading and unloading of vehicles must be made, together with an area set aside for industrial waste collection.

4.4.11 Loading areas shall not be used for any other purpose.

4.4.12 No materials, supplies or equipment, including trucks and other motor vehicles, shall be stored upon a site except inside a building. No outdoor storage areas shall be provided.

Reference Documents

01 **Hume Planning Scheme - Clause 52.07 - Loading and Unloading of Vehicles**

02 **Australian Standard 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities (AS 2890.2)**

MELBOURNE AIRPORT LANDSIDE

URBAN DESIGN GUIDELINES

PRECINCT 2

CAR PARKS & FREEWAY

Figure D.2.1 - Melbourne Airport Urban Design Precincts (not to scale)

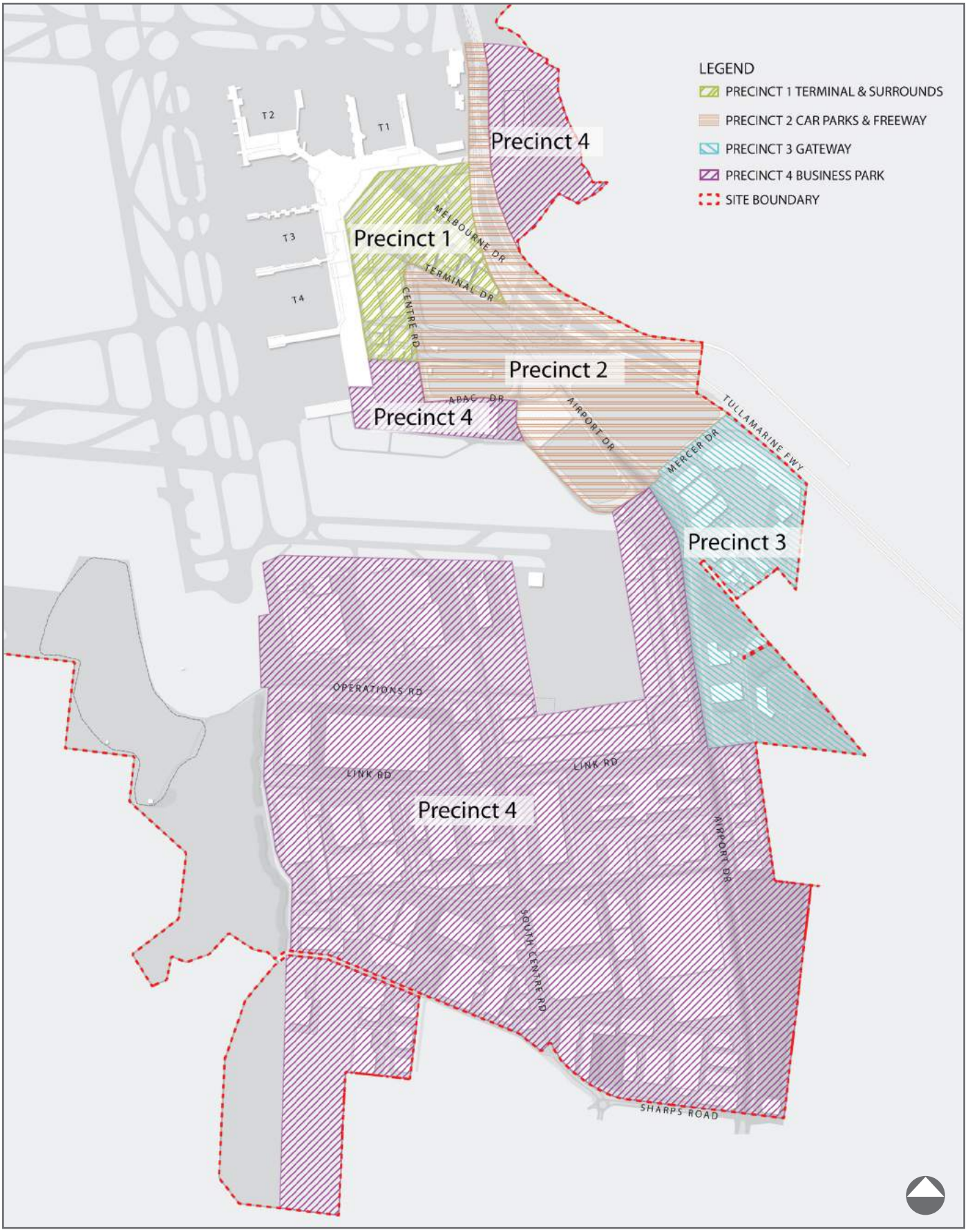
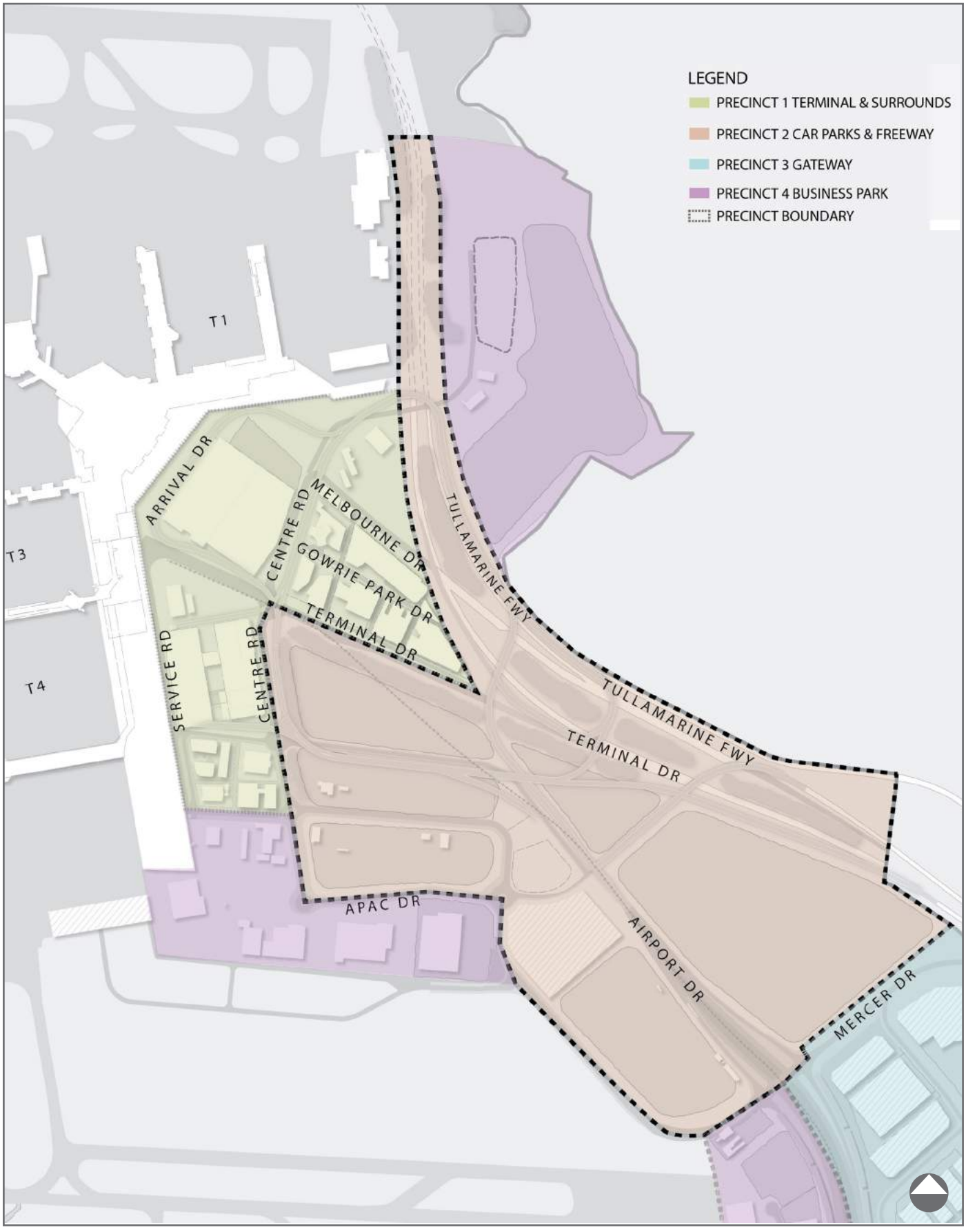


Figure D.2.2 - Melbourne Airport Urban Design Precinct 2 Car Parks and Freeway (not to scale)



1. PRECINCT & SITE RESPONSE

1.1 Precinct profile

Precinct 2 primarily consists of car parking, taxi and car rental depots, bus layover areas, as well as associated office and service facilities.

The precinct is bound by Mercer Drive and the Tullamarine Freeway, with Airport Drive running along its spine. The majority of the precinct is used as passenger car parking, a function important to the operation of Melbourne Airport.

There is opportunity to strengthen customer arrival and departure experiences at key sites along the Tullamarine Freeway and Airport Drive. These guidelines will ensure there are clear transport and pedestrian connections between car parking areas and the terminals, with easily identifiable car park entry and exit points, and shuttle bus pickup/drop off zones. Consistent fencing and generous landscaped verges will mediate the scale of the parking areas and increase the visual amenity of the precinct. Use of memorable gateway designs will contribute to improved placemaking at Melbourne Airport and support a superior customer experience.

1.2 Site response

Objectives

01 **To ensure development responds to the site conditions and is compatible with the objectives outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

02 **To ensure new buildings have regard to the future development potential of adjoining sites and their ability to gain reasonable access to light, views, and prevailing winds, where appropriate.**

03 **To increase the quality of the public realm by reducing the visual impact of the expansive car parking frontages.**

04 **To ensure car park entry and exit points, shuttle bus zones and all major intersections are clearly defined.**

05 **To ensure highly visible sites are well maintained.**

Guidelines

1.2.1 Car parking and associated buildings should respond to existing conditions including adjoining uses, topography, vegetation and views.

1.2.2 Buildings should be sited and oriented to maximise opportunities for solar access to both indoor and outdoor amenity areas.

1.2.3 Siting of development should allow for adequate light and sun penetration to existing and future developments on adjoining properties.

1.2.4 Orientate large building openings to the east to avoid strong winds and hot sun, where possible.

1.2.5 Development should avoid construction over areas required for existing and future infrastructure.

1.2.6 Development should use a consistent palette of landscaping treatments and wayfinding strategies throughout the public realm and built form.

Reference Documents

01 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

02 **Melbourne Airport Planting Guidelines (latest version)**

03 **Melbourne Airport Master Plan (latest version)**

Referral Departments

01 **Melbourne Airport Infrastructure and Utilities**

1.3 Front Setbacks

Objectives

01 **To convey a strong sense of identity through the use of a consistent fencing type and landscaping elements.**

02 **To soften the visual impact of car parking areas.**

03 **To provide an increased level of amenity along Airport Drive and Centre Road for pedestrians and cyclists.**

Guidelines

1.3.1 On major roads, the front building setback is to be a minimum of 15m from the property boundary. Within this setback there must be a 5m wide landscaping strip (minimum) from the property boundary. *(Figure D.2.3)*

1.3.2 On minor roads a lesser front building setback may be considered. Within the setback there must be a 3m (minimum) landscaping strip, from the property boundary. *(Figure D.2.4)*

1.3.3 On corner lots, walls facing the side street should be setback a minimum of 10m from the property boundary. Corner sites should provide landscaped setbacks to both street frontages. (*Figure D.2.5)*

1.3.4 Car parking should not be located within the landscaped strip.

1.3.5 Front setbacks should allow for the provision of tree canopy cover, bike racks, seating, raised garden beds, lighting and other hard and soft landscaping elements that contribute to the streetscape, where appropriate.

1.3.6 Front setback areas should be free of structures such as rainwater tanks and outbuildings, however may accommodate kiosk substations and similar services and compliant signage.

1.3.7 Front and corner setbacks must incorporate black metal palisade fencing. All poles, fittings and fixtures associated with the fence are to be black in colour.

1.3.8 Fences on side and rear setbacks, that do not directly front a street, may be constructed from black coloured PVC-coated wire mesh to a height of 3m. All poles, fittings and fixtures associated with the fence are to be black in colour.

1.3.9 Locate retail uses and office entrances at the street frontage to provide visual interest and promote passive surveillance of the public realm.

1.3.10 All planting is to be in accordance with the latest version of the *Melbourne Airport Planting Guidelines*.

Referral Documents

01 **Melbourne Airport Planting Guidelines (latest version)**

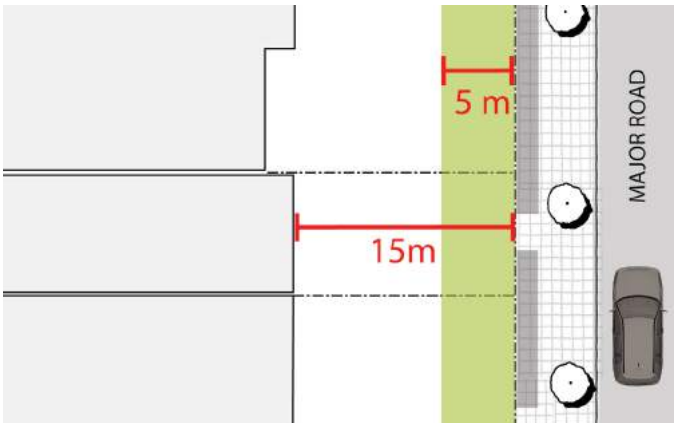


Figure D.2.3 - On major roads there should be a 15m front building setback from the property boundary with a 5m (minimum) landscaped strip.

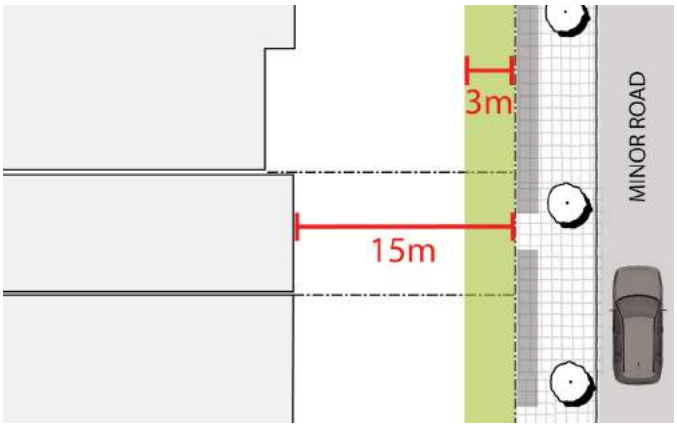


Figure D.2.4 - On minor roads there should be a 15m front building setback from the property boundary with a 3m (minimum) landscaped strip.

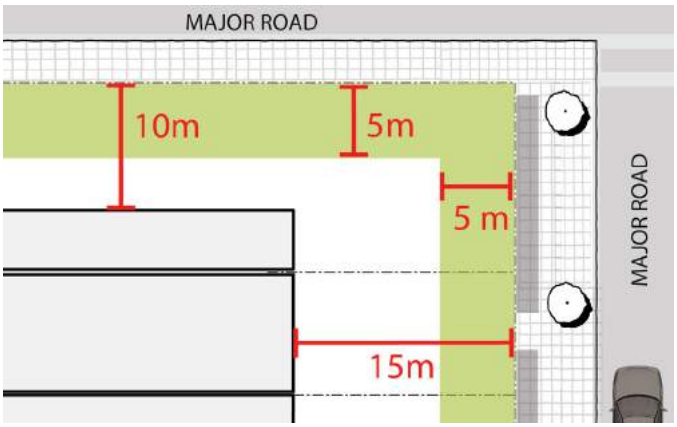


Figure D.2.5 - On corner lots where walls are facing a major road there should be a 10m (minimum) setback and a 5m wide landscaped strip.

1.4 Airport Drive and Tullamarine Freeway interfaces

Objectives

01 **To support a high-quality arrival experience at Melbourne Airport, particularly along the key arrival routes of Airport Drive and the Tullamarine Freeway.**

02 **To ensure future built form located at key arrival points considers the importance of interfaces with adjacent built form, roads and the public realm.**

Guidelines

1.4.1 Prioritise high quality boulevard landscape treatments and the consistent use of black palisade fencing along key arrival routes.

1.4.2 Car parking and associated buildings should use appropriate design features to capitalise on the high visibility of their site along the Tullamarine Freeway, Mercer Drive and Airport Drive interfaces.

1.4.3 Arrival at Melbourne Airport could be signified through the use of public/freeway art located along the Melbourne Airport exit off the Tullamarine Freeway and/or on the Airport and Mercer Drive intersection.

1.5 Airside interfaces

Objectives

01 **To ensure that Melbourne Airport airside security is maintained.**

Guidelines

1.5.1 Any buildings and works located airside are subject to compliance with the CASR Manual of Standards Part 139 – Aerodromes.

Reference Documents

01 **CASR - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations**

1.6 Outdoor amenity space

Objectives

01 **To provide well located, integrated areas of attractive outdoor space with weather protection, lighting and seating for staff and customers.**

02 **To ensure that outdoor amenity space is a pleasant, usable and functional environment.**

03 **To support the location of outdoor amenity space in areas that contribute to an activated public realm.**

Guidelines

1.6.1 Developments are to incorporate a minimum of 40m^2 of outdoor space for staff and customers. Larger areas of outdoor amenity space may be required, depending on staff numbers, timing of breaks and shift changes, and proximity to alternative amenity areas.

1.6.2 The area must be capable of containing a rectangle of 3m x 4m and have minimal level changes.

1.6.3 Outdoor amenity space should be located to take advantage of northern aspect (where practicable), be connected to pedestrian paths, be landscaped with shade trees and seating, and incorporate baffled, energy efficient external lighting.

1.6.4 Where possible, provide consolidated outdoor amenity space across multiple developments to support improved social cohesion and larger, higher quality spaces.

1.6.5 Services such as air conditioning units, rainwater tanks and hot water units must not encroach into staff amenity space areas if they are less than 40m^2.

A well located outdoor area with sheltered seating options for staff and visitors.

1.7 Landscape design

Objectives

01 **Use consistent landscaping treatments to provide clearly defined movement networks and convery a strong sense of unity throughout the precinct.**

02 **Use consistent and appropriate landscaping treatments to clearly define car park entry and exit points.**

03 **To provide high quality landscaping within the front building setback that enhances the public realm, the arrival experience and reduces the visual impact of the large expanse of car parking areas.**

04 **To support improved tree canopy coverage and boulevard treatments along major access routes.**

05 **To ensure landscaping treatments are easily maintained and grassed areas easily mown.**

06 **To support the provision of public art at key intersections, as a way of conveying a strong sense of arrival and identity.**

07 **To mitigate the high levels of impermeable surfaces using WSUD strategies as outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide.***

08 **To ensure safe airport operation by requiring that planting is compatible with *NASF Guideline C* and the *Melbourne Airport Planting Guidelines.***

Guidelines

1.7.1 Prioritise public realm improvements including a boulevard character along the Tullamarine Freeway exit and entry points, Mercer Drive and Airport Drive.

1.7.2 On major roads, a 5m landscaped strip must be provided within the setbacks from all property boundaries for the effective planting of shrubs, grasses and ground covers. On all other roads there should be a minimum 3m landscaping strip.

1.7.3 Vehicle access ways should be offset from the side boundary by a minimum of 3m for a minimum distance of 5m from the front boundary. The setback should be landscaped.

1.7.4 Provide deep soil zones in road reserves and building setbacks, compliant with the *Melbourne Airport Planting Guidelines.*

1.7.5 Side and rear landscaped strips should utilise low level planting to soften the visual impact of car parking areas.

1.7.6 A boulevard and/or ornamental planting treatment should feature along key arrival routes, using appropriate tree species as specified in the *Melbourne Airport Planting Guidelines*.

1.7.7 There should be perimeter landscaping and black palisade fencing around all car parking areas to increase visual amenity.

1.7.8 Protect landscaped areas abutting car parks through provision of appropriate barriers.

1.7.9 Locate swales, rain gardens and retarding basins in verges and setbacks, where appropriate, to provide passive storm water infiltration systems.

1.7.10 Car parking and associated buildings should be setback from existing trees by the width of the canopy of the mature tree in order to protect tree root zones.

1.7.11 Driveways and carparking areas must be paved with concrete, asphalt surfaced crushed rock or segmental paving.

1.7.12 There must be a properly constructed vehicle crossing at the front of every site for vehicle access.

1.7.13 Driveway and vehicle parking entrances and exit points areas must be clearly visible and utilise landscaping treatments for improved legibility.

1.7.14 Landscape areas should be planted with species that are low maintenance and hardy, and do not require irrigation from the potable water supply.

1.7.15 Trees should be carefully selected and sited to allow scope for intended growth and structural protection of buildings, where appropriate.

1.7.16 Landscaping should use consistent vegetation types, particularly those indigenous to the local region, as specified in the *Melbourne Airport Planting Guidelines.*

1.7.17 Species should be selected to integrate with the surrounding streetscape character and the landscape of adjoining sites where appropriate, and be compliant with the *Melbourne Airport Planting Guidelines.*

1.7.18 Retain, integrate and protect existing mature trees, where possible, in accordance with the *Melbourne Airport Planting Guidelines*.

1.7.19 The landscape plan should respond to the site soil types, drainage conditions, other climatic factors and the *Melbourne Airport Planting Guidelines.*

1.7.20 The specification, design and management of all planting must comply with the requirements of the *Melbourne Airport Planting Guidelines and NASF Guideline C.*

Reference Documents

01 **Melbourne Airport Planting Guidelines (latest version)**

02 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

03 **NASF Guideline C - Managing the Risk of Wildlife Strikes in the Vicinity of Airport**

Referral Departments

01 **Melbourne Airport Environment Department**

02 **Melbourne Airport Infrastructure and Utilities Department**

Soft and hard landscaping elements increase the amenity of this transport hub.

A car park located in the Melbourne Airport Business Park uses perimeter landscaping and black palisade fencing to increase visual amenity.

Utilising WSUD strategies within the car park verge.

As well as providing shelter, landscaping helps define the pedestrian path.

2. BUILDING FORM & DESIGN

2.1 Building height

Objectives

01 To ensure that buildings and structures do not penetrate Melbourne Airport's Prescribed Airspace.

Guidelines

2.1.1 All proposed buildings and structures must be referred to Melbourne Airport Operations Department to undertake a Prescribed Airspace assessment.
Note- Melbourne Airport Landside precincts are also subject to Essendon Airport Prescribed Airspace.

2.1.2 All buildings and associated infrastructure (including but not limited to signage, antennas, roof mounted air handling units) must not interfere with the prescribed Melbourne Airport airspace.

2.1.3 To ensure all development is compliant with *NASF Guideline F.*

Reference Documents

01 Melbourne Airport Master Plan 2013 - 12.2.1 - Prescribed Airspace Regulations

02 NASF Guideline F - Managing the Risk of Intrusions into the Protected Operational Airspace of Airports

Referral Departments

01 Melbourne Airport Operations Department

02 Airservices Australia - Airport Regulations Branch

03 Civil Aviation Authority (CASA)

2.2 Building form

Objectives

01 To ensure the scale of new development located along key arrival routes is of appropriate scale.

02 To encourage building designs that convey a progressive, contemporary airport environment.

03 To allow for the integration of functional architectural elements into the overall building design.

04 To ensure that development complies with *NASF Guideline B.*

Guidelines

2.2.1 The massing of multi-level car parking structures should be articulated through variation in materials, colours and screening to improve the appearance of the building and the visual amenity of the surrounding public realm.

2.2.2 Offices and other similar functions should be located to face the public realm.

2.2.3 All buildings are to be contemporary and progressive in design, concept and finish. Applied decorative elements to buildings not integrated with the overall design, are discouraged.

2.2.4 Any development affected by the Windshear Envelope Overlay (WEO) must comply with the requirements of *NASF Guideline B.*

Reference Documents

01 Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part C 1.1 - Windshear Envelope Overlay (WEO)

02 NASF Guideline B - Managing the Risk of Building Generated Windshear and Turbulence at Airport

Referral Departments

01 Melbourne Airport Operations

A kinetic facade designed by Urban Art Projects on the Brisbane Airport Domestic Terminal car park facade that transforms the surrounding public realm.

2.3 Public realm & street interface

Objectives

01 **To provide car parking entry and exit points that are clearly identified and logically situated.**

02 **To enable passive surveillance of car parking areas, streets and surrounding public realm through the use of transparent front fencing.**

03 **To ensure building entries are easily accessible, identifiable, functional, complement the overall architectural design and connect with the pedestrian network.**

Guidelines

2.3.1 Principal building entrances shall be designed to be accessible to people of all mobility levels, in accordance with the *Federal Disability Discrimination Act 1992.*

2.3.2 Integrate pedestrian access ramps with the overall design and landscape so that they are convenient, and use similar materials and colour palettes as the building.

2.3.3 Car parking entrances should be of a consistent design, and framed by landscaping treatments to be clearly defined and legible whilst contributing to the surrounding streetscape.

2.3.4 Car parking areas, offices and the primary building entry should be connected to the pedestrian movement network via a minimum 1.5m paved path, separated from vehicles.

2.3.5 To provide weather protection along key pedestrian routes building façades should have integrated awnings over building entries.

Reference Documents

01 **Federal Disability Discrimination Act1992**

2.4 Roof design

Objectives

01 **To encourage roof forms that compliment the preferred contemporary and progressive character of Melbourne Airport.**

02 **To ensure the roof design is integrated with the proportions and façade of the building.**

03 **To ensure that roof finishes and materials are compatible with *NASF Guideline E***

04 **To ensure that roof designs and equipment are compatible with *NASF Guideline F.***

Guidelines

2.4.1 Roof forms should be integrated with the overall building facade design and designed in accordance with *NASF Guideline F*.

2.4.2 Roofs should be simple in form and detail to reflect the non-residential character.

2.4.3 Where the underside of roofs are visible, such as covered walkways and awnings, they should be designed to be attractive and well-detailed.

2.4.4 Roof forms should be designed to delineate the office and entry areas of buildings from industrial areas.

2.4.5 All roof mounted mechanical equipment shall be designed to integrate with the whole building design or shall be screened from the street by parapet walls or screening. Screens shall be designed to compliment the architecture of the building. All screening shall be a minimum height of the roof mounted mechanical equipment.

2.4.6 Consider site orientation in the design of roof forms so that elements such as eaves can respond to solar protection requirements.

2.4.7 All metal deck roofing should be of a matt finish and non-reflective and non-distracting to pilots, in accordance with *NASF Guideline E*.

Reference Documents

01 **NASF Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports**

02 **NASF Guideline F: Managing the Risk of Intrusions into the Protected Airspace of Airports**

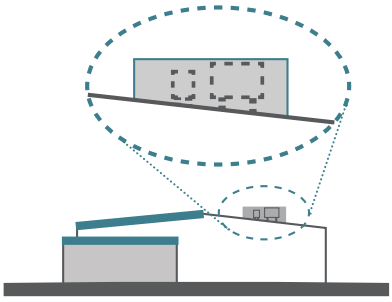


Figure D.2.6 - Roof forms for entry and office areas should be distinct from industrial parts of the building and appropriately screened.

2.5 Materials and detailing

Objectives

01 **To reduce the visual impact of car parking areas by requiring a consistent fencing type around all car parking areas and property boundaries that abut streets and roads.**

02 **To ensure buildings compliment and respect the preferred contemporary office, commercial and light industrial character.**

03 **To support the desired high quality, contemporary character of Melbourne Airport through the use of appropriate colours, materials and finishes.**

04 **To maintain a high quality character through the use of materials that are durable, robust and require low maintenance.**

05 **To encourage ESD, including the use of sustainable and recyclable construction materials as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

Guidelines

2.5.1 External finishes should be of low reflectivity to minimise glare and reflection to surrounding areas. Non-reflective cladding materials must be used and colour schemes for buildings need to be approved by Melbourne Airport. Melbourne Airport has a general policy of light, airy tones in this precinct.

2.5.2 All car parking areas and property boundaries that abut streets and public realm should be fenced with black metal palisade fencing. All poles, fittings and fixtures associated with the fence are to be black in colour.

2.5.3 To promote an engaging streetscape, visible façades of car parking related buildings should incorporate materials such as masonry, brickwork and low reflectivity Alucobond (or similar). On large façades areas of higher quality material should be concentrated around entrances, office areas and high visibility areas of buildings. Other materials may be approved subject to factors including maintenance, appearance and compliance with *NASF Guidelines E*.

2.5.4 Concrete walls must have an applied texture finish or other suitable cover or finish such as high quality textured or patterned concrete.

2.5.5 All metal finishes must be Colorbond (or equivalent).

2.5.6 All metal deck roofing should be of a low-reflective finish and non-distracting to pilots, in accordance with *NASF Guideline E*.

2.5.7 Substitution of approved materials will only be allowed if a material of the equivalent quality and specification can be provided.

2.5.8 Low maintenance should be a major consideration in the selection of materials.

2.5.9 Where possible specify sustainable materials and services as outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide.*

2.5.10 Reduce the construction carbon footprint by using locally produced materials with low embodied energy, where possible.

Reference Documents

01 **Melbourne Airport Sustainable Buildings and Infrastructure Guide**

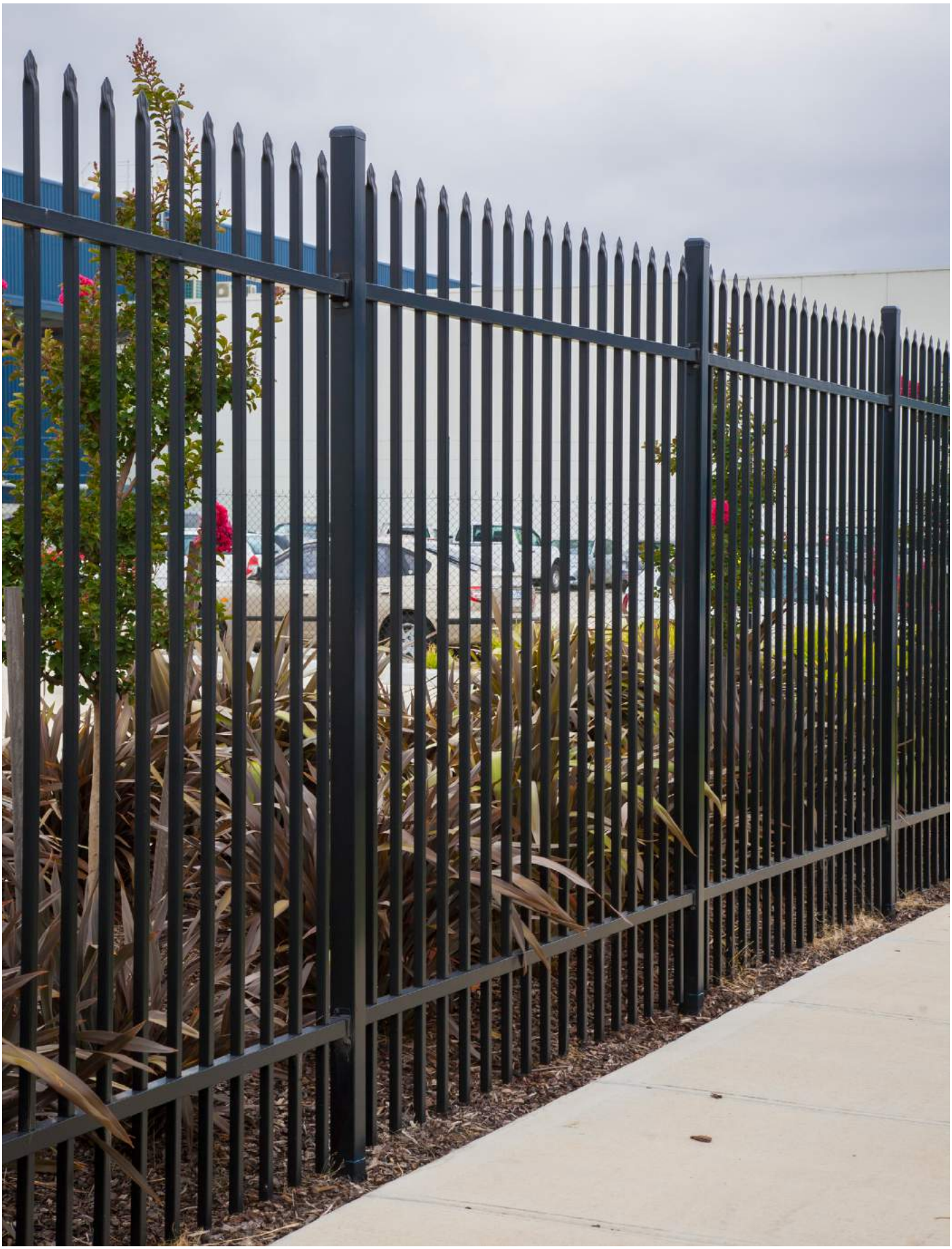
02 **Melbourne Airport Engineering Standards**

03 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

Referral Departments

01 **Melbourne Airport Engineering**

01 **Melbourne Airport Environment**



Black palisade fencing is the preferred fencing material to be used around all car parking areas.

3. INFRASTRUCTURE & SIGNAGE

3.1 Site services

Objectives

01 **To ensure that site services, including water, power, gas, communications and waste, can be easily accessed and maintained.**

02 **To ensure that site services are incorporated into the design of new developments.**

03 **To encourage best practice ESD to meet the sustainability indicators as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide* and the *Melbourne Airport Master Plan 2013*.**

04 **To ensure that site services, are compatible with Melbourne Airport standards.**

Guidelines

3.1.1 Confirm location of easements for infrastructure and utilities prior to seeking PDA.

3.1.2 Discuss future planned infrastructure requirements and capacities with Melbourne Airport Infrastructure and Utilities prior to seeking PDA.

3.1.3 Site services, such as substations and fire fighting equipment should be incorporated into the design of the overall development.

3.1.4 Kiosk Substations shall be accessible to personnel and vehicles for operation and maintenance activities at all times. Where the Substation is within a secure area, access arrangements shall be agreed with the Melbourne Airport Electrical Assets Manager prior to approval to construct being granted.

3.1.5 Kiosk Substations are to be designed in accordance with the MAS-ELC-002 *Melbourne Airport High Voltage Design and Construction* standard.

3.1.6 No fencing or other structures shall be constructed within 3 meters of Kiosk Substations.

3.1.7 Where fencing is constructed within a zone of 3 meters to 7 meters of a Kiosk Substation it shall be constructed from non-conductive material. Fencing should be black in colour and battens are to be fixed vertically to align with the spacing of the palisade fencing. Timber fencing material is not to be used. Materials such as ModWood may be appropriate.

3.1.8 Where Kiosk Substations are located proud of the fence-line, appropriate landscape screening should be provided.

3.1.9 Solar boosted hot water systems are to be provided where practicabl

3.1.10 Incorporate rainwater tanks on each building of at least 5,000 litres to collect runoff from roof areas. Large buildings may require increased tank capacities. The water should be used for landscape irrigation, cleaning and toilet flushing.

3.1.11 Waste storage areas shall be provided with the minimum dimensions of 3.0 x 5.0 metres for the storage of an industrial waste container and located so as to be readily and safely accessible for regular servicing and removal. Waste storage containers to be covered and screened from the street.

3.1.12 Tenants must not install antennas or towers on sites or buildings for lease to third party operators.

Reference Documents

01 **Melbourne Airport Master Plan (latest version)**

02 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

Referral Departments/Documents

01 **Melbourne Airport Engineering Standards Department**

02 **Melbourne Airport Infrastructure and Utilities Department**

03 **Melbourne Airport Electrical Assets Manager**

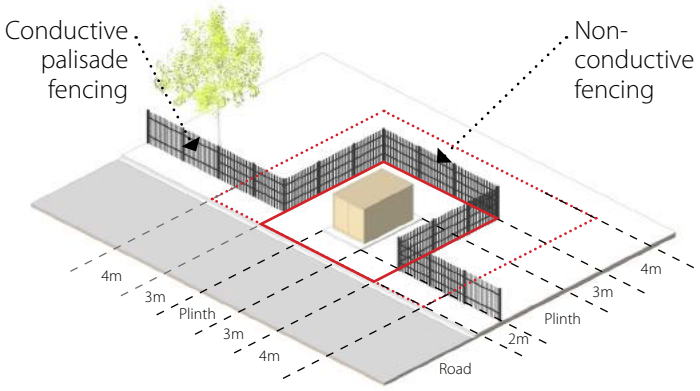


Figure D.2.7 - An acceptable approach to screening a Kiosk Substation

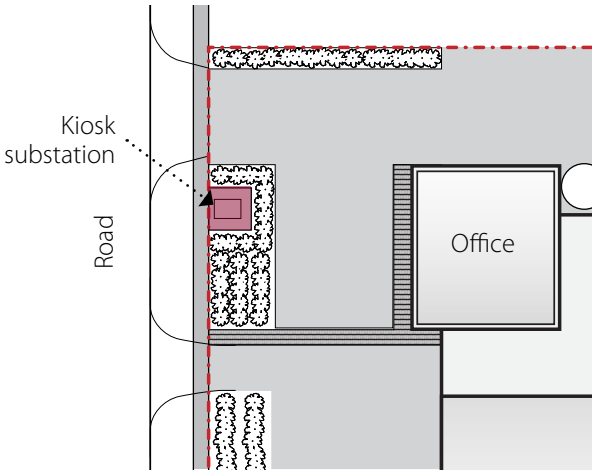


Figure D.2.8 - Locate kiosk substations within site setbacks where possible

3.2 Signage

Objectives

01 **To ensure that signage and advertising is designed and located to be compatible with the character of the precinct.**

02 **To provide for the identification of businesses in a way that maintains the character and amenity of the street and is designed to be compatible with visually sensitive areas.**

03 **To ensure that signage is informative and co-ordinated in a way that enables customers to easily locate the industry or business and determine its services.**

04 **To ensure that business signage does not interfere with airport-related and VicRoads wayfinding.**

05 **To ensure signage complies with *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E*.**

Guidelines

3.2.1 Advertising and corporate signage should not obstruct or detract from passenger, visitor movements, regulatory and safety related signage, or impede lines of sight associated with wayfinding.

3.2.2 Advertising and corporate signage should be integrated into the design of buildings by forming a logical element of the front facade and be in keeping with the scale of the facade.

3.2.3 Directional signage should be provided within sites to delineate entries and exits, staff and visitor parking, office /reception areas, and loading areas. Directional signage within the site should be consistent in style and form.

3.2.4 Signage should be limited in numbers to avoid visual clutter and unnecessary repetition.

3.2.5 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 that it is co-ordinated with the shared sign in terms of style and materials.

3.2.6 Free-standing advertising and corporate 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 free-standing 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 streetscape character and key views to the area.

3.2.7 Signage attached to front fences and temporary A-Frame signage on footpaths should be avoided.

3.2.8 Signs must not be animated (eg. move, rotate, flash).

3.2.9 Advertising and corporate signage should be dissimilar to Melbourne Airport signage, in particular, use of black background colour should be minimised.

3.2.10 All signage associated with airport-related movements and wayfinding should be designed to in accordance with the *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E*.

3.2.11 Business identification signs which are erected closer to a road than a distance half the height of the sign are discouraged.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines, (latest version)**

02 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

03 **Hume Planning Scheme - Clause 22.09 and Clause 52.05 - Advertising Signs, and Local Policy**

Signage that is informative, identifies the business name and address and is dissimilar to airport-related signage, as required by the *Melbourne Airport Wayfinding and Signage Guidelines*.

3.3 Miscellaneous advertising and promotional features

Objectives

01 **To ensure that advertising and promotional materials support the desired contemporary and progressive character of the precinct.**

02 **To ensure that advertising and promotional materials are compliant with the *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E.***

Guidelines

3.3.1 Moving and inflatable structures or advertising features are generally discouraged. Such features will only be allowed where it can be demonstrated, to the satisfaction of Melbourne Airport PD that they will not detract from the character or the safe and efficient operation of the airport.

3.3.2 Displays and events, such as outdoor vehicle displays or product demonstrations, must be approved by Melbourne Airport Planning.

3.3.3 There should be a maximum of one flag pole per site. Planning may not approve flag poles where they do not contribute positively to the Airport environment. Flag poles will be subject to a Prescribed Airspace Assessment.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

02 **NASF Guideline E - "Managing the risk of distractions to pilots from lighting in the vicinity of airports"**

03 **CASA - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations**

3.4 External Lighting

Objectives

01 **To support a safe and secure public realm, particularly along pedestrian and cycling routes, through the provision of efficient and functional street lighting.**

02 **To compliment building design and form with appropriate external, integrated lighting.**

03 **To support Melbourne Airport's commitment to reduce energy consumption and operational greenhouse gas emissions by providing high-efficiency external lighting solutions.**

04 **To ensure that external lighting solutions are designed to minimise distractions to pilots, in accordance with *NASF Guideline E.***

Guidelines

3.4.1 Use appropriate street lighting types to support a safe and secure pedestrian network and reinforce the movement network hierarchy.

3.4.2 High efficiency external lighting such as LED solutions should be used in streets, building surrounds, public space and car parks.

3.4.3 Steps must be taken to prevent lighting from casting glare onto adjacent sites, streets and into adjacent building windows.

3.4.4 In order to maintain the integrity of Melbourne Airport's Airport Lighting System, and to reduce light emissions to aircraft, lighting should not spill above the horizontal plane. In instances where lighting could move as a result of wind events or misalignment during maintenance, ensure it will not spill above the horizontal plane.

3.4.5 Any proposal incorporating coloured lighting, even where lighting is low-intensity, must be referred to Melbourne Airport Operations Department for approval. In some circumstances Melbourne Airport may seek advice from CASA.

Reference Documents

01 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

02 **CASR - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations**

02 **CASA**

3.5 Acoustic protection

Objectives

01 To ensure that noise impacts on building occupants are minimised.

Guidelines

3.5.1 Buildings must conform to Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

3.5.2 Buildings located near busy roads and other sources of noise should be designed to minimise noise impacts to office areas and other habitable spaces.

3.5.3 Consider the acoustic impacts from future planned road and rail infrastructure when designing buildings.

3.5.4 Solutions to minimising noise impacts may include double glazing, operable screening, and landscape planting and mounding.

3.5.5 All development must be compliant with *NASF Guideline A*.

Referral Departments/Documents

01 Melbourne Airport Master Plan (latest version)

02 Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

03 NASF Guideline A: Measures for Managing Impacts of Aircraft Noise

3.6 Plume Rise Assessment

Objectives

01 To manage the potential impacts of vertical exhaust plumes on airport operations at Melbourne Airport.

Guidelines

3.6.1 Building design and operation must conform to *CASR Advisory Circular AC139-5(1) Plume Rise Assessments* (latest version).

3.6.2 Vertical exhaust plumes (smoke, steam etc.) from stacks, vents and cooling towers in excess of 4.3 meters per second velocity, must be assessed by PD.

3.6.3 PD may refer the proposal to external departments for assessment and may impose conditions.

Reference Documents

01 CASA Advisory Circular AC139-5(1) Plume Rise Assessments (latest version)

4. PARKING & ACCESS

4.1 Pedestrian and cycle access to car parking areas

Objectives

01 **To provide pedestrian access to car parking areas, car rental depots, bus layover areas and associated offices, that is safe, convenient and can comfortably accommodate luggage trolleys, bikes, wheelchairs, prams, families and large groups.**

02 **To ensure road markings and paving treatments clearly indicate safe routes within car parking areas to entry and exit points.**

03 **To provide safe paths for pedestrians and cyclists from car parking areas to other precincts.**

04 **To minimise conflict between vehicles and people by providing appropriately located pedestrian crossings.**

05 **To minimise conflict between vehicles, bikes and people through the provision of off-road cycling paths, where possible.**

06 **To ensure cyclists have safe access to bicycle parking and appropriate end of trip facilities.**

07 **To ensure future roads have provision for shared footpaths within the road reserve, where appropriate.**

Guidelines

4.1.1 Pedestrian routes must be accessible to people of all mobility levels with minimal variation in grade and adequate space for luggage trolleys, wheelchairs, prams, families and large groups.

4.1.2 The pedestrian network must be legible and accessible to people of all mobility levels by using a consistent paving treatment, kerb access ramps, tactile paving and appropriate wayfinding and signage strategies.

4.1.3 The pedestrian network should provide passengers and visitors with links between public areas, parking areas, transport hubs and building entries.

4.1.4 Internal pedestrian paths in car parking areas should connect to the wider pedestrian network.

4.1.5 Pedestrian routes in public areas such as car parking, pay points, trolley bays, hire car depots and offices should be lit with low-glare or baffled, energy efficient lighting.

4.1.6 Provide off road cycle paths throughout the precinct, in accordance with *Part B - Vision and Strategies - 1.5 Pedestrian and cycle network* of this document.

4.1.7 Design driveway access to minimise conflict between vehicles, pedestrians and cyclists by maintaining clear view lines between the exiting/entering vehicles and pedestrians.

4.1.8 The location of bicycle parking should be easily accessible from the street and be located at ground level.

4.1.9 Bicycle spaces for employees must be provided either in a bicycle locker or at a bicycle rail in a lockable compound.

4.1.10 Bicycle facilities should be adequately lit during periods of use.

4.1.11 Vehicle access and circulation areas in car parks should be designed to ensure clear sightlines for pedestrians.

4.1.12 Bicycle parking should be secure and / or located in an area subject to passive or active surveillance. Bicycle parking is to be compliant with *Clause 52.34 of the Hume Planning Scheme.*

4.1.13 Showers, lockers and change rooms should be provided in accordance with *Clause 52.34 of the Hume Planning Scheme.*

4.1.14 Bicycle parking is to be provided on-site in accordance with the following table:

Bicycle parking requirements

Use	Ratio
Office Areas	1:300m^2 if net floor area exceeds 1000m^2
Research & development	2.9 :100m^2
Bulky Goods/Retail	1:1000m^2
Industrial / Warehouse	1:1000m^2

Reference Documents

01 Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part B - 1.5 Pedestrian and cycle network

Clearly defined pedestrian pathways within a car park to support improved pedestrian safety.

This car park entrance has a separated pedestrian path and connects to clearly defined pedestrian pathways.

4.2 Vehicular access and carparking

Objectives

01 **To provide vehicular access to car parking areas, car rental depots, bus layover's and associated offices, that is safe, convenient and legible.**

02 **To ensure the location, design and layout of car parking and car park access is integrated with the overall site planning and building design, and meets the maximum safety standards for pedestrians and vehicles.**

03 **To manage potential conflict between vehicles, building occupants, pedestrians and cyclists by ensuring there is clear sight lines when entering and exiting car parks areas.**

04 **To provide safe and logical circulation within car parks.**

05 **To minimise vehicle cross-overs.**

06 **To minimise the visual impact of car parking from the street so that it does not adversely affect the surrounding streetscape character.**

Guidelines

4.2.1 There must be separate pedestrian entrance and exit points to car parking areas. Car park entrance and exit points, as well as internal circulation must be wide enough to comfortably accommodate luggage trolleys, bikes, wheelchairs, prams, families and large groups.

4.2.2 Vehicle access ways located within the front setback and areas shared by vehicles and pedestrians should be a dressed surface treatment other than standard grey concrete.

4.2.3 Access to disabled car parking bays should be provided close to the main entrance of car parking areas and be connected with a DDA compliant path to pay stations, luggage bays and bus pick/up drop off zones, in accordance with the *AS 1428.1-2009*.

4.2.4 Security lighting should be provided to vehicle parking areas and entries. Light spillage to buildings and adjacent sites should not impact on amenity. Light is not to spill above the horizontal plane and be compliant with *NASF Guideline E*.

4.2.5 Design driveway access to minimise conflict between vehicles, pedestrians and cyclists by maintaining clear view lines between the exiting/entering vehicles.

4.2.6 Minimise vehicle crossovers by consolidating access with adjacent sites, where possible.

4.2.7 Clear sight lines should be provided at the vehicle exit point with shrub planting restricted within the immediate vicinity to a maximum of 500mm in height.

4.2.8 Car parking rates in this precinct are to be determined in consultation with PD.

Reference Documents

07 **Australian Standard 1428.1-2009 - Design for access and mobility - General requirements for access - New building work (AS 1428.1-2009)**

01 **Hume Planning Scheme - 52.06 - Car Parking**

02

03 **NASF Guideline E - Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports**

Located in the Melbourne Airport Business Park, this car park entrance demonstrates how a pedestrian path can be separated from the vehicle access.

4.3 Loading and Servicing

Objectives

01 **To provide safe and efficient loading and servicing of commercial and operational premises.**

02 **To minimise the visual impact of loading bays and service areas when viewed from the surrounding streets and other existing and planned viewing opportunities.**

Guidelines

4.3.1 Loading areas should be located to the rear or side of the property away from the primary street frontage.

4.3.2 Where practicable, integrate loading areas into the design of the building so that loading occurs internally. Where external loading areas are visible from adjoining land uses, they should be screened with landscaping or architectural screening.

4.3.3 Loading and servicing should occur with the vehicle completely contained within the site. No part of the vehicle should extend into the public road reserve.

4.3.4 Loading and servicing areas should be designed to service a range of vehicle types in order to provide for flexibility pursuant to *Clause 52.07 of the Hume Planning Scheme.*

4.3.5 Access to loading areas should be clearly separated from pedestrian and bicycle access routes, and where practical, separated from vehicle access routes.

4.3.6 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 Hume Planning Scheme* for size and dimensions.

4.3.7 Loading areas should be clearly defined with line marking, designed to allow unobstructed vehicle access and provide appropriate turning areas in accordance with *AS 2890.2.*

4.3.8 Areas need to be set aside for truck queuing on site. Melbourne Airport will not allow truck queuing to occur on its roadways adjoining the site. Tenants will need to demonstrate truck space demand requirements at the busiest time of day.

4.3.9 Only two vehicle crossings points are permitted per site to each road abuttal. These are as follows: One combined entry/exit for visitor & staff vehicles. One combined entry/exit for trucks and heavy vehicles.

4.3.10 Adequate provision for loading and unloading of vehicles must be made, together with an area set aside for industrial waste collection.

4.3.11 Loading areas shall not be used for any other purpose.

4.3.12 No materials, supplies or equipment, including trucks and other motor vehicles, shall be stored upon a site except inside a building. No outdoor storage areas shall be provided.

Reference Documents

01 **Hume Planning Scheme - Clause 52.07 - Loading and Unloading of Vehicles**

02 **Australian Standard 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities (AS 2890.2)**

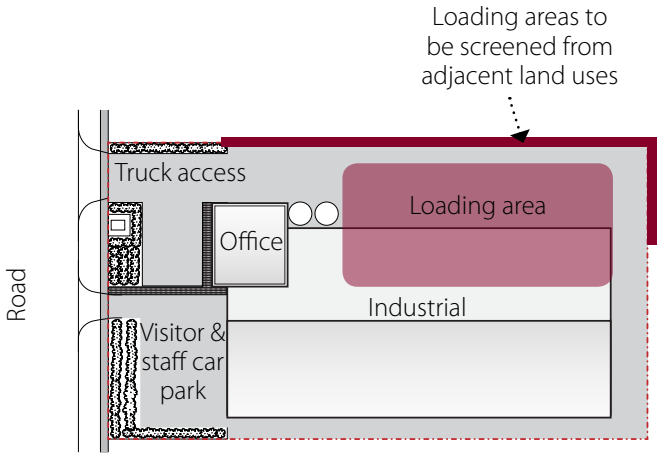


Figure D.2.9 - Loading areas should be located away from road frontages and separated from pedestrians, bicycles and other vehicles.

MELBOURNE AIRPORT LANDSIDE

URBAN DESIGN GUIDELINES

PRECINCT 3

GATEWAY

Figure D.3.1 - Melbourne Airport Urban Design Precincts (not to scale)

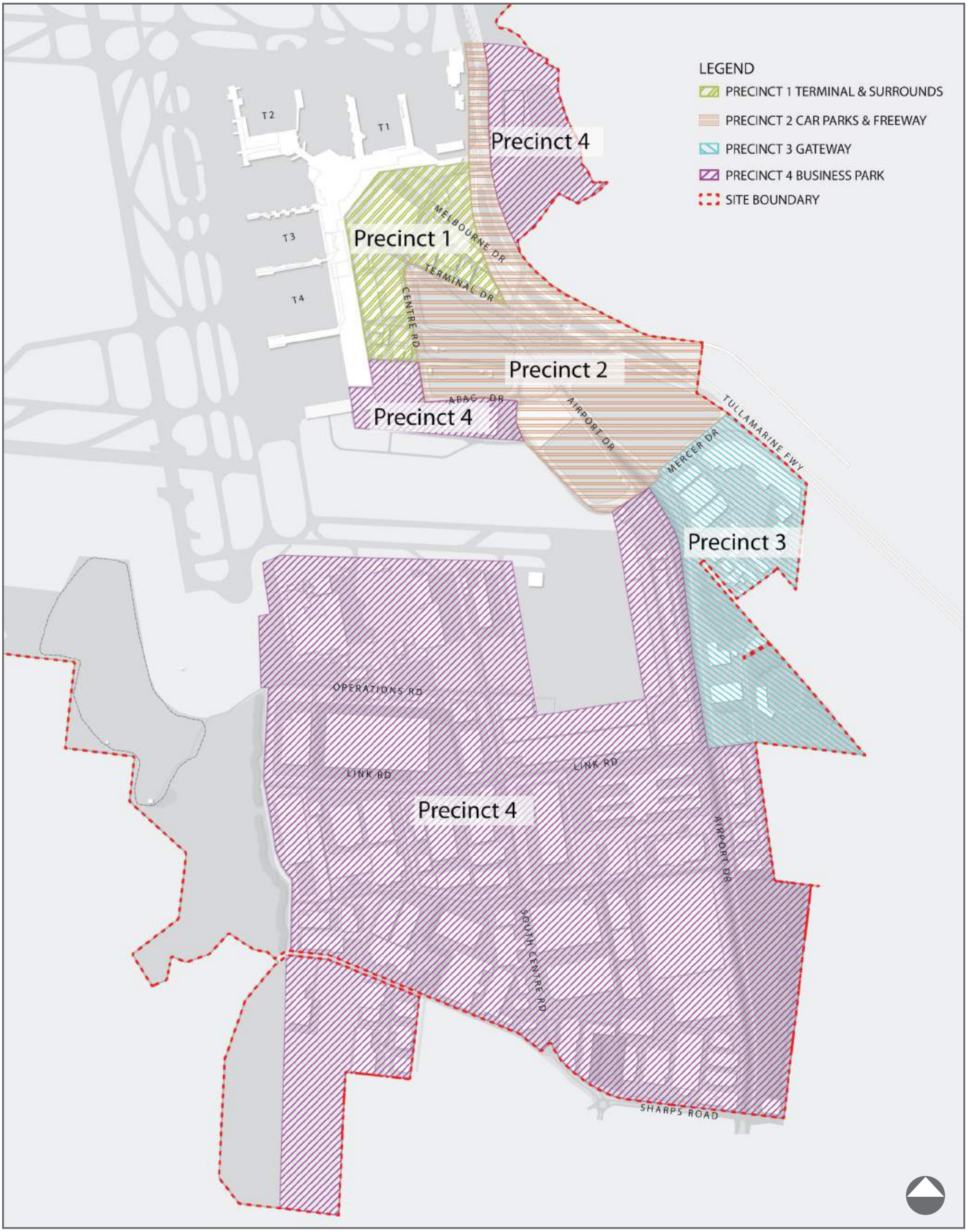
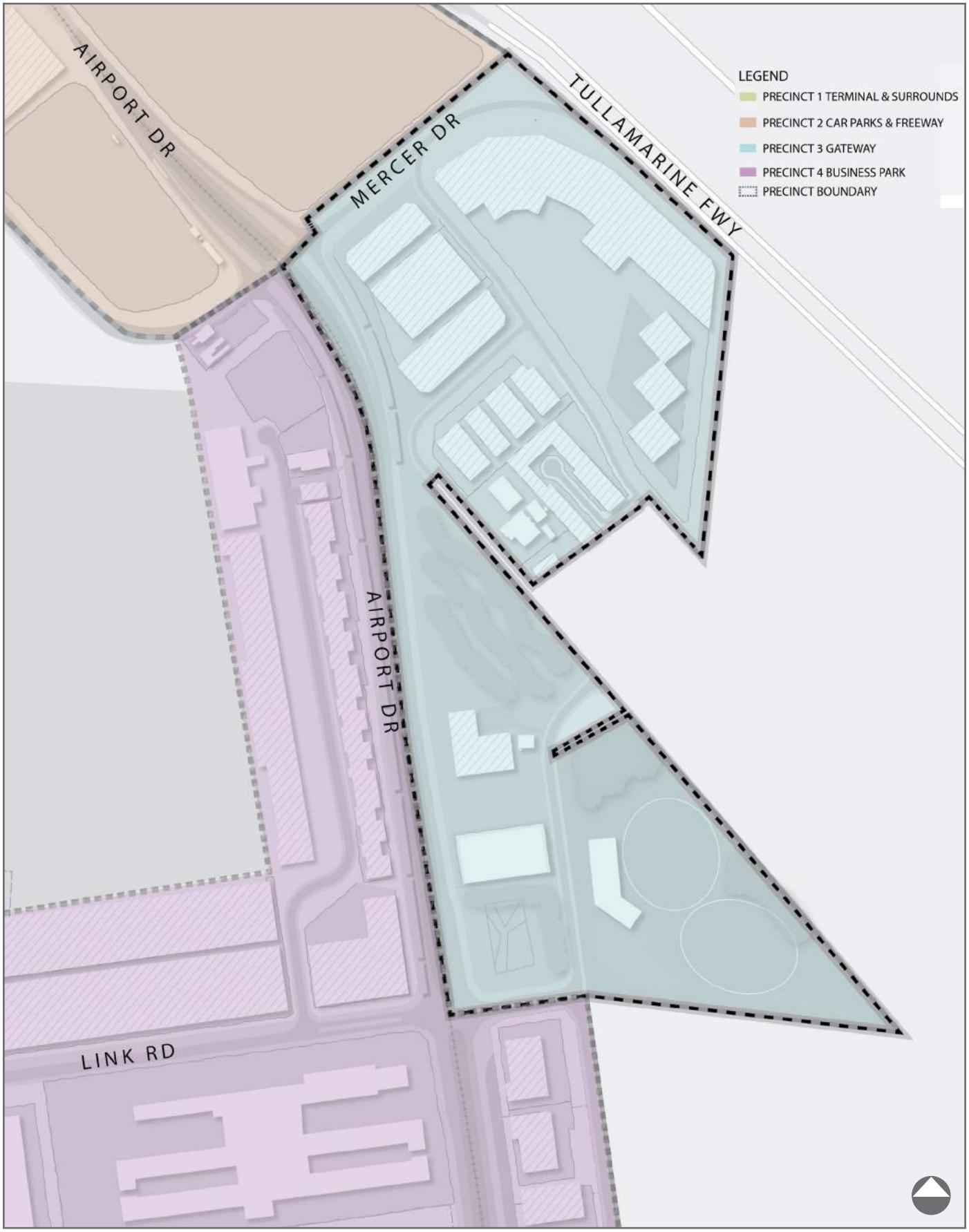


Figure D.3.2 - Melbourne Airport Urban Design Precinct 3 Gateway (not to scale)



1. PRECINCT & SITE RESPONSE

1.1 Precinct profile

Precinct 3 is the Gateway precinct, bounded by the Tullamarine Freeway along the north eastern edge and Airport Drive along the western edge. The precinct is characterised by commercial development and recreational facilities. Importantly, the Gateway precinct shares interfaces with residential and industrial areas, as well as key arrival routes.

The key arrival routes are Mercer Drive and Airport Drive. High quality built form and consistent landscaping treatments along these routes will provide visual clues to visitors of their arrival at Melbourne Airport.

These guidelines will help establish prominent principal airport gateways and define the transition from business park to airport approach.

1.2 Site response

Objectives

01 **To ensure development responds to the site conditions and is compatible with the objectives outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

02 **To ensure new buildings have regard to the future development potential of adjoining sites and their ability to gain reasonable access to light, views, and prevailing winds, where appropriate.**

03 **To create a strong sense of identity and unity through use of a consistent design language.**

04 **To utilise ESD initiatives in all developments to minimise environmental impacts, improve commercial viability and improve customer experience at Melbourne Airport.**

Guidelines

1.2.1 Development should respond to existing conditions including adjoining uses, topography, vegetation and views.

1.2.2 Buildings should be sited and oriented to maximise opportunities for solar access to both indoor and outdoor amenity areas.

1.2.3 Siting of development should allow for adequate light and sun penetration to existing and future developments on adjoining properties.

1.2.4 Where possible, orient large building openings to the east to avoid strong winds and hot sun.

1.2.5 Development should avoid construction over areas required for existing and future infrastructure.

1.2.6 Development should use a consistent palette of landscaping treatments and wayfinding strategies throughout the public realm and built form.

Reference Documents

01 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

02 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

Referral Departments

01 **Melbourne Airport Infrastructure and Utilities Department**

1.3 Front setbacks

Objectives

01 **To convey a strong sense of arrival and identity and create a gateway entrance to the airport along Airport Drive, Mercer Drive and Tullamarine Freeway.**

02 **To support the preferred Melbourne Airport identity through the use of consistent design devices such as high quality landscaping along wide roads and generous landscaped setbacks.**

03 **To provide additional recreational space for staff and visitors and contribute to the general streetscape character of wide roads with generous landscaped setbacks, where appropriate.**

Guidelines

1.3.1 On major roads, the front building setback is to be a minimum of 15m from the property boundary. Within this setback there must be a 5m wide (minimum) landscaping strip from the property boundary. *(Figure D.3.3)*

1.3.2 On minor roads a lesser front building setback may be considered. Within the setback there must be a 3m wide (minimum) landscaping strip, from the property boundary. *(Figure D.3.4)*

1.3.3 On corner lots, walls facing the side street should be setback a minimum of 10m. Corner sites should provide landscaped setbacks to both street frontages. (*Figure D.3.5)*

1.3.4 Future development should provide visual interest and promote passive surveillance of the public realm by locating retail uses and office entrances on the street frontage.

1.3.5 Future development should be generally consistent with the street wall but allow for the provision of tree canopy cover, bike racks, seating, raised garden beds, lighting or other landscaping elements that contribute to the streetscape, where appropriate.

1.3.6 Front setback areas should be free of structures such as rainwater tanks and outbuildings, however may accommodate kiosk substations and similar services, and compliant signage, where appropriate.

1.3.7 Car parking must not be located within the landscape setback.

1.3.8 Locate retail uses and office entrances at the street frontage to provide visual interest and promote passive surveillance of the public realm.

1.3.9 Front and corner setbacks must incorporate black metal palisade fencing. All poles, fittings and fixtures associated with the fence are to be black.

1.3.10 All planting is to be in accordance with the latest version of the *Melbourne Airport Planting Guidelines*.

Reference Documents

01 **Melbourne Airport Planting Guidelines (latest version)**

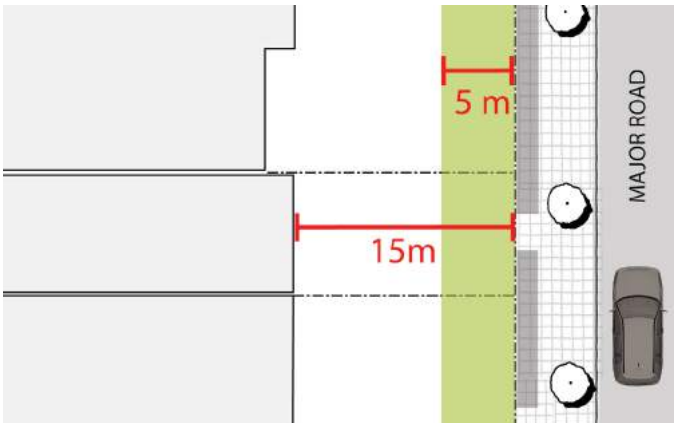


Figure D.3.3 - On major roads there should be a 15m front building setback from the property boundary with a 5m (minimum) landscaped strip.

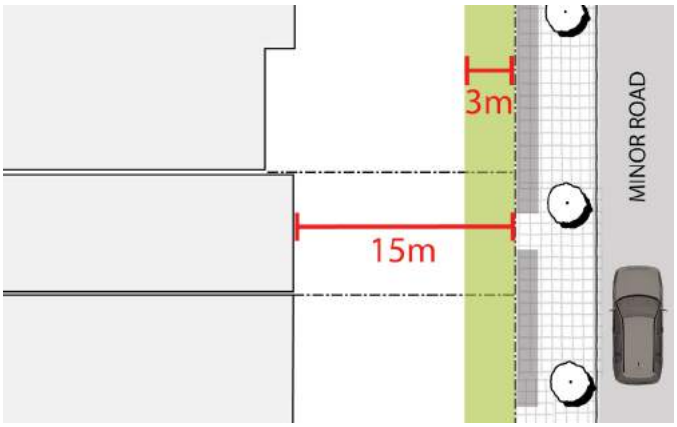


Figure D.3.4 - On minor roads there should be a 15m front building setback from the property boundary with a 3m (minimum) landscaped strip.

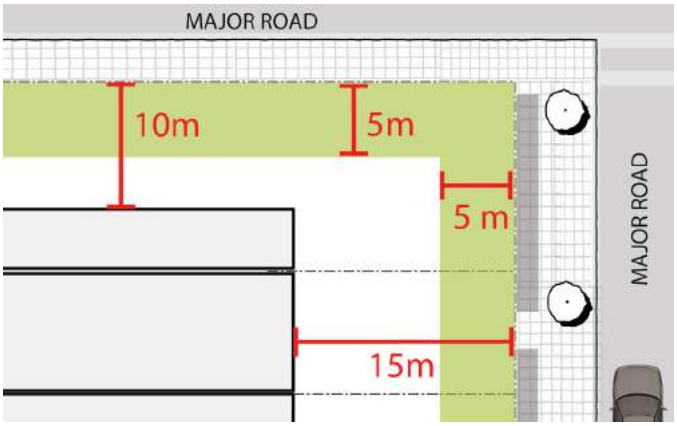


Figure D.3.5 - On corner lots where walls are facing a major road there should be a 10m (minimum) setback.

1.4 Side and rear setbacks

Objectives

01 **To support the preferred general character of buildings separated by areas of planting along side and rear property boundaries, where appropriate.**

02 **To ensure side and rear setbacks respond to adjacent properties and built form.**

03 **To ensure the visual impact of car parking areas is minimised.**

04 **To provide opportunities for daylight access and natural ventilation to buildings, where appropriate.**

05 **To ensure emergency vehicles can access the site in a safe and efficient manner.**

Guidelines

1.4.1 On major roads and publicly accessible areas there should be a 5m wide landscaped strip (from the property boundary) along the side boundary. *(Figure D.3.6)*

1.4.2 Where fire appliance accessways are required along side and rear setbacks, a 5m wide landscaping strip is to be provided between the accessway and the site boundary. The accessway should not encroach into the landscape strip.

1.4.3 Car parking should not be located within the landscape setback.

1.4.4 Where a neighbouring development includes a sensitive use such as a hotel, industrial activity should be setback a minimum of 30 metres. Where such a setback is not achievable, the interface must be meditated using appropriate wall treatments and/or landscaping, to the satisfaction of PD.

1.4.5 Fences of side and rear setbacks, that do not directly front a street, may be constructed from black coloured PVC-coated wire mesh to a height of 3m. All poles, fittings and fixtures associated with the fence are to be black in colour.

1.4.6 All planting is to be in accordance with the latest version of the *Melbourne Airport Planting Guidelines*.

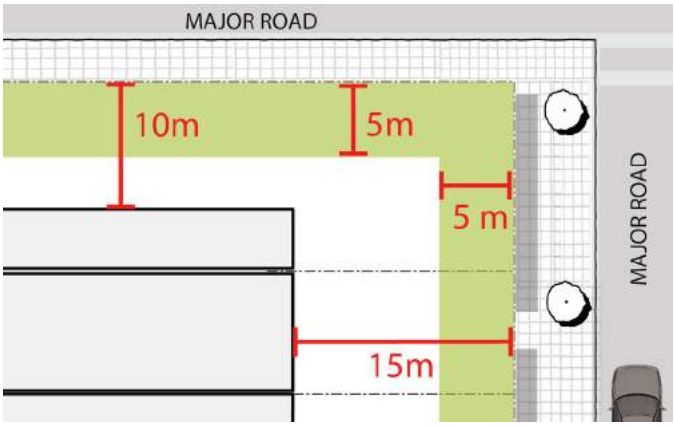


Figure D.3.6 - On major roads there should be a 5m landscape strip along the side setback.

Reference Documents

01 **Melbourne Airport Planting Guidelines (latest version)**

1.5 Airport Drive, Mercer Drive & Tullamarine Freeway interfaces

Objectives

01 **To convey a strong sense of arrival at Melbourne Airport.**

02 **To support a high-quality customer experience along the key arrival routes of Airport Drive and Mercer Drive.**

03 **To ensure future built form located at key arrival points considers the importance of interfaces with adjacent built form, roads and the public realm.**

Guidelines

1.5.1 Built form along the along the key arrival routes of Airport Drive, Mercer Drive and the Tullamarine Freeway should generally contribute to a continuous edge.

1.5.2 Development situated along the key arrival routes of Airport Drive, Mercer Drive and the Tullamarine Freeway should be of an appropriate scale to act as a defining gateway marker to arriving and departing passengers, visitors and staff.

1.5.3 Buildings located along highly visible arrival routes should capitalise on their prominent location through the use of high quality transparent facade materials such as glazing.

1.5.4 When a building is situated on Mercer Drive or Airport Drive and does not have street frontage the interface shall be designed to provide a visually interesting gateway experience. Possible interface treatments could include landscaping or the design of a sound wall integrated into the building.

1.5.5 Side and rear setbacks abutting Airport Drive should incorporate 5m of landscaping to screen site operations from view along Airport Drive (unless acceptable alternative solutions can be developed to the satisfaction of PD).

1.5.6 Fencing abutting Airport Drive should be black coloured metal palisade fencing unless an integrated wall, as described above, is provided.

1.5.7 Multi level buildings situated along Airport Drive should consider in their design an interface with the proposed future alignment of the airport rail, should it be elevated.

High quality site specific architecture responding the adjoining freeway.

High quality architectural design that responds to the adjoining public realm with its transparent facade.

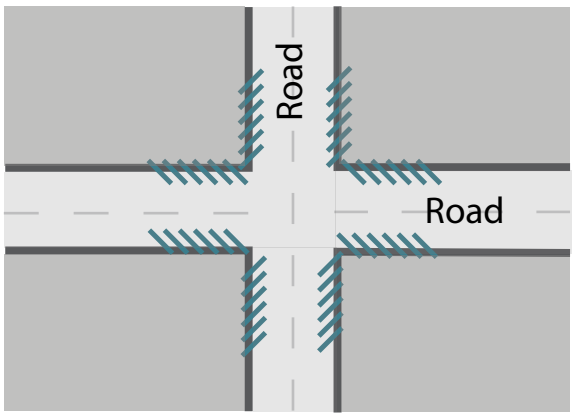


Figure D.3.7 - Development situated on key arrival intersections should become important street holding buildings.

1.6 Outdoor amenity space

Objectives

01 **To provide well located, integrated areas of attractive outdoor space with weather protection, lighting and seating for staff and customers.**

02 **To ensure outdoor amenity space is a pleasant and functional environment.**

03 **To support the location of outdoor amenity space in areas that contribute to an activated public realm.**

Guidelines

1.6.1 Developments are to incorporate a minimum of 40m^2 of outdoor space for staff and customers. Larger areas of outdoor amenity space may be required, depending on staff numbers, timing of breaks and shift changes, and proximity to alternative amenity areas.

1.6.2 The area must be capable of containing a rectangle of 3m x 4m and have minimal level changes.

1.6.3 Outdoor amenity space should be located to take advantage of northern aspect (where practicable), be connected by pedestrian paths, be landscaped with shade trees and seating, and incorporate baffled, energy efficient external lighting.

1.6.4 Where possible, provide consolidated outdoor amenity space across multiple developments to support improved social cohesion and larger, higher quality spaces.

1.6.5 Services such as air conditioning units, rainwater tanks and hot water units must not encroach into staff amenity space areas if they are less than 40m^2.

A well located outdoor area with sheltered seating options for staff and visitors.

1.7 Landscape design

Objectives

01 **Use consistent landscaping treatments to provide clearly defined movement networks and convey a strong sense of unity throughout the precinct.**

02 **Use consistent and appropriate landscaping treatments to define car park entry and exit points.**

03 **To provide high quality landscaping within the front building setback that enhances the public realm and the arrival experience.**

04 **To support improved tree canopy coverage and boulevard treatments along major access routes.**

05 **To ensure the protection and enhancement of the existing landscape buffer along Melrose Drive.**

06 **To ensure landscaping treatments are easily maintained.**

07 **To support the provision of public art at key intersections, as a way of conveying a strong sense of arrival and identity.**

08 **To promote landscaping treatments, including WSUD that is consistent with the aims of the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

09 **To ensure safe airport operation by requiring that planting that is compatible with *NASF Guideline C* and the *Melbourne Airport Planting Guidelines.***

Guidelines

1.7.1 Prioritise public realm improvements including a boulevard character along the Tullamarine Freeway exit and entry points, Mercer Drive and Airport Drive.

1.7.2 On major roads, a 5m wide landscaped strip must be provided within the building setbacks from all property boundaries for the effective planting of shrubs, grasses and ground covers. On all other roads there should be a minimum 3m wide landscaping strip.

1.7.3 Front setbacks should be planted with a minimum of one canopy tree per standard lot frontage combined with lower scale planting, in accordance with the *Melbourne Airport Planting Guidelines*.

1.7.4 Buildings should be setback from existing trees by the width of the canopy of the mature tree in order to protect tree root zones.

1.7.5 Provide deep soil zones in road reserves and building setbacks, compliant with the *Melbourne Airport Planting Guidelines.*

1.7.6 There should be perimeter landscaping and black palisade fencing around all car parking areas to increase visual amenity.

1.7.7 Landscaping areas abutting car parks shall be protected from vehicle traffic by appropriate barriers.

1.7.8 Locate swales, rain gardens and retarding basins in verges and setbacks, where appropriate, to provide passive storm water infiltration systems.

1.7.9 Vehicle access ways should be offset from the side boundary by a minimum of 3m for a minimum distance of 5m from the front boundary. The setback should be landscaped.

1.7.10 Driveways and car parking areas must be paved with concrete asphalt surfaced crushed rock or segmental paving.

1.7.11 There must be a properly constructed vehicle crossing at the front of every site for vehicle access.

1.7.12 Driveway and car parking entrances and exit points areas must be clearly visible and utilise landscaping treatments for improved legibility.

1.7.13 Landscaping should use consistent vegetation types, particularly those indigenous to the local region, as specified in the *Melbourne Airport Planting Guidelines*.

1.7.14 Trees should be carefully selected and sited to allow scope for intended growth and structural protection of buildings

1.7.15 Species should be selected to integrate with the surrounding streetscape character and the landscape of adjoining sites where appropriate, and be compliant with the *Melbourne Airport Planting Guidelines*.

1.7.16 Retain, integrate and protect existing mature trees, where possible, in accordance with the *Melbourne Airport Planting Guidelines*.

1.7.17 The landscape plan should respond to the site soil types, drainage conditions, other climatic factors and the *Melbourne Airport Planting Guidelines*.

1.7.18 The specification, design and management of all planting must comply with the requirements of the *Melbourne Airport Planting Guidelines*.

Reference Documents

01 Melbourne Airport Planting Guidelines (latest version)

02 NASF Guideline C - Managing the Risk of Wildlife Strikes in the Vicinity of Airport

Referral Departments

01 Melbourne Airport Environment

02 Melbourne Airport Infrastructure and Utilities

High quality soft and hard landscaping elements improve the public realm.

Integrating a rain garden into the footpath design.

In the Melbourne Airport Business Park, landscaping screens the car parking area and increases pedestrian amenity.

2. BUILDING FORM & DESIGN

2.1 Building height

Objectives

01 **To ensure built form located on key arrival sites is of appropriate height and scale to become landmark buildings.**

02 **To ensure industrial and office areas adjoining open space, residential and public realm have minimal impacts on the amenity of the areas.**

03 **To ensure that buildings and structures do not penetrate Melbourne Airport's Prescribed Airspace.**

Guidelines

2.1.1 All proposed buildings and structures must be referred to Melbourne Airport Operations Department to undertake a Prescribed Airspace assessment.
Note- Melbourne Airport Landside precincts are also subject to Essendon Airport Prescribed Airspace.

2.1.2 All buildings and associated infrastructure (including but not limited to signage, antennas, roof mounted air handling units) must not interfere with the prescribed Melbourne Airport airspace.

2.1.3 All roof mounted mechanical equipment shall be designed to integrate with the whole building design or shall be screened from the street by parapet walls or screening. Screens shall be designed to compliment the architecture of the building. All screening shall be a minimum height of the roof mounted mechanical equipment.

Reference Documents

01 **Melbourne Airport Master Plan 2013- 12.3.1- Prescribed Airspace Regulations**

02 **NASF Guideline F - Managing the Risk of Intrusions into the Protected Operational Airspace of Airports**

Referral Departments

01 **Melbourne Airport Operations**

02 **Airservices Australia - Airport Regulations Branch**

03 **CASA - Civil Aviation Safety Authority**

2.2 Building form

Objectives

01 **To improve the arrival experience and sense of place by promoting exemplar developments on highly visible streets and key intersections.**

02 **To encourage building forms that respond to the high speed of passing traffic in appropriate locations.**

03 **To ensure that development complies with *NASF Guideline B.***

Guidelines

2.2.1 The design of buildings situated along Airport Drive and/or Mercer Drive should be contemporary and progressive in design, concept and finish, define the street and strengthen the arrival experience.

2.2.2 Development situated on key corner sites should acknowledge its context by becoming street holding buildings. Where possible, buildings situated on key routes should be sited to front the street, with building entrances located on pedestrian paths and windows overlooking the street. Warehouse facilities should be located to the rear of the lot. Where appropriate the office component of buildings should be designed to read as a distinct element from the industrial portion of buildings.

2.2.3 Buildings with long façades should be broken up with variation in materials, wall articulation, colours and landscape screening to improve the appearance of the building.

2.2.4 All buildings are to be contemporary and progressive in design, concept and finish. Applied decorative elements to buildings, which are not integrated with the overall design are discouraged.

2.2.5 Any development affected by the Windshear Envelope Overlay (WEO) must comply with the requirements of NASF Guideline B.

Reference Documents

01 **Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part C 1.1 - Windshear Envelope Overlay (WEO)**

02 **NASF Guideline B - Managing the Risk of Building Generated Windshear and Turbulence at Airport**

Referral Departments

01 **Melbourne Airport Operations**

2.3 Public realm & street interface

Objectives

01 **To enable passive surveillance of car parking areas, streets and surrounding public realm through the use of visually permeable and active facades, where appropriate.**

02 **To enable passive surveillance of car parking areas, streets and surrounding public realm through the use of transparent front fencing.**

03 **To ensure building entries are easily accessible, identifiable, functional, that complement the overall architectural design and connect with the pedestrian network.**

04 **To encourage the use of transparent and high quality facade treatments on highly visible sites.**

05 **To encourage passive surveillance of the public realm by providing opportunities for pleasant and engaging outlooks over surrounding pedestrian paths.**

Guidelines

2.3.1 Principal building entrances shall be designed to be accessible to people of all mobility levels, in accordance with the *Federal Disability Discrimination Act 1992*.

2.3.2 Integrate pedestrian access ramps with the overall design and landscape so that they are convenient, and use similar materials and colour palettes as the building.

2.3.3 Office areas and the primary building entry should be connected to the pedestrian movement network via a minimum 1.5m paved path, separated from vehicles.

2.3.4 Weather protection should be provided at front entries.

2.3.5 To provide passive surveillance of the street, building entries, foyer and office spaces should contain a high percentage of transparent facade treatments. Building entries should directly front the street and be clearly defined and legible from the public realm. Lift cores should not face the street but stair cases can be visible.

2.3.6 On corner lots both street frontages should provide activated and landscaped interfaces, where possible.

Reference Documents

01 **Federal Disability Discrimination Act 1992**

High quality landscaped street interface provides a pleasant outlook .

High quality landscaped side interface softens the buildings.

A high level of transparency in the building facade activates the surrounding public realm.

2.4 Roof design

Objectives

01 **To encourage roof forms that compliment the preferred contemporary and progressive character of Melbourne Airport.**

02 **To ensure that roof finishes and materials are compatible with *NASF Guideline E*.**

03 **To ensure that roof designs and equipment are compatible with *NASF Guideline F.***

Guidelines

2.4.1 Roof forms should be integrated with the overall building facade design and designed in accordance with *NASF Guideline F*.

2.4.2 Roofs should be simple in form and detail to reflect their non-residential character.

2.4.3 Where the underside of roofs are visible, such as covered walkways and awnings, they should be designed to be attractive and well-detailed.

2.4.4 Where possible, roof forms should be designed to delineate the office and entry areas of buildings from industrial areas.

2.4.5 All roof mounted mechanical equipment shall be designed to integrate with the whole building design or shall be screened from the street by parapet walls or screening. Screens shall be designed to compliment the architecture of the building. All screening shall be a minimum height of the roof mounted mechanical equipment.

2.4.6 Consider site orientation in the design of roof forms so that elements such as eaves can respond to solar protection requirements.

2.4.7 All metal deck roofing should be of a matt finish and non-reflective and non-distracting to pilots, in accordance with *NASF Guideline E*.

Reference Documents

01 **NASF Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports**

02 **NASF Guideline F: Managing the Risk of Intrusions into the Protected Airspace of Airports**

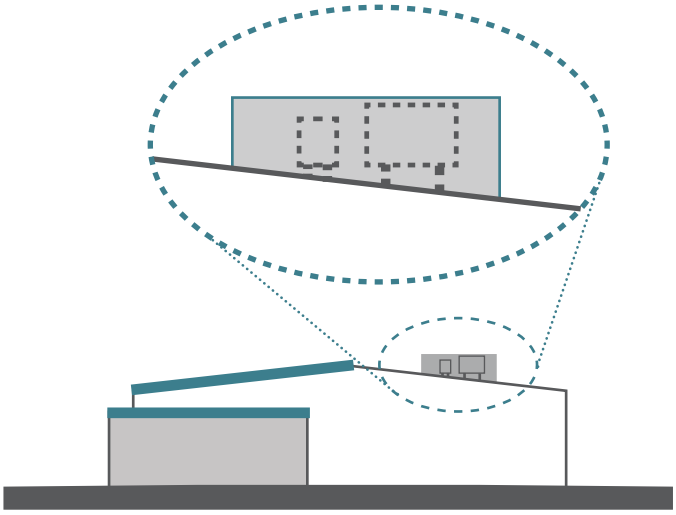


Figure D.3.8 - Roof forms for entry and office areas should be distinct from industrial parts of the building and appropriately screened.

2.5 Materials and detailing

Objectives

01 **To ensure that materials and articulation reflects a transition from business park to airport approach, and contributes to an engaging public realm.**

02 **To maintain a high quality airport character through the use of materials that are durable, robust and require low maintenance.**

03 **To support the desired high quality, contemporary character of Melbourne Airport through the use of appropriate colours, materials and finishes.**

04 **To encourage ESD, including the use of sustainable and recyclable construction materials as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

Guidelines

2.5.1 Development should use a colour palette on new buildings that compliments the surrounding context and must be approved by Melbourne Airport.

2.5.2 External finishes should be of low reflectivity, using non-reflective cladding materials to minimise glare and reflection to surrounding areas, in accordance with *NASF Guideline E*.

2.5.3 To promote an engaging streetscape, visible façades of car parking related buildings should incorporate materials such as masonry, brickwork and low reflectivity Alucobond (or similar). On large façades areas of higher quality material should be concentrated around entrances, office areas and high visibility areas of buildings. Other materials may be approved subject to factors including as maintenance, appearance and compliance with *NASF Guidelines E*.

2.5.4 Concrete walls should have an applied texture finish or other suitable cover or finish such as high quality textured or patterned concrete finishes.

2.5.5 All metal finishes must be Colorbond (or equivalent).

2.5.6 All metal deck roofing should be of a low-reflective finish and non-distracting to pilots, in accordance with *NASF Guideline E*.

2.5.7 Low maintenance should be a major consideration in the selection of materials.

2.5.8 Substitution of approved materials will only be allowed if a material of the equivalent quality and specification can be provided.

2.5.9 Where possible specify sustainable materials and services as outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.

2.5.10 Reduce the construction carbon footprint by using locally produced materials with low embodied energy, where possible.

Reference Documents

01 **Melbourne Airport Sustainable Buildings and Infrastructure Guide**

02 **Melbourne Airport Engineering Standards**

03 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

Referral Departments

01 **Melbourne Airport Engineering**

01 **Melbourne Airport Environment**

A well articulated building facade increases visual amenity and contributes to an engaging public realm.

3. INFRASTRUCTURE & SIGNAGE

3.1 Site services

Objectives

01 **To ensure site services, including water, power, gas, communications and waste, can be easily accessed and maintained.**

02 **To ensure site services are incorporated into the design of new developments.**

03 **To encourage best practice ESD to meet the sustainability indicators as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide* and the *Melbourne Airport Master Plan*.**

04 **To ensure site services, are compatible with Melbourne Airport standards.**

Guidelines

3.1.1 Adequate space is to be provided within developments and road reserves to accommodate the installation and maintenance of services.

3.1.2 Confirm location of easements for infrastructure and utilities prior to seeking PDA.

3.1.3 Discuss future planned infrastructure requirements and capacities with Melbourne Airport Infrastructure and Utilities prior to seeking PDA.

3.1.4 Site services, such as substations and fire fighting equipment should be incorporated into the design of the overall development.

3.1.5 Kiosk Substations shall be accessible to personnel and vehicles for operation and maintenance activities at all times. Where the Substation is within a secure area, access arrangements shall be agreed with the Melbourne Airport Electrical Assets Manager prior to approval to construct being granted.

3.1.6 No fencing or other structures shall be constructed within 3 meters of Kiosk Substations.

3.1.7 Where fencing is constructed within a zone of 3 meters and 7 meters of a Kiosk Substation it shall be constructed from non-conductive material. Fencing should be black in colour and battens are to be fixed vertically to align with the spacing of the palisade fencing. Timber fencing material is not to be used. Materials such as ModWood may be appropriate.

3.1.8 Where Kiosk Substations a located proud of the fence-line, appropriate landscape screening should be provided.

3.1.9 Solar boosted hot water systems are to be provided where practicable.

3.1.10 Incorporate rainwater tanks on each building of at least 5,000 litres to collect runoff from roof areas. Large buildings may require increased tank capacities. The water should be used for landscape irrigation, cleaning and toilet flushing. Grey and black water treatment systems must be designed in accordance with EPA requirements and the *Melbourne Airport Sustainable Building Guidelines*.

3.1.11 Waste storage areas shall be provided with the minimum dimensions of 3.0 x 5.0 metres for the storage of an industrial waste container and located so as to be readily and safely accessible for regular servicing and removal. Waste storage containers to be covered and screened from the street.

3.1.12 Tenants must not install antennas or towers on sites or buildings for lease to third party operators.

Reference Documents

01 **Melbourne Airport Master Plan (latest version)**

02 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

Referral Departments/Documents

01 **Melbourne Airport Engineering Standards**

02 **Melbourne Airport Infrastructure and Utilities**

03 **Melbourne Airport Electrical Assets Manager**

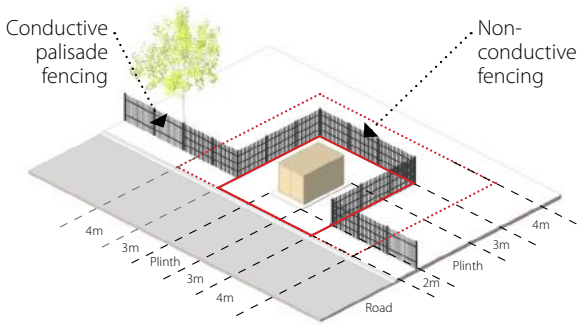


Figure D.3.9 - An acceptable approach to screening a Kiosk Substation

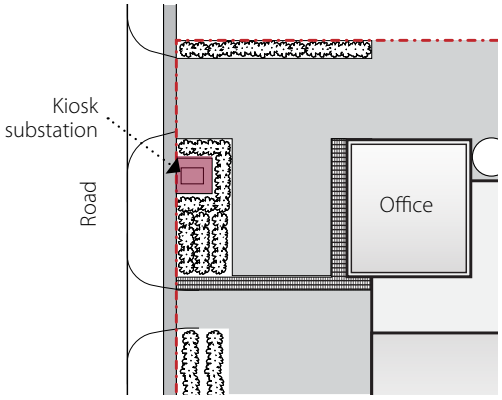


Figure D.3.10 - Locate kiosk substations within site setbacks where possible

3.2 Signage

Objectives

01 **To ensure that signage and advertising is designed and located to be compatible with the character of the precinct.**

02 **To provide for the identification of businesses in a way that maintains the character and amenity of the street and is designed to be compatible with visually sensitive areas.**

03 **To ensure that signage is informative and co-ordinated in a way that enables customers to easily locate the industry or business and determine its services.**

04 **To ensure that business signage does not interfere with airport-related and VicRoads wayfinding.**

05 **To ensure signage complies with *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E*.**

Guidelines

3.2.1 Advertising and corporate signage should not obstruct or detract from passenger/visitor movements, regulatory and safety related signage, or impede lines of sight associated with wayfinding.

3.2.2 Advertising and corporate signage should be integrated into the design of buildings by forming a logical element of the front facade and be in keeping with the scale of the facade.

3.2.3 Directional signage should be provided within sites to delineate entries and exits, staff and visitor parking, office /reception areas, and loading areas. Directional signage within the site should be consistent in style and form.

3.2.4 Signage should be limited in numbers to avoid visual clutter and unnecessary repetition.

3.2.5 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 that it is co-ordinated with the shared sign in terms of style and materials.

3.2.6 Free-standing advertising and corporate 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 free-standing 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 streetscape character and key views to the area.

3.2.7 Signage attached to front fences and temporary A-Frame signage on footpaths should be avoided.

3.2.8 Signs must not be animated (eg. move, rotate, flash).

3.2.9 Advertising and corporate signage should be dissimilar to Melbourne Airport signage, in particular, use of black background colour should be minimised.

3.2.10 Business identification signage which are erected closer to the road than a distance equal to half the height of the sign are discouraged.

3.2.11 All signage associated with airport-related movements and wayfinding should be designed to in accordance with the *Melbourne Airport Wayfinding and Signage Guidelines* and NASF Guideline E.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

02 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

03 **Hume Planning Scheme - Clause 22.09 and Clause 52.05 - Advertising Signs, and Local Policy**

Signage that is informative, identifies the business name and address and is dissimilar to airport-related signage, as required by the *Melbourne Airport Wayfinding and Signage Guidelines*.

3.3 Miscellaneous advertising and promotional features

Objectives

01 **To ensure advertising and promotional materials support the desired contemporary and progressive character of the precinct.**

02 **To ensure advertising and promotional materials are compliant with the *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E.***

Guidelines

3.3.1 Moving and inflatable structures or advertising features are generally discouraged. Such features will only be allowed where it can be demonstrated, to the satisfaction of Melbourne Airport PD that they will not detract from the character or the safe and efficient operation of the airport.

3.3.2 Displays and events, such as outdoor vehicle displays or product demonstrations, must be approved by Melbourne Airport PD.

3.3.3 There should be a maximum of one flag pole per site. PD may not approve flag poles in strategic locations. Flag poles will be subject to a Prescribed Airspace Assessment.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

02 **NASF Guideline E - "Managing the risk of distractions to pilots from lighting in the vicinity of airports"**

03 **CASA - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations**

3.4 External Lighting

Objectives

01 **To support a safe and secure public realm, particularly along pedestrian and cycling routes, through the provision of efficient and functional street lighting.**

02 **To compliment building design and form with appropriate external, integrated lighting.**

03 **To support Melbourne Airport's commitment to reduce energy consumption and operational greenhouse gas emissions by providing high-efficiency external lighting solutions.**

04 **To ensure that external lighting solutions are designed to minimise distractions to pilots, in accordance with *NASF Guideline E.***

Guidelines

3.4.1 Use appropriate street lighting types to create a safe and secure pedestrian network and reinforce the movement network hierarchy.

3.4.2 High efficiency external lighting such as LED solutions should be used in streets, building surrounds, public space and car parks.

3.4.3 Steps must be taken to prevent lighting from casting glare onto adjacent sites, streets and into adjacent building windows.

3.4.4 In order to maintain the integrity of Melbourne Airport's Airport Lighting System, and to reduce light emissions to aircraft, lighting should not spill above the horizontal plane. In instances where lighting could move as a result of wind events or misalignment during maintenance, ensure it will not spill above the horizontal plane.

3.4.5 Any proposal incorporating coloured lighting, even where lighting is low-intensity, must be referred to Melbourne Airport Operations Department for approval. In some circumstances Melbourne Airport may seek advice from CASA.

Reference Documents

01 **NASF Guideline E - "Managing the risk of distractions to pilots from lighting in the vicinity of airports"**

02 **CASA - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations**

02 **CASA**

3.5 Acoustic protection

Objectives

01 To ensure noise impacts on building occupants are minimised.

Guidelines

3.5.1 Buildings must conform to Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

3.5.2 Buildings located near busy roads and other sources of noise should be designed to minimise noise impacts to office areas and other habitable s paces.

3.5.3 Consider the acoustic impacts from future planned road and rail infrastructure when designing buildings.

3.5.4 Solutions to minimising noise impacts may include double glazing, operable screening, and landscape planting and mounding.

3.5.5 All development must be compliant with *NASF Guideline A*.

Referral Departments/Documents

01 Melbourne Airport Master Plan (latest version)

02 Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

03 NASF Guideline A: Measures for Managing Impacts of Aircraft Noise

3.6 Plume Rise Assessment

Objectives

01 To manage the potential impacts of vertical exhaust plumes on airport operations at Melbourne Airport.

Guidelines

3.6.1 Building design and operation must conform to *CASR Advisory Circular AC139-5(1) Plume Rise Assessments* (latest version).

3.6.2 Vertical exhaust plumes (smoke, steam etc.) from stacks, vents and cooling towers in excess of 4.3 meters per second velocity, must be assessed by PD.

3.6.3 PD may refer the proposal to external departments for assessment and may impose conditions.

Reference Documents

01 CASA Advisory Circular AC139-5(1) Plume Rise Assessments (latest version)

Referral Departments

01 CASA - Civil Aviation Safety Authority

4. PARKING & ACCESS

4.1 Pedestrian and cycle access

Objectives

01 **To provide pedestrian access to car parking areas, car rental depots, bus layover's and associated offices, that is safe, convenient and can comfortably accommodate luggage trolleys, bikes, wheelchairs, prams, families and large groups.**

02 **To minimise conflict between vehicles and people by providing appropriately located pedestrian crossings.**

03 **To minimise conflict between vehicles, bikes and people through the provision of off-road cycling paths, where possible.**

04 **To provide pedestrian access to the recreational facilities located in the south of the precinct.**

05 **To ensure cyclists have safe access to bicycle parking areas and appropriate end of trip facilities.**

06 **To ensure future roads have provision for shared footpaths within the road reserve, where appropriate.**

Guidelines

4.1.1 Pedestrian routes must be accessible to people of all mobility levels with minimal variation in grade and adequate space for luggage trolleys, wheelchairs, prams, families and large groups.

4.1.2 The pedestrian network must be legible and accessible to people of all mobility levels by using a consistent paving treatment, kerb access ramps, tactile paving and appropriate way finding and signage strategies.

4.1.3 The pedestrian network should provide passengers and visitors with links between between public areas, parking areas, transport hubs and building entries.

4.1.4 The pedestrian network should provide an east west connection along the southern boundary of the precinct to connect pedestrians to the recreational facilities

4.1.5 Pedestrian routes to public areas and main entries in a development should be lit with low-glare or baffled, energy efficient lighting.

4.1.6 Provide off road cycle paths throughout the precinct, in accordance with *Part B - Vision and Strategies - 1.5 Pedestrian and cycle network* of this document.

4.1.7 Design driveway access to minimise conflict between vehicles, pedestrians and cyclists by maintaining clear view lines between the exiting or entering vehicle and pedestrians.

4.1.8 The location of bicycle parking should be easily accessible from the street and at ground level.

4.1.9 A bicycle space for an employee must be provided either in a bicycle locker or at a bicycle rail in a lockable compound.

4.1.10 Bicycle facilities should be adequately lit during periods of use.

4.1.11 Vehicle access and circulation areas should be designed to ensure clear sight lines for pedestrians and cyclists.

4.1.12 Bicycle parking should be secure and / or located in an area subject to passive or active surveillance. Bicycle parking is to be compliant with Clause 52.34 of the Hume Planning Scheme.

4.1.13 Showers, lockers and change rooms should be provided in accordance with Clause 52.34 of the Hume Planning Scheme.

4.1.14 Bicycle parking is to be provided on-site in accordance with the following table:

Bicycle parking requirements

Use	Ratio
Office Areas	1:300m^2 if net floor area exceeds 1000m^2
Research & development	2.9 :100m^2
Bulky Goods/Retail	1:1000m^2
Industrial / Warehouse	1:1000m^2

4.1.15 Consideration of future cycling participation should be taken into account when designing and allocating space for bicycle facilities.

Reference Documents

01 **Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part B - 1.5 Pedestrian and cycle network**

02 **Hume Planning Scheme - Clause 52.34 - Bicycle Facilities**

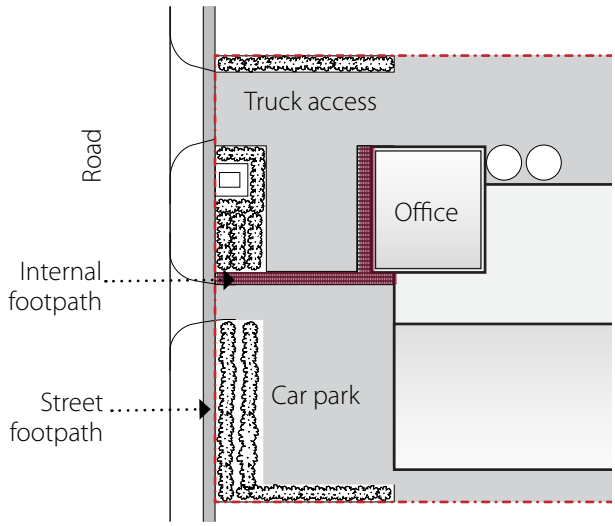


Figure D.3.11 - Safe pedestrian access should be provided from street footpaths to the main entry of buildings.

Clearly defined pedestrian pathways within a car park to support improved pedestrian safety.

Landscaping defines the path, contributes to a higher quality public realm and separates pedestrians from traffic movements.

Locate short term bicycle parking close to the building entrance for convenience and passive surveillance.

4.2 Vehicle access and parking

Objectives

01 **To ensure the location, design and layout of car parking and car park access is integrated with the overall site planning and building design and meets the maximum safety standards.**

02 **To provide safe, convenient and accessible pedestrian access to car parking areas.**

03 **To provide safe and secure car parking.**

04 **To provide adequate car parking for a variety of business and industry uses.**

05 **To manage potential conflict between vehicles, building occupants, pedestrians and cyclists.**

06 **To minimise the visual impact of car parking from the street.**

07 **Ensure future car parking development, particularly podium car parking, uses considered contemporary materials and screening techniques to create visual interest.**

08 **To support integrated roads planning with consideration of future rail and bus terminals.**

09 **Ensure there are provisions for electric vehicle parking.**

010 **Consider possible future alternative transport modes, including autonomous vehicles, in future public realm and infrastructure design.**

011 **To encourage WSUD strategies, consistent with the aims of the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

Guidelines

4.2.1 There must be separate pedestrian entrance and exit points to car parking areas. Car park entrance and exit points, as well as internal circulation must be wide enough to comfortably accommodate luggage trolleys, bikes, wheelchairs, prams, families and large groups.

4.2.2 Design driveway access to minimise conflict between vehicles, pedestrians and cyclists by maintaining clear view lines between the exiting/entering vehicles.

4.2.3 Minimise vehicle crossovers by consolidating access with adjacent sites, where possible.

4.2.4 Clear sight lines should be provided at the vehicle exit point with shrub planting restricted within the immediate vicinity to a maximum of 500mm in height.

4.2.5 Security lighting should be provided to vehicle parking areas and entries. Light spillage to buildings and adjacent sites should not impact on amenity. Light is not to spill above the horizontal plane and be compliant with *NASF Guideline E*.

4.2.6 Vehicle access ways within the front setback and areas shared by vehicles and pedestrians should be a dressed surface treatment other than standard grey concrete.

4.2.7 Truck and delivery access must be separate from visitor and staff access.

4.2.8 Loading and servicing areas should be located to the rear of building and, where possible, consolidate service lanes with adjoining land holdings.

4.2.9 Disabled car parking should be provided close the main entrance of buildings and be connected to the entry with a DDA compliant path.

4.2.10 Car parking bays and access for people with disabilities should be designed and provided in accordance with the AS 1428.1-2009.

4.2.11 Where car parking requirements are undefined, car space allocation should be provided for visitors and occupants in accordance with the provisional rate indicated 52.06 of the Hume Planning Scheme.

4.2.12 Basement car parks should be designed with the following considerations:
•Provide natural ventilation where practicable
•Integrate ventilation grilles or security gates into the facade and landscape design
•Provide security gates, conceal service pipes and ducts, to improve the appearance of basement entries from the street.

4.2.13 Car parking is to be provided on-site generally in accordance with the following table:

Car parking Rates:

Use	Ratio
Office Areas	3.5 :100m^2
Research & development	2.9 :100m^2 (3.5 :100m^2)
Bulky Goods/Retail	3.5 :100m^2 (3 - 4 :100m^2 varies)
Industrial / Warehouse	2.9 :100m^2 (Warehouse: 2 to each premises plus 3.5 :100m^2)

4.2.14 Car parking rates may be varied from those outlined in the table at cl. 5.2.13, to the satisfaction of PD. Decisions to allow variations in car parking rates will be based on factors including specific development function and programming, staff and visitor numbers, access to alternative forms of transport, and access to reasonable alternative car parking facilities.

Reference Documents

01 Melbourne Airport Sustainable Buildings and Infrastructure Guide

02 Hume Planning Scheme - 52.06 - Car Parking

03 Australian Standard 1428.1-2009 - Design for access and mobility - General requirements for access - New building work (AS 1428.1-2009)

04 NASF Guideline E - Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports AS2890.1

Located in the Melbourne Airport Business Park, this car park entrance demonstrates how a pedestrian path can be separated from the vehicle access.

Utilising WSUD strategies such as a swale, within the car park verge.

4.3 Loading and Servicing

Objectives

01 **To provide safe and efficient loading and servicing of commercial and operational premises.**

02 **To minimise the visual impact of loading bays and service areas when viewed from the surrounding streets and other existing and planned viewing opportunities.**

Guidelines

4.3.1 Loading areas should be located to the rear or side of the property away from the primary street frontage.

4.3.2 Where practicable, integrate loading areas into the design of the building so that loading occurs internally. Where external loading areas are visible from adjoining land uses, they should be screened with landscaping or architectural screening.

4.3.3 Loading and servicing should occur with the vehicle completely contained within the site. No part of the vehicle should extend into the public road reserve.

4.3.4 Loading and servicing should be designed to service a range of vehicle types in order to provide for flexibility pursuant to *Clause 52.07 of the Hume Planning Scheme.*

4.3.5 Access to loading areas should be clearly separated from pedestrian and bicycle access routes, and where practical, separated from vehicle access routes.

4.3.6 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 Hume Planning Scheme* for size and dimensions.

4.3.7 Loading areas should be clearly defined with line marking, designed to allow unobstructed vehicle access and provide appropriate turning areas in accordance with *AS 2890.2.*

4.3.8 Areas need to be set aside for truck queuing on site. Melbourne Airport will not allow truck queuing to occur on its roadways adjoining the site. Tenants will need to demonstrate truck space demand requirements at the busiest time of day.

4.3.9 Only two vehicle crossings points are permitted per site to each road abuttal. These are as follows: One combined entry/exit for visitor & staff vehicles. One combined entry/exit for trucks and heavy vehicles.

4.3.10 Adequate provision for loading and unloading of vehicles must be made, together with an area set aside for industrial waste collection.

4.3.11 Loading areas shall not be used for any other purpose.

4.3.12 No materials, supplies or equipment, including trucks and other motor vehicles, shall be stored upon a site except inside a building. No outdoor storage areas shall be provided.

Reference Documents

01 **Australian Standard 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities (AS 2890.2)**

02 **Hume Planning Scheme - Clause 52.07 - Loading and Unloading of Vehicles**

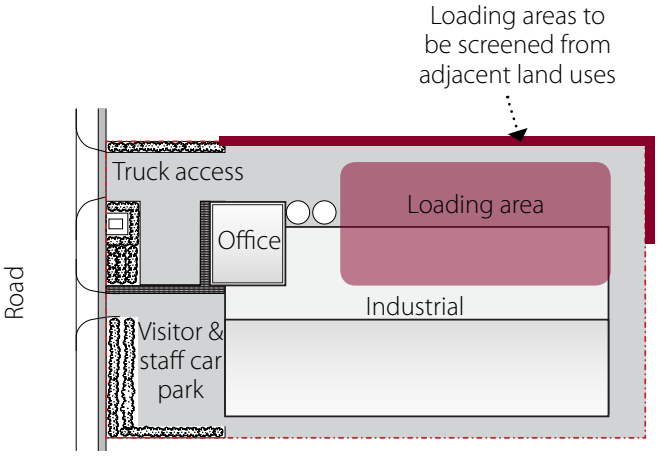


Figure D.3.12 - Loading areas should be located away from road frontages and separated from pedestrians, bicycles and other vehicles.

MELBOURNE AIRPORT LANDSIDE

URBAN DESIGN GUIDELINES

PRECINCT 4

BUSINESS PARK

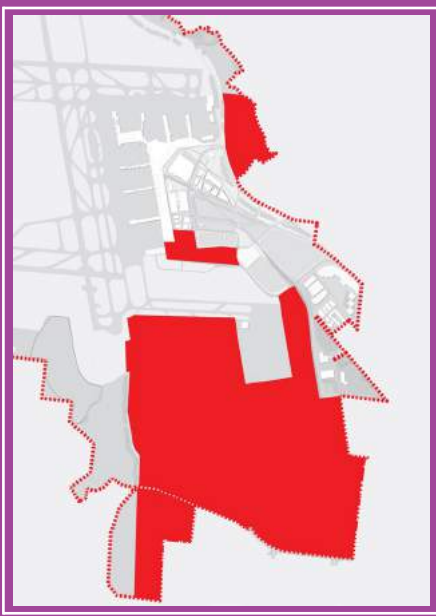


Figure D.4.1 - Melbourne Airport Urban Design Precincts (not to scale)

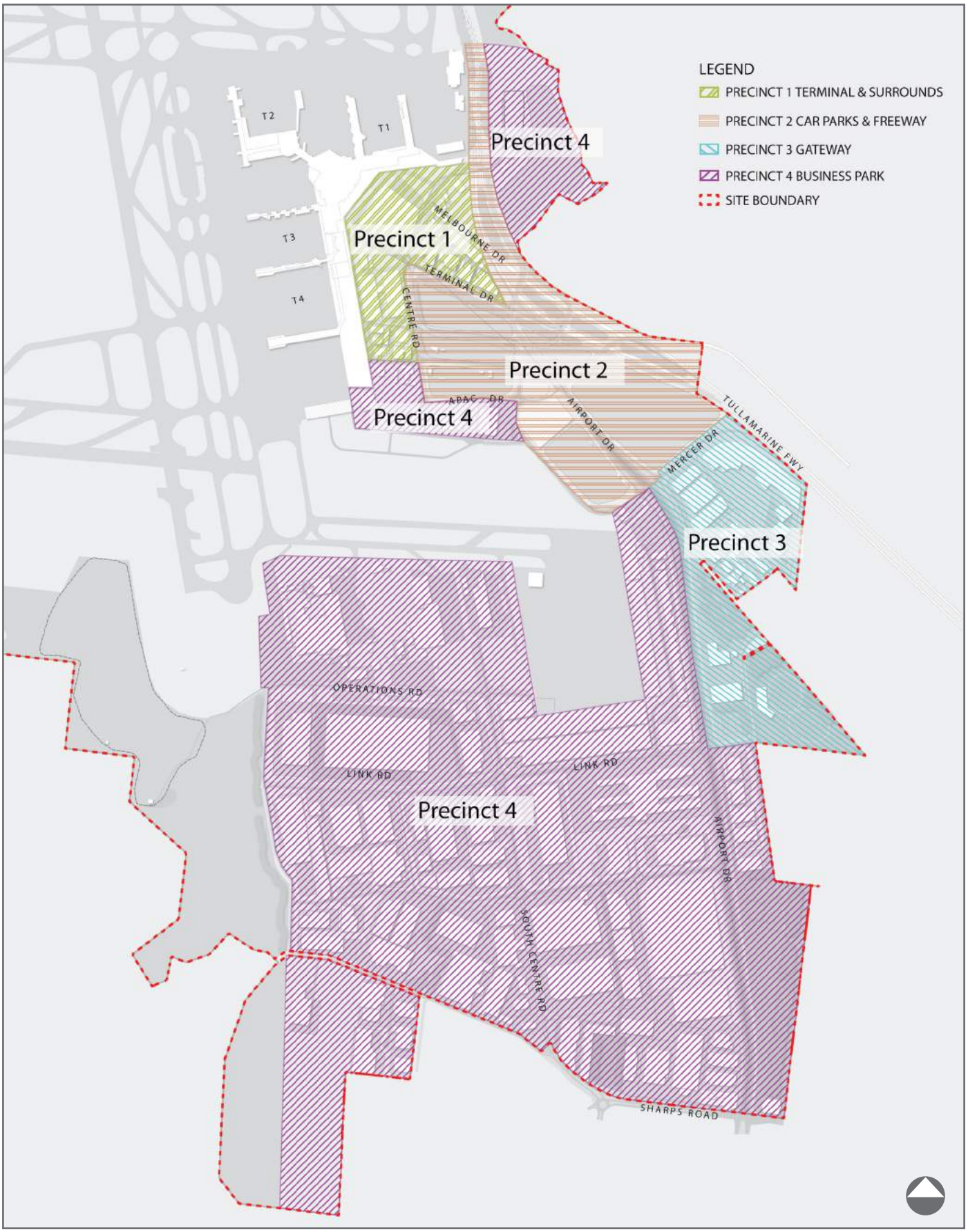
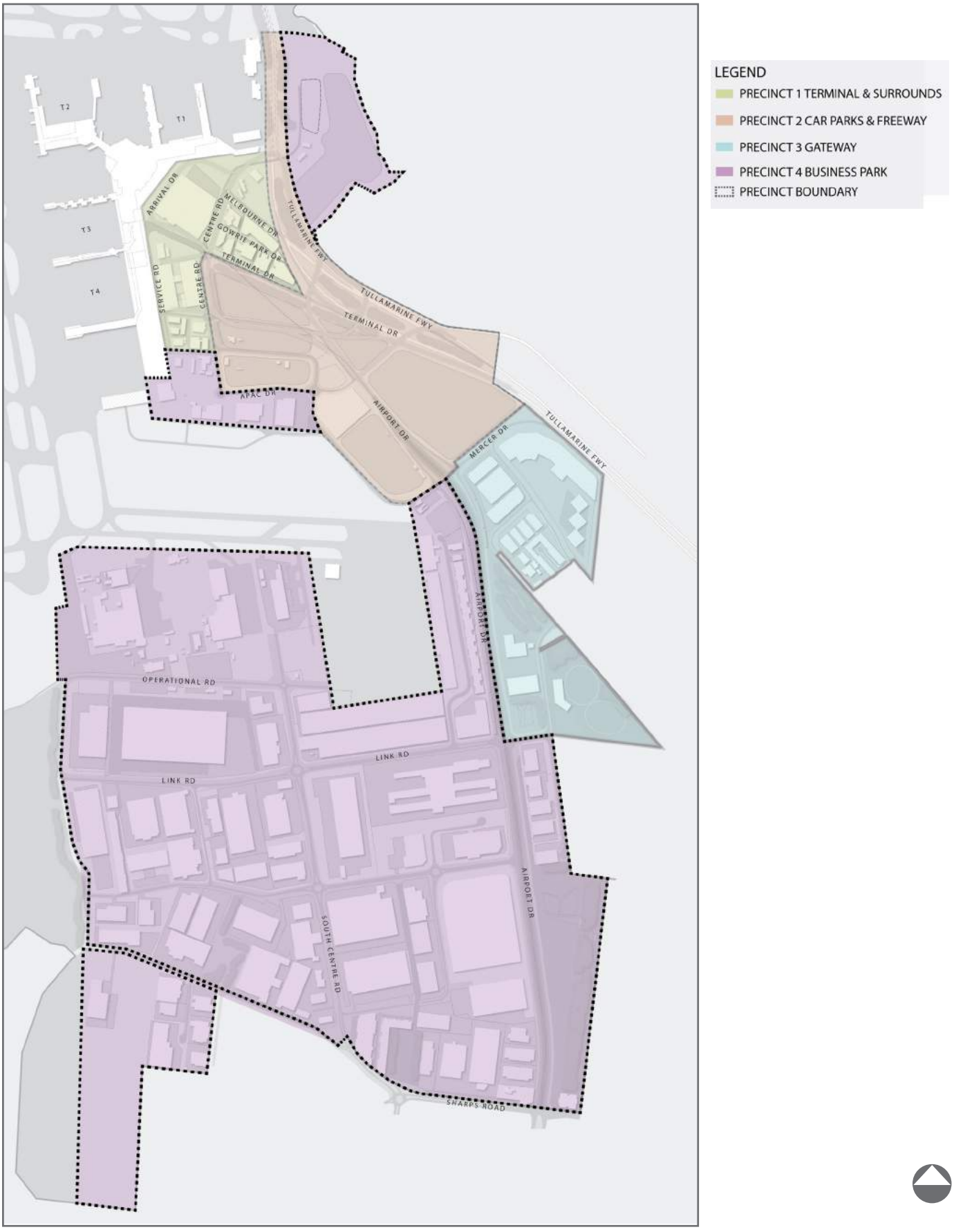


Figure D.4.2 - Melbourne Airport Urban Design Precinct 4 Business Park (not to scale)



1. PRECINCT & SITE RESPONSE

1.1 Precinct profile

Precinct 4 encompasses the Melbourne Airport Business Park and a number of other smaller areas, as identified on the precinct plan (Figure D.4.2). The precinct supports a range of uses, including warehousing and logistics, industrial, office, recreation and accommodation.

Melbourne Airport's second major road access route, Airport Drive, runs through the precinct. In the future, rail access to Melbourne Airport is likely to also use this route. Developments that interface with Airport Drive will be designed to support a high standard of customer experience for rail and vehicle users of Airport Drive.

The demands of high levels of heavy vehicle movements within the precinct require a robust road network and separation of vehicles from pedestrians and cyclists. Generous landscaped road verges and setbacks will mediate the large scale of the industrial buildings and contribute to a consistent, high-quality public realm throughout the precinct.

Visitor and pedestrian entries will be easily identifiable and accessible from the street. The building designs will reflects their internal use. Offices, entries and staff amenity areas will be expressed through higher levels of detailing and material quality. Signage and branding will be organised and will not dominate the architecture and public realm.

The precinct will be attractive to a range of businesses who enjoy excellent levels infrastructure provision, good access to road and air transport, and a high quality public realm.

1.2 Site response

Objectives

01 **To ensure development responds to the site conditions and is compatible with the objectives outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

02 **To ensure new buildings have regard to the future development potential of adjoining sites and their ability to gain reasonable access to light, views, and prevailing winds, where appropriate.**

03 **To create a strong sense of identity and unity through use of a consistent design language.**

Guidelines

1.2.1 Development should respond to existing conditions including adjoining uses, topography, vegetation and views.

1.2.2 Buildings should be sited and oriented to maximise opportunities for solar access to both indoor and outdoor amenity areas, where possible.

1.2.3 Siting of development should allow for adequate light and sun penetration to existing and future developments on adjoining properties, where possible.

1.2.4 Where possible, orient large building openings to the east to avoid strong winds and hot sun.

1.2.5 Development should avoid construction over areas required for existing and future infrastructure, where possible.

1.2.6 Development should use a consistent palette of landscaping treatments and wayfinding strategies throughout the public realm and built form.

Reference Documents

01 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

Referral Departments

01 **Melbourne Airport Infrastructure and Utilities**

1.3 Front setbacks

Objectives

01 **To support the preferred general streetscape character of wide roads with generous landscaped setbacks.**

02 **To provide opportunities for deep planting in front setbacks.**

Guidelines

1.3.1 On major roads, the front building setback should be a minimum of 15m from the property boundary. Within this setback there must be a 5m wide (minimum)landscaping strip from the property boundary.
(Figure D.4.3)

1.3.2 On minor roads a lesser front building setback may be considered. Within the setback there must be a 3m wide (minimum) landscaping strip, from the property boundary. *(Figure D.4.5)*

1.3.3 On corner lots, walls facing the side street should be setback a minimum of 10m. Corner sites should provide landscaped setbacks to both street frontages. (*Figure D.4.6)*

1.3.4 Front setback areas should be free of structures such as rainwater tanks and outbuildings, however may accommodate kiosk substations and similar services, and compliant signage, where appropriate.

1.3.5 Front and corner setbacks must incorporate black metal palisade fencing. All poles, fittings and fixtures associated with the fence are to be black in colour.

1.3.6 Car parking should not be located within the landscape setback.

1.3.7 Locate retail uses and office entrances at the street frontage to provide visual interest and promote passive surveillance of the public realm.

1.3.8 All planting is to be in accordance with the *Melbourne Airport Planting Guidelines.*

Reference Documents

01 **Melbourne Airport Planting Guidelines (latest version)**

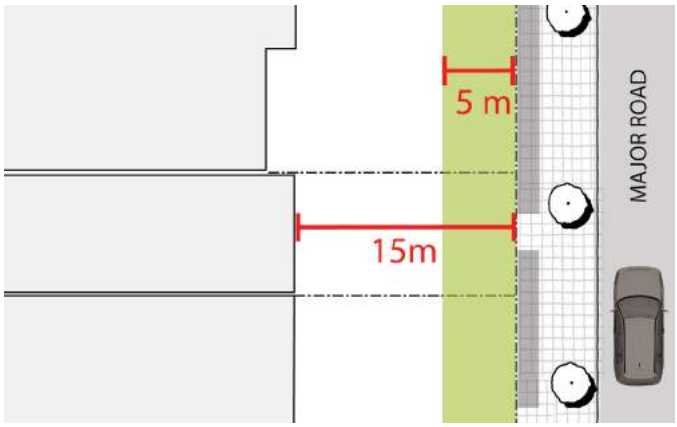


Figure D.4.3 - On major roads there should be a 15m front building setback from the property boundary with a 5m (minimum) landscaped strip.

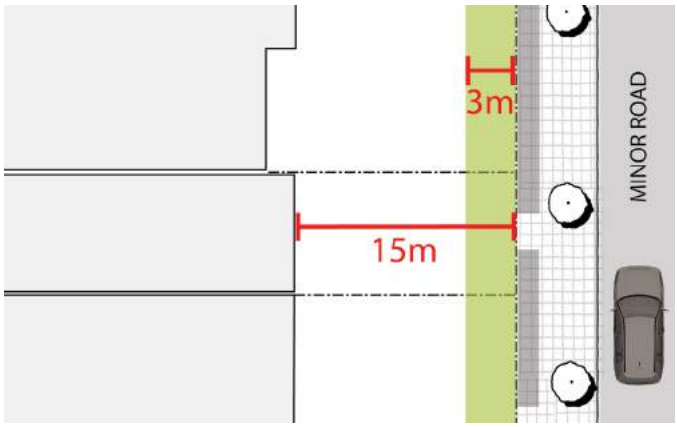


Figure D.4.4 - On minor roads there should be a 15m front building setback from the property boundary with a 3m (minimum) landscaped strip.

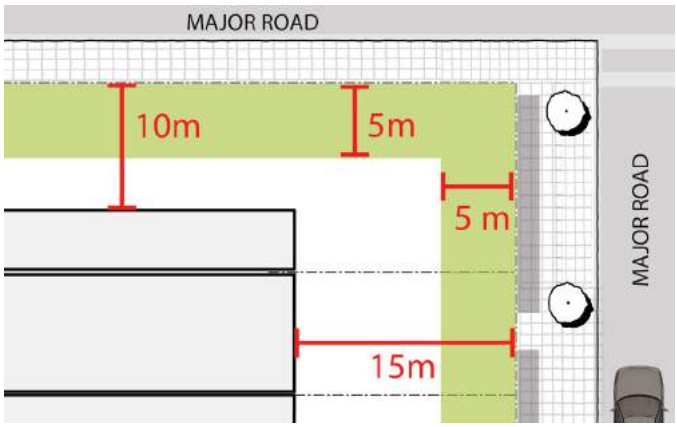


Figure D.4.5 - On corner lots where walls are facing a major road there should be a 10m (minimum) setback.

1.4 Side and rear setbacks

Objectives

01 **To manage interfaces between industrial and sensitive uses.**

02 **To provide opportunities for landscaping in areas viewable from roads and public areas.**

03 **To provide opportunities for daylight access and natural ventilation to buildings, where appropriate.**

04 **To ensure that emergency vehicles can access the site in a safe and efficient manner.**

Guidelines

1.4.1 On major roads and publicly accessible areas, a 5m wide landscaped side and rear setback should be provided.

1.4.2 Where fire appliance accessways are required along side and rear setbacks, a minimum 5m wide landscaping strip is to be provided between the accessway and the site boundary.

1.4.3 Where a neighbouring development includes a sensitive use such as a hotel or medical facility, industrial activity should be setback a minimum of 30 metres. Where such a setback is not achievable, the interface should be meditated using appropriate wall treatments and/or landscaping, to the satisfaction of PD.

1.4.4 Car parking should not be located within the landscape setback.

1.4.5 Fences of side and rear setbacks, that do not directly front a street, may be constructed from black coloured PVC-coated wire mesh to a height of 3m. All poles, fittings and fixtures associated with the fence are to be black in colour.

1.4.6 All planting is to be in accordance with the *Melbourne Airport Planting Guidelines*.

Reference Documents

01 **Melbourne Airport Planting Guidelines (latest version)**

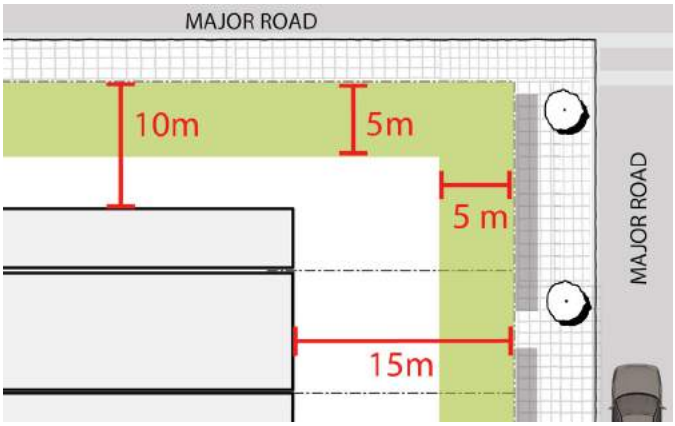


Figure D.4.6 - On major roads there should be a 5m wide landscape strip along the side and rear setback.

An example of a pleasant outdoor staff amenity space

1.5 Airport Drive interfaces

Objectives

01 To support a high-quality customer experience along Airport Drive, particularly the Gateway sites.

Guidelines

1.5.1 Front building setbacks on Airport Drive should be a minimum of 15m from the property boundary.

1.5.2 Side and rear building setbacks abutting Airport Drive should incorporate a minimum 5m landscaped setback from the property boundary, to screen site operations from view, unless acceptable alternative solutions can be developed to the satisfaction of PD.

1.5.3 Fencing abutting Airport Drive should be black metal palisade fencing.

1.5.4 Alternative solutions to the use of black palisade fencing (see above) may include the construction of an integrated wall along the interface between MACE and Airport Drive. This wall could be designed be integrated into the construction of buildings.

1.5.5 In the event that a wall is constructed at the interface between MACE and Airport Drive, is shall be designed to provide a visually interesting gateway experience for Airport Drive users.

A high quality sound wall along a road contributes to a sense of place and enhances the traveling experience.

1.6 Airside interfaces

Objectives

01 To ensure that Melbourne Airport airside security is maintained.

Guidelines

1.6.1 Any buildings and works located airside are subject to compliance with the CASR Manual of Standards Part 139 – Aerodromes.

1.6.2 Freight buildings with an airside interface must be designed to prevent landside vehicles from being required to travel airside. Vehicles are to be loaded and unloaded from landside docks. All freight must be handled and processed through the building and transferred to and from suitable airside containers to enable dolly transfer to aircraft.

1.6.3 All buildings located with direct airside access shall have an 18 metre wide staging area for the full width of the airside frontage. This area is for airside vehicle movements, load makeup and breakdown and the storage of airside vehicles and equipment. This area must be included in the leased area of any premises.

1.6.4 For airside facilities, the facility must have either a manned control gate landside for entry to the site or a fully automatic heavy duty sliding gate operated from an internal control point with remote voice activation at the gate.

Reference Documents

01 CASA - Manual of Standards, Part 139 – Aerodromes

1.7 Outdoor amenity space

Objectives

01 **To provide well located, integrated areas of attractive outdoor space with weather protection, lighting and seating for staff and customers.**

02 **To ensure outdoor amenity space is a pleasant, usable and a functional environment.**

03 **To support the location of outdoor amenity space in areas that contribute to an activated public realm.**

Guidelines

1.7.1 Developments are to incorporate a minimum of 40m^2 of outdoor space for staff and customers. Larger areas of outdoor amenity space may be required, depending on staff numbers, timing of breaks and shift changes, and proximity to alternative amenity areas.

1.7.2 The area must be capable of containing a rectangle of 3m x 4m and have minimal level changes.

1.7.3 Outdoor amenity space should be located to take advantage of northern aspect (where practicable), be connected by pedestrian paths, be landscaped with shade trees and seating, and incorporate baffled, energy efficient external lighting.

1.7.4 Where possible, provide consolidated outdoor amenity space across multiple developments to support improved social cohesion and larger, higher quality spaces.

1.7.5 Services such as air conditioning units, rainwater tanks and hot water units must not encroach into staff amenity space areas if they are less than 40m^2.

A well located outdoor area with sheltered seating options for staff and visitors.

1.8 Landscape design

Objectives

01 **Use consistent landscaping treatments to provide clearly defined movement networks and convey a strong sense of unity throughout the precinct.**

02 **To provide high quality landscaping within the front building setback that enhances public realm and appearance of the business park.**

03 **To support improved tree canopy coverage and boulevard treatments along major access routes.**

04 **To ensure landscaping treatments are easily maintained and grassed areas easily mown.**

05 **To promote landscaping treatments, including WSUD that is consistent with the aims of the *Melbourne Airport Sustainable Buildings and Infrastructure Guide.***

06 **To ensure safe airport operation by requiring that planting that is compatible with *NASF Guideline C* and the *Melbourne Airport Planting Guidelines.***

Guidelines

1.8.1 On major roads, a 5m wide landscaped strip must be provided within the15m setbacks from all property boundaries for the effective planting of shrubs, grasses and ground covers. On all other roads there should be a minimum 3m wide landscaping strip.

1.8.2 Buildings should be setback from existing trees by the width of the canopy of the mature tree in order to protect tree root zones.

1.8.3 Provide deep soil zones in road reserves and building setbacks, compliant with the *Melbourne Airport Planting Guidelines.*

1.8.4 Provide elements within the front setback that will encourage the use of the space by staff and visitors. For example, the front setback may incorporate bike racks, seating, raised garden beds, lighting or other hard and soft landscaping elements that complement the space and contribute to the streetscape.

1.8.5 There should be perimeter landscaping and black palisade fencing around all car parking areas to increase visual amenity.

1.8.6 Protect landscaped areas abutting car parks through provision of appropriate barriers.

1.8.7 Vehicle access ways should be offset from the side boundary by a minimum of 3m for a minimum distance of 5m from the front boundary. The setback should be landscaped.

1.8.8 Landscaping should use consistent vegetation types, particularly those indigenous to the local region, as specified in the *Melbourne Airport Planting Guidelines*.

1.8.9 Trees should be carefully selected and sited to allow scope for intended growth and structural protection of buildings.

1.8.10 Species should be selected to integrate with the surrounding streetscape character and connect and integrate with the landscape of adjoining sites where appropriate, and be compliant with *Melbourne Airport Planting Guidelines*.

1.8.11 Landscape areas should be planted with species that are low maintenance and do not require irrigation from the potable water supply.

1.8.12 Locate swales, rain gardens and retarding basins in verges and setbacks, where appropriate, to provide passive storm water infiltration systems.

1.8.13 Retain, integrate and protect existing mature trees, where possible, in accordance with *Melbourne Airport Planting Guidelines*.

1.8.14 The landscape plan should respond to the site soil types, drainage conditions, other climatic factors and the *Melbourne Airport Planting Guidelines*.

1.8.15 The specification, design and management of all planting must comply with the requirements of the *Melbourne Airport Planting Guidelines and NASF Guideline C*.

Reference Documents

01 Melbourne Airport Planting Guidelines (latest version)

02 Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)

03 NASF Guideline C - Managing the Risk of Wildlife Strikes in the Vicinity of Airports

Referral Departments

01 Melbourne Airport Environment

02 Melbourne Airport Infrastructure and Utilities

03 Melbourne Airport Property Management

Soft and hard landscaping elements significantly increase the public amenity in this business park precinct.

A grass channel incorporated into the road verge will passively treat storm-water run-off.

Locating a naturally vegetated swale within a car park increases visual amenity whilst providing passive infiltration.

2. BUILDING FORM & DESIGN

2.1 Building height

Objectives

01 **To ensure industrial and office areas adjoining open space and public realm have minimal impacts on the amenity of the areas.**

02 **To ensure that buildings and structures do not penetrate Melbourne Airport's Prescribed Airspace.**

Guidelines

2.1.1 All proposed buildings and structures must be referred to Melbourne Airport Operations Department to undertake a Prescribed Airspace assessment.
Note- Melbourne Airport Landside precincts are also subject to Essendon Airport Prescribed Airspace.

2.1.2 All buildings and associated infrastructure (including but not limited to signage, antennas, roof mounted air handling units) must not interfere with the prescribed Melbourne Airport airspace.

Reference Documents

01 **Melbourne Airport Master Plan Prescribed Airspace Regulations**

02 **NASF Guideline F - Managing the Risk of Intrusions into the Protected Operational Airspace of Airports**

Referral Departments

01 **Melbourne Airport Operations Department**

02 **Airservices Australia - Airport Regulations Branch**

2.2 Building form

Objectives

01 **To support a progressive and environmentally sustainable airport by ensuring future development utilises innovative and contemporary design and achieves best practice environmental standards.**

02 **To ensure future built form responds appropriately to the surrounding context.**

03 **To allow for the integration of functional architectural elements into the overall building design.**

04 **To ensure that development complies with *NASF Guideline B.***

Guidelines

2.2.1 The design of buildings situated along Airport Drive should be contemporary and progressive in design, concept and finish, define the street and strengthen the arrival experience.

2.2.2 New development, particularly buildings located along Airport Drive should be sited to front the street, with building entrances located on pedestrian paths and windows overlooking the street, where possible. Factory and warehouse facilities should be located to the rear of the lot. Where appropriate the office component of buildings should be designed to read as a distinct element from the industrial portion of buildings.

2.2.3 Buildings with long facades should be broken up with variation in materials, wall articulation, colours and landscape screening to improve the appearance of the building.

2.2.4 All buildings are to be contemporary and progressive in design, concept and finish. Applied decorative elements to buildings, which are not integrated with the overall design are discouraged.

2.2.5 Any development affected by the Windshear Envelope Overlay (WEO) must comply with the requirements of *NASF Guideline B.*

Reference Documents

01 **Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part C 1.1 - Windshear Envelope Overlay (WEO)**

02 **NASF Guideline B - Managing the Risk of Building Generated Windshear and Turbulence at Airport**

Referral Departments

01 **Melbourne Airport Operations**

2.3 Public realm & street interface

Located on an intersection in the Melbourne Airport Business Park this development successfully responds to its surround context. By locating the office component at the front of the site and setting back the industrial portion of the building, the building responds to both street interfaces.

Located in the Melbourne Airport Business Park this development successfully demonstrates how the materials can articulate the office component of a long building facade.

Objectives

01 **To enable passive surveillance of car parking areas, streets and the surrounding public realm through the use of visually permeable and active façades, where appropriate.**

02 **To enable passive surveillance of car parking areas, streets and surrounding public realm through the use of transparent front fencing.**

03 **To ensure building entries are easily accessible, identifiable, functional, that complement the overall architectural design and connect with the pedestrian network.**

Guidelines

2.3.1 Principal building entrances shall be designed to be accessible to people of all mobility levels, in accordance with the *Federal Disability Discrimination Act 1992*.

2.3.2 Integrate pedestrian access ramps within the overall design and landscape so that they are convenient, and use similar materials and colour palettes as the building.

2.3.3 Office areas and the primary building entry should be connected to the pedestrian movement network via a minimum 1.5m paved path, separated from vehicles.

2.3.4 Weather protection should be provided at front entries.

2.3.5 To provide passive surveillance of the street, building entries, foyer and office spaces should contain a high percentage of transparent facade treatments. Building entries should front the street and be clearly defined and legible from the public realm.

2.3.6 Particular care should be taken when designing buildings fronting Airport Drive and at key gateway sites. Buildings at these locations should incorporate high quality materials and detailing for areas visible from the public realm.

2.3.7 On corner lots both street frontages should provide activated and landscaped interfaces, where possible.

Reference Documents

01 **Federal Disability Discrimination Act1992**

02 **Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part B Vision & Strategies**

2.4 Roof design

Objectives

01 **To encourage roof forms that compliment the preferred contemporary and progressive character of Melbourne Airport.**

02 **To ensure that roof finishes and materials are compatible with *NASF Guideline E*.**

03 **To ensure that roof designs and equipment are compatible with *NASF Guideline F.***

Guidelines

2.4.1 Roof forms should be integrated with the overall building facade design and designed in accordance with *NASF Guideline F*.

2.4.2 Roofs should be simple in form and detail to reflect their non-residential character.

2.4.3 Where the underside of roofs are visible, such as covered walkways and awnings, they should be designed to be attractive and well-detailed.

2.4.4 Where possible, roof forms should be designed to delineate the office and entry areas of buildings from industrial areas.

2.4.5 All roof mounted mechanical equipment shall be designed to integrate with the whole building design or shall be screened from the street by parapet walls or screening. Screens shall be designed to compliment the architecture of the building. All screening shall be a minimum height of the roof mounted mechanical equipment.

2.4.6 Consider site orientation in the design of roof forms so that elements such as eaves can respond to solar protection requirements.

2.4.7 All metal deck roofing should be of a matt finish and non-reflective and non-distracting to pilots, in accordance with *NASF Guideline E*.

Reference Documents

01 **NASF Guideline E: Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports**

02 **NASF Guideline F: Managing the Risk of Intrusions into the Protected Airspace of Airports**

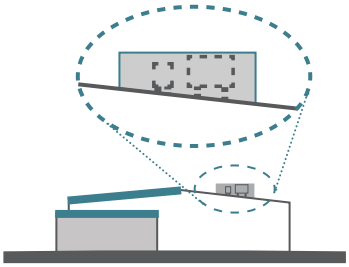


Figure D.4.7 - Roof forms for entry and office areas should be distinct from industrial parts of the building and appropriately screened.

2.5 Materials and detailing

Objectives

01 **To ensure buildings compliment and respect the preferred contemporary business park character.**

02 **To support the desired high quality, contemporary character of Melbourne Airport through the use of appropriate colours, materials and finishes.**

03 **To maintain a high quality airport character through the use of materials that are durable, robust and require low maintenance.**

04 **To encourage ESD, including the use of sustainable and recyclable construction materials as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide*.**

Guidelines

2.5.1 Development should use a colour palette on new buildings that compliments the surrounding context and must be approved by Melbourne Airport.

2.5.2 External finishes should be of low reflectivity, using non-reflective cladding materials to minimise glare and reflection to surrounding areas, in accordance with *NASF Guideline E*.

2.5.3 To promote an engaging streetscape visible façades should incorporate materials such as masonry, brickwork and low reflectivity Alucobond (or similar). On large façades areas of higher quality material should be concentrated around entrances, office areas and high visibility areas of buildings. Other materials may be approved subject to factors including as maintenance, appearance and compliance with *NASF Guidelines E*.

2.5.4 Concrete walls should have an applied texture finish or other suitable cover or finish such as high quality textured or patterned concrete finishes.

2.5.5 All metal finishes must be Colorbond (or equivalent).

2.5.6 All metal deck roofing should be of a low-reflective finish and non-distracting to pilots.

2.5.7 Low maintenance should be a major consideration in the selection of materials.

2.5.8 Substitution of approved materials will only be allowed if a material of the equivalent quality and specification can be provided.

2.5.9 Where possible specify sustainable materials and services as outlined in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide.*

2.5.10 Reduce the construction carbon footprint by using locally produced materials with low embodied energy, where possible.

Reference Documents

01 Melbourne Airport Sustainable Buildings and Infrastructure Guide

02 Melbourne Airport Engineering Standards

03 NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports

Referral Departments

01 Melbourne Airport Engineering

02 Melbourne Airport Environment

03 Melbourne Airport Property Management

This contemporary facade treatment utilises high quality materials and articulation.

Located in the Melbourne Airport Business Park ,this facade treatment uses contemporary materials to articulate the office and entrance from the industrial section of the building.

A high level of transparency in this contemporary building activates the surrounding public realm.

3. INFRASTRUCTURE & SIGNAGE

3.1 Site services

Objectives

01 **To ensure site services, including water, power, gas, communications and waste, can be easily accessed and maintained.**

02 **To ensure site services are incorporated into the design of new developments.**

03 **To encourage best practice ESD to meet the sustainability indicators as set out in the *Melbourne Airport Sustainable Buildings and Infrastructure Guide* and the *Melbourne Airport Master Plan*.**

04 **To ensure site services, are compatible with Australian standards.**

Guidelines

3.1.1 Confirm location of easements for infrastructure and utilities prior to seeking PDA.

3.1.2 Discuss future planned infrastructure requirements and capacities with Melbourne Airport Infrastructure and Utilities Department prior to seeking PDA.

3.1.3 Site services, such as substations and fire fighting equipment should be incorporated into the design of the overall development.

3.1.4 Kiosk Substations shall be accessible to personnel and vehicles for operation and maintenance activities at all times. Where the Substation is within a secure area, access arrangements shall be agreed with the Melbourne Airport Electrical Assets Manager prior to approval to construct being granted.

3.1.5 No fencing or other structures shall be constructed within 3 meters of Kiosk Substations.

3.1.6 Where fencing is constructed within a zone of 3 meters and 7 meters of a Kiosk Substation it shall be constructed from non-conductive material. Fencing should be black in colour and battens are to be fixed vertically to align with the spacing of the palisade fencing. Timber fencing material is not to be used. Materials such as ModWood may be appropriate.

3.1.7 Where Kiosk Substations are located proud of the fence-line, appropriate landscape screening should be provided.

3.1.8 Solar boosted hot water systems are to be provided where practicable.

3.1.9 Incorporate rainwater tanks on each building of at least 5,000 litres to collect runoff from roof areas. Large buildings may require increased tank capacities. The water should be used for landscape irrigation, cleaning and toilet flushing. Grey and black water treatment systems must be designed in accordance with EPA requirements and the *Melbourne Airport Sustainable Building Guidelines*.

3.1.10 Waste storage areas shall be provided with the minimum dimensions of 3.0 x 5.0 metres for the storage of an industrial waste container and located so as to be readily and safely accessible for regular servicing and removal. Waste storage containers to be covered and screened from the street.

Reference Documents

01 **Melbourne Airport Master Plan (latest version)**

02 **Melbourne Airport Sustainable Buildings and Infrastructure Guide (latest version)**

03 **Engineering and Australian Standards**

Referral Departments/Documents

01 **Melbourne Airport Engineering Standards**

02 **Melbourne Airport Infrastructure and Utilities**

03 **Melbourne Airport Electrical Assets Manager**

04 **Melbourne Airport Property Management**

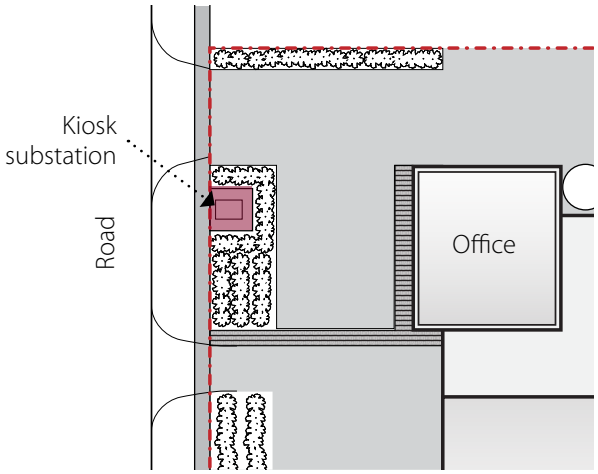


Figure D.4.8 - Locate kiosk substations within site setbacks where possible

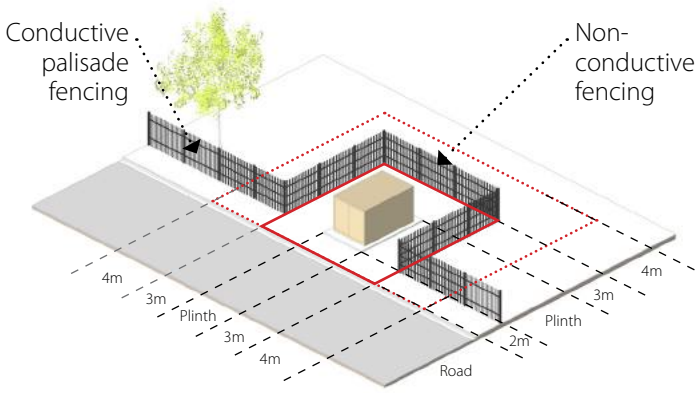


Figure D.4.9 - An acceptable approach to screening a Kiosk Substation

3.2 Signage

Objectives

01 **To ensure signage and advertising is designed and located to be compatible with the character of the precinct.**

02 **To provide for the identification of businesses in a way that maintains the character and amenity of the street and is designed to be compatible with visually sensitive areas.**

03 **To ensure signage is informative and co-ordinated in a way that enables customers to easily locate the industry or business and determine its services.**

04 **To ensure business signage does not interfere with airport-related and VicRoads wayfinding.**

05 **To ensure signage complies with *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E*.**

Guidelines

An example of corporate signage integrated within the building facade.

Signage that is informative, identifies the business name and address and is dissimilar to airport-related signage, as required by the *Melbourne Airport Wayfinding and Signage Guidelines*.

3.2.1 Advertising and corporate signage should not obstruct or detract from passenger/visitor movements, regulatory and safety related signage, or impede lines of sight associated with wayfinding.

3.2.2 Advertising and corporate signage should be integrated into the design of buildings by forming a logical element of the front facade and be in keeping with the scale of the facade.

3.2.3 Advertising and corporate signage should be dissimilar to Melbourne Airport signage, in particular, use of black background colour should be minimised.

3.2.4 Directional signage should be provided within sites to delineate entries and exits, staff and visitor parking, office /reception areas, and loading areas. Directional signage within the site should be consistent in style and form.

3.2.5 Signage should be limited in numbers to avoid visual clutter and unnecessary repetition.

3.2.6 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 that it is co-ordinated with the shared sign in terms of style and materials.

3.2.7 Free-standing advertising and corporate 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 free-standing 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 streetscape character and key views to the area.

3.2.8 Signage attached to front fences and temporary A-Frame signage on footpaths should be avoided.

3.2.9 Signs must not be animated (eg. move, rotate, flash).

3.2.10 Business identification signs which are erected closer to a road than the a distance equal to half the height of the sign are discouraged.

3.2.11 All signage associated with airport-related movements and wayfinding should be designed to in accordance with the *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E*.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

02 **NASF Guideline E - Managing the risk of distractions to pilots from lighting in the vicinity of airports**

03 **Hume Planning Scheme - Clause 22.09 and Clause 52.05 - Advertising Signs, and Local Policy**

3.3 Miscellaneous advertising and promotional features

Objectives

01 **To ensure advertising and promotional materials support the desired contemporary and progressive character of the precinct.**

02 **To ensure advertising and promotional materials are compliant with the *Melbourne Airport Wayfinding and Signage Guidelines* and *NASF Guideline E.***

Guidelines

3.3.1 Moving and inflatable structures or advertising features are generally discouraged. Such features will only be allowed where it can be demonstrated, to the satisfaction of Melbourne Airport PD that they will not detract from the character or the safe and efficient operation of the airport.

3.3.2 Displays and events, such as outdoor vehicle displays or product demonstrations, must be approved by Melbourne Airport PD.

3.3.3 There should be a maximum of one flag pole per site. PD may not approve flag poles in strategic locations. Flag poles will be subject to a Prescribed Airspace Assessment.

Reference Documents

01 **Melbourne Airport Wayfinding and Signage Guidelines (latest version)**

02 **NASF Guideline E - "Managing the risk of distractions to pilots from lighting in the vicinity of airports"**

03 **CASA - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations**

3.4 External Lighting

Objectives

01 **To support a safe and secure public realm, particularly along pedestrian and cycling routes, through the provision of efficient and functional street lighting.**

02 **To compliment building design and form with appropriate external, integrated lighting.**

03 **To support Melbourne Airport's commitment to reduce energy consumption and operational greenhouse gas emissions by providing high-efficiency external lighting solutions.**

04 **To ensure that external lighting solutions are designed to minimise distractions to pilots, in accordance with *NASF Guideline E.***

Guidelines

3.4.1 Use appropriate street lighting types to reinforce the movement network hierarchy and a safe and secure pedestrian network.

3.4.2 High efficiency external lighting such as LED solutions should be used in streets, building surrounds, public space and car parks, where practi

3.4.3 Steps must be taken to prevent lighting from casting glare onto adjacent sites, streets and into adjacent building windows.

3.4.4 In order to maintain the integrity of Melbourne Airport's Airport Lighting System, and to reduce light emissions to aircraft, lighting should not spill above the horizontal plane. In instances where lighting could move as a result of wind events or misalignment during maintenance, ensure it will not spill above the horizontal plane.

3.4.5 Any proposal incorporating coloured lighting, even where lighting is low-intensity, must be referred to Melbourne Airport Operations Department for approval. In some circumstances Melbourne Airport may seek advice from CASA.

Reference Documents

01 **NASF Guideline E - "Managing the risk of distractions to pilots from lighting in the vicinity of airports"**

02 **CASA - Manual of Standards, Part 139 – Aerodromes**

Referral Departments

01 **Melbourne Airport Operations**

02 **CASA**

3.5 Acoustic protection

Objectives

01 To ensure noise impacts on building occupants are minimised.

Guidelines

3.5.1 Buildings must conform to Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

3.5.2 Buildings located near busy roads and other sources of noise should be designed to minimise noise impacts to office areas and other habitable spaces.

3.5.3 Consider the acoustic impacts from future planned road and rail infrastructure when designing buildings.

3.5.4 Solutions to minimising noise impacts may include double glazing, operable screening, and landscape planting and mounding.

Referral Departments/Documents

01 Melbourne Airport Master Plan (latest version)

02 Australian Standard 2021-2000 Acoustics – Aircraft Noise Intrusion – Building Siting and Construction (AS2021).

03 NASF Guideline A: Measures for Managing Impacts of Aircraft Noise

3.6 Plume Rise Assessment

Objectives

01 To manage the potential impacts of vertical exhaust plumes on airport operations at Melbourne Airport.

Guidelines

3.6.1 Building design and operation must conform to *CASR Advisory Circular AC139-5(1) Plume Rise Assessments* (latest version).

3.6.2 Vertical exhaust plumes (smoke, steam etc.) from stacks, vents and cooling towers in excess of 4.3 meters per second velocity, must be assessed by PD.

3.6.3 PD may refer the proposal to external departments for assessment and may impose conditions.

Reference Documents

01 CASR Advisory Circular AC139-5(1) Plume Rise Assessments (latest version)

4. PARKING & ACCESS

4.1 Pedestrian and cycle access

Objectives

01 **To provide for safe, convenient and dignified access throughout developments by people using bikes, wheelchairs and prams.**

02 **To minimise conflict between vehicles, bikes and people through the provision of off-road cycling paths, where possible.**

03 **To encourage walking and cycling at Melbourne Airport.**

04 **To ensure cyclists have safe access to bicycle parking areas and appropriate end of trip facilities.**

05 **To ensure future roads have provision for shared footpaths within the road reserve, where appropriate.**

Guidelines

4.1.1 Pedestrian routes must be accessible to people of all mobility levels with minimal variation in grade and adequate space for luggage trolleys, wheelchairs, prams, families and large groups.

4.1.2 The pedestrian network must be legible and accessible to people of all mobility levels by using a consistent paving treatment, kerb access ramps, tactile paving and appropriate way finding and signage strategies.

4.1.3 The pedestrian network should provide passengers and visitors with links between public areas, parking areas, transport hubs and building entries.

4.1.4 Provide off road cycle paths throughout the precinct, in accordance with *Part B - Vision and Strategies - 1.5 Pedestrian and cycle network* of this document.

4.1.5 Design driveway access to minimise vehicle and pedestrian / cyclist conflicts by maintaining clear view lines between the exiting or entering vehicle and pedestrians.

4.1.6 Pedestrian routes to public areas and main entries in a development should be lit with low-glare or baffled lighting.

4.1.7 The location of bicycle parking should be easily accessible from the street and be located at ground level.

4.1.8 A bicycle space for an employee must be provided either in a bicycle locker or at a bicycle rail in a lockable compound.

4.1.9 Bicycle facilities should be adequately lit during periods of use.

4.1.10 Vehicle access and circulation areas should be designed to ensure clear sight lines for pedestrians and cyclists.

4.1.11 Bicycle parking should be secure and / or located in an area subject to passive or active surveillance. Bicycle parking is to be compliant with *Clause 52.34* of the *Hume Planning Scheme*.

4.1.12 Showers, lockers and change rooms should be provided in accordance with *Clause 52.34* of the *Hume Planning Scheme*.

4.1.13 Bicycle parking is to be provided on-site in accordance with the following table:
Bicycle parking requirements

Use	Ratio
Office Areas	1:300m^2 if net floor area exceeds 1000m^2
Research & development	2.9 :100m^2
Bulky Goods/Retail	1:1000m^2
Industrial / Warehouse	1:1000m^2

Reference Documents

01 **Melbourne Airport Landside Planning and Urban Design Strategy (this document), Part B - 1.5 Pedestrian and cycle network**

02 **Hume Planning Scheme - 52.34 - Bicycle Facilities**

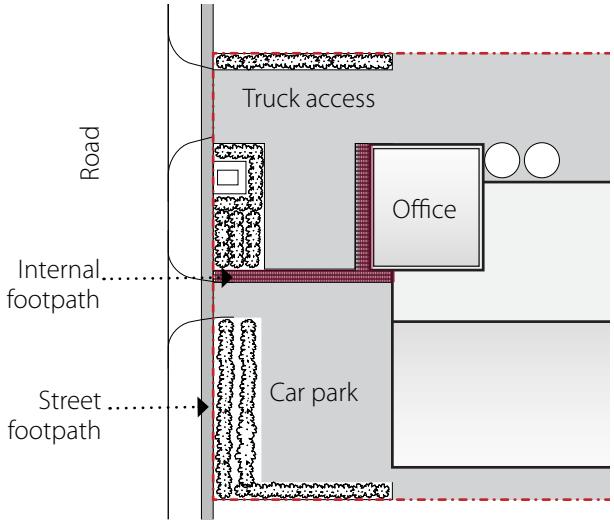


Figure D.4.10 - Safe pedestrian access should be provided from street footpaths to the main entry of buildings.

Clearly defined pedestrian pathways within a car park to support improved pedestrian safety.

Landscaping defines the path, contributes to a higher quality public realm and separates pedestrians from traffic movements.

4.2 Vehicle access and parking

Objectives

01 **To ensure the location, design and layout of car parking and car park access is integrated with the overall site planning and building design and meets the maximum safety standards.**

02 **To provide safe and secure car parking.**

03 **To manage potential conflict between vehicles, building occupants, pedestrians and cyclists.**

04 **To minimise the visual impact of car parking from the street.**

05 **To provide adequate car parking for a variety of business / industry uses.**

Guidelines

4.2.1 Security lighting should be provided to vehicle parking areas and entries. Light spillage to buildings and adjacent sites should not impact on amenity. Light is not to spill above the horizontal plane and be compliant with NASF Guideline E.

4.2.2 Vehicle access ways within the front setback and areas shared by vehicles and pedestrians should be a dressed surface treatment other than standard grey concrete.

4.2.3 Disabled car parking should be provided close the main entrance of buildings and be connected to the entry with a DDA compliant path.

4.2.4 Car parking bays and access for people with disabilities should be designed and provided in accordance with the AS 1428.1-2009.

4.2.5 Design driveway access to minimise conflict between vehicles, pedestrians and cyclists by maintaining clear view lines between the exiting/entering vehicles and pedestrians and minimising vehicle crossovers. Consolidate access with adjacent sites, where possible.

4.2.6 Clear sight lines should be provided at the vehicle exit point with shrub planting restricted within the immediate vicinity to a maximum of 500mm in height.

4.2.7 Where car parking requirements are undefined, car space allocation should be provided for visitors and occupants in accordance with the provisional rate indicated 52.06 of the Hume Planning Scheme.

4.2.8 Loading and servicing areas should be located to the rear of building and, where possible, consolidated service lanes with adjoining land holdings.

4.2.9 Truck and delivery access must be separate from visitor and staff access.

4.2.10 Basement car parks should be designed with the following considerations:
•Provide natural ventilation where practicable
•Integrate ventilation grilles or security gates into the facade and landscape design
•Provide security gates, conceal service pipes and ducts, to improve the appearance of basement entries from the street.

4.2.11 Integrate ventilation grilles or security gates into the facade and landscape design

4.2.12 Provide security gates, conceal service pipes and ducts, to improve the appearance of basement entries from the street.

4.2.13 Car parking is to be provided on-site generally in accordance with the following table:

Car parking Rates

Use	Ratio
Office	3.5 :100m^2
Research & development	3.5 :100m^2
Retail/Shop	4 :100m^2
Restricted Retail Premises	3:100m^2
Industrial	2.9 :100m^2
Warehouse	2+ 1.5:100m^2

4.2.14 Car parking rates may be varied from those outlined in the table at cl. 5.2.13 in consultation with PD. Decisions to allow variations in car parking rates will be based on factors including specific development function and programming, staff and visitor numbers, access to alternative forms of transport, and access to reasonable alternative car parking facilities.

Reference Documents

01 **Hume Planning Scheme - 52.06 - Car Parking**

02 **Australian Standard 1428.1-2009 - Design for access and mobility - General requirements for access - New building work (AS 1428.1-2009)**

03 **NASF Guideline E - Managing the Risk of Distractions to Pilots from Lighting in the Vicinity of Airports**

4.3 Loading and Servicing

Objectives

01 **To provide safe and efficient loading and servicing of commercial and operational premises.**

02 **To minimise the visual impact of loading bays and service areas when viewed from the surrounding streets and other existing and planned viewing opportunities.**

Guidelines

4.3.1 Loading areas should be located to the rear or side of the property away from the primary street frontage.

4.3.2 Where practicable, integrate loading areas into the design of the building so that loading occurs internally. Where external loading areas are visible from adjoining land uses, they should be screened with landscaping or architectural screening.

4.3.3 Loading and servicing should occur with the vehicle completely contained within the site. No part of the vehicle should extend into the public road reserve.

4.3.4 Loading and servicing should be designed to service a range of vehicle types in order to provide for flexibility pursuant to *Clause 52.07 of the Hume Planning Scheme*.

4.3.5 Access to loading areas should be clearly separated from pedestrian and bicycle access routes, and where practical, separated from vehicle access routes.

4.3.6 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 Hume Planning Scheme* for size and dimensions.

4.3.7 Loading areas should be clearly defined with line marking, designed to allow unobstructed vehicle access and provide appropriate turning areas in accordance with *AS 2890.2*.

4.3.8 Areas need to be set aside for truck queuing on site. Melbourne Airport will not allow truck queuing to occur on its roadways adjoining the site. Tenants will need to demonstrate truck space demand requirements at the busiest time of day.

4.3.9 Only two vehicle crossings points are permitted per site to each road abuttal. These are as follows: One combined entry/exit for visitor & staff vehicles. One combined entry/exit for trucks and heavy vehicles.

4.3.10 Adequate provision for loading and unloading of vehicles must be made, together with an area set aside for industrial waste collection.

4.3.11 Loading areas shall not be used for any other purpose.

4.3.12 No materials, supplies or equipment, including trucks and other motor vehicles, shall be stored upon a site except inside a building. No outdoor storage areas shall be provided.

Reference Documents

01 **Hume Planning Scheme - Clause 52.07 - Loading and Unloading of Vehicles**

02 **Australian Standard 2890.2 - Parking facilities Part 2: Off-street commercial vehicle facilities (AS 2890.2)**

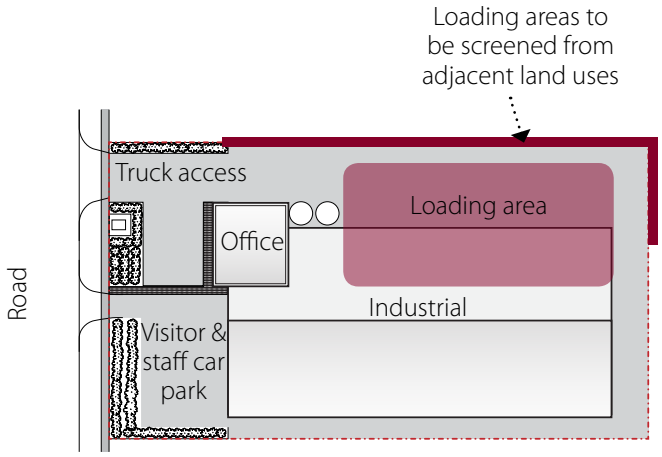


Figure D.4.11 - Loading areas should be located away from road frontages and separated from pedestrians, bicycles and other vehicles.

MELBOURNE AIRPORT

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