Ocean Reef Marina Mixed Use Precinct
Draft Design Guidelines

Prepared for **DevelopmentWA**
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Mixed Use Precinct Design Guidelines

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1 INTRODUCTION

1.1 VISION, AIMS AND OBJECTIVES

The overall vision for Ocean Reef Marina is to be a world class waterfront precinct providing recreational, tourism, residential and boating facilities. The aims for the Ocean Reef Marina are:

- The creation of a vibrant waterfront commercial precinct and public open space that will provide recreational amenity and a tourist destination for local residents and visitors to Perth;
- The creation of sustainable employment opportunities in food and beverage, retail, service commercial, tourism and marine related industries;
- The provision of diverse housing density and choice, within a high-quality residential environment;
- The delivery of an economically sustainable marina development to include boat pens and boat stacking facilities to meet the future demands of a growing Perth metropolitan population;
- Delivery of a marina development and marine related commercial activities providing upgraded facilities for existing recreational marine-based clubs and users, while providing adequate separation between these activities and other land uses; and
- The appropriate management of environmental values.

The plan for the marina as a world class development includes:

- Two new outer breakwaters;
- Around 550 boat pens;
- At least 200 boat stackers;
- More than 1,000 houses and apartments;
- Approximately 12,000m² of retail, food and beverage and commercial space;
- Marine services inclusive of eight boat ramps and associated facilities for boating and recreation;
- A protected swimming area, beach, parks and open spaces for the local community and visitors; and
- Boat trailer and car parking to service the development and its visitor attractions.

Development within the Mixed Use Precinct (the precinct) should be consistent with the overall vision for the Ocean Reef Marina and the intent and objectives for the precinct as set out in the Improvement Scheme.

The Mixed Use Precinct is intended to deliver a preeminent, high-quality focal point within the Ocean Reef Marina to accommodate commercial, retail and residential development together with recreation, leisure, entertainment, food and beverage, public realm and parking.

The objectives of the overall Mixed Use Precinct are to:

- Ensure that the height and mass of buildings respects the outlook considerations from existing residential dwellings in the immediate vicinity and, where possible, ameliorates the impact of the dominant winds on the public realm experience in the precinct and along the waterfront;
- Provide different public open spaces that accommodate a variety of water-based, passive, active and socialising activities and events;
- Facilitate the growth of retail, commercial and hospitality uses over time whilst encouraging predominantly active, non-residential uses at ground level;
- Provide a continuous, immersive and interactive public experience along the water-edge via a wide pedestrian pathway and the provision of festival retail and food and beverage offerings in key locations;
- Provide permanent and short-term accommodation in positions that are compatible with non-residential activities, and that overlook public realm environments to take advantage of views and provide natural surveillance; and
- Encourage innovation and excellence in planning and design.

1.2 SITE CONTEXT AND DESCRIPTION

The Ocean Reef Marina (the site) is in a coastal location within the City of Joondalup's northern growth corridor and is approximately 25 kilometres north from the Perth CBD, 12 kilometres south of the Mindarie Keys Marina, six kilometres west of the Joondalup strategic metropolitan centre, and nine kilometres north of the Hillarys Boat Harbour.

The Joondalup City Centre is the CBD of the north west corridor with over 500,000m² net lettable area (NLA) of retail and commercial floor space, and home to the Joondalup Health Campus, Edith Cowan University Joondalup Campus and the Western Australia Police Academy.

This coastal area is adjacent to developed residential areas and approximately 2.5 kilometres south of Iluka and four kilometres south of Burns Beach. The site is home to the existing Ocean Reef Boat Harbour, Whitfords Volunteer Sea Rescue Group, the Ocean Reef Sea Sports Club and Joondalup City RSL Sub-branch including the ANZAC Memorial and these facilities will all be incorporated into the new marina development.

The location and the concept for the development integrates built form into the topography of the site and aims to:

- Maximise views for new development;
- Minimise potential impacts on the ocean outlook of the existing residents in the Ocean Reef suburb; and
- Settle the development into the landscape.

The precinct has been designed having regard to the Bush Forever backdrop with a sensitive development interface proposed along the southern, eastern and northern boundary.

The location also provides potential for deep water moorings. Likewise, the rocky shoreline and nearshore reef provides an area in which the development can be sited with minimal impact upon the sandy beaches at Mullaloo (south) and Burns Beach (north), and the surrounding residential development of the Ocean Reef suburb.

Primary access to the marina will be via three points from Ocean Reef Road including:

- A southern gateway at Boat Harbour Quays to provide the main access to the Marine Services Precinct;
- A central gateway via an extension of Hodges Drive, providing a direct line to the Mitchell Freeway, Joondalup City Centre and Joondalup Train Station; and
- A northern gateway providing the main access to the Residential Precinct.

In addition, active transport access includes a continuation of the north-south coastal Principal Shared Path for cyclist and pedestrians, connecting links to the local network of footpaths and cycleways and design considerations for legible circulation and safe movement within the marina and the key visitor destinations.

1.3 LOCAL CLIMATE AND CONDITIONS

The site has a typically Mediterranean climate with hot, dry summers through December to February with average air temperatures range from 17.5 – 30°C (63.5 – 86°F) and mild wet winters through June to August with average air temperatures ranging from 8 - 19°C (46.4 – 66.2°F).

In summer the average sea temperature ranges from 20.9 – 22.8°C (70 – 73°F). Temperatures reach their peak in March with an average of 23.4°C (74°F), and dip in winter to 19.4 – 21.3°C (67 – 70°F).

December experiences the most hours of daylight with sunrise at approximately 5am and sunset at 7:30pm. June has the least hours of daylight with sunrise at approximately 7:15am and sunset at 5:20pm.

The wind regime is dominated by the effects of the land-sea interface where offshore land breezes (easterly) are common in the morning and afternoon sea breezes (south-southwest) are common in the warmer months (refer **Figure 1**).

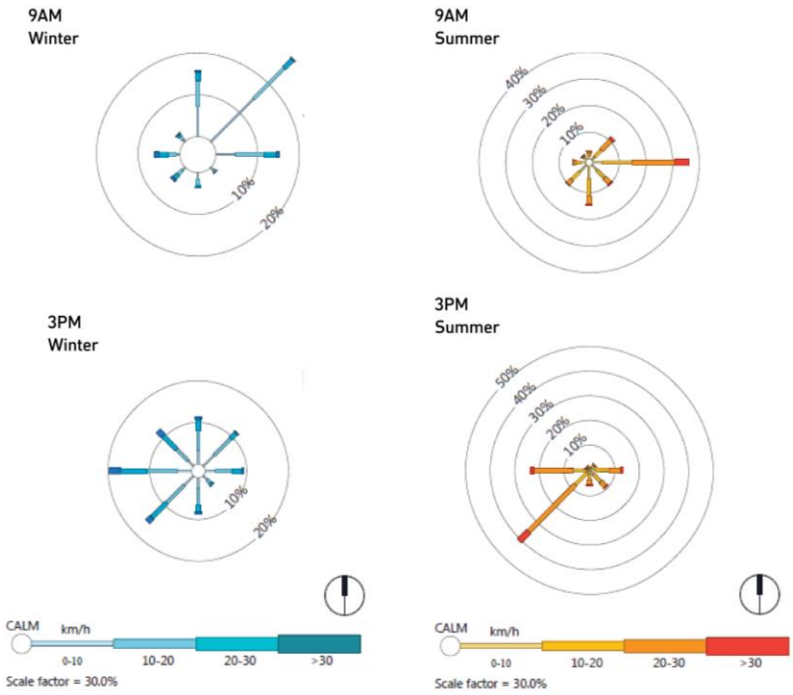


Figure 1: Ocean Reef Summer and Winter Wind Patterns

1.4 SITE FEATURES AND NATURAL ENVIRONMENT

The site is located on a rocky shoreline that runs from Mullaloo Beach (to the south) through to Burns Beach (to the north). There is a mixture of shallow rock platforms, nearshore reefs and rocks. The geological setting and subsurface units within the development envelope comprises of calcareous sands that form sandy beaches and Tamala Limestone outcrops that form the cliffs along the coast.

The majority of the subject land contains undulating dunal topography which varies in height up to approximately 12 metres. Modifications to the natural topography have occurred on-site as a result of construction of the existing groyne, car park, boat ramps and club buildings.

The marina is bounded to the west by the Indian Ocean including the Marmion Marine Park 'A' Class reservation. The Marine Park has a high habitat diversity and conservation amenity. This Ocean Reef location within the Marine Park has been chosen as the site for an offshore artificial reef to benefit the fishing, diving and boating community.

A new and protected man-made beach with safe swimming areas is proposed in a central location of the marina.

The Ocean Reef Marina site will be bounded on the landward side by the Bush Forever site 325 (BF 325) which spans between Burns Beach and Hillarys. The Bushfire Management Plan confirms that the site is capable of development. Impacts to BF 325 will be minimised through management techniques including but not limited to:

- Retention of a north-south linkage of remnant vegetation between Ocean Reef Road and the marina area (except where entry roads are provided);
- A Construction Environmental Management Plan will be prepared to address the management of terrestrial construction activities on the site, including clearing and earthworks;
- Rehabilitation of identified areas of remnant vegetation within the project area;
- Fencing and formalised access tracks through BF 325 (using existing cleared areas) to prevent unauthorised access to retained vegetation; and
- Interpretive signage to inform the community of the environmental and heritage values of the area.

The groundwater within the Improvement Scheme area flows in a westerly direction towards the coastline. There are no naturally occurring permanent surface water bodies, wetlands, or ephemeral streams within the Improvement Scheme area.

Water run-off will be captured on site and treated, ensuring pollutants and nutrients in the water are stripped prior to returning to groundwater utilising Water Sensitive Urban Design. This will be done with basins that are vegetated with nutrient stripping plants and designed to avoid mosquito breeding or stagnation of water, whilst maintaining a high aesthetic outcome. The inclusion of rocks, trees, crossing points, information signage and art will provide an opportunity to tell the 'story' of and celebrate water movement across site. Drainage and swale basins will be designed in a way that improves the community's experience of the public realm. Further information is contained in the Local Water Management Strategy for the Ocean Reef Marina.

There is a grade change across the site. Whilst some sites and areas of public realm may require retaining structures the aim of the Design Guidelines is to ensure that level changes are integrated into the built form wherever possible, that wall heights in the new works are minimal and that all edges are activated with building or vegetation as opposed to having blank walls.

1.5 TOPOGRAPHY AND SOIL CONDITION

Ground elevations across the site vary from 25 metres AHD in the eastern portion adjacent to Ocean Reef Road, to sea level along the coast to the west. Existing views from ridgelines and focal points into good quality vegetation, both within and external to the site can be retained and utilised to provide a backdrop (a strong and attractive visual edge to the site) to the proposed new development.

The Department of Mines and Petroleum geological mapping indicates that Safety Bay Sand and Tamala Limestone are expected on-site. Based on the results of the Preliminary Geotechnical Investigation for the site, the land is generally sand and limestone and is likely to be underlain by these materials to depths greater than 70 metres. No surface expressions of karst or cavernous features were identified on-site during investigations. The assessed likelihood of the occurrence of caves within the terrestrial component is considered to be "low". The site classification is likely to be "Class A", appropriate for most Perth sand sites, and shallow pad and strip foots are likely to be suitable.

The soil types present do not represent a risk of acid sulphate soils within the terrestrial or marine components of the location.

Development is anticipated to include cut to fill, to obtain desired development levels. The site can be developed in such a way that the cut to fill balance is approximately equal.

Figure 2: Mixed Use Precinct Site Contours

1.6 DESIRED URBAN CHARACTER

The Mixed Use Precinct will demonstrate an iconic destination while celebrating WA's marina culture and heritage. A variety of uses including a hotel, short-term accommodation, permanent residential, supporting food, beverage and retail, and recreational facilities will provide an appealing, urban character and a new vibrancy to the heart of this unique coastal setting. The atmosphere of this new precinct will be enhanced by buildings of distinction which will respond carefully to each other and to the public realm. Future development, particularly adjacent to the waterfront will need to be designed to respond appropriately to the central plaza and main street (Street 6), contributing positively to the streetscape environment in an integrated manner.

1.7 SUB-PRECINCTS

The Mixed Use Precinct is further defined as sub-precincts based on the future desired character, activity and mix of land uses (**Figure 3**). The specific sub-precinct objectives are as follows:

WATERFRONT

Key Attributes:

- The focal point of the Waterfront sub-precinct will be a highly functional urban plaza that will address the retail and commercial hub providing infrastructure for markets, alfresco and events;
- The central plaza will reflect the iconic and recognisable elements of the Ocean Reef Marina providing flexible space to support a range of uses over time;
- The plaza will accommodate a high quality pedestrian interface that prioritises pedestrians within the waterfront area and will incorporate design approaches to slow vehicle traffic through a one-way route enabling drop-off and pickup within the precinct;
- The precinct will provide for a node of activity including a combination of quality short-term accommodation, food and beverage, recreational and residential development;
- Day and night-time uses are encouraged;
- Careful consideration shall be given to the interface between the Waterfront sub-precinct and the public realm;
- A strong pedestrian spine will support the north-south movement across the site via the waterfront promenade; and
- The promenade allows for significant recreation opportunities, along with a connection to the waterfront and boats.

Shell Cover Harbour, QLD

MAIN STREET

Key Attributes:

- The primary main street (Street 6) will provide for an enhanced active interface with adjoining development, providing a strong, cohesive and consistent design approach that will engender the site aesthetic;
- The main street (Street 6) will be designed to provide clear way-finding and a low speed environment will be the primary access route connecting the Residential Precinct north and Marine Enterprise Precinct south;
- The Main Street sub-precinct will provide for small scale retail and commercial uses at ground level with increased residential densities, in contrast to the surrounding residential zoning, as well as short-term accommodation on upper levels;
- Active uses are encouraged adjacent to the north-south extension of Hodges Drive to assist in development of the main street (Street 6);
- Short or long-term accommodation is also a suitable use within the Main Street sub-precinct due to accessibility to the marina and amenities provided by the Waterfront sub-precinct; and
- A landmark building with ground floor activated uses will terminate the vista along the main street. It will provide a focal point at the end of the pedestrian boulevard, interfacing the public open space and marina.

Mandurah Marina retail centre

BEACH PARK

Key Attributes:

- The Beach Park sub-precinct will be the 'jewel in the crown' of the Ocean Reef Marina, providing a central recreational hub that will be a regional destination;
- The design approach for this area will be to provide for an iconic and recognisable space for the Ocean Reef community;
- The Beach Park sub-precinct will accommodate a mix of residential, short and long-term accommodation supported by small scale retail uses at ground level to activate the beach area; and
- To the south, public car parking will be provided as an entry point for pedestrians to connect to the beach and park environment.


Scarborough Beach

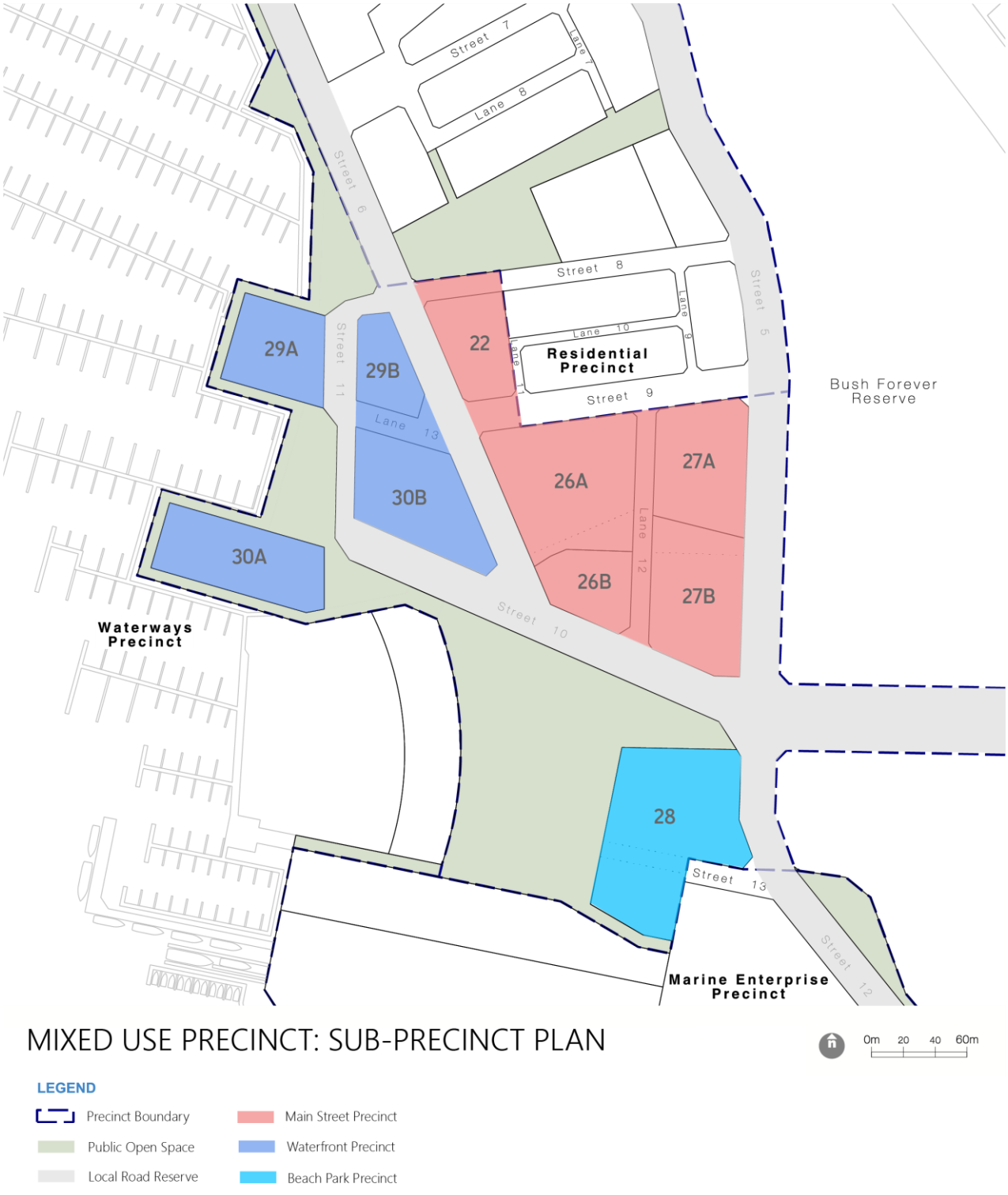


Figure 3: Sub-Precinct Plan

1.8 DESIGN PRINCIPLES

All development applications will be considered in the context of State Planning Policy 7.0 *Design and the Built Environment* (SPP 7) and the 10 principles of good design. For landmark sites where the quality of buildings and building design is of paramount importance, development applications must substantially and demonstrably exceed the requirements for "good" design quality and qualify as "excellent". These projects will be assessed against the design excellence performance criteria outlined in Appendix 1. Design requirements are intended to deliver an iconic development, making a unique contribution to the Ocean Reef Marina and to architecture along the Western Australian coastline.

SPP7 principle	Evaluation	Applicability to Ocean Reef Marina Mixed Use Precinct
Context and character	Good design responds to and enhances the distinctive characteristics of a local area, contributing to a sense of place.	Transition from the surrounding suburban residential character to the Mixed Use Precinct where density is introduced with sensitivity responding to the dunal topography and coastal setting.
Landscape quality	Good design recognises that together landscape and buildings operate as an integrated and sustainable system, within a broader ecological context.	Development that responds to and integrates the coastal landscape and public open space as a means to preserve and enhance the surrounding Bush Forever vegetation.
Built form and scale	Good design ensures that the massing and height of development is appropriate to its setting and successfully negotiates between existing built form and the intended future character of the local area.	Buildings of distinction which respond carefully to each other the public realm and the dual landscape setting contributing positively to the coastal setting in an integrated manner.
Functionality and build quality	Good design meets the needs of users efficiently and effectively, balancing functional requirements perform well and deliver optimum benefit over the full life-cycle.	High quality, high performing built form that responds to the areas unique coastal conditions to maximise activation of building edges and minimise the potential impact of wind, sun and airborne sand and salt water.
Sustainability	Good design optimises the sustainability of the built environment, delivering positive environmental, social and economic outcomes.	Development of built form and a landscape setting that is resilient and adaptive into the future, providing opportunity to integrate innovative design solutions that maximise the public amenity and minimise the impacts to the coast edge.
Amenity	Good design optimises internal and external amenity for occupants, visitors and neighbours, providing environments that are comfortable, productive and healthy.	Development of the beachfront location providing high visual amenity to be celebrated through appropriate building orientation, interface with adjacent public open space and outdoor living locations.
Legibility	Good design results in buildings and places that are legible, with clear connections and easily identifiable elements to help people find their way around.	Creation of a simple street network that is easy to navigate with high quality, distinctive and recognisable building edges and view corridors linking through landmark buildings and the public realm.
Safety	Good design optimises safety and security, minimising the risk of personal harm and supporting safe behaviour and use.	A safe and secure coastal environment that responds with appropriate building orientations, interface with the public realm, program of uses, lighting and careful location of pedestrian and vehicle entrances.

SPP7 principle	Evaluation	Applicability to Ocean Reef Marina Mixed Use Precinct
Community	Good design responds to local community needs as well as the wider social context, providing environments that support a diverse range of people and facilitate social interaction.	New development that accommodates a wide and diverse community providing for a mix of uses, activities, living and working opportunities.
Aesthetics	Good design is the product of a skilled, judicious design process that results in attractive and inviting buildings and places that engage the senses.	Reflection of the local coastal landscape influenced by the selection of materials and colours to create a distinctive, attractive and contemporary place.

1.9 RELATIONSHIP TO OTHER PLANNING DOCUMENTS

These Design Guidelines have been prepared under Clause 16 of the Ocean Reef Marina Improvement Scheme. In accordance with the Improvement Scheme, elements of State Planning Policy 7.3 *Residential Design Codes Volume 2 – Apartments* (SPP 7.3 Vol.2) are adopted in these Design Guidelines.

Due regard shall be given to the Design Guidelines in the determination of any subdivision and development applications.

If the provisions of these Design Guidelines are at variance with a requirement of an Improvement Scheme policy, the Design Guideline provisions shall prevail.

If the provisions of these Design Guidelines are at variance with a requirement of a local development plan (LDP), the LDP provisions shall prevail.

If the provisions of these Design Guidelines are at variance with a requirement of the Improvement Scheme, the Improvement Scheme provisions shall prevail.

1.10 DESIGN REVIEW AND APPROVAL PROCESS

The design review and development application assessment will be carried out by the Estate Architect.

The design review for development applications will be undertaken in accordance with SPP 7 and the design review methods and thresholds will be consistent with the associated Design Review guide.

The Estate Architect may liaise with the City of Joondalup and will liaise with the Department of Planning, Lands and Heritage to ensure the design review process is aligned with SPP 7.

The number of reviews will vary depending upon the complexity of a proposal, however it anticipated that at least three reviews will be required for the process to be effective.

1. Concept design stage

- At this stage, the design review will focus on the architectural form and fundamental relationships between the building and the surrounding environment of neighbouring developments, landscaping and common property. The design review does not focus on detail at this point but will evaluate concepts/schematic designs which complement the spirit of the Ocean Reef Marina vision and objectives and the Mixed Use Precinct Design Guidelines.

2. Design development/pre-DA lodgement

- At this stage the design review committee will provide an assessment of the design against the principles of SPP 7 and the criteria specified in the Design Guidelines.

3. Building permit stage

At this stage construction documents of the proposed design must be submitted. All construction plans will be required to be certified by a building surveyor as being in accordance with the Building Code of Australia.

Submissions for design reviews and development application assessments should be made in accordance with the Design Guideline compliance templates.

1.11 DOCUMENT STRUCTURE AND USE

These Design Guidelines apply to all development within the Ocean Reef Marina Mixed Use Precinct, and have been presented as a series of design elements, each dealing with a different aspect of building siting and design. Each design element includes the following sections to assist proponents in preparing their designs and applications:

A statement of **intent** explains the intended outcome and its importance.

The **element objectives** define the intended outcome underpinning the mandatory acceptable outcomes.

The **acceptable outcomes** must be met for all residential development proposals. They will collectively ensure that the intent and element objectives are met.

The **design guidance** section recommends some additional measures by which a development can achieve a higher level of sustainable design, community interaction, and architectural character.

The type of development that is being proposed will dictate the specific sections of the Design Guidelines that are applicable.

2 PRIMARY CONTROLS

2.1 PRIMARY CONTROLS

The controls identified in the primary controls table are applicable to all forms of development within the Mixed Use Precinct and replace the SPP 7.3 Vol.2 Primary Controls Table in its entirety.

Except where specifically noted within these Design Guidelines, development within the Mixed Use sub-precincts shall reference Part 3 of SPP 7.3 Vol.2 for all design intent, related elements, element objectives, acceptable outcomes and design guidance.

Development within the sub-precincts shall reference these Design Guidelines, the Ocean Reef Marina Improvement Scheme and where silent, SPP 7.3 Vol.2 for guidance.

The specific sub-precinct objectives, based on the future desired character, activity and land use outlined in Section 1.5, are as follows:

Waterfront Sub-Precinct

1. Establish a vibrant and attractive Waterfront sub-precinct centred around an attractive and inviting pedestrian-oriented plaza; and
2. Create a node of activity including quality short-term accommodation, food and beverage, recreational and residential development.

Main Street Sub-Precinct

1. Provide for small scale retail and commercial uses at ground level with increased residential densities, in contrast to the surrounding Residential Precinct;
2. Optimise residential development potential whilst maintaining the intended character of the Ocean Reef Marina; and
3. Maximise ocean views from the site and maintain significant vistas and view corridors to the ocean from the existing Ocean Reef Road residential area.

Beach Park Sub-Precinct

1. Provide attractive, pedestrian-oriented streets and public spaces that create a central focus for the Mixed Use Precinct; and
2. Minimise any conflicts between site development and surrounding land uses including the beach and working marina to the south.

The primary controls provide a framework to guide the form and scale of development in each of these sub-precincts.

KEY CONTROLS	DEVELOPMENT SITES									
	MAIN STREET SUB-PRECINCT					BEACH PARK SUB-PRECINCT	WATERFRONT SUB-PRECINCT			
	22	26A	26B	27A	27B	28	29A	29B	30A	30B
SITE PLANNING										
Site R-Coding	R-160	R-160	R-160	R-160	R-160	R-160	R-160	R-160	R-160	R-160
Plot ratio	2:0	3:0	3:0	2:0	2:0	2:0	2:0	4:0	2:0	3:0
Ground floor Land Use (Refer to Ground Floor Land Use Plan)	Non-residential use mandatory on ground floor [1]	Non-residential use mandatory on ground floor[1]	Non-residential use mandatory on ground floor[1]			Non-residential use mandatory on ground floor[1]	Non-residential use mandatory on ground floor[1]	Non-residential use mandatory on ground floor[1]	Non-residential use mandatory on ground floor[1]	Non-residential use mandatory on ground floor[1]
Tree Canopy	As per SPP 7.3 Vol.2						2 medium trees and small trees to suit area	2 medium trees and small trees to suit area	2 medium trees and small trees to suit area	2 medium trees and small trees to suit area
BUILDING HEIGHT										
Building Height Maximum (Refer to Building Height Plan)	22.5m (6 storeys)	33m (9 storeys)	22.5m (6 storeys)	19m (5 storeys)	22.5m (6 storeys)	22.5m (6 storeys)	15.5m (4 storeys)	22.5m (6 storeys)	15.5m (4 storeys)	22.5m (6 storeys)
Top of External Walls Minimum (at the building line of the Primary / Pedestrian Interface)[2]	15m (4 storeys)	11.5m (3 storeys)	11.5m (3 storeys)	8m (2 storeys)	8m (2 storeys)	8m (2 storeys)	8m (2 storeys)	8m (2 storeys)	8m (2 storeys)	8m (2 storeys)
Top of External Walls Maximum	Refer to Building Height Plan									
Roof Height Maximum (inclusive of structures and projections)	Refer to Roof Height Plan									
Building Height Envelope for Third Story and Above	Refer to Lot Specific Requirements. Otherwise, as per SPP 7.3 Vol.2.									
BUILDING SETBACKS – Minimum Dimensions (Refer Street Frontages Plan)										
Primary Interface Building Setback	Nil, except for residential 2m	Nil	Nil	1.5m	Nil	2m	Nil, except for residential 1.5m	Nil	Nil, except for residential 1.5m	Nil
Secondary Interface Building Setback	n.a	n.a	n.a	3m	3m	n.a	n.a	n.a	n.a	n.a
Side Street Interface Building Setback	Nil	Nil, except for residential 1.5m	Nil, except for residential 1.5m	Nil, except for residential 1.5m	Nil, except for residential 1.5m	n.a	n.a	n.a	n.a	n.a
Pedestrian Street/Public Domain Interface Building Setback	n.a	n.a	n.a	n.a	n.a	2m	Nil, except for residential 1.5m	Nil	Nil, except for residential 1.5m	Nil

KEY CONTROLS	DEVELOPMENT SITES									
	MAIN STREET SUB-PRECINCT					BEACH PARK SUB-PRECINCT	WATERFRONT SUB-PRECINCT			
	22	26A	26B	27A	27B	28	29A	29B	30A	30B
Access Easement Interface – Type 1 Building Setback	n.a	2m	2m	2m	2m	n.a	n.a	n.a	n.a	n.a
Access Easement Interface – Type 1 Building Setback	n.a	n.a	n.a	n.a	n.a	2m	n.a	n.a	n.a	n.a
Side Boundary Setback	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Rear Boundary Setback	Nil	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a	n.a
Upper Levels Street Setback	Nil	Nil, except for residential 1.5m	Nil, except for residential 1.5m	3m (above 4 storeys /15.5m)	3m(above 4 storeys /15.5m)	3m(above 4 storeys /15.5m)	Nil, except for residential 1.5m	Nil	Nil, except for residential 1.5m	Nil
Upper Level Side Boundary Setback	Nil	Nil, except for residential 1.5m	Nil, except for residential 1.5m	15m	3m (above 4 storeys /15.5m))	3m above 4 storeys /15.5m)	n.a	n.a	n.a	n.a
Upper Level Rear Boundary Setback	10m, above 4 storeys up to 15m	n.a	n.a	n.a	n.a	3m (above 4 storeys /15.5m)	n.a	n.a	n.a	n.a
Notes	[1] Excluding access to upper level residential areas [2] A single storey (to a maximum of 4.5m) inactivated boundary wall is only permitted to 25% of the total lot boundary and shall not exceed 2/3 the length of one boundary wall.									

Table 1: Mixed Use Precinct Primary Controls Table

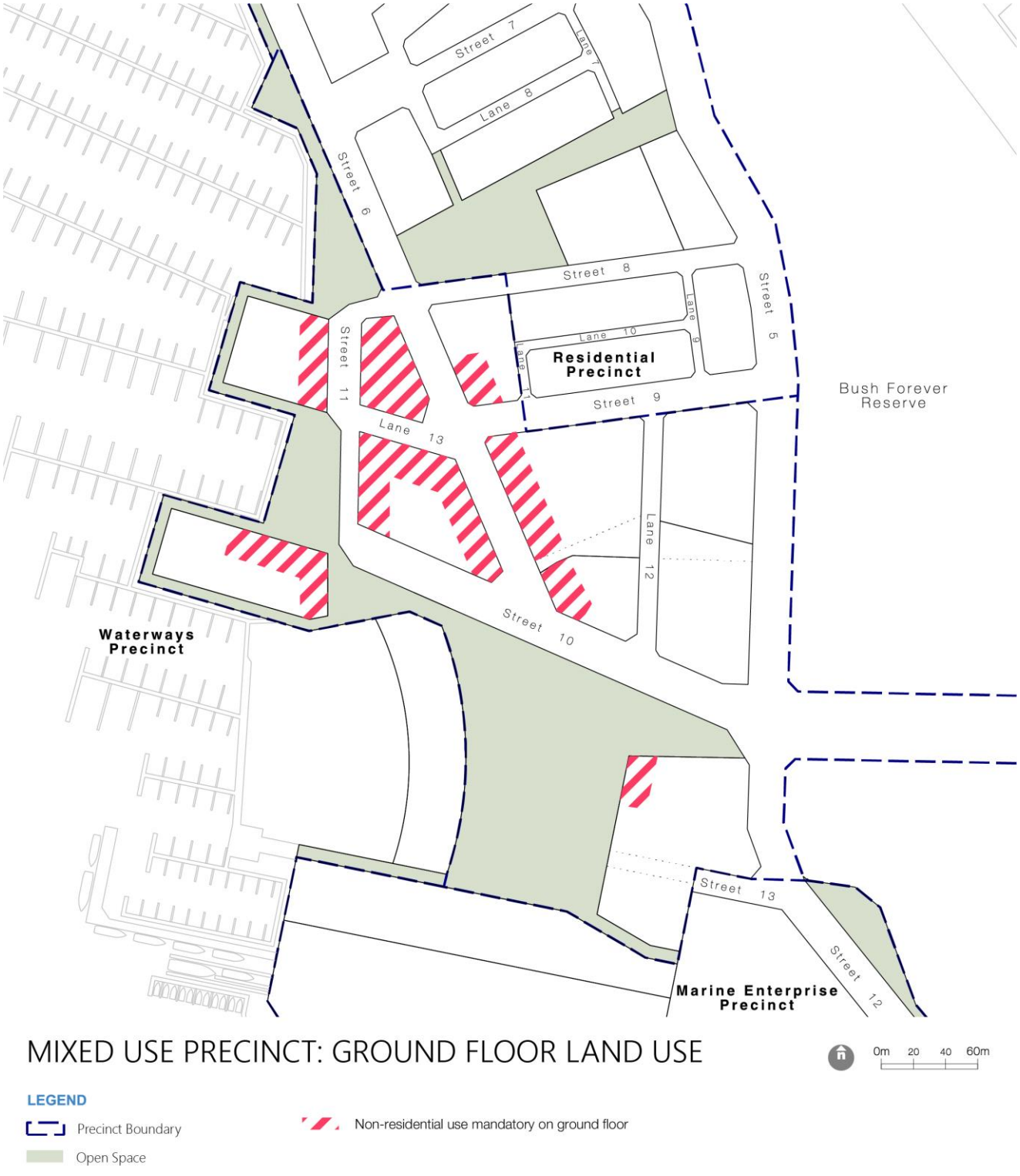


Figure 4: Mixed Use Precinct Ground Floor Land Use

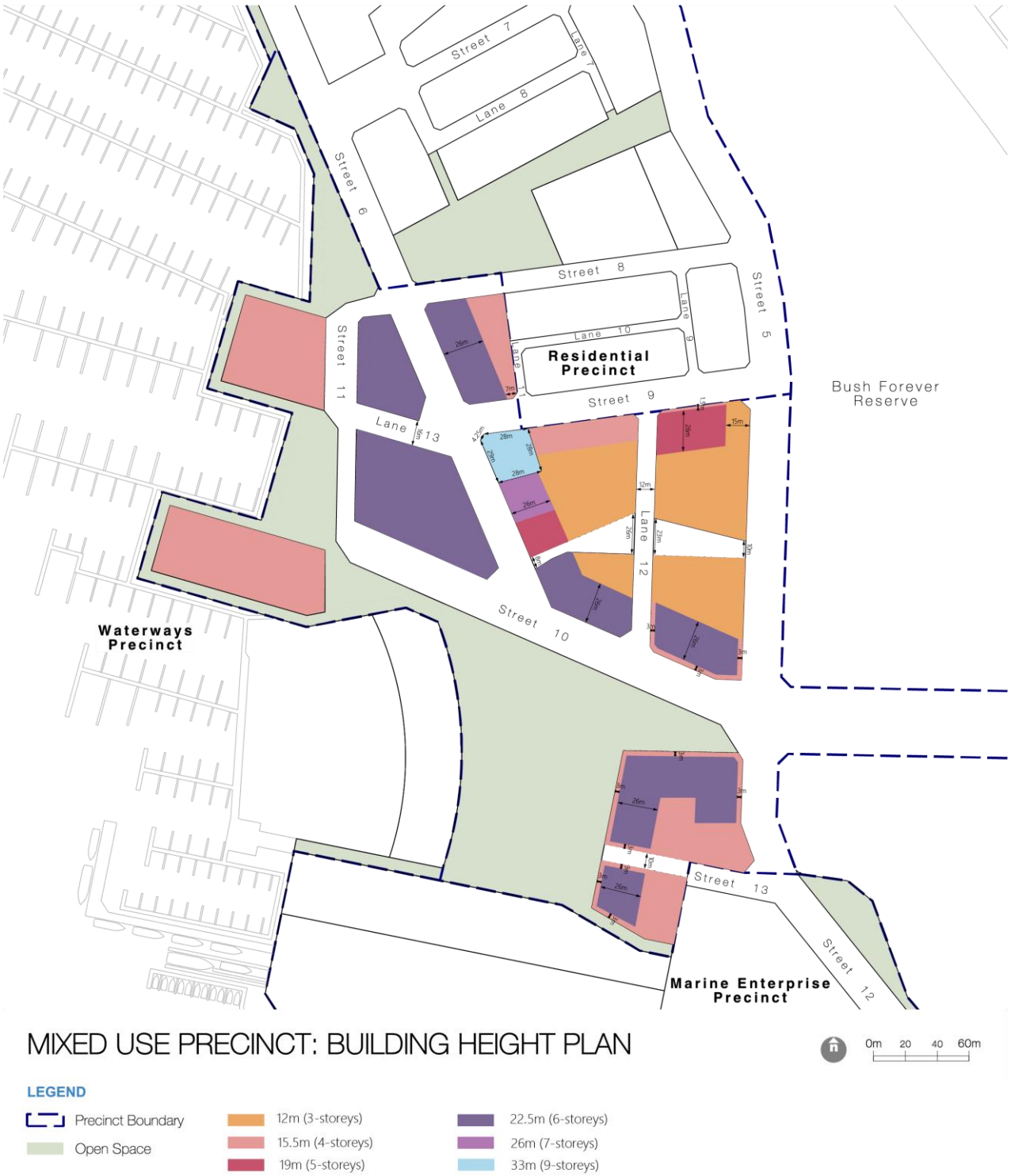


Figure 5: Mixed Use Precinct Building Heights

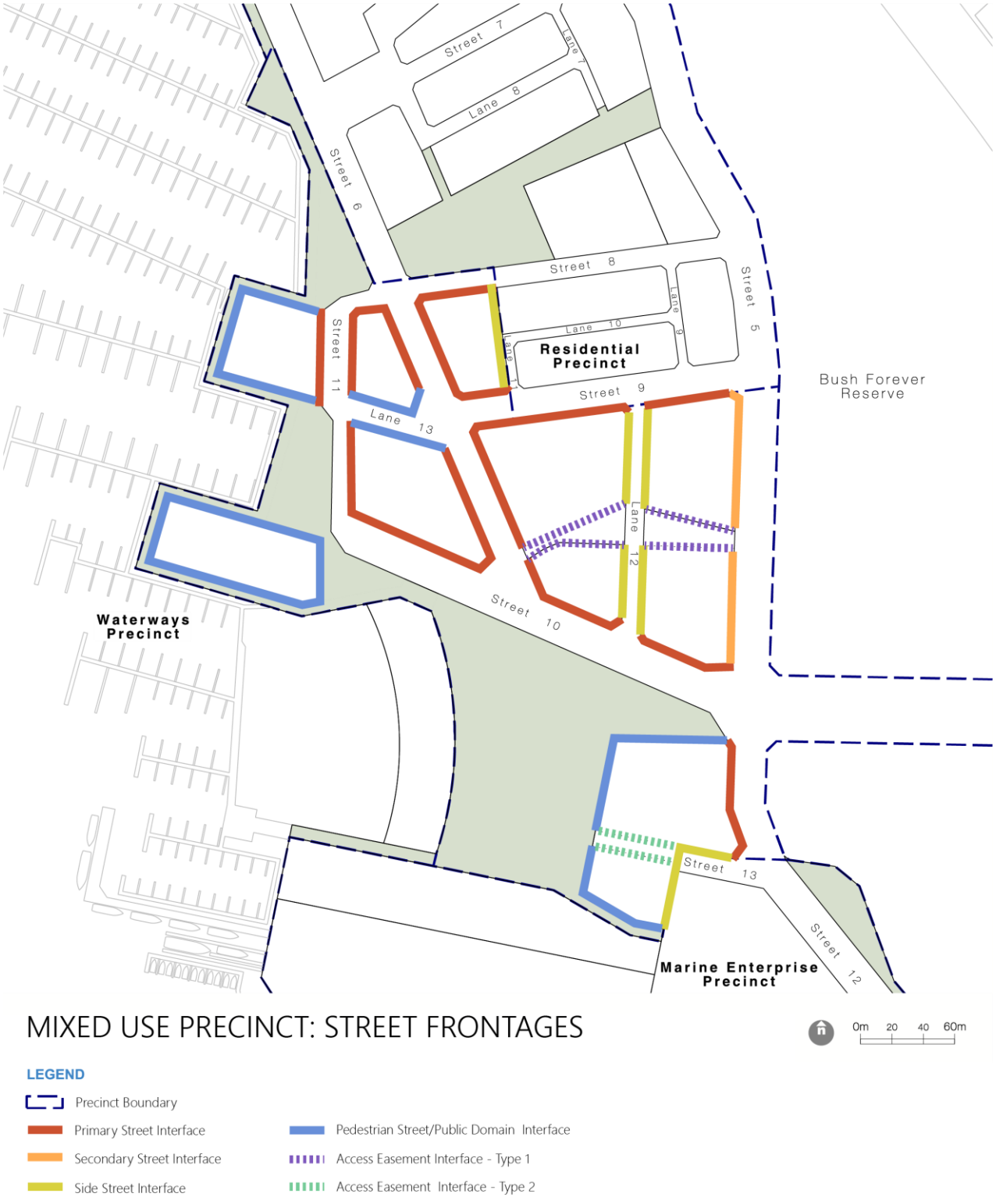


Figure 6: Mixed Use Precinct Street Frontages

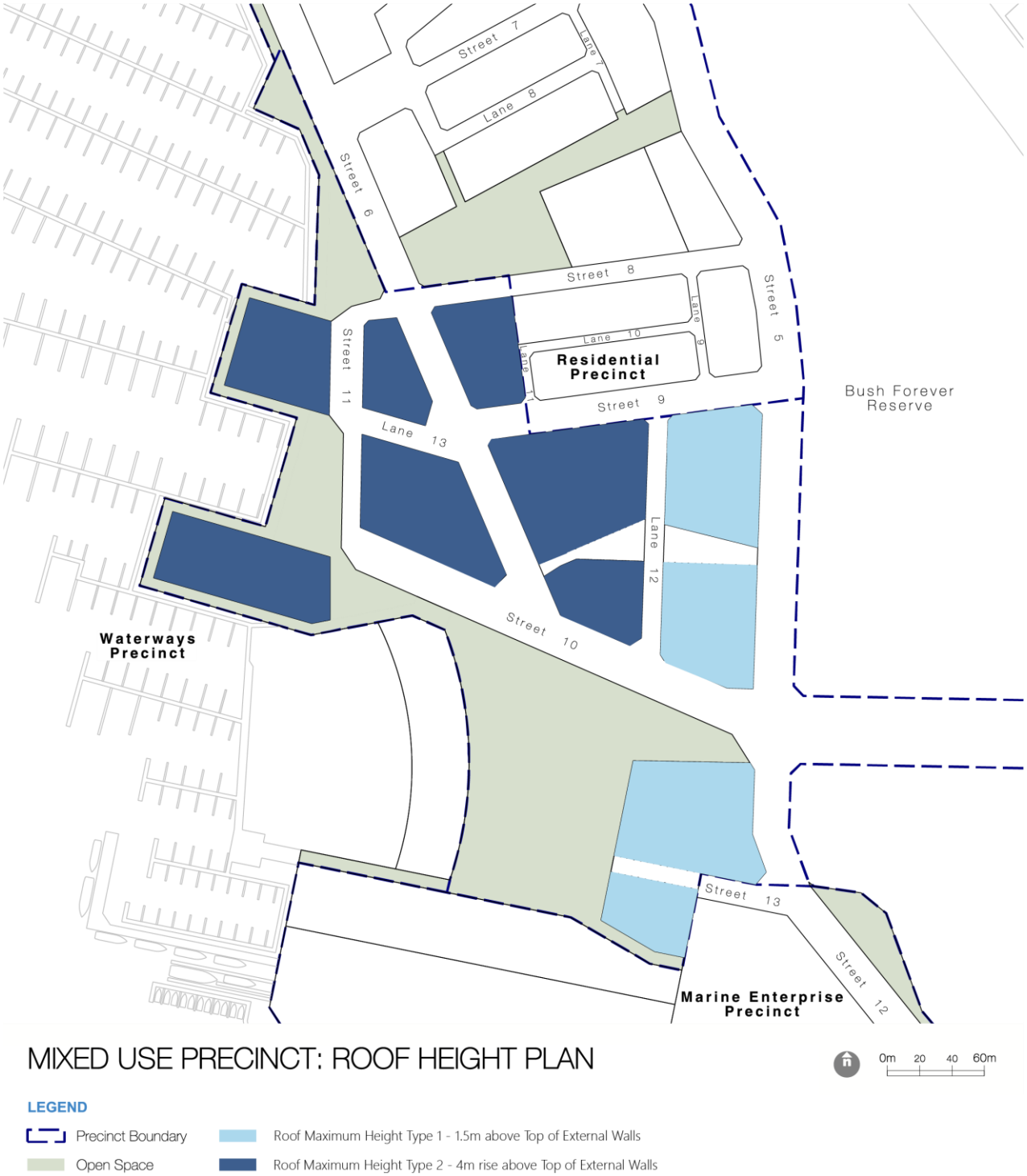


Figure 7: Mixed Use Precinct Roof Height Plan

2.2 BUILDING HEIGHT

The design intent, related elements, element objectives and Acceptable Outcomes described for this element at SPP 7.3 Vol.2 Part 2.2, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 2.2.

ELEMENT OBJECTIVES

1. Accommodate height along the main street to create a compact urban village at the centre of the precinct.
2. Create a recognisable urban character that compliments the coastal dune landscape and preserves key views and vistas from Ocean Reef Road.

ACCEPTABLE OUTCOMES

1. Development complies with the building height limit and roof height limits set out in the Primary Controls Table and in accordance with Ocean Reef Marina Improvement Scheme.
2. Building height (in metres and storeys) shall be measured from the height above natural ground level (NGL) at the point directly beneath the building to which it relates. The natural ground level is the ground level at the time the development application is made (**Figure 8**).

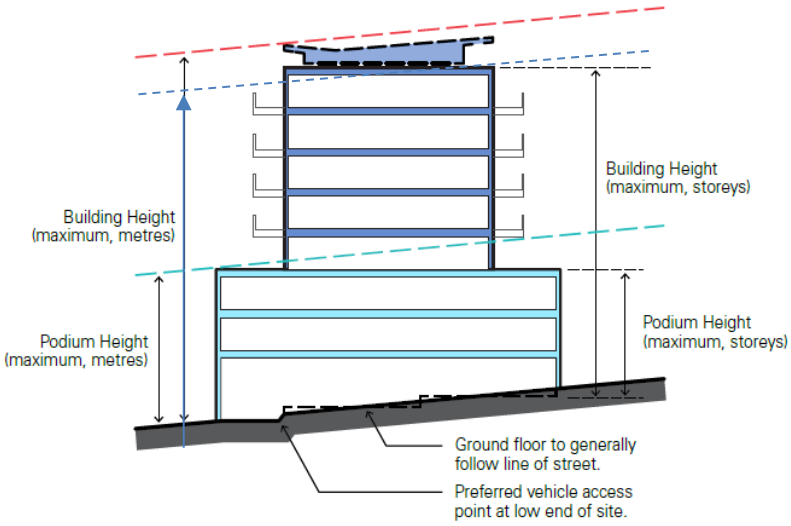


Figure 8: Height Measurement Diagram

DESIGN GUIDANCE

General Height Requirements

1. The distribution of building heights for the Mixed Use Precinct illustrated in Figure 5 have been nominated to:
    - Enable the creation of entry features, termination of vistas and opportunities for vertical architectural/corner elements;
    - Optimise solar access and provide zones of protection from the wind to buildings, public and private open space; and
    - Provide an appropriate interface with the public realm.
2. A minimum floor to floor height of 4.5 metres is encouraged for ground floor non-residential uses to allow for the adaptability of uses.
3. For commercial uses, floor to ceiling heights should be a minimum of 3.2 metres at ground level and a minimum of 2.7 metres for upper floors.
4. Commercial ground floors may be raised a maximum of 0.6 metres above the NGL at the property boundary.
5. Basements levels that are at least 50% below NGL by volume will not be included in the assessment of the number of storeys. Basement levels that protrude above ground level at the street interface shall be appropriately screened. Blank walls will not be accepted.
6. Subterranean car parking structures should protrude a maximum 1.5 metres above NGL. Where adjacent to street level, car park venting/service lids and other utility infrastructure should be dressed, hidden or screened in an appropriate manner to ensure they do not detract from the visual quality of the development.
7. Roof projections (Figure 7) excluded from the maximum permitted height, to a maximum of 4 metres, must demonstrate this space does not provide a core revenue generating function. Providing communal open space for residents or roof top gardens are encouraged.
8. Lift machinery rooms and other plant areas are exempt from the prescribed maximum building height but shall be designed or screened in an appropriate manner to ensure they contribute to the visual quality of the development.
9. For podium or sleeved car parking, provide floor to ceiling heights greater than vehicle clearance minimums to accommodate changes in future use, such as to residential or office uses.

2.3 STREET SETBACKS

The design intent, related elements, element objectives and acceptable outcomes described for this element at SPP 7.3 Vol.2 Part 2.3, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 2.3.

ELEMENT OBJECTIVES

1. Create tightly framed streetscapes along primary street frontages and pedestrian street frontages.
2. Influence and improve micro-climate and provide shelter for pedestrians.

ACCEPTABLE OUTCOMES

1. Development complies with the street setback set out in the Primary Controls Table, and in accordance with Ocean Reef Marina Improvement Scheme.
2. A nil setback to the main street is required to promote an active frontage and to facilitate the development of a high street environment, increasing vibrancy and alfresco opportunities connecting through to the central plaza.

DESIGN GUIDANCE

Primary Street Frontages

1. Development proposals should interface and respond to the streetscape and expected activity.
2. Variations to ground and first floor setbacks are encouraged for building articulation, alfresco dining and other features that add amenity and interest to the development.
3. Nil setbacks should be articulated to add interest to the public realm.
4. Buildings should assist with passive surveillance and security of the public domain by orientating openings and habitable living rooms towards this area. Avoid dark and deep recesses at ground floor level.
5. Balconies will be supported within the nil setback on levels 1-5 where a substantial façade is provided to ensure a continuous built form.

Pedestrian Street/Public Domain Frontages

1. A nil setback to the central plaza should be articulated with minor variations to provide for alfresco and promote activation, connectivity and views to the adjacent public realm.
2. Residential buildings should provide a minimum setback of 1.5 metres to the public boulevard. This setback area should include space for landscaping and outdoor living areas.
3. Setbacks should integrate with the design intent of the Landscape Master Plan.

2.4 SIDE AND REAR SETBACKS

The design intent, related elements, element objectives and acceptable outcomes described for this element at SPP 7.3 Vol.2 Part 2.4, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 2.4.

ACCEPTABLE OUTCOMES

1. Development complies with the side and rear setbacks set out in the Primary Controls Table, and in accordance with Ocean Reef Marina Improvement Scheme.

DESIGN GUIDANCE

1. On sites with solar access to the north, larger setbacks should be considered.
2. For development adjacent to the active marina, test side and rear setbacks with requirements for privacy, noise and tree planting.
3. For developments that are located within the Waterfront sub-precinct, or along the main street, developments should consider a nil side setback where the desired streetscape character is for a continuous development within the dense urban centre.
4. Development on Lane 12 should consider a nil side setback where the desired streetscape character is for a continuous edge overlooking the lane.

2.5 PLOT RATIO

The design intent, related elements, element objectives and acceptable outcomes described for this element at SPP 7.3 Vol.2 Part 2.5, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 2.5.

ACCEPTABLE OUTCOMES

1. Development complies with the plot ratio requirements set out in the Primary Controls Table, and in accordance with Ocean Reef Marina Improvement Scheme.
2. All sites should achieve a minimum of 75% of the plot ratio achievable under its designation.

DESIGN GUIDANCE

1. For the entire Mixed Use Zone, the maximum retail and commercial floorspace of 12,500m² NLA is permitted.
2. Retail floorspace should be distributed to lots edging the main street (Street 6) and the central plaza (Street 11).

2.6 BUILDING DEPTH

The design intent, related elements, element objectives and acceptable outcomes described for this element at SPP 7.3 Vol.2 Part 2.6, are applicable to all forms of development, within all sub-precincts.

2.7 BUILDING SEPARATION

The design intent, related elements, element objectives and acceptable outcomes described for this element at SPP 7.3 Vol.2 Part 2.7, are applicable to all forms of development, within all sub-precincts.

3 SITING THE DEVELOPMENT

THIS SECTION PROVIDES GUIDANCE ON THE DESIGN AND CONFIGURATION OF DEVELOPMENT AT A SITE SCALE.

Development within the Mixed Use sub-precincts shall reference these Design Guidelines, the Ocean Reef Marina Improvement Scheme and where silent, Part 3 of SPP 7.3 Vol.2 for all design intent, related elements, element objectives, acceptable outcomes and design guidance.

3.1 SITE ANALYSIS AND DESIGN RESPONSE

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.1, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 3.1.

INTENT

The Mixed Use Precinct is located at the heart of the Ocean Reef Marina. To create a high quality mixed use development that responds and contributes positively to the functional and efficient operations of the working marina, its natural and built environment, siting of buildings within the Mixed Use Precinct requires consideration of a range of factors. These include an appropriate response to the coastal environment, the area's unique landscape setting, topography, integration of a movement network and interface with both the working marina and public domain to provide quality open spaces and enhanced amenity for residents and the public.

The placement and design of buildings relative to the site's topography will determine the levels of outlook, sunlight access and privacy received by occupants. It will also impact construction costs by determining the level of geotechnical engineering, earthworks and retaining required. Slope will also impact the placement of access and parking and the quality of the public realm and outdoor living spaces.

Through a considered approach, it is intended that development within the Mixed Use Precinct will achieve a coherent and integrated Precinct set within an active marina reflective of high quality built form and open spaces of a consistent character and distinctive identity that is Ocean Reef Marina.

ELEMENT OBJECTIVES

1. Respond to the coastal and natural aspects of the Ocean Reef Marina as a highly valued and desirable community and tourist location.
2. Ensure access and enjoyment of the marina for all users recognising the diverse needs and activities for all ages and cultures.
3. Facilitate authentic development that reflects and interprets local stories, including Aboriginal and European culture and history.
4. Maximise ocean views from the site and maintain significant vistas and view corridors to the ocean from the existing residential development along Ocean Reef Road.

ACCEPTABLE OUTCOMES

1. Civil structures and finished ground contours to appear as natural as possible by:
    - Including space for planting and vegetation to soften the view of large-scale engineering structures;
    - Reduce the need for retaining walls and help buildings, parking and outdoor areas sit more naturally within the landscape;
    - Avoid excessive excavation by designing a building that "nestles in" to the site utilising slopes for basements or car parking areas; and
    - Balance cuts into the land with fills, instead of using cuts or fills alone, this can reduce the amount of earth transported to and from the site.

DESIGN GUIDANCE

1. Where relevant, the building design should respond to the 'up-slope' or 'down-slope' conditions of the site by:
    - Minimising front setbacks to achieve a close relationship between the building and street edge;
    - Create flat outdoor spaces around the building by way of terracing – limiting battering (creating a consistent slope) across the whole site which creates unusable spaces;
    - Utilising the slope for undercroft (undercut) or basement car parking wherever possible; and
    - Capturing special views or outlooks.
2. Development should make a positive contribution to the form and character of the Ocean Reef Marina as a world class recreation, residential, boating and tourist development by integrating:
    - With the active marina to the south of the precinct and to the waterfront edge;
    - With existing residential areas to the east of the precinct; and
    - With new residential development north of the precinct.
3. The location and scale of built form should preserve views and vistas to the marina and foreshore to assist in the creation of a memorable place.
4. Distant views of the Mixed Use Precinct should nestle the built form into the dunal landscape, utilising landmark structures, lighting and landscape treatment to create a legible arrival experience.
5. View corridors through primary east-west streets should maintain strong visual connections through to the marina and foreshore.
6. Buildings should respond to prevailing south westerly winds in their orientation and location of outdoor areas.
7. New development is required to comply with the performance requirements of the Building Code of Australia (the Building Code) containing specific bushfire construction requirements for certain residential buildings in designated bushfire prone areas, notably along the eastern edge of the Mixed Use Precinct, that aim to reduce the risk of ignition from a bushfire.

Landmark Sites

1. The design of nominated landmark sites (see **Figure 9**) will define and reinforce the public realm and hierarchy of spaces within the Ocean Reef Marina.
2. Development of landmark sites should include prominent architectural form exhibiting exemplary design standards providing a reference point in the landscape.
3. Landmark corner and gateway buildings should be provided at on the axis of the main street, waterfront and gateway locations identified in **Figure 9**.

Indicative east-west view along Street 9 through to the landmark site

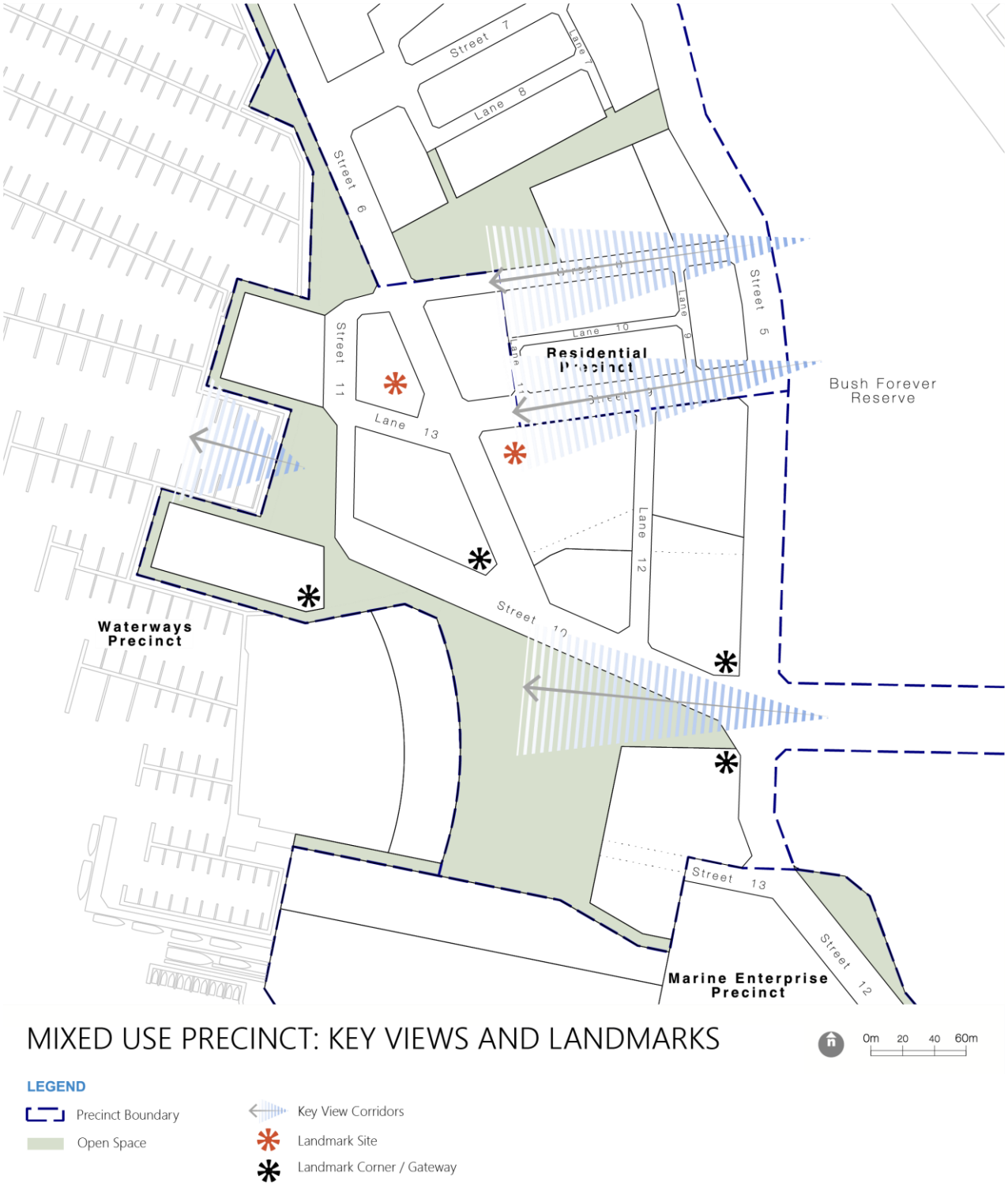


Figure 9: Key view corridors and landmark building locations within the Mixed Use Precinct

3.2 ORIENTATION

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.2, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 3.2.

INTENT

Development within the Mixed Use Precinct should take into account the coastal conditions of the Ocean Reef Marina, such as views; lifestyle opportunities; likelihood of strong sea breezes and storm events; air borne sand and salt water; and sun glare.

Wind levels within the precinct requires careful consideration in the design and development of multi-level buildings given their potential influence of wind impact on the abutting public realm.

Where possible, development adjacent to the waterfront promenade and park edges should mitigate against the impacts of wind, rain and sun glare for users accessing these environments (see **Figure 10**).

ELEMENT OBJECTIVES

1. Minimise overshadowing of adjacent public domain through building orientation and location.
2. Limit overshadowing on neighbouring outdoor living areas, major openings and solar collectors.
3. Avoid unacceptable wind impact on adjoining public realm areas.
4. Provide sheltered areas conducive to alfresco entertaining along the waterfront promenade and main street environment.
5. Create climate responsive outdoor areas within apartment dwellings.

ACCEPTABLE OUTCOMES

1. The design of a building and landscape proposals should withstand severe coastal conditions with minimal damage to property and discomfort to occupants.
2. The shelter provided (from prevailing south-westerly sea breezes) for gathering and eating spaces should optimise use and vibrancy for these spaces.
3. Wind assessment of all proposed developments by a suitably qualified wind engineer to assess compliance with the wind speed in Table 2.
4. Development is to demonstrate that the selected public realm environments around the specified development do not exceed the classifications documented in Table 2.
5. Where a wind assessment identifies the need for wind tunnel testing, a wind tunnel test is to be undertaken and must show that design solutions have met criteria for public streets within Table 2.

DESIGN GUIDANCE

1. Respond to the micro-climate of the Ocean Reef Marina with particular attention to the prevailing south-westerly winds and summer sun to allow comfortable people spaces.
2. It is recommended that a suitably qualified engineer is engaged early in the design process. Appropriately designed built form can be used to ameliorate ground level wind conditions, while inappropriate built form design can lead to acceleration of winds in pedestrian areas past acceptable levels.
3. Setbacks above the second level of development are an important tool to deal with ground level wind conditions.
4. The wind assessment is to assess compliance with the nominated classifications for the relevant site as stated in Table 2. The wind assessment will also consider whether further wind tunnel testing is required to demonstrate compliance (it is considered likely that all development on the waterfront will require wind tunnel testing and a resultant appropriate design response).
5. Enable flexible areas for users to retreat from coastal conditions, optimising year-round enjoyment of both public and private spaces.
6. Buildings should be orientated to respond to the streetscape and foreshore while optimising access to sun and natural light in indoor and outdoor living spaces.

Table 2: Wind rate classifications

Classification	Description	Average Annual Maximum Wind Speed
Dangerous	Will knock people down	23 m/s
Coastal Waterfront	Limit of acceptable conditions along a waterfront exposure	21 m/s
Walking	Acceptable for walking comfort without stopping	16 m/s
Short Term Stationary	Suitable for shop entrances. Suitable for window shopping	13 m/s
Long Term Stationary	Suitable for outdoor restaurants, seating and tabled areas	10 m/s
Cappuccino Criteria	Empirically the speed at which shop keepers' close alfresco areas	7-8 m/s

Note: Average Annual Maximum Wind Speed is the wind speed that in any one year has a 67% probability of being exceeded.

Winter gardens providing comfortable spaces all year round (Sheffield, UK)

Communal spaces protected from the elements. Privately owned public space (590 Madison Avenue, NYC)

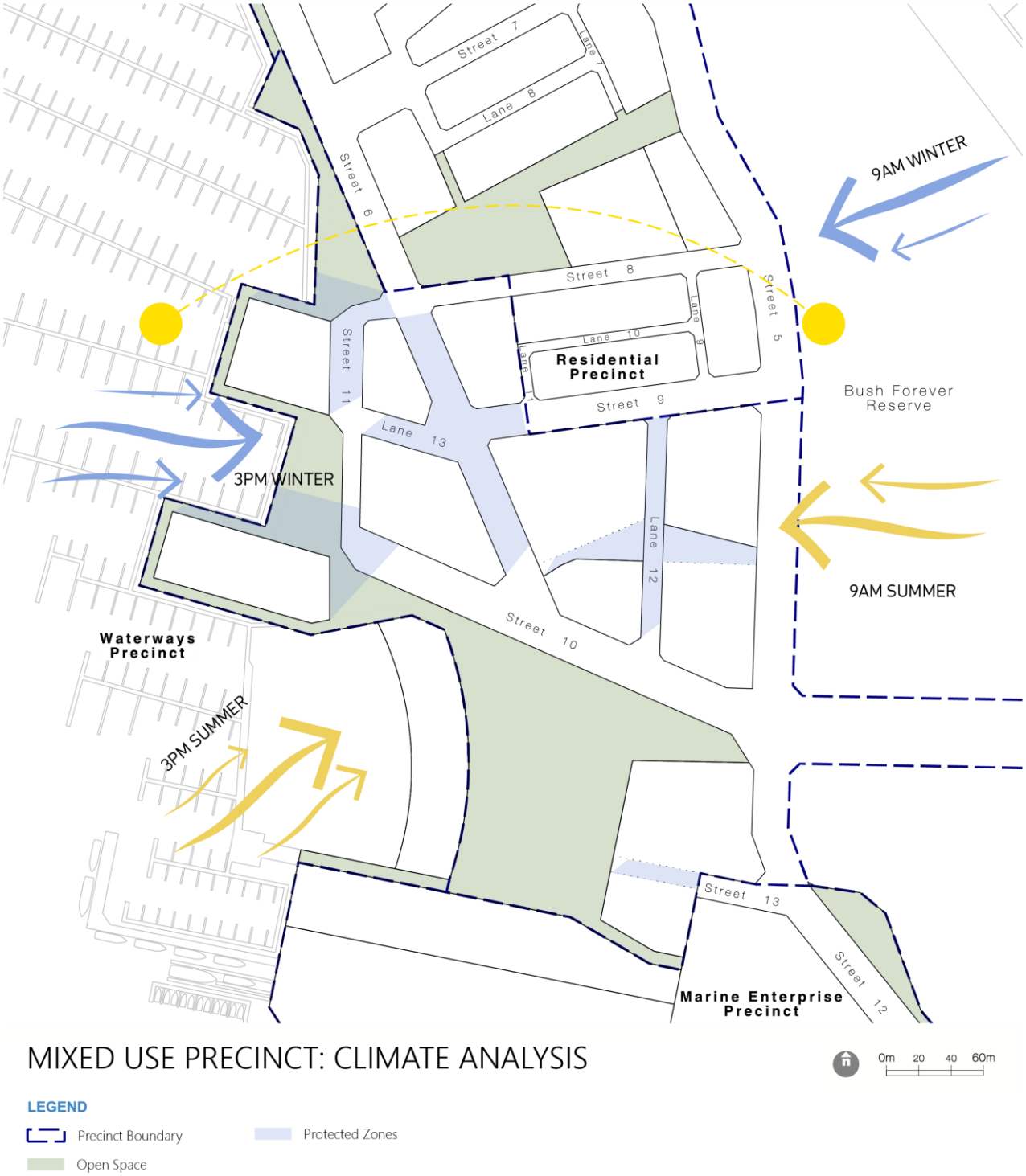


Figure 10: Mixed Use Precinct Micro-climate

3.3 MIXED USE

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 4.14, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.14.

INTENT

- The design intent for the Mixed Use Precinct is to consolidate and intensify "active" uses at its core providing for an attractive, activated, interesting and engaging public realm. As a destination location, the economic synergy between the range of uses will be a central consideration for the success of the Mixed Use Precinct to ensure the functional and efficient operations of its working marina and associated requirements are maintained.
- Successfully implementing the right mix of uses will require:
    - Sound understanding of market preferences/ dynamics;
    - Review of the opportunities and constraints of the site and locality;
    - Satisfying the Building Code of Australia; and
    - The creation of a sense of identity and place for all users.

ELEMENT OBJECTIVES

1. Achieve a sustainable urban village with at least 700 residents to support commercial uses and generate a vibrant atmosphere.

Integration of awning wrapping building frontages (James St, Fortitude Valley, QLD)

2. Promote commercial uses that serve local residents and marina users.
3. Minimise any conflicts between site development and surrounding land uses including the working marina activities to the south.
4. Create a mixed use development that invigorates street activity and contributes to a pedestrian-friendly environment.

DESIGN GUIDANCE

1. Mixed use development should appropriately manage more sensitive uses with regard to potential disturbance generating aspects of other uses. The location of preferred land uses within the Mixed Use Precinct are shown in **Figure 11**.
2. Building designs within the Mixed Use Precinct should reflect the building use. Retail should have shop fronts that open onto the street and engage with the public realm. Residential buildings should have a strong sense of vertical and horizontal structure. This can be afforded through the use of balconies and shading devices, such as louvres, perforated metal screens and other appropriate structures.
3. Residential and commercial buildings should use architectural features to establish visually distinct pedestrian access points. Commercial buildings should not attempt to mimic residential building design but must still provide a variety of form, depth and materials.
4. Close attention should be given to the management, hours of operation and acoustic performance of the range of uses within a development, providing the opportunity for such uses to successfully co-exist.

Figure 11: Mixed Use Precinct Preferred Land Use Plan

3.4 PUBLIC DOMAIN INTERFACE

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.6, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 3.6.

INTENT

The Ocean Reef Marina Landscape Masterplan establishes a hierarchy of spaces for development to respond. Key moves within the public realm will provide significant recreational and entertainment space to be considered as part of the future development of the Mixed Use Precinct.

ELEMENT OBJECTIVES

1. Achieve a distinct and locally recognisable mixed use working marina experience through the integrated design of building façades and treatment of the public realm.
2. Ensure that development interfaces appropriately with the variety of landscape conditions for public open space adjacent to private development sites, refer **Figure 12**.

ACCEPTABLE OUTCOMES

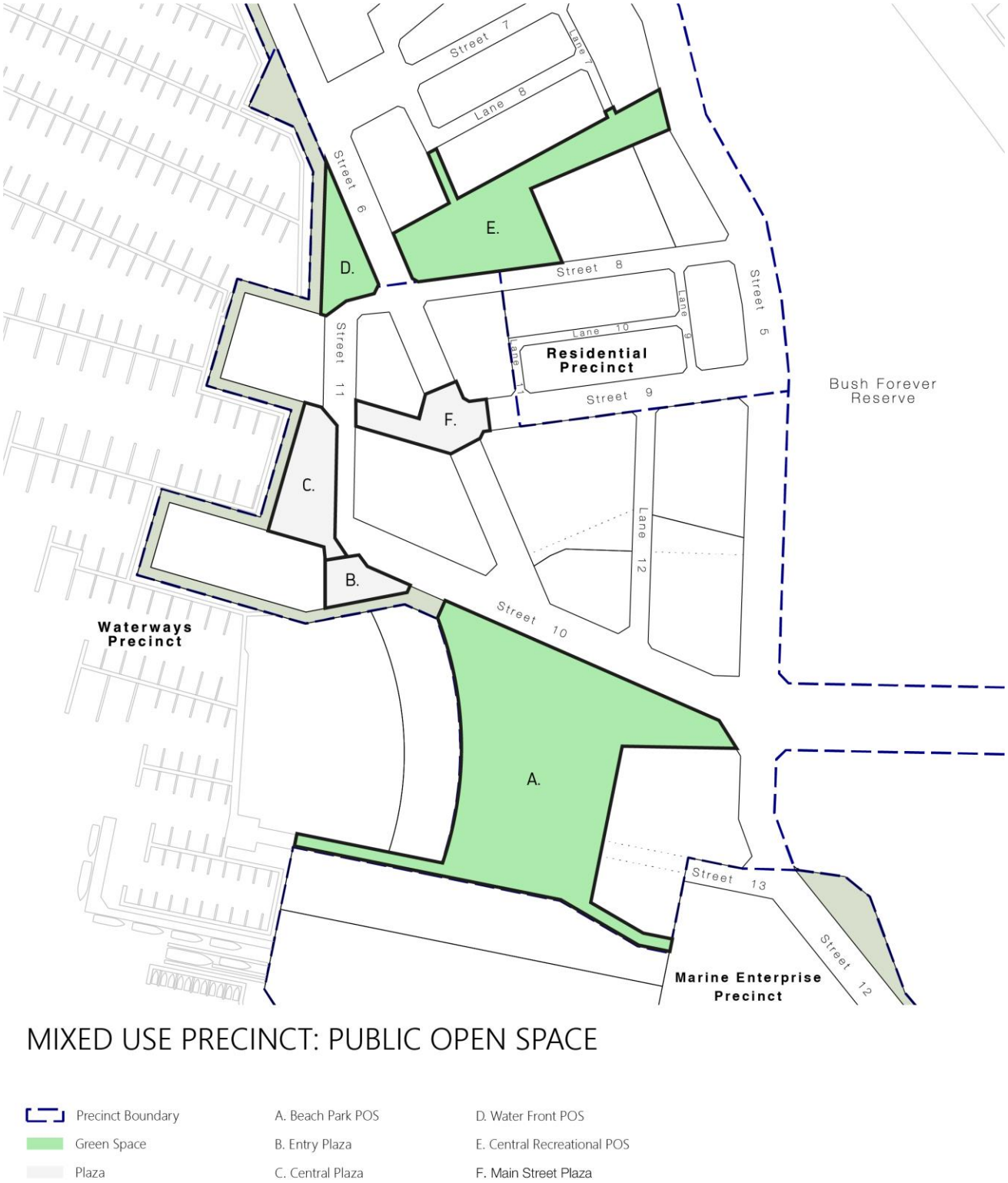
1. Ensure connection from the precinct to new residential dwellings north and existing residential dwellings east of the precinct.

Laneway retail step set against the backdrop of tourist fishing village (Cascais, Portugal)

DESIGN GUIDANCE

Active Frontages

1. In order to promote a sense of vitality in the public spaces around buildings, and to create an active day and night urban environment, developments should address, respond to and activate adjoining streets and laneways in the precinct.
2. Activation can be achieved in a number of ways, including:
    - Designing buildings so that balconies, awnings, fenestration, terraces, large windows and living spaces address and overlook streets, particularly at the ground floor;
    - Establishing distinctive, well-lit and clearly visible pedestrian entries to all buildings;
    - Use of a large proportion of visually permeable materials (i.e. clear glass) at the street, with activity located behind it;
    - Changes in levels where possible, instead of fencing, to encourage visual permeability and passive surveillance;
    - Visually permeable fencing to enable passive surveillance to and from the streets;
    - Provision of lighting to all external areas; and
    - Use of external shading devices instead of dark or reflective window tinting to commercial buildings.



MIXED USE PRECINCT: PUBLIC OPEN SPACE

Precinct Boundary	A. Beach Park POS	D. Water Front POS
Green Space	B. Entry Plaza	E. Central Recreational POS
Plaza	C. Central Plaza	F. Main Street Plaza

Figure 12: Location key to public spaces within the Mixed Use Precinct

Alfresco Areas

1. Maximise active uses such as outdoor dining to north facing protected locations illustrated in **Figure 9.**
2. Alfresco should be located in designated areas, or if no areas are designated, to facilitate an unobstructed path of travel for pedestrians.

Elevated outdoor dining overlooking ocean views (City Beach, WA)

Awnings over Footpaths

1. Where mixed use commercial or retail development abuts an active street frontage, awnings should be provided over footpaths.

Integration of awning wrapping building frontages (James St, Brisbane)

3.5 TREE CANOPY AND DEEP SOIL AREAS

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.3, are applicable to all forms of development, within all sub-precincts.

3.6 COMMUNAL OPEN SPACE

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.4, are applicable to all forms of development, within all sub-precincts.

Integration of deep root zone central to apartment setting (The Springs, WA)

Rooftop communal open space, Essence Living, Claremont on the Park

3.7 VISUAL PRIVACY

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.5, are applicable to all forms of development, within all sub-precincts.

The following intent and element objective supplement the detail within SPP 7.3 Vol.2 Part 3.5.

INTENT

Living in a Mixed Use Precinct, being a more medium density, urban community dictates that outdoor private open space may result in privacy standards different to those traditionally experienced in suburban areas. However, the intention is to encourage interaction between the private open space (as a minimum at ground level) and the adjacent public realm. Privacy can still be achieved through suitable level changes and low-level landscapes, screening and fencing and to delineate the public/private realm boundary.

ELEMENT OBJECTIVES

1. Balance privacy with the coastal outlook and view opportunities from balconies and habitable rooms.

Ground level landscaped courtyard providing separation for residential dwellings

Mobile screens integrated to the building façade

3.8 PEDESTRIAN ACCESS AND ENTRIES

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.7, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 3.7.

INTENT

The design intent for the Mixed Use Precinct is to create a walkable context that is stimulating, legible, comfortable and safe for pedestrians to navigate. The appropriate location, size and shape of buildings within the precinct needs to accommodate both a functional and desirable mix of uses that integrates with an activated public realm.

ELEMENT OBJECTIVES

1. Protect pedestrian access and entries from prevailing coastal wind conditions.
2. Create clear, logical and safe pedestrian access between the Residential Precinct, north of the Mixed Use Precinct to the beach and the working marina.
3. Ensure safe pedestrian access from bus stops and public car parking linking through to the central plaza.

Material treatment signalling pedestrian entrance (Perry Lakes, WA)

DESIGN GUIDANCE

1. Ensure principal entry doors to buildings are protected from coastal weather conditions; are clearly visible from the street frontage; readily identifiable from public areas; well-lit at night with clear numbering.
2. Clearly define space for active pedestrian movement along primary pedestrian connections (see **Figure 13**) where outdoor dining areas are provided.
3. Provide covered walkways, outdoor seating and landscaping where possible.
4. Ensure grade changes between private and public spaces are complementary and accessible.

Entrance design (Source: DevelopmentWA)

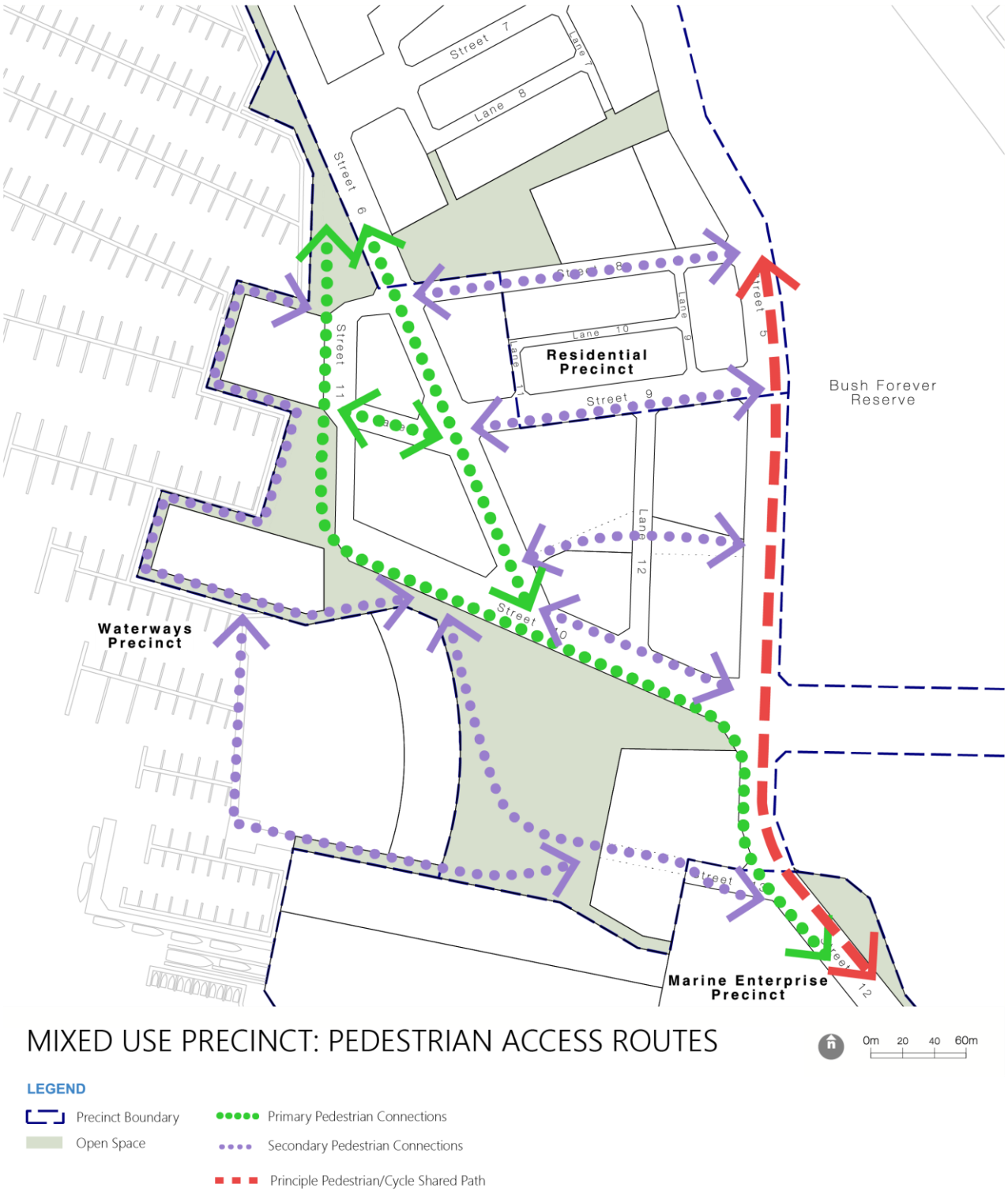


Figure 13: Mixed Use Precinct Pedestrian Access

3.9 VEHICLE ACCESS

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.8, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 3.8.

INTENT

The location of access and egress to car parking requires careful consideration in the design phase to ensure that they do not detract from the overall design intent or the intended character of the streetscape within the Mixed Use Precinct.

The number and visual impact of vehicle access points within the main street (Street 6) and shared access (Street 11) will be minimised to reduce the potential conflict between pedestrians and vehicles. The intent within the Mixed Use Precinct is to enable efficient and safe vehicle access and to promote a comfortable pedestrian experience within the public realm. Future development should also consider opportunities to minimise reliance on private car use and to maximise access to public transport and alternative modes of transport.

ELEMENT OBJECTIVES

1. Provide clear, direct and logical access through the precinct.
2. Ensure efficient movement through the precinct, avoiding congestion of access and egress to car parking locations.
3. Achieve crossovers and on-site parking areas that do not have a negative visual and environmental impact on amenity and the streetscape.
4. Reduce private car use and encourage the use of share car-pooling, electric vehicles, public transport, pedestrian and bicycle use.

ACCEPTABLE OUTCOMES

1. Where possible vehicle access should be shared between adjacent lots to improve efficiency of site utilisation and reduce the impact of crossovers on the streetscape, particularly Street 6.
2. Vehicle access into basement car parking within Lots 29A, 29B, 30A and 30B shall only be permitted from Street 6 (see **Section 5** for site specific building requirements).
3. Delivery services are prohibited from entering Street 11 in order to minimise conflict within the central plaza pedestrian shared zone.
4. Crossovers are to have a maximum width of 4 metres at the lot boundary. Wider crossovers (up to a maximum 6.5 metres) may be considered where lots are over 25 metres wide at the street frontage and a wider crossover is necessary to achieve appropriate traffic management and safety for multiple dwelling or mixed use developments.
5. Footpaths shall be maintained as the priority movement, with crossovers and car park entries terminating at the footpath.

DESIGN GUIDANCE

1. Car park entries should be positioned to minimise visual impact from the public realm and located away from main pedestrian entries (see **Figure 14**).
2. The appearance of car parking entrances should be designed to complement the building façade.
3. Vehicle access points are designed and located to enable convenient, efficient and safe vehicle access and egress within a functional and attractive landscape.
4. Where practicable, the precinct should be designed to provide connections to existing walkways, streets and transport routes.
5. Applicants should demonstrate how development within the precinct will maximise access to public transport and provide alternative transportation choices for residents. These should outline management strategies, programs and incentives to encourage:
    - The use of public transport and non-vehicular transport options;
    - Car-pooling and car sharing; and
    - Electric car charging bays within developments.

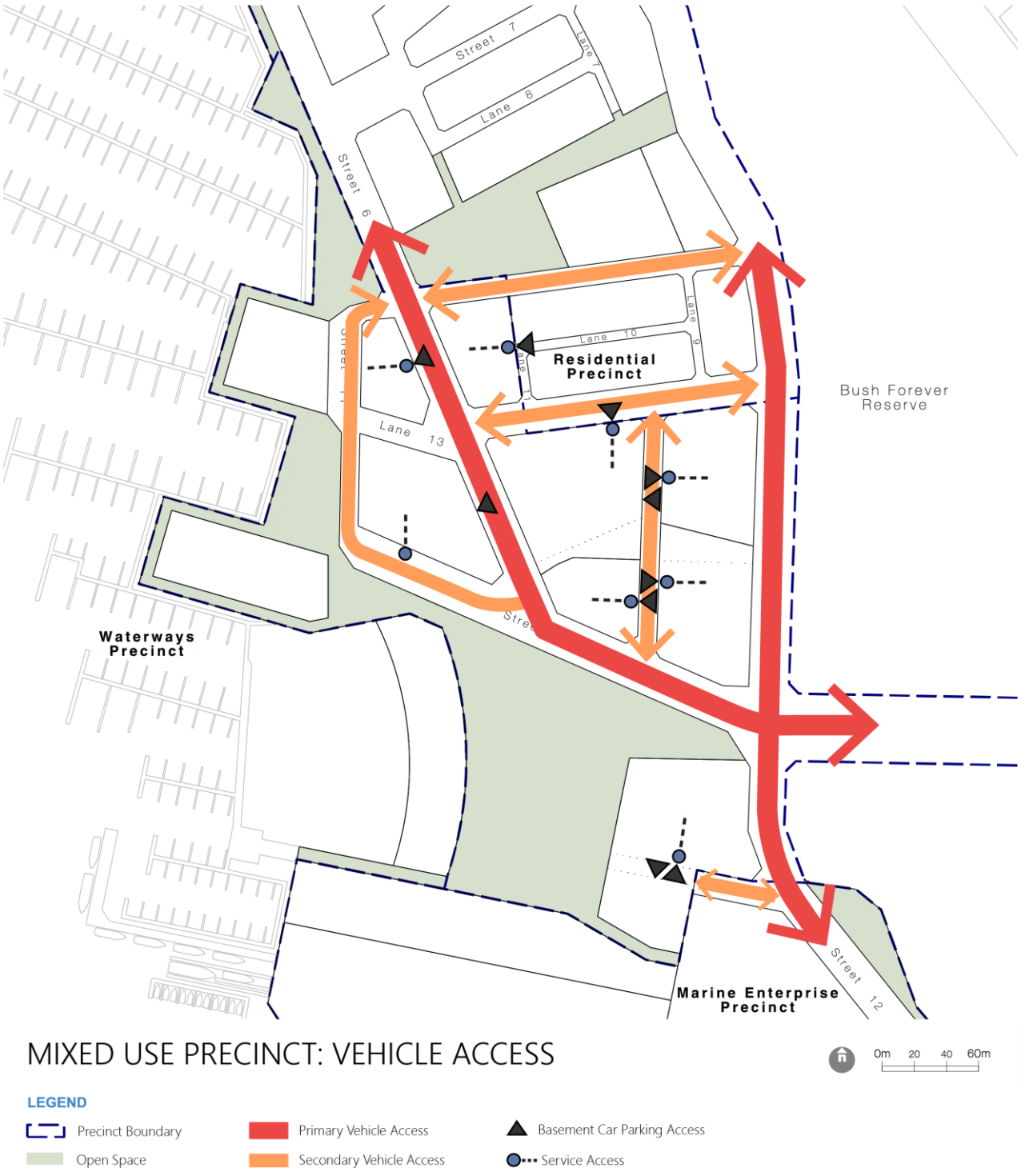


Figure 14: Mixed Use Precinct Vehicle Access

3.10 CAR AND BICYCLE PARKING

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 3.9, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 3.9.

INTENT

The design intent for car parking within the Mixed Use Precinct is to ensure parking areas do not visually dominate the site. Car parking entries, service areas and bin refuse collection should be integrated within the development of each lot and screened from view.

ELEMENT OBJECTIVES

1. Ensure legible routes to and from the car parking to save time and improve safety for car users.
2. Clearly distinguish signage for public and private car parking to ensure ease of access to facilities.

ACCEPTABLE OUTCOMES

1. Where basement level car parking is required, specifically for Lots 29A, 29B, 30A and 30B, this should allow for the location of services and refuse collection underground to enhance the quality of the public realm at ground level.
2. Car parking entrances and garages must be located for access from the rear laneway where one is provided.
3. Any above ground car parking adjacent to the public realm shall be sleeved with habitable uses (residential or commercial).
4. Underground or concealed deck parking shall not be visible from the street or public realm and should not inhibit the activation of streets or public spaces.
5. The maximum width of car parking and basement access shall be 6.5 metres and should not be co-located with pedestrian access.

DESIGN GUIDANCE

1. Resident and employee car parking should be provided on-site and fully screened from public view, for example: at-grade surface parking concealed behind buildings; fully concealed in a basement; or in a semi-basement where permitted (refer **Site Specific Guidance** for specific lot conditions).
2. Where parking is in a basement or in a semi-basement, pedestrian access from the car park should provide direct access into the building or public realm above.
3. The ground floor level of the building above any semi-basement car park should be 1.2 metres maximum above the adjacent ground level at the precinct boundary. High quality screening should be used to avoid a direct line of sight to parked cars and to provide security to the car park.
4. Where residential dwellings have been designed for conversion to commercial tenancies or vice versa, car parking ratios are as per residential parking standards. No further bays will be required at the time of conversion from residential to commercial.
5. Where an enclosed garage faces a street and adjoins a dwelling, the garage shall be at least 0.5 metres behind the dwelling alignment.
6. Within the precinct, reciprocal car parking arrangements are encouraged between compatible land uses to maximise use of car bays throughout the 24-hour period, and to improve site efficiency.
7. Integrate the precinct as much as possible to the wider movement network by providing appropriate facilities for bicycle parking and storage.
8. Alternative mechanisms to achieve greater efficiency from car parking areas may be considered, such as:

    - Provision of car parking in a 'pool' capacity to decrease overall provision;
    - Providing less tenant or dwelling allocated parking in-lieu of dedicated visitor parking; and
    - Alternative parking technologies that allow greater parking capacity in a smaller area.

9. Demonstrate the management of residential and visitor car parking through the provision of flexible parking areas, including:

   - The provision of short-term car hire and/or car sharing spaces;
   - Use of residual parking spaces by visitors during daytime hours; and
   - Restriction of time availability of parking spaces used for visitor parking.

10. Demonstrate integrated transport services and facilities, including the provision of the following:

    - Articulated vehicular pick-up/set-down at key place and activation nodes; and
    - Supporting infrastructure, such as required bike storage and drinking fountains, to be located at key place and activation nodes and in a manner that best integrates into the day-to-day journeys of residents.

Internal wayfinding to ensure clear and direct access to and from basement parking (Manchester Airport, UK)

Bicycle parking integrated within basement parking

Laneway visitor parking (South Fremantle)

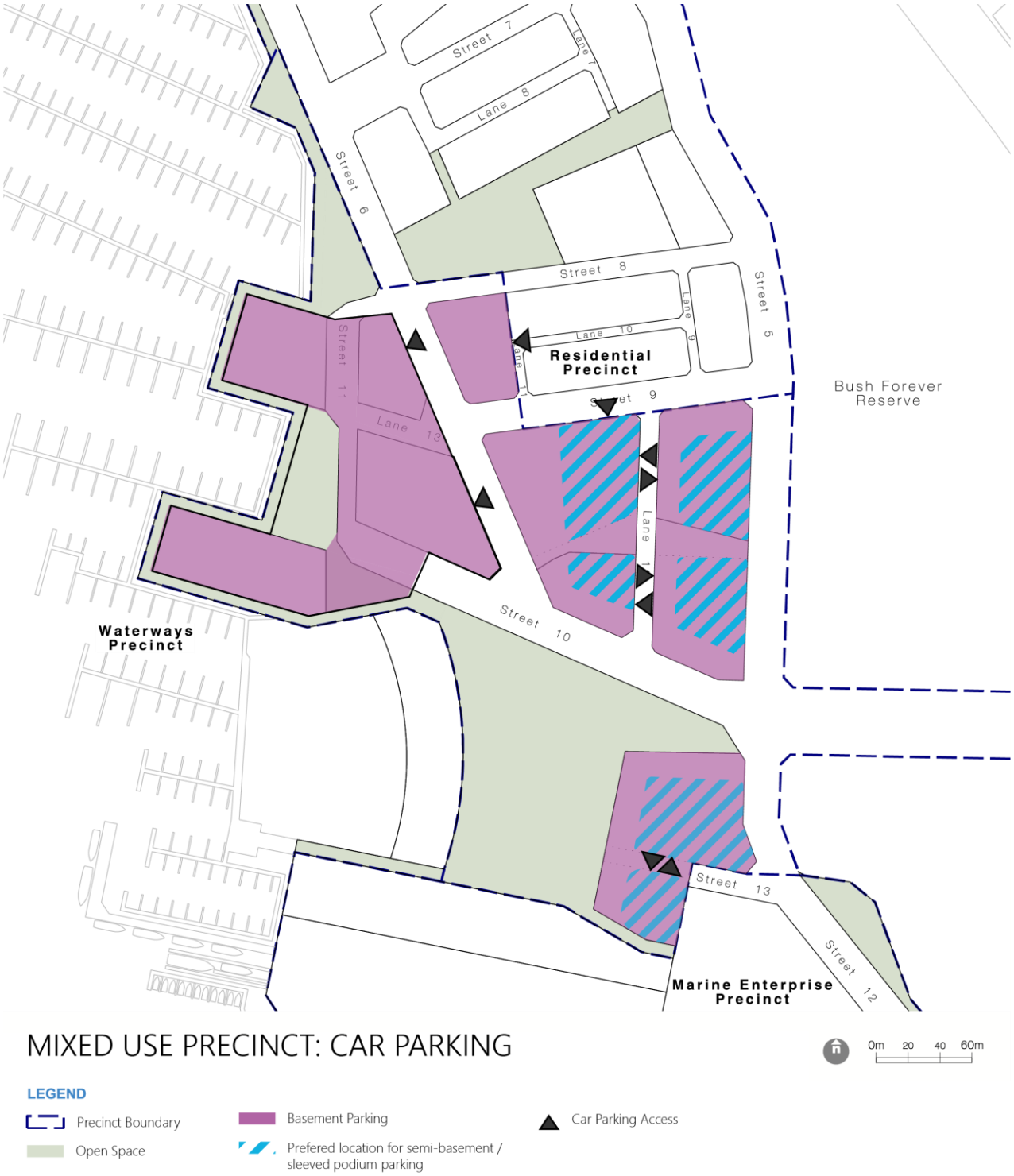


Figure 15: Mixed Use Precinct Car Parking locations

4 DESIGNING THE BUILDING

THIS SECTION PROVIDES GUIDANCE FOR BUILDING FORM, LAYOUT, FUNCTIONALITY, LANDSCAPE DESIGN AND ENVIRONMENTAL PERFORMANCE.

Development within Mixed Use sub-precincts shall reference these Design Guidelines, the Ocean Reef Marina Improvement Scheme and where silent, Part 3 of the SPP 7.3 Vol.2 for all design intent, related elements, element objectives, acceptable outcomes and design guidance.

4.1 SOLAR AND DAYLIGHT ACCESS

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 4.1, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.1.

ELEMENT OBJECTIVES

1. To ensure indoor and outdoor dining and living areas have adequate access to sun during winter and effective shading in summer.

Use of robust material for screening structure

ACCEPTABLE OUTCOMES

1. Designs are to demonstrate that one habitable living room and a minimum 25% of the outdoor living area is to obtain at least 2 hours direct sunlight between 9am and 3pm on 21 June.

DESIGN GUIDANCE

1. Access of summer sun into openings and private open space should be controllable and mandatory on the western and eastern elevations through the use of high quality design elements (e.g. full height and moveable balcony screens with adjustable louvres).

Generous balcony space affording good solar protection (Carine Rise, WA)

4.2 FAÇADE DESIGN

The design intent, related elements, element objectives, acceptable outcomes and design guidance described for this element at SPP 7.3 Vol.2 Part 4.10, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.10.

INTENT

Buildings located along primary street frontages and pedestrian street frontages (refer **Figure 6**) are to display high quality façade design. Ideally, they should serve a distinct purpose and create a sense of place by contributing positively to the public realm.

Material and colour selection shall respond to the coastal location and the 'urban village' character of the Ocean Reef Marina. This includes the use of natural materials and light, neutral colours with accents, highlights and feature colours derived from the local natural palette.

When selecting building materials, claddings and finishes, material longevity and maintenance should be considered within the coastal context.

ELEMENT OBJECTIVES

1. Provide architecturally designed structures that are of high quality and reflect the contemporary coastal aesthetic appropriate to the Ocean Reef Marina.
2. Ensure a variety of materials and colour application to articulate the building façade and overall design reflect the character of the Ocean Reef Marina.

ACCEPTABLE OUTCOMES

1. The character and composition of the building elevations should respond to the specified edge conditions within the precinct (**Figure 10** Micro-climate Plan).

STREET EDGE:

DESIGN GUIDANCE

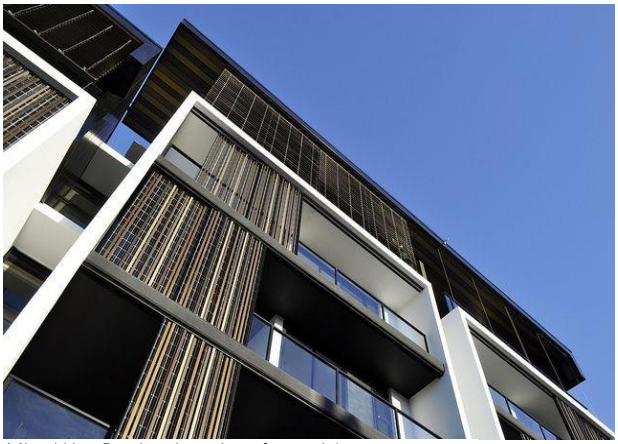
1. The quality and character of the street edge within the precinct should be directly influenced by the façades of buildings, in particular:
    - The opportunity for casual surveillance of the public realm;
    - Interaction between the public, private and semi-private realms; and
    - Integrate changes in levels in a manner that achieves a seamless appearance.
2. Achieve a sense of privacy and protection from the main street and marina noise without dominating the adjacent public realm and development.
3. Achieve enclosure and privacy from westerly sun and prevailing sea breezes.
4. Distinguish primary and secondary elevation types.

Primary Front Elevation(s)

1. Buildings should reflect a highly articulated main street environment.
2. Façades should incorporate a variety of wall materials or colours.
3. Provide the appearance of several smaller buildings at ground level to generate a precinct that is welcoming and pedestrian friendly.
4. Locate food and beverage uses fronting protected open zones (refer **Figure 10**).

Secondary Elevation(s)

1. Buildings located on a corner or with the side boundary adjacent a street, park or public access way provide secondary elevations.
2. Secondary elevations should be an extension of the primary elevation building features (i.e. colours, materials and other building design features such as windows, awnings etc). The treatment of the secondary elevation should continue back from the corner of the building (nearest the secondary street/park/accessway) for at least 5 metres.
3. Where open fencing is proposed for the full length of the secondary elevation, front elevation materials and finishes should be continued for the full length of the secondary elevation or to all areas visible from public view.
4. Plant and machinery used by non-residential activities are integrated within the building or are suitably screened.



Mixed Use Precinct Layering of materials

CORNER BUILDINGS:

DESIGN GUIDANCE

1. Define the corner location of a building as a focal point and landmark feature (refer **Figure 9**).
2. Architectural expression on the corners of buildings on certain lots can be created by the use of:
    - Unique materials;
    - Architectural features;
    - Height differentiation;
    - Variation in building massing; and
    - Prominent lighting.

MATERIALS:

DESIGN GUIDANCE

1. Design details including façade treatments, roofs, windows and doors, balconies, verandahs and garages should draw inspiration from the coastal theme in the built form.
2. Building products should be durable, structurally robust, and absorb noise particularly in the event of storm conditions; they should retain their integrity at a mature stage of development; and be constructed in accordance with any technical requirements for coastal conditions.
3. Material selection should be sensitive to the environment, complimentary to the public realm and appropriate for the function and purpose of the land use.
4. New technology material options will be considered where it can be demonstrated that the material can present a high quality finish. An example of a sustainable material includes environmental claddings.

SIGNAGE AND ANCILLARY EQUIPMENT:

DESIGN GUIDANCE

1. Signage should reflect the coastal character of the Ocean Reef Marina, be of high quality graphic design, simple in format and appropriately located and integrated with the building design.
2. A separate development approval is required for any signage not included in the original submission.
3. For residential dwellings located within a mixed use development, entry communications and mail delivery box elements should be discreet and integral to the building design. Multiple building developments should utilise a shared entry communication system.

Signage graphics integrated within building façade

LIGHTING:

DESIGN GUIDANCE

1. Building entrances and the ground floor elevation of any retail/commercial or mixed use building facing the street shall be well lit for safe use for after dark.
2. Private development shall provide lighting to the adjoining laneway and provide lighting to the adjoining public open space.
3. Lighting shall be provided under awnings along primary frontages within the precinct to illuminate the footpath below.
4. Front outdoor/security lights should be operated via a timed motion sensor with manual over-ride.
5. Rear outdoor areas adjacent to laneways should be well lit and incorporate motion activated light fittings.
6. Use of lighting to establish streetscape character within the precinct can be achieved through:

    - Integrating lighting into built form to highlight architectural features and the corner of buildings;
    - Lighting adjoining public space (roads, lanes and open space) to contribute to creating safe, secure and well-lit environments; and
    - Integrating lighting with landscaping.

Lighting integrated within building fabric (Montpellier, South France Flint Architects)

4.3 NATURAL VENTILATION

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.2, are applicable to all forms of development, within all sub-precincts.

4.4 SIZE AND LAYOUT OF DWELLINGS

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.3, are applicable to all forms of development, within all sub-precincts.

4.5 PRIVATE OPEN SPACE AND BALCONIES

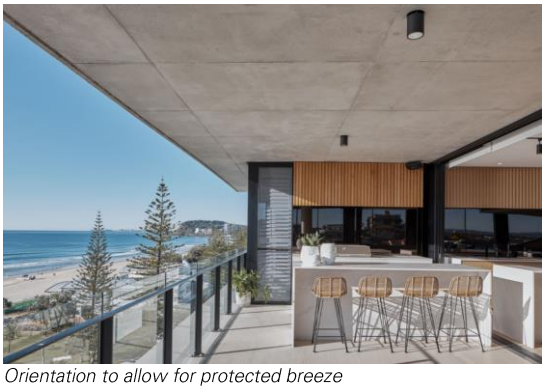
The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.4, are applicable to all forms of development, within all sub-precincts.

4.6 CIRCULATION AND COMMON SPACES

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.5, are applicable to all forms of development, within all sub-precincts.

4.7 STORAGE

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.6, are applicable to all forms of development, within all sub-precincts.



Orientation to allow for protected breeze

High ceiling space with good natural ventilation (White Gum Valley, WA)

4.8 MANAGING THE IMPACTS OF NOISE

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.7, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.7.

ELEMENT OBJECTIVES

1. Minimise the impacts of external noise on other uses.

DESIGN GUIDANCE

1. Consider the level of synergy between different uses both vertically and horizontally. Seek to mix uses that have strong synergy i.e. residential uses above office or small-scale entertainment venue.
2. Tailor noise attenuation to the types of uses, the intensity of each use and the proximity to sensitive uses (refer **Figure 16**).
3. Use buffers or specialised technical solutions such as acoustic glazing, acoustic insulation, acoustic cladding panels, double-glazing and noise attenuated ventilation systems to solve noise problems that cannot be resolved by the layout of the development.
4. Noise attenuation measures for ground floor restaurant and café uses within the building must also consider air ventilation.
5. Minimise the impact associated with goods delivery, garbage collection and possible late-night noise from restaurants and other evening activities.
6. Locate vehicle and pedestrian entrances and exits, roller doors and lifts as far away as possible from noise sensitive areas.
7. Locate noise-tolerant areas such as kitchens, bathrooms, laundries and storage areas towards noise sources, and noise-sensitive areas such as living spaces and bedrooms towards quite areas.

Southern impact of beach activity within the local lagoon

Western activity associated with active marina

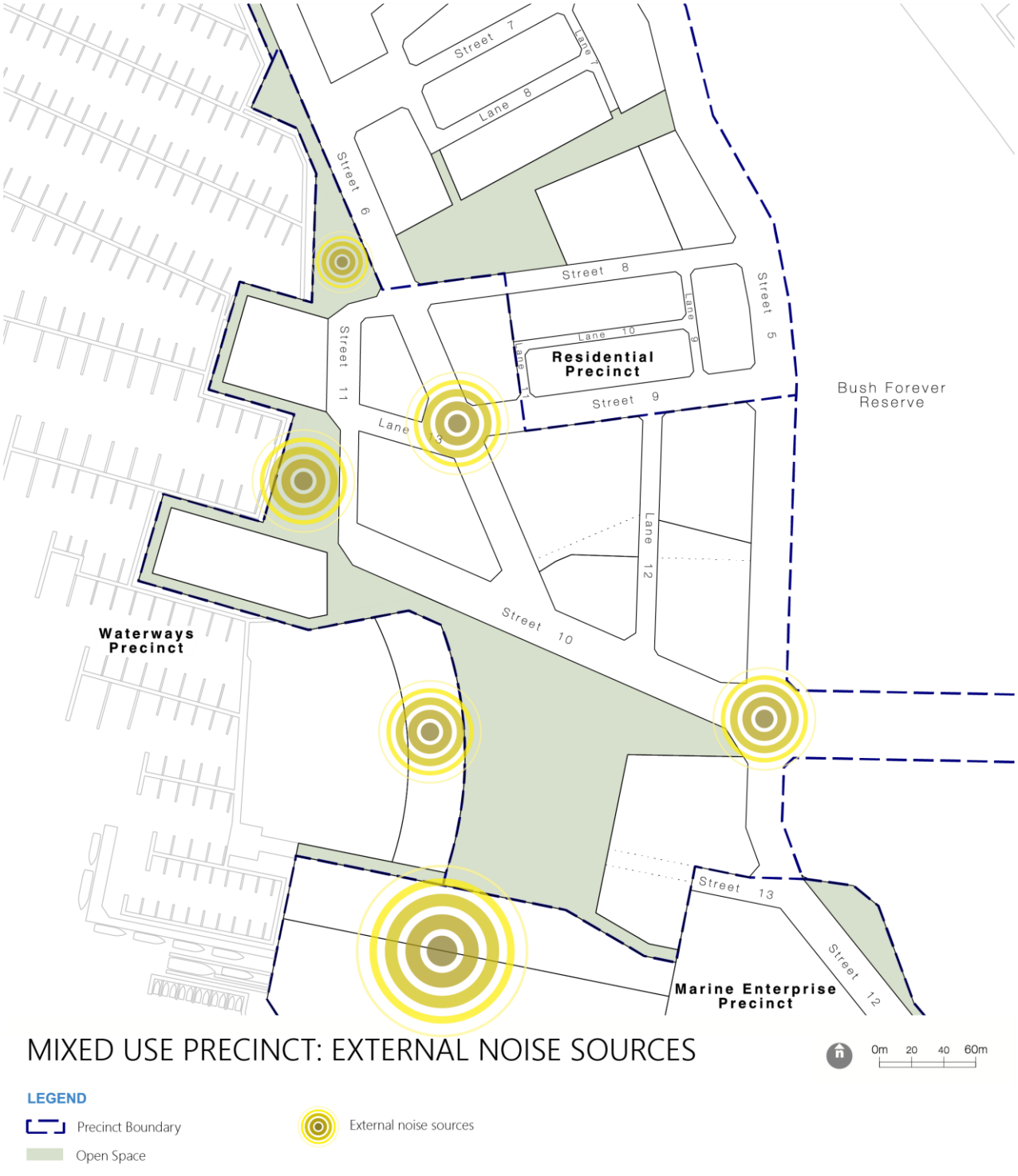


Figure 16: Mixed Use Precinct External Noise Sources

4.9 DWELLING MIX

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.8, are applicable to all forms of development, within all sub-precincts.

4.10 UNIVERSAL DESIGN

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.9, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.9.

ACCEPTABLE OUTCOMES

1. All dwellings shall meet the "Essential" design features checklist in according to the WA Liveable Homes universal design standards.

Essential design features checklist

Flat level walkway to entrance
- ☐ 1000mm minimum width path.
- ☐ 1200mm x 1200mm land area to entrance door.

Wide entrance doorway
- ☐ Flush entry.
- ☐ 820mm door clear width.

Wide internal doorways and hallways
- ☐ 820mm door clear width.
- ☐ Hallways 1000mm minimum width.

Minimum of one accessible toilet on entry level
- ☐ 900mm x 1200mm (Clear of swinging door).
- ☐ If located in bathroom, toilet to be located in corner to enable installation of grab rails.

Minimum of one accessible shower on entry level
- ☐ Hobless.
- ☐ Located in corner of room to enable installation of grab rails if required.

Reinforced walls in bathroom and toilet
- ☐ Except for walls constructed of solid masonry or concrete, the walls around the shower, bath (if provided) and toilet should be reinforced to provide a fixing surface for the safe installation of grab rails.

4.11 ROOF DESIGN

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.11, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.11.

ELEMENT OBJECTIVES

1. Integrate the appearance of the roofscape from the local context of the Ocean Reef Marina, surrounding residential development, and views from Ocean Reef Road and beyond.

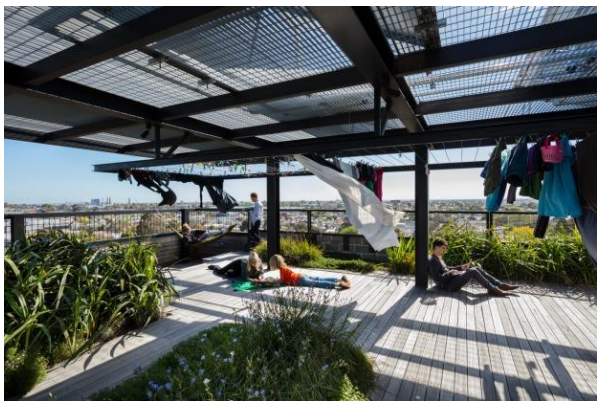
ACCEPTABLE OUTCOMES

1. Development complies with the roof height limits set out in the Primary Controls Table and in accordance with the Ocean Reef Marina Improvement Scheme.
2. The roof area above the permitted number of storeys shall be non-habitable and contained within the building envelope.

Roof line reducing impact of building massing (Essence, Claremont on Park, WA)

DESIGN GUIDANCE

1. Consideration should be given to the appearance of the roofscape from the local context, existing residential dwellings east, surrounding movement network, and views from the water to ensure roof elevations do not create adverse visual impacts.
2. Encourage the use of roof areas as paved outdoor terraces and gardens with associated climate protection elements.
3. Integrate any roof mounted services (i.e. solar-energy use devices), and ensure durable materials are used to secure elements within coastal conditions.
4. Heat absorbing dark roofing is not permitted.
5. Consider the opportunity to integrate communal "green" roofs for residents within mixed use developments.



Integration of outdoor terraced garden within rooftop space

4.12 LANDSCAPE DESIGN

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.12, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.12.

INTENT

Landscape design is important to the creation of streetscape character as it contributes significantly to the amenity of a space. The landscape treatment within privately owned land should complement the public spaces and provide a distinctive theme for the Ocean Reef Marina.

The intent is to limit fencing in the Mixed Use Precinct and alternatively use built form, changes in level and landscaping to create implied barriers between the public and private realm. Where fencing is proposed it must ensure opportunities for passive surveillance with due regard for privacy of individual dwellings and their private open space.

ELEMENT OBJECTIVES

1. A landscape design that responds to the coastal climate and environment of the Ocean Reef Marina.

ACCEPTABLE OUTCOMES

1. Suitable landscape treatments should be achieved through:

    - Planting low water use species;
    - Reducing areas of lawn and other high maintenance landscaping;
    - Landscaped open areas having a mix of soft and hard surfaces;
    - Using permeable pavements and other sustainability techniques to increase the self-sufficiency of landscaping; and
    - Integrating landscaping into fencing and other built form features.

DESIGN GUIDANCE

Softscape

1. Careful consideration should be given to the selection of plants and trees for this coastal environment, particularly with regard to their seasonal appearance in maturity, relationship to the public domain, and CPTED principles (Crime Prevention through Environmental Design).
2. Trees and shrubs should be selected and positioned relative to buildings to maximise solar penetration in winter and minimise solar access in summer.
3. Planting should be positioned to enhance cooling summer breezes and provide protection from hot summer and cold winter winds.
4. The availability of non-potable groundwater for landscape reticulation is likely to be limited in the precinct area. To reduce demand for scheme water, the landscape shall be designed to be 'water wise' with a reliance on hardy drought-tolerant plants, whilst still achieving a high quality outcome.

Hardscape

1. Ground materials should coordinate with the public domain to ensure a harmonious interface.
2. The ground materials should be selected to assist with water absorption and to reduce run-off (for example permeable or segmental paving, mulches either bark or stone).

Fencing

1. Precinct boundary fences that face public areas may be installed to a maximum height of 1.2 metres when measured from the adjacent footpath level. Proposed fences shall coordinate with the building and overall landscape design of the development.
2. Fencing must be visually permeable between private development and the public realm.
3. Fencing design and construction is to be of the highest quality materials and reflect or complement the surrounding built form. Blank wall fencing to streets and open space will not be permitted.
4. Utilise salvaged and recycled elements to create unique and site specific elements.

Public Art

1. Public art provision in accordance with the relevant Improvement Scheme policy.

4.13 ADAPTABILITY FOR FUTURE USE

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.13, are applicable to all forms of development, within all sub-precincts.

4.14 ENERGY EFFICIENCY

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.15, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.15.

ELEMENT OBJECTIVES

1. Demonstrate a self-sufficient approach to energy management on the site by minimising the demand for energy to service buildings, incorporating the use of renewable energy resources.
2. Use of photovoltaic solar array (min 0.5kW per apartment).
3. Provide conduits and capacity in the electrical distribution system and metering for future provision of electric car charging within car parking areas.

DESIGN GUIDANCE

1. All buildings should provide integrated building management systems to optimise the use of energy in all instances.
2. Developers should install internal meters for monitoring of energy consumption in each apartment in residential buildings.
3. Provide energy awareness and performance monitoring as follows:
    - Where supplied, high star rated energy efficient appliances should be installed (e.g. fridge/freezer, clothes washer, dishwasher, hob, oven etc.);
    - A demonstrated highly energy efficient hot water system should be installed (e.g. gas or solar boosted gas centralised hot water system; and
    - A "Building Management Manual", or similar user-friendly document, should be produced to assist occupants to understand the intended performance of the building and specific operational requirements.
4. For commercial buildings, the following passive and active design features should be incorporated:
    - Commercial lighting levels reduced to 12 kWh/m²/year;
    - Variable speed drives to all pumps and fans;
    - Low emissivity (Low E) glazing; and
    - Exhaust air heat recovery to wet areas and retail areas.

4.15 WATER MANAGEMENT AND CONSERVATION

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.16, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.16.

ELEMENT OBJECTIVES

1. Minimise water use where practicable.

ACCEPTABLE OUTCOMES

1. Water management strategies for the precinct should be based on the combined strategies of demand reduction and fit-for-purpose use of all water on site.

WATER EFFICIENCY ACCEPTABLE OUTCOMES

1. All other taps excluding outdoor and bath taps to be 4-star WELS rated.

WATER SOURCES ACCEPTABLE OUTCOMES

1. All external landscape irrigation, toilets and washing machine cold taps are to be plumbed to precinct alternative water source if available.

DESIGN GUIDANCE

1. Mixed Use, Apartment and Commercial Buildings

    - Development within the precinct should demonstrate maximum efficiency in water management to reduce water demand, maximising water reuse and incorporating water management initiatives throughout the life of the development, such as the installation of internal meters to each residential apartment and commercial tenancy to enable monitoring of rainwater reuse, scheme water use and greywater use.
    - Other water saving strategies should be investigated e.g. third pipe grey water reuse; use of rainwater; waterless urinals etc.

2. Private Open Space

    - A landscape plan should be submitted that demonstrates compliance with these guidelines and waterwise principles:
        - A minimum inclusion of 60% indigenous flora and no inclusion of species which are considered to be riparian weeds or could degrade local natural systems; and
        - Inclusion of only native grasses, or drought-resistant varieties used, with grassed areas to be minimised.
    - All apartment and commercial buildings should aim to provide a minimum of 10% "green roofs" (i.e. roof surface covered with vegetation, planted within a growing medium) to enhance thermal benefits, reduce stormwater generation and enhance the soft landscape aesthetic of the development.

3. Where included, roof garden run-off should be separated from the general roof area, collected into the central rainwater storage reservoir and discharged to the main stormwater drainage network.

Water sensitive urban design to street edge and building interface

4.16 WASTE MANAGEMENT

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.17, are applicable to all forms of development, within all sub-precincts.

The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.17.

ELEMENT OBJECTIVES

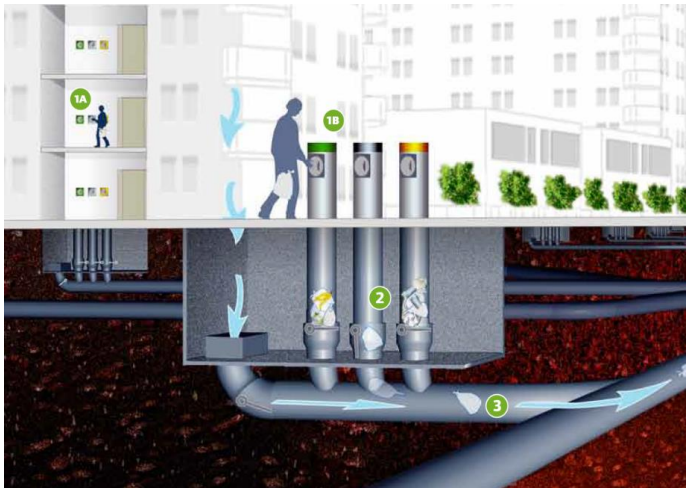
1. Reduce the total per capita commercial and residential waste going to landfill by encouraging recycling design guidance.

ACCEPTABLE OUTCOMES

1. A central waste collection space shall be included to accommodate bins for recyclable waste and other materials, or as required by the City of Joondalup, for the separation of waste at the source.

DESIGN GUIDANCE

1. Consolidation of bins and waste collection systems should be provided for Lots 29A, 29B, 30A and 30B.
2. Residential bin sizes should reflect City of Joondalup waste reduction initiatives, with bin sharing, and smaller bin sizes for regular waste installed.
3. Service areas should be located in appropriate locations away from adjacent sensitive land uses.
4. Sufficient space should be provided for required waste separation bins in kitchens and waste collection areas.



Envac system using airflow to transport waste under the street to a central waste collection station (Stockholm)


Narrow streets providing alternative waste solution (Leon, Spain)

4.17 UTILITIES

The design intent, related elements, element objectives, acceptable outcomes and design guidance, described for this element at SPP 7.3 Vol.2 Part 4.18, are applicable to all forms of development, within all sub-precincts.

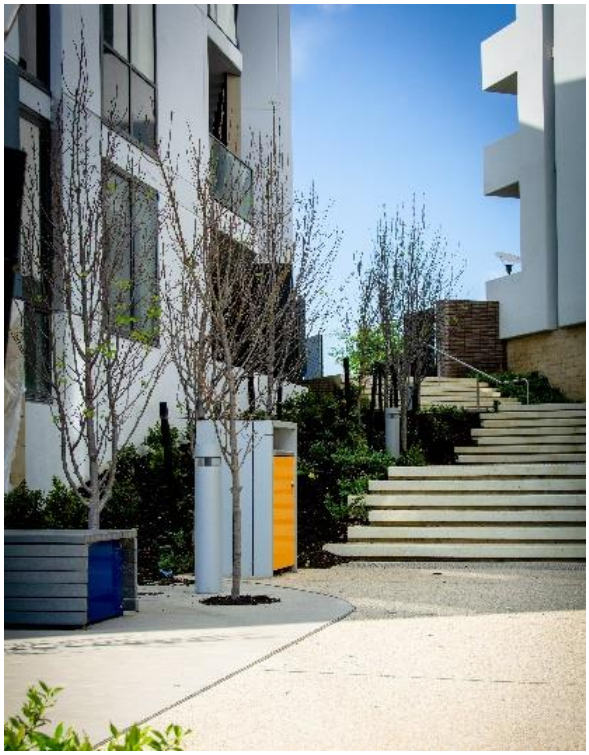
The following provisions supplement the detail within SPP 7.3 Vol.2 Part 4.18.

INTENT

The early planning, co-ordination and design of utilities ensures that the siting and appearance of essential services do not compromise design outcomes.

ELEMENT OBJECTIVES

1. All utilities are located such that they are integrated into the design of the building and landscape so that they are not visually obtrusive from the adjacent public realm.



Utilities integrated within pedestrian accessways (Claremont on the Park, Australia)

ACCEPTABLE OUTCOMES

1. Utility areas such as bin storage and service areas shall be screened from view from streets and public open space.
2. Solar panel collectors are anchored by durable material, responding to the coastal conditions, and located to maximise their effectiveness.
3. Air conditioning units should match the colour of the roof.
4. Meter boxes should match the wall colour.
5. The installation of security shutters is not permitted. To reduce impact on the streetscape, alternatives such as security mesh or protective film to glazing should be considered.

DESIGN GUIDANCE

1. Ensure suitable screening of all services and utilities and avoid locating in areas where they can be viewed from main arrival points or public spaces.
2. Multiple dwellings and commercial buildings are not permitted to install air conditioners on balconies or in places of public view.
3. Air conditioner units should be located in the basement of buildings or if this is not possible on the roof where plant can be screened from public view and does not affect the use or amenity of roof top gardens.
4. Piped and wired services, air conditioners, satellite dishes, clothes drying areas, storage tanks, waste disposal and communal bin storage/collection areas are visually screened from public view, and acoustically screened to minimise any noise intrusion.

4.18 STAGED DEVELOPMENT

The following provisions are applicable to all forms of development, within all sub-precincts.

INTENT

Built form development may progress over a period of time. It is important to consider how blank walls in larger staged developments are presented and viewed from the public realm and neighbouring development.

Careful consideration of setbacks, articulation and appearance of façades in the early stages is required. The use of landscaping and public art can assist with the presentation of incomplete development.

ELEMENT OBJECTIVES

1. To ensure that incomplete and staged development presents well to the public realm.
2. To ensure the amenity of adjoining properties is protected from unsightly and incomplete built form.

ACCEPTABLE OUTCOMES

1. Blank walls to be further developed as part of a later stage of development shall be considered as a designed elevation. Measures to ensure an acceptable 'interim' appearance shall be utilised.
2. Any nil setback to a side boundary, where adjoining development has not begun, shall be finished to a suitable standard to match the main building or to provide visual interest via public art for example.
3. Material changes, landscape and detail elements may be required where the overall height of the wall is considered excessive and detrimental to the overall development and/or the adjacent public realm.

DESIGN GUIDANCE

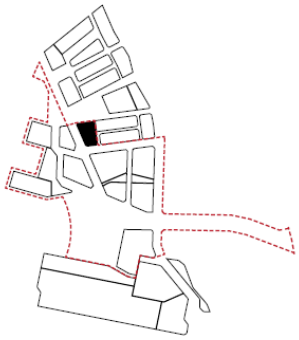
1. Any staged development shall provide an overall masterplan to demonstrate an appreciation of, and commitment to, completing the built form. Subsequent development shall demonstrate compliance with, or justify appropriate changes to, the overall masterplan.

5 SITE SPECIFIC BUILDING REQUIREMENTS

5.1 LOT 22

SITE CHARACTER

Location:



The site functions as a prominent northern entry statement to the new coastal village within the Mixed Use Precinct. Therefore, design qualities that suggest a welcoming entrance statement are supported.

The northern boundary relates to the central residential public open space providing recreational and social opportunities focused on local community needs.

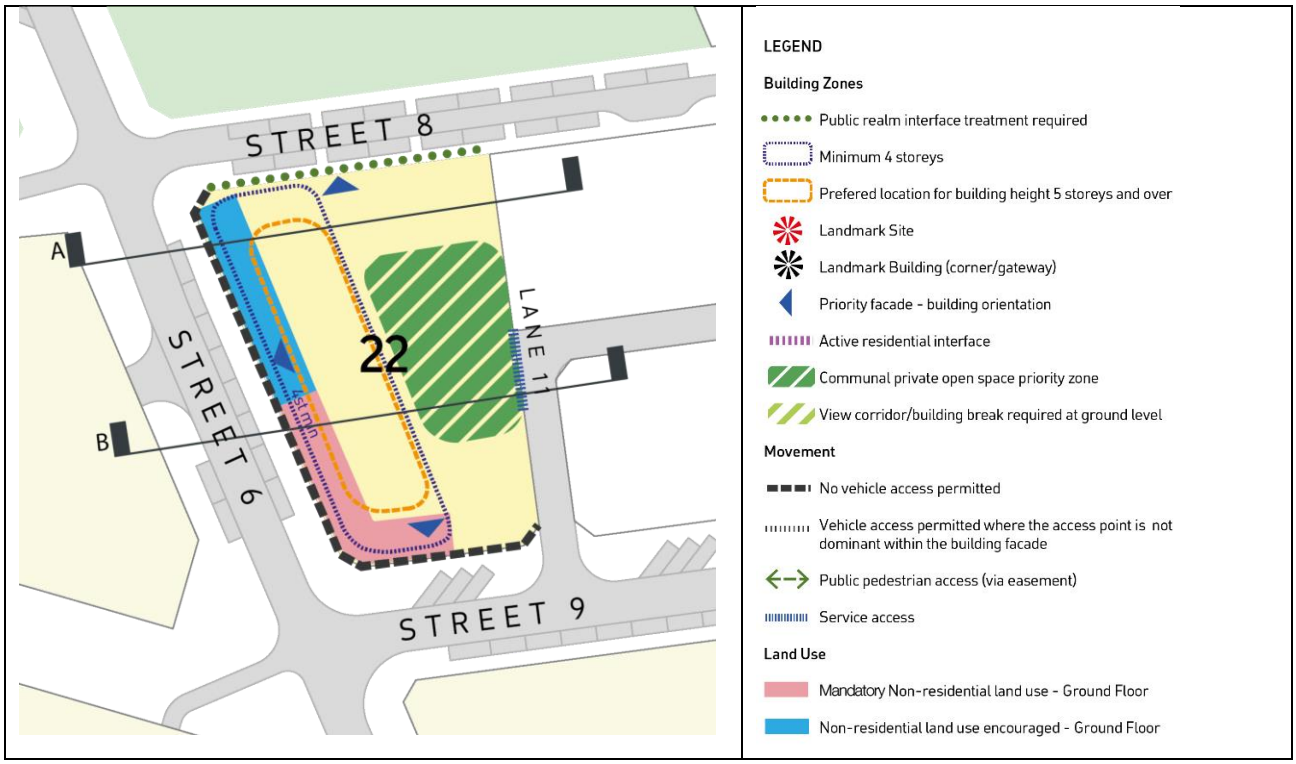
The western boundary faces the village main street. Buildings should respond with a continuous and active urban edge that defines the principle edge of the precinct fronting onto the main street.

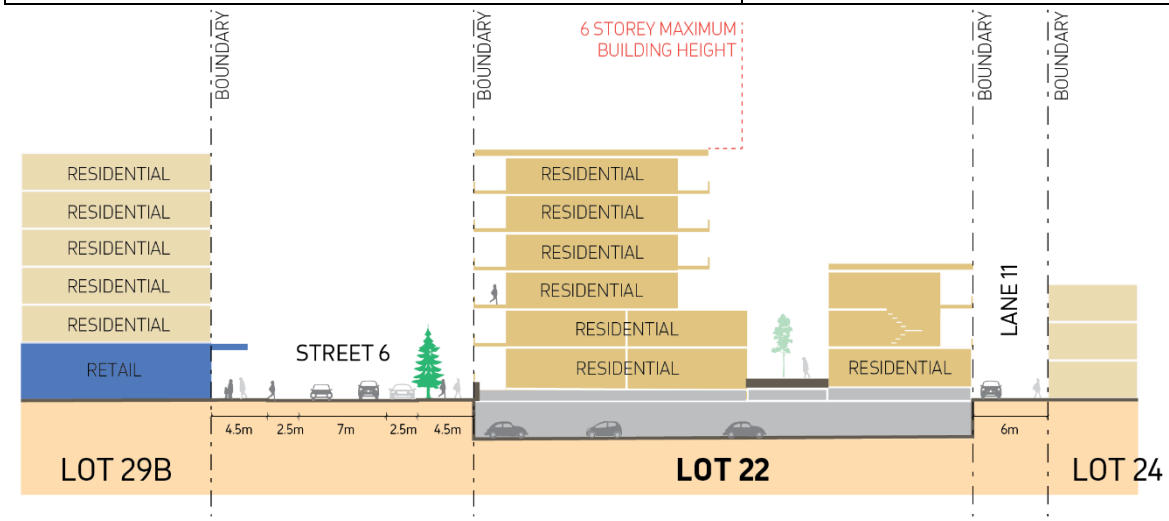
The southern boundary relates to central village square, providing a junction between the main street and central plaza. The built form should respond with a continuous and active urban edge fronting onto the street.

On the east, the development should transition down to the adjoining residential development minimising the impact of "back of development appearance" (e.g. exposed plant and servicing, large expanses of blank walls).

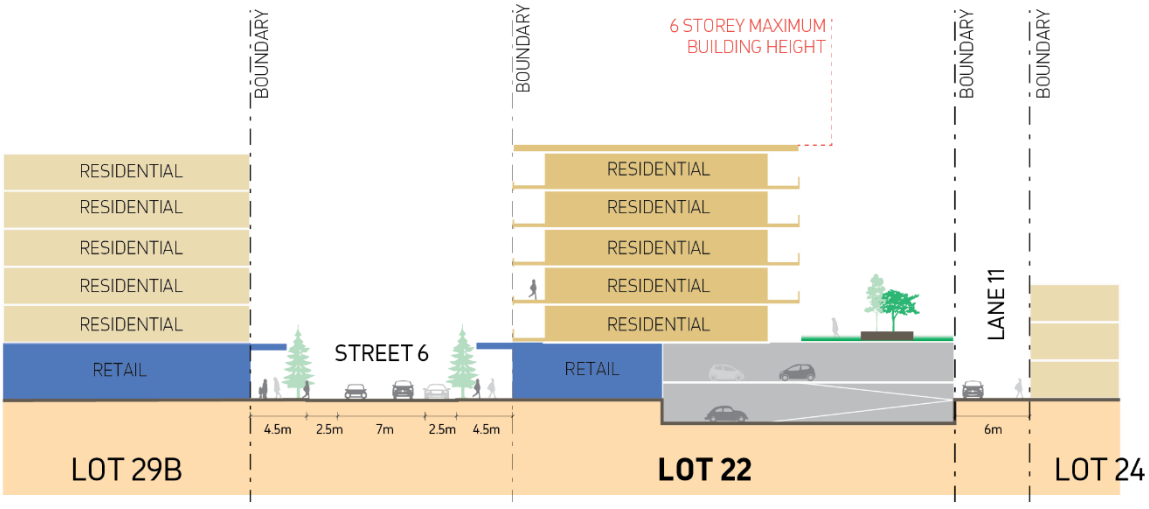
SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Intersection of Street 6 and Street 9	Non-residential use (retail, commercial, café, restaurant) mandatory on ground floor
Building Zones		
Building Height	Street 6 and Street 9	22.5m/6 storey height maximum - 4 storey minimum building height to Street 6
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 6	Nil permitted, except for residential 2m
	Street 9	Nil permitted, except for residential 2m
	Street 8	2m minimum
	Lane 11	Nil permitted
Above four storeys (measured from building edge)	Street 6	3m minimum
	Street 9	Nil permitted
	Street 8	Nil permitted
	Lane 11	10m minimum
Movement		
Preferred Vehicle Access	From Lane 11	Via a shared access to car parking sleeved by the built form
Pedestrian shelter		Awning to retail/commercial areas at ground level mandatory
Incidental Development Requirements		
Noise Attenuation	Lots adjacent to the Street 6 will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses. Sleeved/decked car parking shall be convertible between commercial/retail and residential uses.	





Mixed Use Precinct Lot 22 - Section A

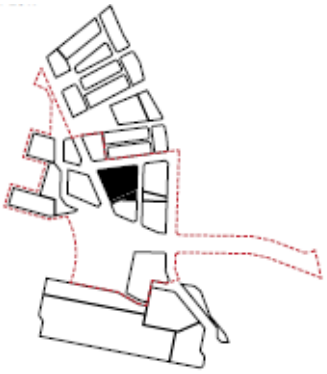


Mixed Use Precinct Lot 22 - Section B

5.2 LOT 26A

SITE CHARACTER

Location:



The site is located at the heart of the Mixed Use Precinct being a landmark location along the main street, intersecting with the village square. The design qualities of this site should express built form design excellence.

The northern boundary links directly to the main street village square, forming a key east-west connection for pedestrians. The built form should respond with a continuous and active urban edge fronting onto the street.

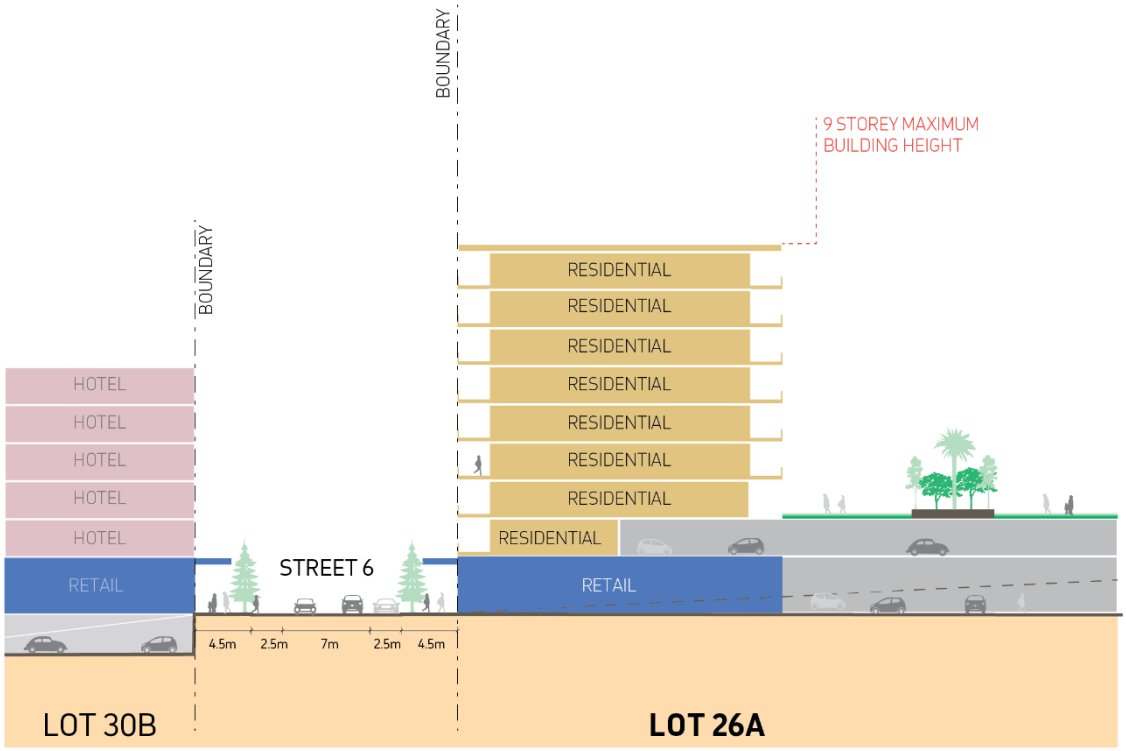
The western boundary faces the retail main street. Buildings should respond with a continuous and active urban edge that defines the principle edge of the precinct fronting onto the main street.

The southern boundary edges the public accessway linking uses east and west. Level changes across this section should respond in a neighbourly manner to deliver an inviting and attractive public interface.

On the east, the development edges Lane 12 which provides access to adjacent developments. The development should ensure a well-articulated transition to the lower scale development minimising the impact of "back of development appearance" (e.g. exposed plant and servicing, large expanses of blank walls).

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Street 6	Non-residential use (small supermarket supported by ancillary retail, clothing shops, café, food and beverage outlets) mandatory on ground floor
	Street 9	Ground floor commercial frontage and upper floor residential uses encouraged
Building Zones		
Building Height	Street 6	33m/9 storey height maximum - 4 storey minimum building height to Street 6. Building tower restrictions apply. Refer general provisions (Figure 5).
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 6	Nil permitted
	Street 9	Nil permitted
	Pedestrian accessway	2m minimum
	Lane 12	Nil permitted, except for residential 1.5m minimum
Above four storeys (measured from building edge)	Street 6	Nil permitted
	Street 9	Nil permitted
	Pedestrian accessway	Nil permitted, except for residential 1.5m minimum
	Lane 12	Nil permitted, except for residential 1.5m minimum
Top two storeys (for buildings in excess of 7 storeys – measured from building edge)	Street 6	Nil permitted, except for residential 1.5m minimum
	Street 9	Nil permitted, except for residential 1.5m minimum
Movement		
Preferred Vehicle Access	From Street 9 and Lane 12	Via a shared access with reciprocal rights of access
Pedestrian shelter	Street 6 and Street 9	Awning to retail/commercial areas at ground level mandatory
Incidental Development Requirements		
Building Break	The building design shall include a minimum of one physical break to the podium façade at the boundary indicated.	
Noise Attenuation	Lots adjacent to the Street 6 will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses. Sleeved/decked car parking shall be convertible between commercial/retail and residential uses.	

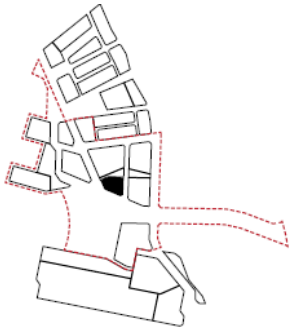


Mixed Use Precinct Lot 26A - Section C

5.3 LOT 26B

SITE CHARACTER

Location:



The southern boundary relates to the beach park that will be the 'jewel in the crown' within the wider precinct. Fronting directly onto the primary southern vehicle access route, the built form should respond with a continuous and active urban edge fronting onto the street.

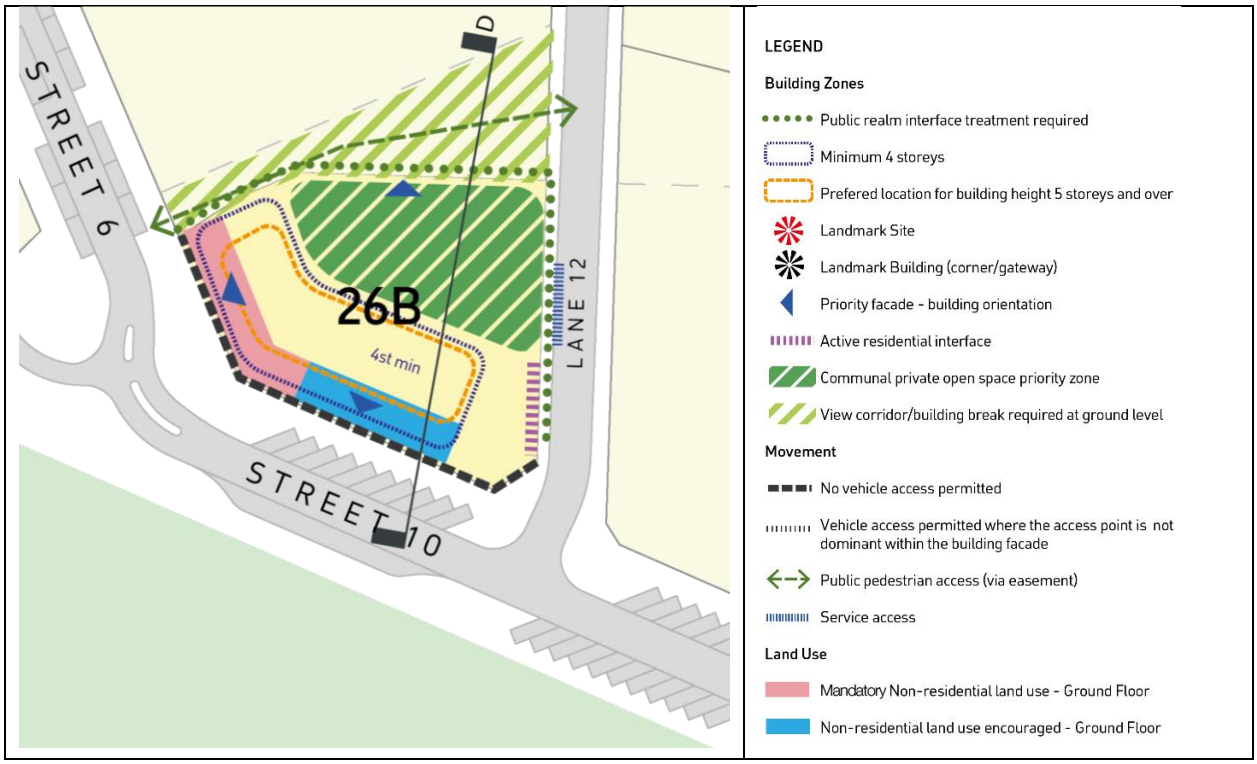
The northern boundary edges the public accessway linking uses east and west. Level changes across this section should respond in a neighbourly manner to deliver an inviting and attractive public interface which integrates a landscape edge.

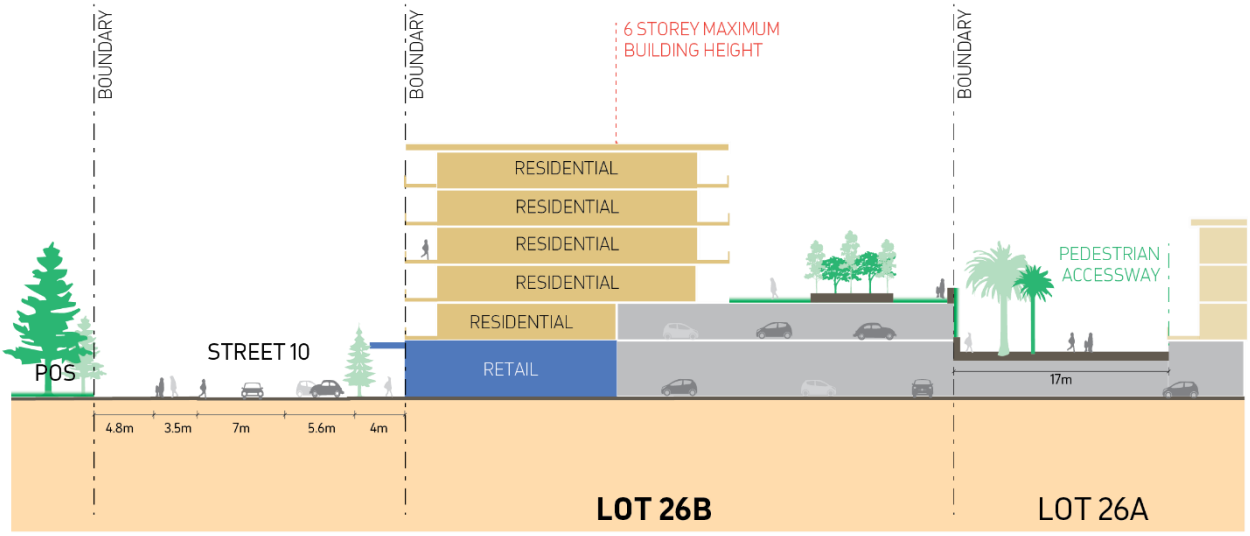
The western boundary faces the retail main street. Buildings should respond with a continuous and active urban frontage that defines the principle edge of the precinct fronting onto the street.

On the eastern boundary, the development edges Lane 12 which provides access to adjacent developments. The development should ensure a well-articulated transition to the lower scale development minimising the impact of "back of development appearance" (e.g. exposed plant and servicing, large expanses of blank walls).

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Street 6	Non-residential use (retail, commercial, café, restaurant) mandatory on ground floor
	Street 10	Non-residential use (retail, commercial, café, restaurant) encouraged on ground floor
Building Zones		
Building Height	Minimum 4 storeys interface to the Street 10	22.5m/6 storey height maximum - 4 storey minimum building height to Street 6
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 6	Nil permitted
	Street 10	Nil permitted
	Pedestrian accessway	2m minimum
	Lane 12	Nil permitted, except for residential 1.5m minimum
Above four storeys (measured from building edge)	Street 6	Nil permitted, except for residential 1.5m minimum
	Street 10	Nil permitted, except for residential 1.5m minimum
	Pedestrian accessway	Nil permitted, except for residential 1.5m minimum
	Lane 12	Nil permitted, except for residential 1.5m minimum
Movement		
Preferred Vehicle Access	From Lane 12	Via a shared access with reciprocal rights of access
Pedestrian shelter	Street 6 and Street 10	Awning to retail/commercial areas at ground level encouraged
Incidental Development Requirements		
Building Break	The building design shall include a minimum of one physical break to the podium façade at the boundary indicated.	
Noise Attenuation	Lots adjacent to the beach park and Street 10 will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses. Sleeved/decked car parking shall be convertible between commercial/retail and residential uses.	



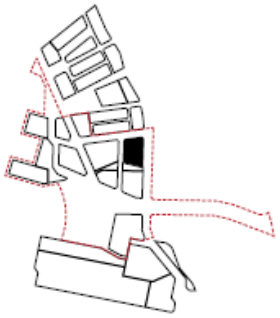


Mixed Use Precinct Lot 26B - Section D

5.4 LOT 27A

SITE CHARACTER

Location:



The northern boundary should respond in a neighbourly manner to residential development adjacent. The build form should respond with a continuous and active urban edge fronting onto the street.

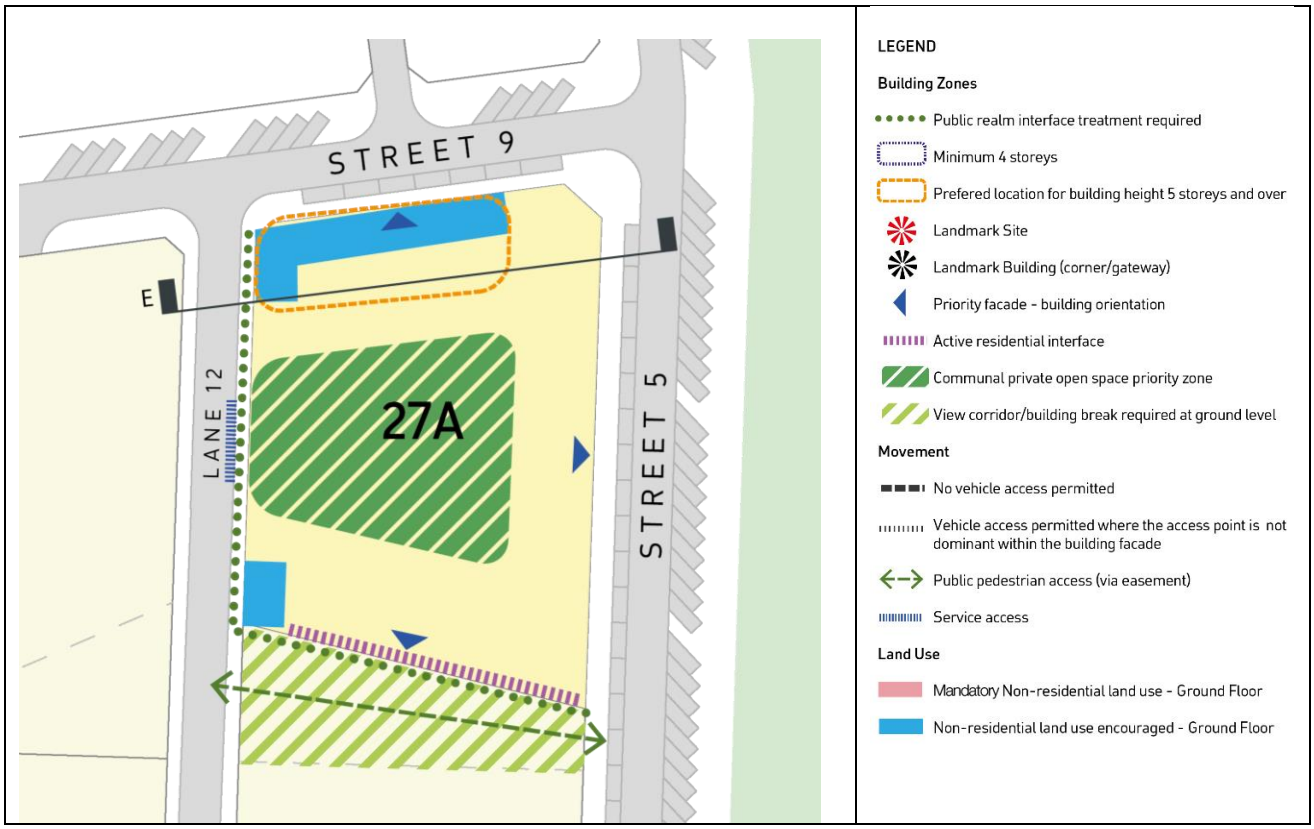
The southern boundary edges the public accessway linking uses east and west. Level changes across this section should respond in a neighbourly manner to deliver an inviting and attractive public interface which integrates a landscape edge.

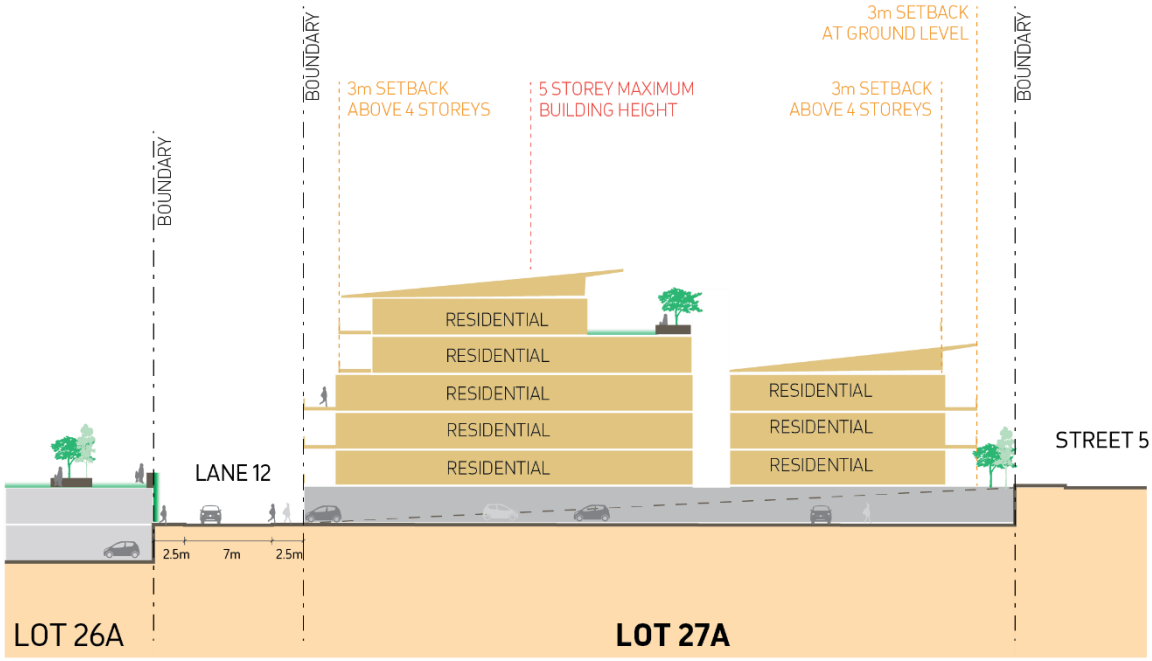
The western boundary edges Lane 12 which provides access to adjacent developments. The development should ensure a well-articulated transition to the adjacent development minimising the impact of "back of development appearance" (e.g. exposed plant and servicing, large expanses of blank walls).

The eastern boundary relates to the Bush Forever vegetation. Buildings should respond in a neighbourly manner to the vehicle access route.

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Street 9	Hotel, residential building, small cafe fronting the Street 9 encouraged
	Intersection Lane 12 and Access way	Non-residential use (retail, commercial, café, restaurant) encouraged on ground floor
Building Zones		
Building Height	Street 9	19m/5 storey height maximum
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 9	Nil permitted
	Street 5	3m minimum with landscaped courtyard to meet street edge
	Pedestrian accessway	2m minimum
	Lane 12	Nil permitted, except for residential 1.5m minimum
Above four storeys (measured from building edge)	Street 9	3m minimum
	Street 5	15m minimum
	Pedestrian accessway	2m minimum
	Lane 12	2m minimum
Movement		
Preferred Vehicle Access	From Lane 12 and Street 5	Via a shared access with reciprocal rights of access
Pedestrian shelter	Street 9	Awning to retail/commercial areas at ground level encouraged
Incidental Development Requirements		
Building Break	The building design shall include a minimum of one physical break to the podium façade at the boundary indicated.	
Noise Attenuation		
Wind Controls on Built Form		
Bushfire Management	Applicant to check bushfire protection requirements.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses. Sleeved/decked car parking shall be convertible between commercial/retail and residential uses.	



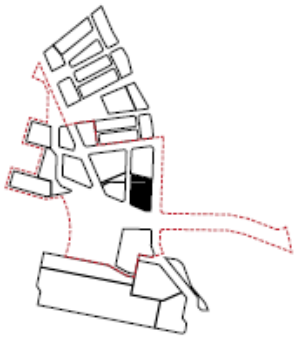


Mixed Use Precinct Lot 27A - Section E

5.5 LOT 27B

SITE CHARACTER

Location:



The south-eastern corner is an important 'gateway' to the Mixed Use Precinct from the south, therefore the treatment of this corner should provide a welcoming entry.

The southern boundary fronts onto the southern vehicle access route into the precinct. Buildings should respond with a continuous and active urban edge fronting onto the street.

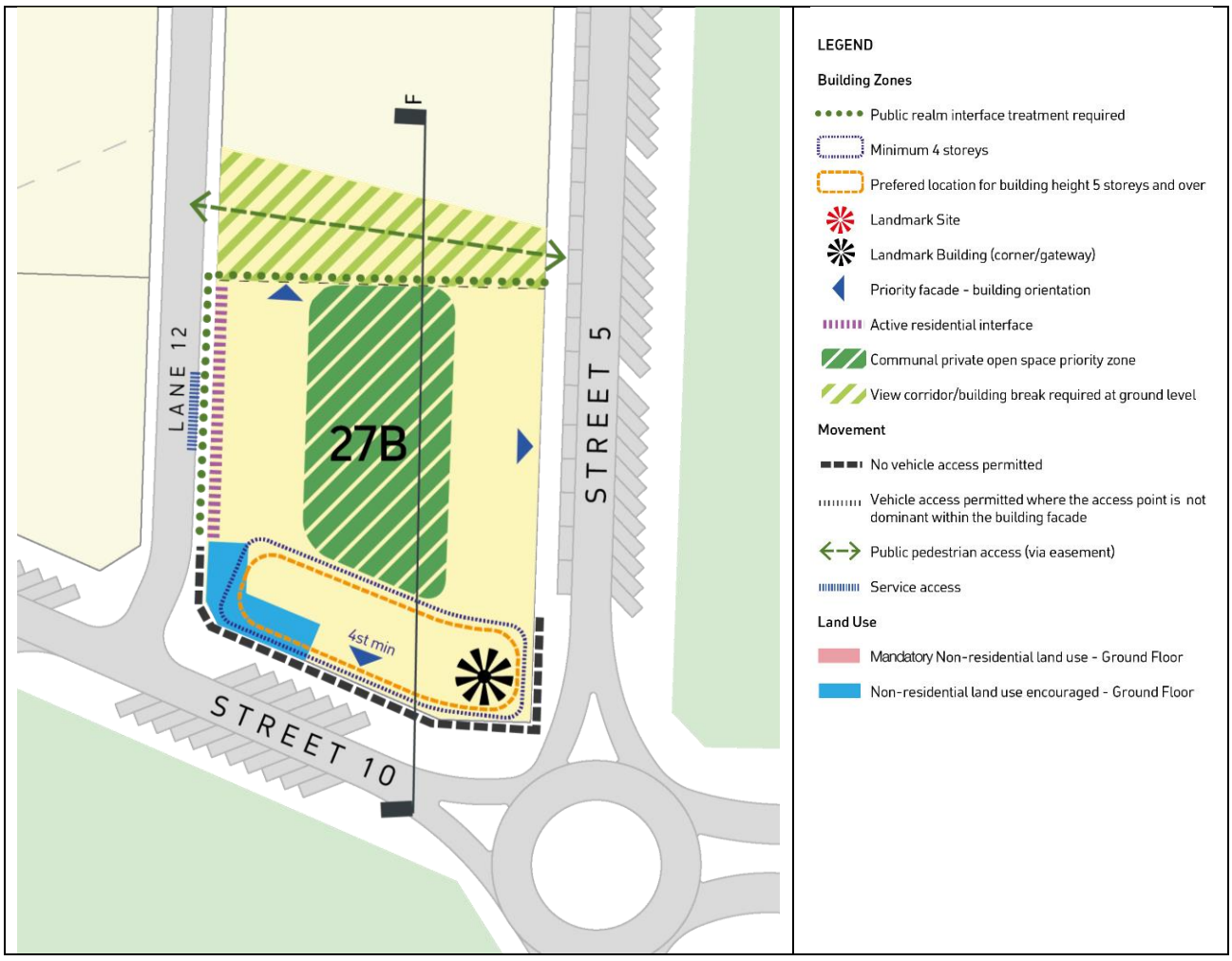
The eastern boundary relates to the Bush Forever vegetation. Buildings should respond in a neighbourly manner to the vehicle access route.

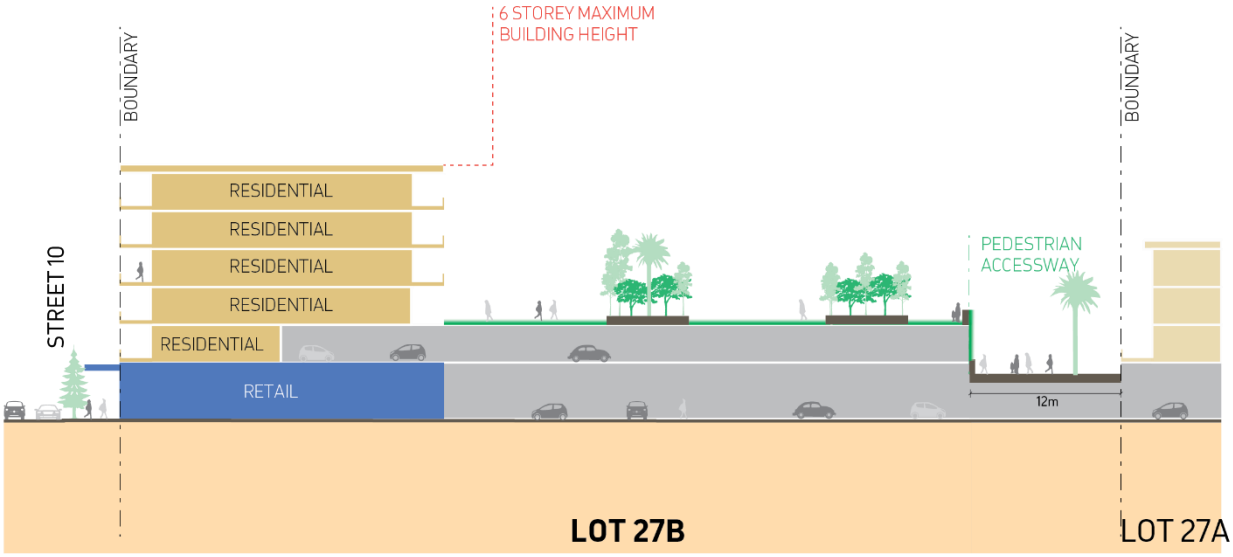
The northern boundary edges the public accessway linking uses east and west. Level changes across this section should respond in a neighbourly manner to deliver an inviting and attractive public interface which integrates a landscape edge.

The western boundary edges Lane 12 which provides access to adjacent developments. The development should ensure a well-articulated transition to the adjacent development minimising the impact of "back of development appearance" (e.g. exposed plant and servicing, large expanses of blank walls).

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Street 10	Non-residential use (retail, commercial, café, restaurant) encouraged on ground floor
Building Zones		
Building Height	Minimum 4 storeys to Street 10	22.5m/6 storey height maximum - 4 storey minimum building height to Street 10
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 10	Nil permitted
	Street 5	3m minimum with landscaped courtyard to meet street edge
	Pedestrian accessway	2m minimum
	Lane 12	Nil permitted, except for residential 1.5m minimum
Above four storeys (measured from building edge)	Street 10	3m minimum
	Street 5	3m minimum
	Pedestrian accessway	2m minimum
	Lane 12	2m minimum
Movement		
Preferred Vehicle Access	From Lane 12 and Street 5	Via a shared access with reciprocal rights of access
Pedestrian shelter	Street 10	Awning to retail/commercial areas at ground level encouraged
Incidental Development Requirements		
Building Break	The building design shall include a minimum of one physical break to the podium façade at the boundary indicated.	
Noise Attenuation	Lots adjacent to the beach park/Street 10 intersection will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form		
Bushfire Management	Applicant to check bushfire protection requirements.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses. Sleeved/decked car parking shall be convertible between commercial/retail and residential uses.	



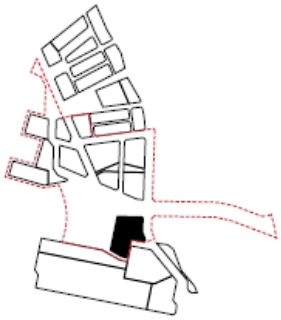


Mixed Use Precinct Lot 27B - Section F

5.6 LOT 28

SITE CHARACTER

Location:



The western boundary relates to the beach park that will be the 'jewel in the crown' within the wider precinct. Therefore, design qualities should respond with a vibrant and highly articulated public face and include design qualities that clearly define mixed use and residential development.

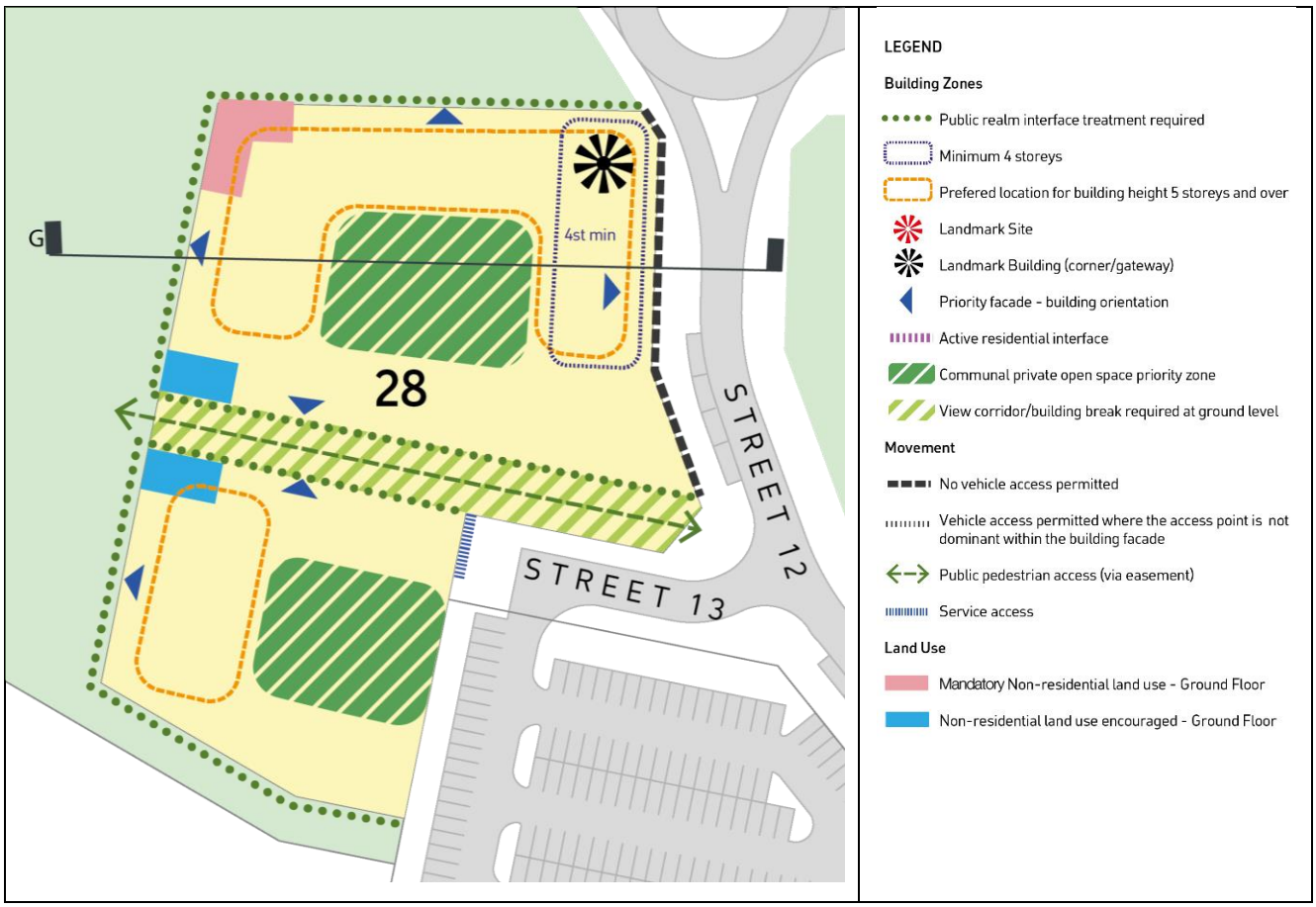
The north-eastern corner is an important 'gateway' to the Mixed Use Precinct from the south, therefore the treatment of this corner should provide a welcoming entry.

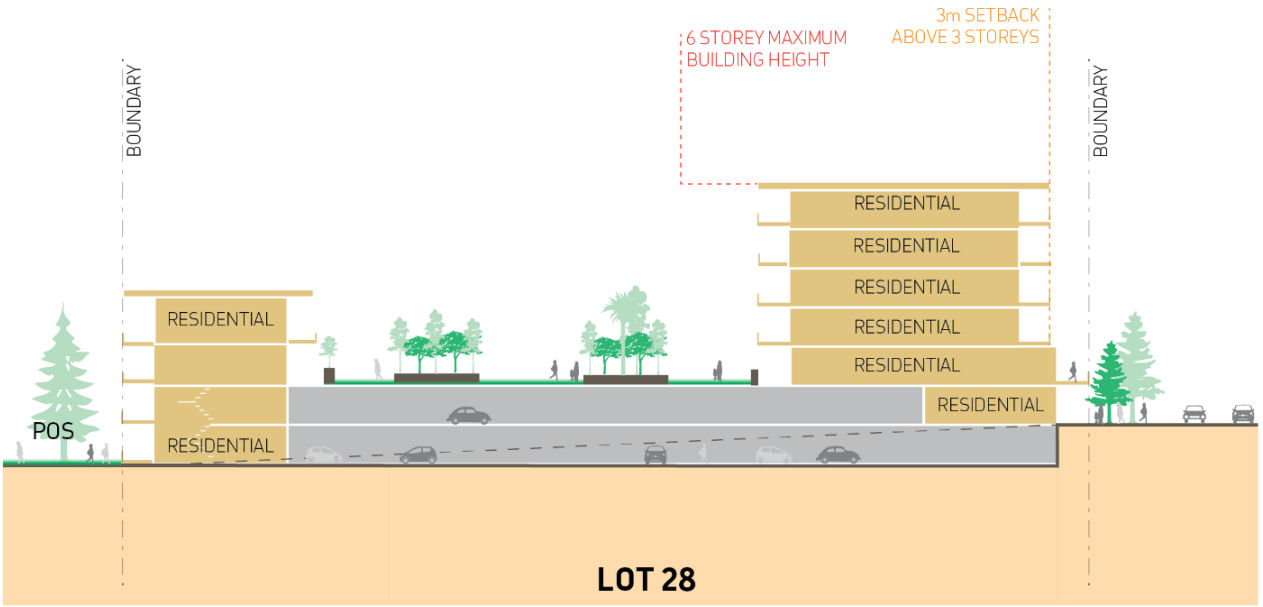
The eastern boundary relates to the marine access route and public car park. Buildings should respond in a neighbourly manner to mitigate any reverse sensitivities of an active marina.

The southern boundary should respond to its location next to the active marina. Measures are required to mitigate any possible reverse sensitivities from the marina activity. A design response that includes large expanses of blank walls and minimal articulation of elevation or 'back of development' appearance will be unacceptable.

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Public Open Space (north and west)	Non-residential use (café, restaurant, retail) mandatory on ground floor
	Intersection of Public Open Space (north and west) with pedestrian accessway	Non-residential use (café, restaurant, retail) encouraged on ground floor
Building Zones		
Building Height		22.5m/6 storey height maximum - 4 storey minimum building height to Street 12
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 12	2m minimum
	Street 13	Nil permitted, except for residential 1.5m minimum
	Public Open Space (north and west)	2m minimum
	Public Open Space (south)	2m minimum
Above four storeys (measured from building edge)	Street 12	3m minimum
	Street 13	3m minimum
	Public Open Space (north and west)	3m minimum
	Public Open Space (south)	3m minimum
Movement		
Preferred Vehicle Access	From Street 13	Via a shared access with reciprocal rights of access
Pedestrian shelter	Public Open Space (north and West)	Awning to retail areas at ground level encouraged
Incidental Development Requirements		
Building Break	The building design shall include a minimum of one physical break to the podium façade at the boundary indicated.	
Noise Attenuation	Lots adjacent to the beach park and marina will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	
Bushfire Management	Applicant to check bushfire protection requirements.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses. Sleeved/decked car parking shall be convertible between commercial/retail and residential uses.	



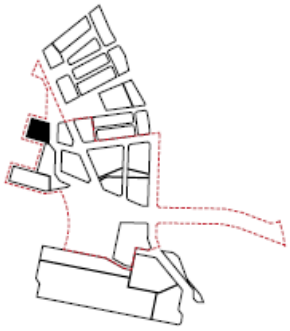


Mixed Use Precinct Lot 28 - Section G

5.7 LOT 29A

SITE CHARACTER

Location:



The site functions as a prominent northern pier to the Mixed Use Precinct. Therefore, design qualities should respond with a vibrant and highly articulated public face and include design qualities that clearly define the commercial nature of the development at ground level.

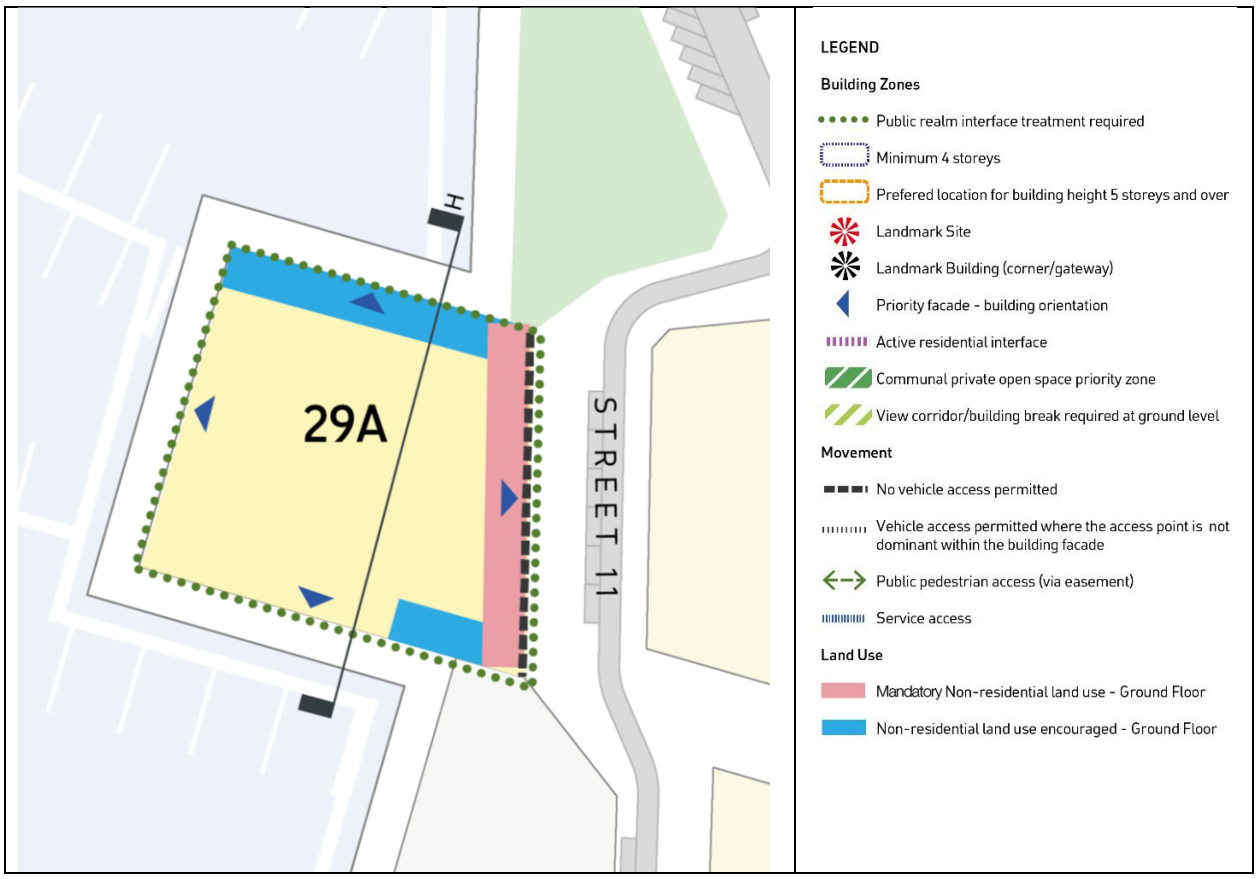
The northern boundary relates to the triangle of public open space that allows for significant recreational opportunities, along with connection to the waterfront and boats.

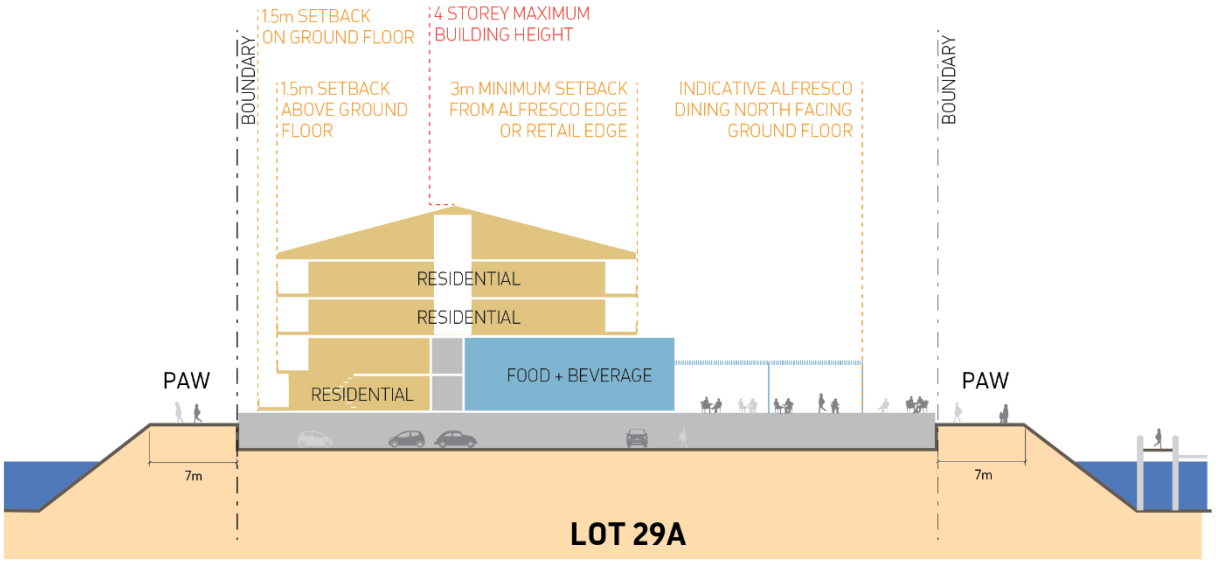
The southern boundary relates to a highly functional urban plaza that will address a vibrant alfresco dining and events hub. Buildings should respond with a highly articulated public face and include qualities that define mixed use and residential development.

The eastern boundary fronts onto the north-south pedestrian promenade and one-way shared surface for vehicle drop-off and pickup. Buildings should respond with a vibrant and finer grain public face and include qualities that define mixed use and residential development. The western boundary faces the marina and ocean views. The building should respond to the coastal conditions providing protection from the prevailing elements.

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Street 11	Non-residential use (restaurant, alfresco dining, cafes, entertainment) mandatory on ground floor
	Fronting central plaza and northern pedestrian promenade	Non-residential use (restaurant, alfresco dining, cafes, entertainment) encouraged on ground floor
Building Zones		
Building Height		15.5m/4 storey height maximum
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 11	Nil permitted
	Northern boundary	Nil permitted, except for residential 1.5m minimum
	Southern boundary	Nil permitted, except for residential 1.5m minimum
	Western boundary	Nil permitted, except for residential 1.5m minimum
Above four storeys (measured from building edge)	Street 11	Nil permitted
	Northern boundary	3m minimum from alfresco edge or retail edge
	Southern boundary	1.5m minimum from boundary to balcony or building edge
	Western boundary	1.5m minimum from boundary to balcony or building edge
Movement		
Preferred Vehicle Access	Eastern boundary	1.5m minimum from boundary to balcony or building edge
Pedestrian shelter	Street 11 and Public Open Space (north and West)	Awning to retail/commercial areas at ground level mandatory
Incidental Development Requirements		
Service Infrastructure	Access to service infrastructure is required to be internalised within the development and accessed from Lot 29B via a shared access on Street 6 to avoid conflict with pedestrian priority movement within the central plaza.	
Building Levels	Basement interface with pedestrian promenade at a maximum 4.1m AHD to top of finished external ground floor level. Maximum level change from pedestrian promenade (PAW on Section H) to finished external ground floor level within Lot 29A is 1.3m, to maintain visual connection to boat pens.	
Noise Attenuation	Lots adjacent to the central plaza and marina will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses.	



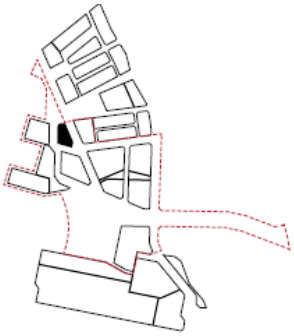


Mixed Use Precinct Lot 29A - Section H

5.8 LOT 29B

SITE CHARACTER

Location:



The site functions as a prominent northern entry statement to the new coastal village within the Mixed Use Precinct. Therefore, design qualities that suggest a welcoming entrance statement are supported.

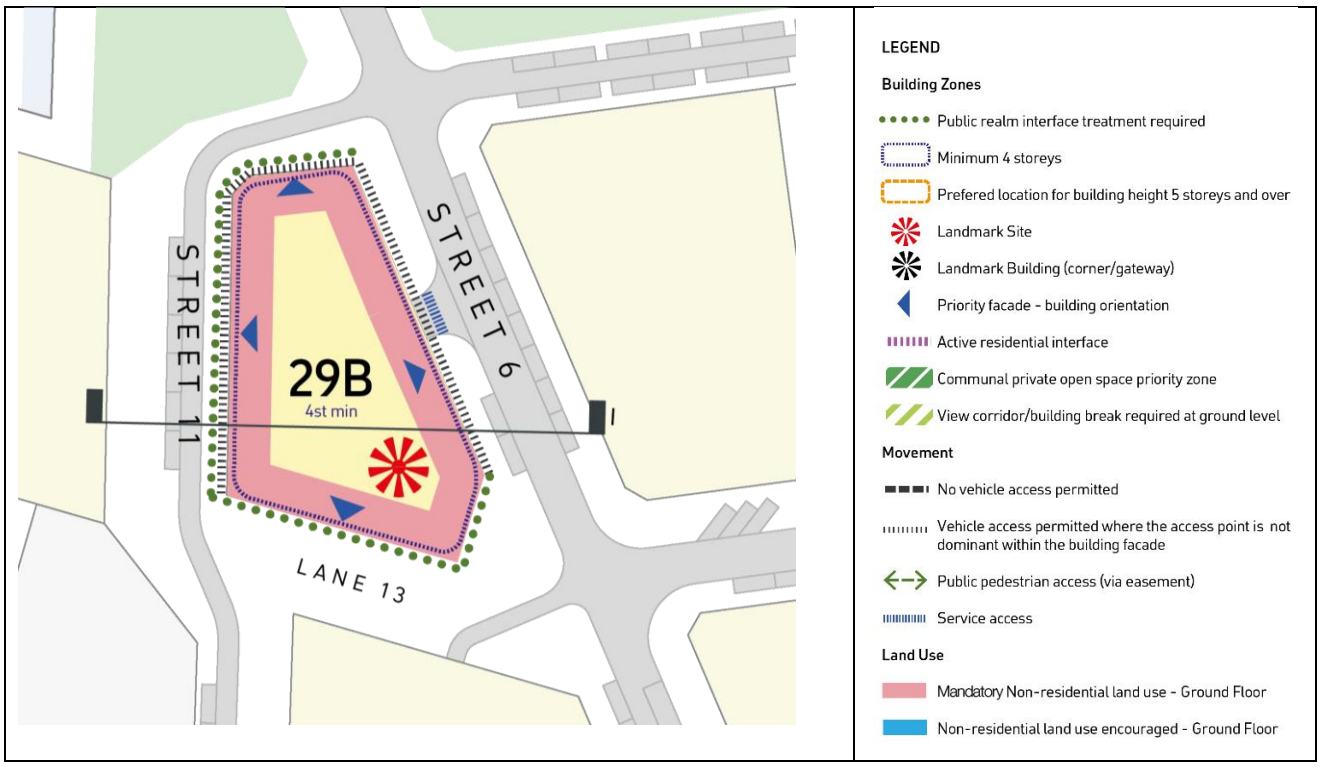
The northern boundary relates to the triangle of public open space that allows for significant recreational opportunities, along with connection to the waterfront and boats.

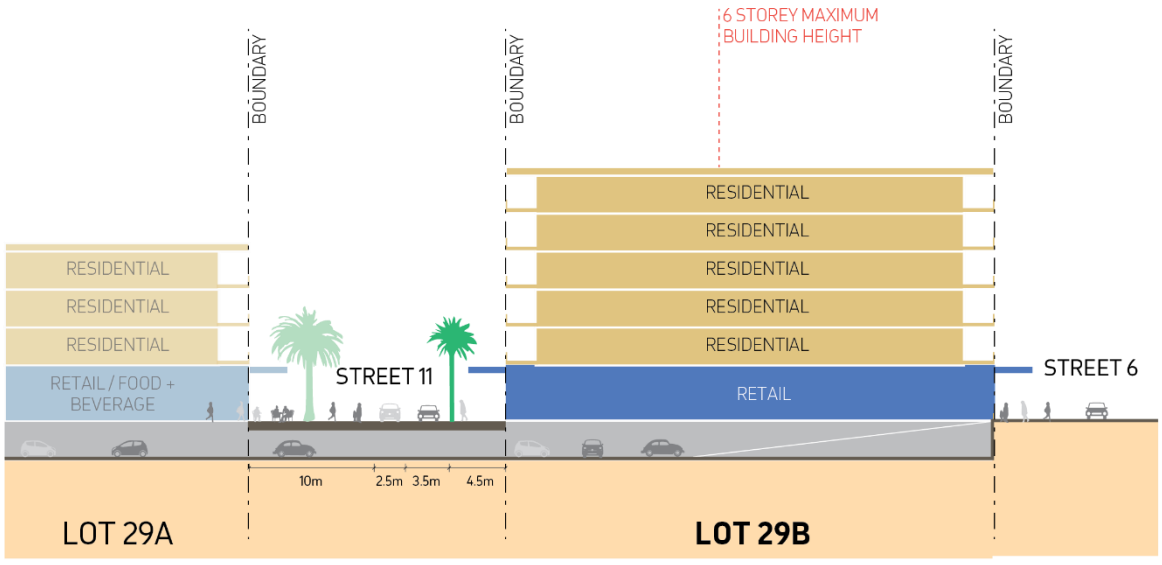
The western boundary fronts onto the north-south pedestrian promenade and one-way shared surface for vehicle drop-off and pickup. Buildings should respond with a vibrant and highly articulated public face and include qualities that define mixed use and residential development.

The southern boundary fronting a pedestrian lane should frame the view corridor from the end of Street 9 and respond with a finer grain public interface that include qualities that define a vibrant mixed use development.

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Ground Floor	Non-residential use (restaurant, alfresco dining, cafes, entertainment, retail, community use) mandatory on ground floor
	Upper Level	Office, hotel and residential dwellings encouraged above
Building Zones		
Building Height		22.5m/6 storey height maximum - 4 storey minimum building height
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 6	Nil permitted
	Street 11	Nil permitted
	Lane 13	Nil permitted
	Northern boundary	Nil permitted
Above four storeys (measured from building edge)	Street 6	Nil permitted
	Street 11	Nil permitted
	Lane 13	Nil permitted
	Northern boundary	Nil permitted
Movement		
Preferred Vehicle Access	From Street 6 – located central to the Lot area	Via a shared access with reciprocal rights of access
Pedestrian shelter	Street 11, Lane 13 and Street 6	Awning to retail/commercial areas at ground level mandatory
Incidental Development Requirements		
Service Infrastructure	Access to service infrastructure is required to be internalised within the development to avoid conflict with pedestrian priority movement within the central plaza and main street environment.	
Noise Attenuation	Lots adjacent to the central plaza, marina and Street 6 will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	



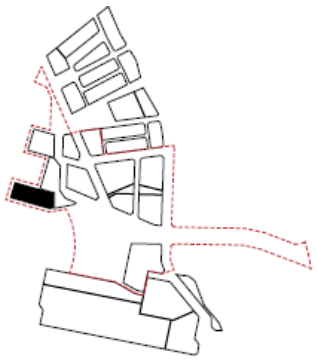


Mixed Use Precinct Lot 29B - Section I

5.9 LOT 30A

SITE CHARACTER

Location:



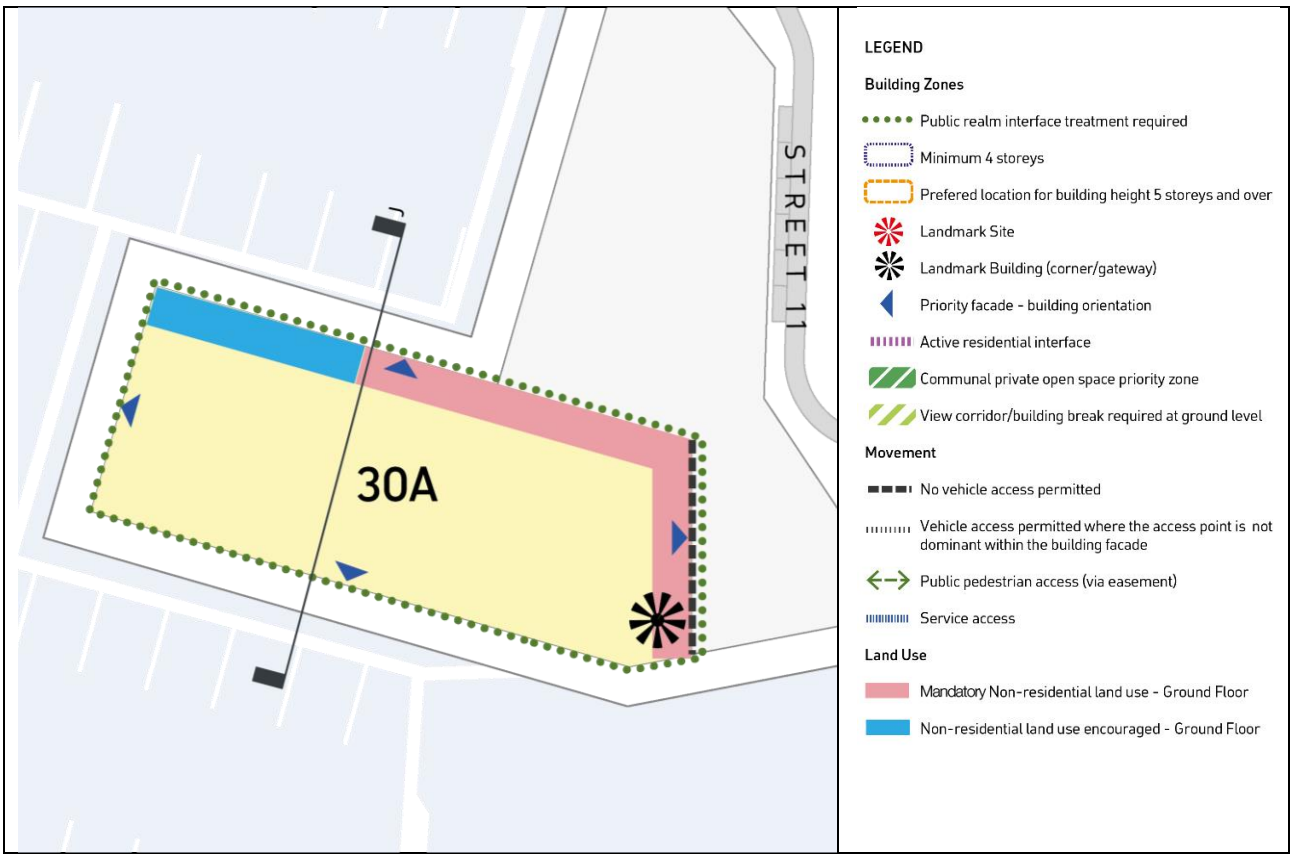
The site functions as a prominent southern pier to the Mixed Use Precinct. The southern boundary relates to the beach park that will be the 'jewel in the crown' within the wider precinct. Therefore, design qualities should respond with a vibrant and highly articulated public face and include design qualities that clearly define mixed use and residential development.

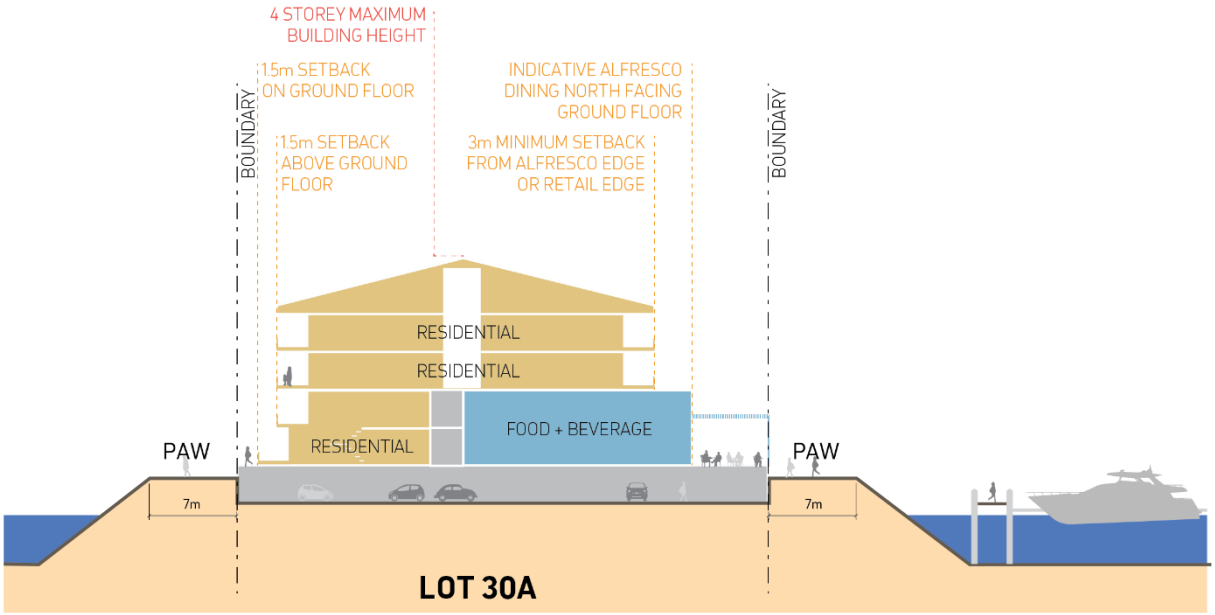
The south-eastern corner is an important 'landmark' into the Mixed Use Precinct from the south, therefore the treatment of this corner should provide a welcoming entry. The northern boundary relates to a highly functional urban plaza that will address a vibrant alfresco dining and events hub. Buildings should respond with a highly articulated public face and include qualities that define mixed use development.

The eastern boundary fronts onto the north-south pedestrian promenade and one-way shared surface for vehicle drop-off and pickup. Buildings should respond with a vibrant and finer grain public face and include qualities that define mixed use and residential development. The western boundary faces the marina and ocean views. The building should respond to the coastal conditions providing protection from the prevailing elements.

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Street 11 and central plaza	Non-residential use (restaurant, alfresco dining, cafes, entertainment) mandatory on ground floor
	Northern pedestrian promenade	Non-residential use (restaurant, alfresco dining, cafes, entertainment) encouraged on ground floor
Building Zones		
Building Height		15.5m/4 storey height maximum
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 11	Nil permitted
	Northern boundary	Nil permitted, except for residential 1.5m minimum
	Southern boundary	Nil permitted, except for residential 1.5m minimum
	Western boundary	Nil permitted, except for residential 1.5m minimum
Above four storeys (measured from building edge)	Street 11	Nil permitted
	Northern boundary	NA
	Southern boundary	1.5m minimum from boundary to balcony or building edge
	Western boundary	1.5m minimum from boundary to balcony or building edge
Movement		
Preferred Vehicle Access	From Street 6	Via a shared access with reciprocal rights of access
Pedestrian shelter	Street 11 and Public Open Space (north, east and west)	Awning to retail/commercial areas at ground level mandatory
Incidental Development Requirements		
Service Infrastructure	Access to service infrastructure is required to be internalised within the development and accessed from Lot 30B via a shared access on Street 11 to avoid conflict with pedestrian priority movement within the central plaza.	
Building Levels	Basement interface with pedestrian promenade: a maximum 4.1m AHD to top of finished external ground floor level. Maximum level change from pedestrian promenade (PAW on Section J) to finished external ground floor level within Lot 30A is 1.3m, to maintain visual connection to boat pens.	
Noise Attenuation	Lots adjacent to the central plaza, beach park and marina will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses.	



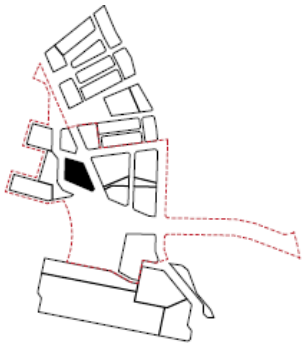


Mixed Use Precinct Lot 30A - Section J

5.10 LOT 30B

SITE CHARACTER

Location:



The western boundary relates to a highly functional urban plaza that will address a vibrant alfresco dining and events hub. Buildings should respond with a highly articulated public face and include qualities that define mixed use and residential development.

The southern boundary relates to the beach park that will be the 'jewel in the crown' within the wider precinct. Fronting directly onto the one-way shared access route, the built form should respond with a continuous and active urban edge fronting onto the street.

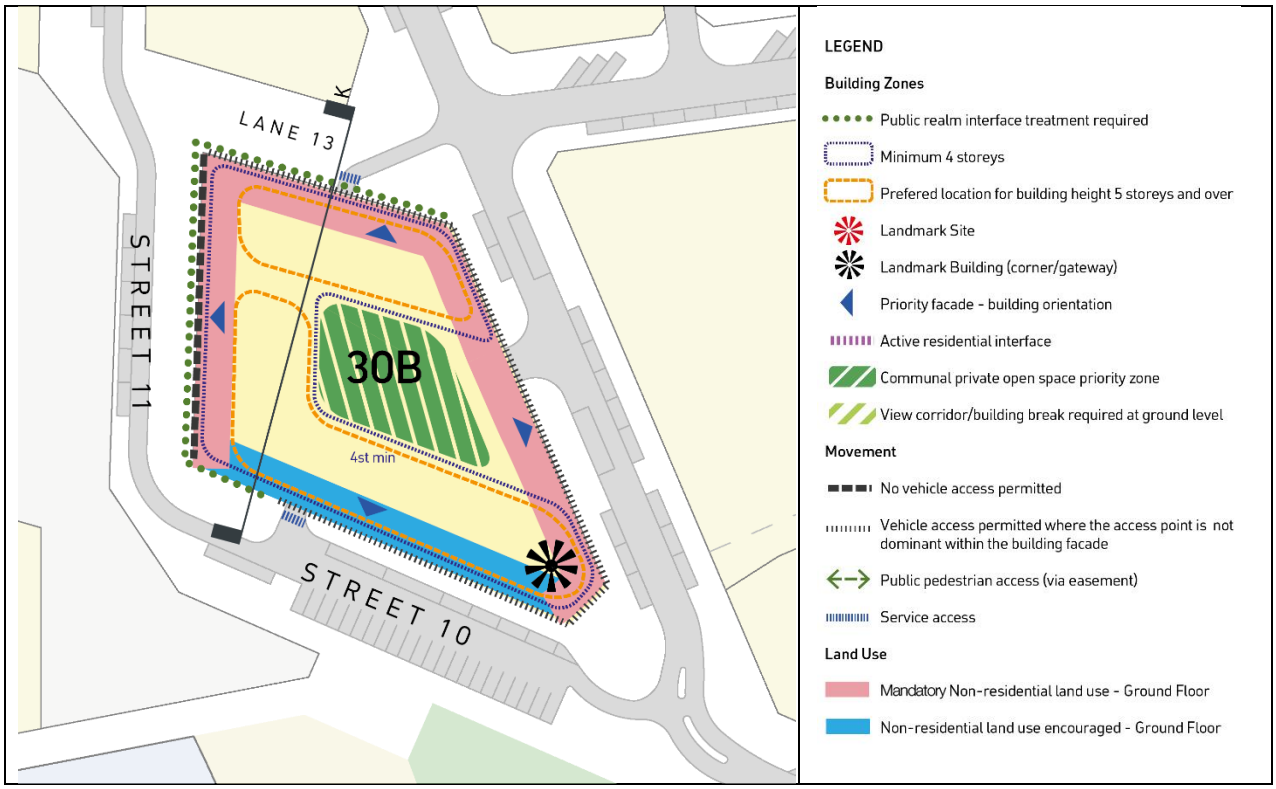
The eastern boundary addresses the retail and commercial main street. Buildings should respond with a continuous and active urban wall that defines the principle edge of the precinct fronting onto the main street.

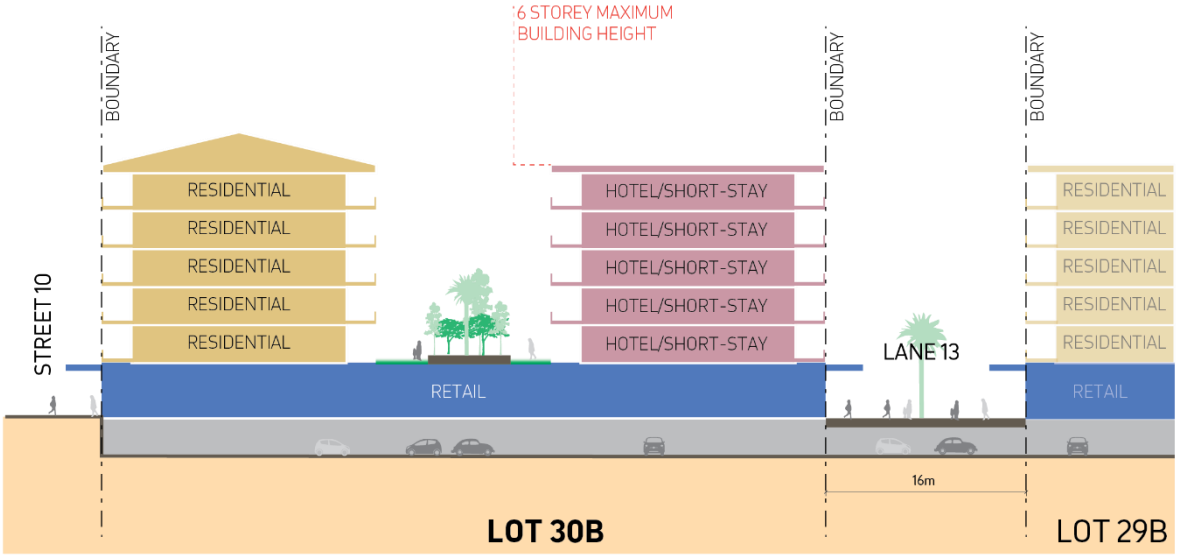
The south-eastern corner is an important 'gateway' to the retail main street from the south, therefore the treatment of this corner should provide a welcoming entry.

The northern boundary fronting a pedestrian lane should frame the view corridor from the end of Street 9 and respond with a finer grain public interface that includes qualities that define a vibrant mixed use development.

SPECIFIC BUILDING REQUIREMENTS

Key Controls	Location	Requirements
Land Use		
Preferred Land Use	Street 11, Street 6, Lane 13	Non-residential use (restaurant, alfresco dining, cafes, entertainment) mandatory on ground floor
	Street 10	Non-residential use (restaurant, alfresco dining, cafes, entertainment) encouraged on ground floor
Building Zones		
Building Height		22.5m/6 storey height maximum - 4 storey minimum building height to Street 10, Street 11, Lane 13
Setbacks:		
Basement	All boundaries:	Nil permitted
Ground Floor (measured from lot boundary)	Street 6	Nil permitted
	Street 11	Nil permitted
	Street 10	Nil permitted
	Lane 13	Nil permitted
Above four storeys (measured from building edge)	Street 6	Nil permitted
	Street 11	Nil permitted
	Street 10	Nil permitted
	Lane 13	Nil permitted
Movement		
Preferred Vehicle Access	From Street 6 – located central to the Lot area	Via a shared access with reciprocal rights of access
Pedestrian shelter	Street 11, Street 6, Street 10 and Lane 13	Awning to retail/commercial areas at ground level mandatory
Incidental Development Requirements		
Service Infrastructure	Access to service infrastructure is required to be internalised within the development to avoid conflict with pedestrian priority movement within the central plaza and main street environment.	
Noise Attenuation	Lots adjacent to the central plaza, beach park and marina will be affected by noise. Development applications must be accompanied by an acoustic report addressing the relevant requirements.	
Wind Controls on Built Form	Development application to be accompanied by a wind analysis study – responding to prevailing westerly breezes.	
Adaptability	Ground floor areas shall be convertible between commercial/retail and residential uses.	





Mixed Use Precinct Lot 30B - Section K

APPENDICES

APPENDIX 1

DESIGN EXCELLENCE

The following performance criteria have been developed to guide the Estate Architect and the City of Joondalup discretion with respect to development applications for landmark sites, Lot 26A and 29B. The criteria aim to ensure the delivery of exemplar built form, a high quality public realm and occupant liveability.

In considering an application, the Estate Architect and the City of Joondalup shall have due regard to the following principles to assist in determining the design excellence of the development:

1. Character – a development with its own identity

Objectives:

- Achieves an iconic approach for the creation of the sense of place or vision for the Ocean Reef Marina;
- New development integrates seamlessly into the coastal setting and reinforce local distinctiveness;
- Building materials, construction techniques and details enhance local character;
- New development promotes the re-establishment of local distinctiveness that builds on the past and reinvigorates locally distinctive patterns of development, landscape and culture to provide the area with a 'sense of place'; and
- Landscaped spaces and/or other facilities are accessible to the public such as gym equipment, play equipment and public art.

2. Continuity and enclosure – A development where public and private spaces are clearly distinguished

Objectives:

- Streets are made up of continuous building frontages and open spaces with few gaps that could leave streets lifeless and uninteresting;
- Buildings are used to enclose spaces and separate private from public areas;
- New developments have open spaces and routes that are well-designed, attractive, safe and uncluttered;
- New developments provide communal open space that is easy for everyone to use, including children, disabled and elderly people;
- Building materials are of a high quality, durable and easy to maintain;
- Well-designed communal open spaces relate to adjacent buildings; and
- The design of open spaces takes account the microclimate.

4. Quality of the public realm - A development with well-designed, high quality communal open spaces

Objectives:

- Developments have open spaces and routes that are well-designed, attractive, safe and uncluttered;
- Developments provide communal open space that is easy for everyone to use, including children, disabled and elderly people;
- Well-designed communal open space that relates to adjacent buildings;
- The development integrates high quality active street frontages, street art, furniture and landscape features; and
- A rage of community uses are integrated within buildings (public bike parking, bee hives, community meeting rooms, herb gardens for local restaurants).

5. Ease of movement - A development that is easy to get to and move through

Objectives:

- The development prioritises pedestrians over vehicles;
- The layout of the development minimises the need for car travel and exploits any proximity to public transport;
- Access and circulation contribute to a fine grain network of direct and connected routes within and beyond the site and avoid creating large non-permeable blocks;
- Provision of a publicly accessible pedestrian accessway in a location identified (refer to the precinct specific chapters) to be protected by an easement or other legal agreement in perpetuity;
- The provision of a public car parking facility providing for a minimum of 100 bays, in perpetuity;
- Car parks for public use beyond the users of the building; and
- The development demonstrates flexibility in car parking so that if future demand reduces the parking areas have a pre-considered use and can be easily transformed.

6. Legibility - A place that is easy to navigate

Objectives:

- The built form response is recognisable to help people understand where they are and find their way around;
- Landmark buildings are visible at street level and are distinctive and memorable;
- The scale of the buildings and the design of the street interface inform the public about the nature of the route; and
- Well-designed building corners enhance legibility by creating visual interest and contribute to a distinctive identity.

7. Adaptability - A place that can change and adapt

Objectives:

- The development has the capacity to meet changing social, environmental and economic conditions;
- The development demonstrates the capacity to adapt rather than be replaced;
- The development has the capacity to adapt to changing climate patterns and demonstrate strategies for the conservation of non-renewable resources including energy, water and materials and for minimising waste through construction and operation; and
- The development has capacity to adapt to changing demographics, an ageing population, new uses and people with disabilities.

8. Diversity - A place with Variety and Choice

Objectives:

- The development achieves an activation of ground plane by day and night;
- Integration of a small-scale supermarket between 1,500m² and 2,000m²;
- The development is accessible and navigable by all people regardless of physical ability;

- Landscape design promotes biodiversity and offers a variety of habitats for flora and fauna;
- Achieves 15% or more dwellings as Affordable Housing dwellings within the development in accordance with the requirements of DevelopmentWA's Policy on Affordable and Diverse Housing; and
- A range of dwelling sizes and costs.

9. Sustainability – A development that delivers benefits for residents, the community and the environment

Objectives:

- Applies a Heart Foundation Healthy Active by Design built form checklist;
- Developments meet a minimum 4-star Green Star rating through the Design and As-Built tool with official Green Star certification;
- Innovative construction techniques reducing energy consumption and responding to our changing energy environment;
- Protection of view corridors and/or mid-winter sunlight to adjacent land/buildings;
- Enables employment opportunities for locals during construction or ongoing commercial uses;
- Aboriginal employment opportunities/RAP (Reconciliation Action Plan) requirements for contractors; and
- Partnerships with organisation that will continue investment in the community i.e. fishing organisations, arts or education.

APPENDIX 2

TREE SPECIES LIST

Species	Features					Location		
	Height/Width	Native/Exotic	Frontline Wind Tolerant	Deciduous/ Ever Green	City of Joondalup preferred tree species list.	Residential	Mixed Use Precinct	Marine Services
Agonis flexuosa - 'Jervis Bay Afterdark'	6m/3.5m	WA native cultivar	slight protection	evergreen	no*	yes	yes	no
Agonis flexuosa, Native Peppermint	8m/5m	WA native	yes	evergreen	yes	yes	yes	yes
Allocasuarina fraseriana, Sheoak	12m/5m	WA native	yes	evergreen	no	no	yes	yes
Araucaria heterophylla, Norfolk Island Pine	20m/8m	Exotic	yes	evergreen	yes	no	no	yes
Banksia grandis, Bull Banksia	10m/4m	WA native	slight protection	evergreen	yes	yes	yes	no
Banksia integrifolia, Coastal Banksia	12m/4m	Australian native	yes	evergreen	no	yes	yes	yes
Brachychiton acerifolia, Illawarra Flame Tree	10m/6m	Australian native	slight protection	semi-deciduous	no*	no	yes	no
Callistemon citrinus - 'Kings Park Special'	3m/4m	WA native cultivar	slight protection	evergreen	yes	yes	no	no
Casuarina equisetifolia, Coast Sheoak	12m/6m	Australian native	yes	evergreen	no	no	yes	yes
Corymbia calophylla, Marri	15m/10m	WA native	yes	evergreen	yes	no	yes	yes
Corymbia ficifolia, Red Flowering Gum	10m/10m	WA native	slight protection	evergreen	yes	yes	yes	yes
Cupaniopsis anacardioides, Tuckeroo	10m/5m	Australian native	yes	evergreen	yes	no	yes	no
Erythrina sykesii, Coral Tree	12m/10m	Exotic	yes	semi-deciduous	no	no	yes	yes
Eucalyptus camaldulensis, River Red Gum	18m/10m	WA native	slight protection	evergreen	no*	no	yes	no
Eucalyptus gomphocephala, Tuart	18m/10m	WA native	slight protection	evergreen	yes	no	yes	yes
Eucalyptus todtiana, Coastal Blackbutt	8m/5m	WA native	yes	evergreen	yes	yes	yes	yes
Eucalyptus victrix, Coolibah	6m/3m	WA native	slight protection	evergreen	yes	yes	yes	yes
Ficus rubiginosa, Port Jackson Fig	12m/12m	Australian native	yes	evergreen	yes	no	yes	yes
Fraxinus graffithii, Evergreen Flowering Ash	7m/4m	Exotic	slight protection	evergreen	no*	no	yes	no
Gleditsia triacanthos var. - 'Shademaster'	10m/8m	Exotic cultivar	slight protection	deciduous	no	yes	yes	yes
Hakea laurina, Pin-Cushion Hakea	6m/3m	WA native	slight protection	evergreen	yes	yes	no	no
Hibiscus tiliaceus, Red-leafed Cottonwood Tree	5m/3.5m	Australian native	yes	evergreen	yes	yes	no	yes
Liquidambar styraciflua, Sweet Gum	18m/6m	Exotic	slight protection	deciduous	yes	no	yes	yes

Magnolia grandiflora, Southern Magnolia	*15m/8m*	*Exotic*	*slight protection*	*evergreen*	*no**	*yes*	*yes*	*no*
Melaleuca lanceolata, Rottnest Island Tea-tree	*8m/5m*	*WA native*	*yes*	*evergreen*	*yes*	*no*	*yes*	*yes*
Melaleuca leucadendra, Weeping Paperbark	*15m/8m*	*WA native*	*slight protection*	*evergreen*	*no**	*yes*	*yes*	*yes*
Melaleuca quinquinervia, Broad Leafed Paperbark	*10m/4m*	*Australian native*	*yes*	*evergreen*	*yes*	*yes*	*yes*	*no*
Olea europaea - 'Swan Hill', Low-Fruiting Olive	*5m/3m*	*Exotic cultivar*	*yes*	*evergreen*	*no*	*yes*	*yes*	*yes*
Phoenix canariensis, Canary Island Date Palm	*15m/6m*	*Exotic*	*yes*	*evergreen*	*no*	*no*	*yes*	*yes*
Plumeria sp., Frangipani	*8m/5m*	*Exotic*	*slight protection*	*semi-deciduous*	*no*	*yes*	*yes*	*no*
Pyrus calleryana, Ornamental pear	*6m/4m*	*Exotic*	*slight protection*	*deciduous*	*no**	*yes*	*yes*	*no*
Ulmus parvifolia, Chinese Elm	*10m/8m*	*Exotic*	*slight protection*	*deciduous*	*yes*	*yes*	*yes*	*no*
Washingtonia robusta, Mexican Fan Palm	*18m/4m*	*Exotic*	*yes*	evergreen	*no*	*no*	*yes*	*yes*

Notes:
- Developers are responsible for suitable selection, siting and installation of tree species for site specific conditions.
- Height/Width refer to standard heights in good conditions.
*- *similar to preferred tree in City of Joondalup Tree Management Guidelines*

GLOSSARY OF TERMS

The **Definitions** listed at SPP 7.3 Vol.2, are relevant to all **Single House** and **Grouped** development, within all sub-precincts.

The following terms supplement the detail within SPP 7.3 Vol.2 – Definitions.

Architectural Element	A structure designed as a separate identifiable part of a building.
Articulation	Variation in the elevation through projections and indentations in the floor plan and mirrored in the roof design to create shadows and add visual interest to the façade.
Awning/Canopy	A roof structure supported by a frame and located over a window to provide sun shading.
Corner Lots	A lot which is located at the junction of two streets or at the junction of a street and public reserve.
Construction Zone	A 'construction zone' of 2.0m width has been allowed for in the design of the public open space areas. This zone is available for temporary use by the building developer to facilitate the building construction process. At the end of the construction process, the land owner will be responsible for landscape construction within the construction zone.
Front Fencing	All fencing forward of the main building line.
Gable	The triangular top section of an end wall that fills the space beneath where the slopes of a two sided pitch roof meet. Gables can be in the wall material or another feature material e.g.: weatherboard cladding or timber.
Gambrel	A triangular feature within a hipped roof structure most commonly finished in a lightweight cladding such as painted weatherboard or timber.
Habitable/Non- Habitable Room	All bedrooms, kitchens or living rooms. Non habitable rooms include bathrooms, laundry, stairs or circulation spaces.
Hip Roof	A roof with sloping ends as well as sides.
Laneway	A narrow road located at the rear or side boundary of the property for the chief purpose of vehicle access.
Living Areas	Rooms designed for living in especially for relaxation, social and recreational activities.
Main Building Line	The main building line is measured from the front most habitable room on the primary façade (this excludes minor projections or features).
Plot Ratio	The ratio of the gross plot ratio area of buildings on a development site to the area of land in the site boundaries.
Plot Ration Area	the gross total area of all floors of buildings on a development site, including the area of any internal and external walls but not including: • the areas of any lift shafts • stairs or stair landings common to two or more dwellings • machinery, air conditioning and equipment rooms • space that is wholly below natural ground level • areas used exclusively for the parking of wheeled vehicles at • or below natural ground level; • storerooms • lobbies, bin storage areas, passageways to bin storage areas or amenities areas common to more than one dwelling • balconies, eaves, verandahs, courtyards and roof terraces.
Porch	A covered shelter at the front of the home located adjacent the entry.
Portico	A covered walkway leading to the main entrance that consists of a separate roof structure to the main dwelling and is supported by piers or pillars.
Primary Elevation	The elevation of the home which is usually inclusive of the main entry and the majority of architectural features.
Public View	An area in view from common spaces such as public reserves or streets.
Public Reserve	A public reserve is any parkland, bushland, wetland, public access way or any other space designated for public purposes within the residential community.

Secondary Elevation	The elevation of the home which is exposed to public view but does not usually consist of the main entry or majority of architectural features.
Skillion Roof	A mono pitch roof of gentle slope generally between 5º-15º pitch.
Storey	Has the meaning given in SPP 7.3 Vol.2 – Appendices – Definitions.
Verandah	A covered shelter at the front of the home which has its own separate roof and is supported by pillars, posts or piers.