MANDURAH OCEAN MARINA STRUCTURE PLAN

design criteria

December 2018

Amendment No. 1 to the Mandurah Ocean Marina Structure Plan has been approved by the Western Australian Planning Commission on 26 February 2019.

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Signed by an officer duly authorised by the Western Australian Planning Commission pursuant to Section 16 of the Planning and Development Act 2005

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SCHEDULE OF AMENDMENTS

Note – Amendments and Modifications undertaken prior to the operation of the Planning and Development (Local Planning Scheme) Regulations 2015 are not listed. The Schedule of Amendments outlines changes to the Local Structure Plan undertaken following the operation of the Regulations.

Amendment No	Summary of the Amendment	Amendment Type	Date Approved by the WAPC
1	 Updates to Land Use Table; Introduction of Assessment Criteria for Additional Tavern (Section 1.5) Residential Parking to be as per the Residential Design Codes 	Major	26 February 2019

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introduction

1.0 INTRODUCTION

1.1 APPLICATION

These design criteria form part of the approved Structure Plan for the Mandurah Ocean Marina.

1.2 ABOUT THESE DESIGN CRITERIA

These design criteria seek to define the desired character of streetscape and building fabric in the Marina. The format of this document is separated into two parts:

Streetscape

dealing with general development issues which impact upon public areas, and

Built Form

which addresses development provisions for building, with specific detail provided on a precinct basis.

1.3 RELATIONSHIP TO PLANNING SCHEME + POLICIES

For any development within the Structure Plan Area, the priority shall be given to achieving quality built form outcomes.

The provisions of this structure plan relating to desired urban form, development standards and land use permissibility are indicative only and do not have the force and effect of scheme provisions. This will continue to be the case unless the provisions of the structure plan are incorporated into Scheme 3 by way of a local planning scheme amendment. Nevertheless, due regard shall be given to the Structure Plan in the determination of any subdivision and development applications.

If the provisions of this Structure Plan are at variance with a requirement of a Local Planning Policy, the Structure Plan provisions shall prevail.

The standards and guidelines provided in the Structure Plan shall apply throughout the area unless they are not applicable for that particular development (e.g. a commercial requirement for a residential development).

1.4 CONTEXT

The aim of the development is to create a preeminent tourism precinct.

There are no plot ratio provisions and the building envelopes will be determined by the guidelines contained herein.

The subject area has clearly defined edges and is relatively self-contained.

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The following land uses are envisaged for the different areas shown on the Structure Plan.

All uses should reflect the scale and amenity of the Precinct.

	Commercial	Mixed Use - Commercial	Mixed Use - Residential	Residential	Tourist
Grouped Land Uses					
Residential Uses (Category A) Single Dwelling	X 1	x	X	Р	x
Residential Uses (Category B) Aged Care Aged Persons Dwelling Ancillary Dwelling Bed and Breakfast Dwelling (Group, Multiple) Family Day Care Holiday House Home Business Home Occupation Home Office Single Bedroom Dwelling	Ρ#	Ρ#	Ρ	Ρ	D
Commercial Uses Car Park Consulting Rooms Medical Centre Office	P	Ρ	Ρ	Ρ	I
Retail Uses Convenience Store Liquor Store (Small) Market Shop	P	Ρ	Ρ	Ρ	I

¹ P – Permitted; I – Incidental; D – Discretionary; A – Discretionary Requiring Advertising; X – Not Permitted

[#] Above Ground Floor Only

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	Precincts Commercial	Mixed Use - Commercial	Mixed Use - Residential	Residential	Tourist
Tourism Uses Holiday Accommodation Motel Serviced Apartment Tourism Development	Ρ	Р	D	D	Ρ
Dining & Entertainment Amusement Parlour Club Premises Reception Centre Restaurant Recreation Private Small Bar	P	Ρ	D	A	D
Licensed Premises (Category A) Hotel Liquor Store (Large)	x	x	x	x	x
Licensed Premises (Category B) Nightclub Restricted Premises	X	x	X	X	X
Community Uses Child Care Premises Community Purpose Education Establishment Place of Worship	D	D	A	A	A
Specific Land Uses					
Bulky Goods Showroom	X	х	X	X	X
Fast Food Outlet	X	х	X	X	X
Motor Vehicle Wash	X	х	X	X	X
Service Station	X	x	X	x	X
Tavern	D	х	X	X	D
Telecommunications Infrastructure	Р	Р	D	D	D
Veterinary Centre	D	D	X	X	X

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1.5.1 APPROVAL OF TAVERNS

An application for development approval for a Tavern shall be accompanied by the following:

• A full set of site and floor plans detailing the proposed use and patron capacity of all areas to be licensed and how the design of the building creates an active street frontage.

The plans shall demonstrate the availability of designated seating areas catering for a minimum of 75% of total patron capacity, identify proposed waste storage areas and identify locations of proposed security lighting in and around the site, CCTV and amplification or speaker systems.

If applicable, the location of any queuing areas, dance floor areas and areas where live performances may occur shall be detailed.

 A site analysis plan (covering a 500m radius of the proposed venue) to detail the proximity of the venue to residential and other sensitive land uses, other licensed venues (including details regarding the services provided), public transport, taxi ranks and public car parks.

Details relating to the capability of patrons to leave the area (ie, the timing and routes of public transport services and the average wait times at taxi ranks during peak periods) shall be provided.

- A detailed management plan addressing hours of operation; operating style of the venue; the type of music and/or entertainment to be offered (including frequency and hours); the number and location of security staff required; the ability to provide food up until 1 hour before closing time; complaint and reporting procedures; patron control; sale of alcohol; how the movement and exit of patrons is to be managed, particularly where there is a requirement to close different sections of the venue at different times; and proposed strategies to reduce anti-social behaviour.
- An acoustic assessment undertaken by a suitably qualified acoustic consultant identifying all noise sources and proposed methods to be undertaken to control and mitigate noise emissions to achieve compliance with the Environmental Protection (Noise) Regulations 1997.

The approval of any Tavern shall be subject to the consideration the following:

- the potential cumulative impact of existing licensed premises within the locality;
- existing and potential harm and antisocial behaviour within the locality;
- physical design;
- trading hours and
- other operational characteristics.

Approval may be subject to conditions relating to the provision of seating, provision of food, operating hours, security and noise management.



streetscape

2.0 STREETSCAPE

2.1 PUBLIC OPEN SPACE

- Wherever public open space is provided, surrounding properties will address the space and establish an 'urban edge' to overlook it.
- Where side boundaries abut Public Open Space a side setback of 1m shall apply. Major openings from habitable spaces shall address the public open space.

2.2 LANDSCAPE

- Where paving within lot boundaries of private land abuts or is visible from the street or public spaces, effort should be made to coordinate the paving with that in the public areas, in terms of colour, scale and texture.
- In order to increase on site water absorption and reduce run-off, paving which facilitates or promotes these qualities should be used for all hard surfaces.
- Select suitable trees such that the mature tree size, form and scale is appropriate to the street space and the building mass.
- A detailed landscape plan (where applicable) is to be submitted with each application for planning approval.

2.3 MODIFICATIONS TO THE PUBLIC DOMAIN

- Generally, alterations to the existing paving, onstreet parking, lighting, tree planting, street furniture and other elements will not be permitted. However, if it can be demonstrated that a superior design solution can only be achieved through the relocation of one of these elements, consideration will be given to such a proposition provided that the relocation is carried out to the City's specification at the owner's expense.
- Damage caused to the public domain during construction processes must be made good.

2.4 PARKING + CROSSOVERS

Minimum on-site parking provisions are as follows (unless otherwise specified in Section 4.0):

	Standard Provision, (floorspace in Gross Leasable Area).
Residential development	In accordance with the Residential Design Codes
Retail	3 bays per 100m ²
Restaurant/Cafe	1 bay per 8 seats
Office	1 bay per 70m ²
Tavern	1 per 8 seats
Tourist accommodation	1 bay per room or accommodation unit
Place of public worship	1 bay per 3 seats

- Parking areas should be well designed and unobtrusive from the street.
- Generally all carparking should be located behind buildings away from street view.
- Where permitted, crossovers are to be constructed to the specifications of the City of Mandurah, at the owner's expense and will require City of Mandurah approval..

2.5 VEHICULAR ACCESS

- Where access from rear laneways is available all on site carparking for residents and / or employees is to be accessed from the laneway.
- Where street front parking is available, it is to be designated for visitors only.

2.6 PEDESTRIAN ACCESS

- Priority is to be given to maximising pedestrian access and circulation throughout the area.
- Consideration should be given to designing access suitable for people with impaired mobility wherever possible.

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streetscape

2.7 BICYCLES

Where applicable provision should be made for secure bike parking and racks should be provided in appropriate locations.

2.8 VERANDAHS AND AWNINGS

- Where possible, the provision of weather protection to the pedestrian paths in the form of a cantilevered verandah, canopy or awning is encouraged. Requirements for these are given in more detail in section 3.3.3.
- The minimum height from ground level for a canopy or balcony overhanging a footpath is 2.75m.

2.9 SIGNAGE

- A high standard of private signage is expected. All signs, with respect to their scale, location, design and content require the approval of the City.
- Either a sign licence or planning approval will be required from the City of Mandurah. A signage concept plan is to be prepared in conjunction with each planning application to the satisfaction of the City of Mandurah.
- Signs attached to buildings are to be aligned with and relate to the architecture of the building and should not obscure architectural features.
- Signage suspended beneath a canopy should have a minimum clearance of 2.4m.
- In buildings with numerous tenants, consolidated shared signage is preferred.
- Pylon signs are not permitted unless they specifically relate to the architecture of a building.

2.10 SECURITY

Building design should contribute to the creation of a safe public environment by avoiding dead-end spaces and ensuring that all public areas are subject to casual surveillance from surrounding properties.

2.11 PUBLIC ART

The involvement of artists in the design process of new development can enrich the design response and help to establish a specificity of approach in the development of local cultural and historical themes. Including artists on the design team for private developments is encouraged, for the contribution they may make to developing the individual qualities of public streets and spaces.

2.12 ACCESS

All tourist residential, commercial and mixed use development must take account of disabled access as required by the BCA.

3.0 BUILT FORM

3.1 INTRODUCTION

DESIRED CHARACTER

The character sought by these design criteria derives from a maritime theme, which is consistent with the marina focus of the development. This design approach will be developed through a particular palette of materials and colours, discussed in detail in the following sections.

SETBACKS

The setback requirements have been devised to encourage development to be conducive to a lively street environment, and where appropriate to encourage use of waterfront boardwalks.

Details are contained in individual precinct design criteria in section 4.0, however, generally the following apply:

- A zero front setback for non-residential development is applicable.
- A front setback of 1.5m is generally required for ground level residential.
- Upper residential floors may generally observe a zero front setback.
- Zero side setbacks are permissible.
- Generally, there is no minimum rear setback.
- Secondary street/corner sites have 0m setback.
- Where side boundaries abut Public Open Space a side setback of 1m shall apply.

SCALE

Generally, development is required to be 2-3 storeys with provision for a fourth floor to operate as a residential roof terrace or be located within the roof space (unless specified in section 4.0). The s is restricted to single storey.

Note: For clarification, a 'loft' (ie a fourth floor located within the roof space) shall be measured as having a wall height of 1.2 metres above the third floor being used as a pitching point, and a roof pitch at a maximum of 45 degrees. The roof space can be used for additional levels.

In the event of a flat roof design, a roof envelope is in effect created within which living space is permitted. In effect, a "building envelope" is created, primarily as per the sketch indicated. In the event of sites being amalgamated, the building design is to be treated as if sites were separate.





3.2 GENERAL PROVISIONS

3.2.1 RELATIONSHIP TO STREET

Visual interest in the building facade is important.

- Buildings should where possible address the street and locate their main entries so as to face the street.
- Ground level frontages for commercial uses should, where possible, have large windows to enable a connection between the interior and the streetspace.

3.2.2 PRIVATE OPEN SPACE

- For residential uses, northerly facing private open space accessible from a living area should be provided for each dwelling, except within the Chalet Park Precinct.
- This area of private open space may be at ground level or provided as a deck or balcony. It must have a minimum dimension 4.0m and minimum area 16.0 square metres. Additional balconies will have a minimum dimension of 1.5m, ie 2.25 square metres.
- Buildings should be designed to minimise overlooking private open space, to provide privacy to users.
- Residential apartments must have provision for northerly facing outdoor living space where practicable.



For user privacy, minimise overlooking private ope nspace by careful location of outdoor spaces, careful placement of windows and balconies and by screening with garden walls and pergolas.



3.2.3 VERANDAHS, BALCONIES AND AWNINGS

- Where commercial buildings observe a zero front setback, the provision of weather protection to the public footpath in the form of a cantilevered verandah (where permitted), canopy or awning is encouraged.
- The minimum height from ground level for a canopy or balcony overhanging a footpath is 2.75m. Signage suspended beneath a canopy should have a minimum clearance of 2.4m.
- Weather protection is to be provided to entrances of residential buildings.
- Within designated precincts awnings and canopies may project into the pedestrian area of the street space by 1.5m and must be structurally cantilevered.
- Awnings should also be detailed to appear as thin, lightweight elements. For this reason, bullnose verandahs will not be permitted.
- Balconies are appropriate to take advantage of views. Projections from the facade also articulate and give scale to the building mass.
- Balconies and decks must be of useable dimensions, eg: minimum dimension 1.5m. Generally, where balconies project into a setback area they are to be cantilevered.
- Balconies, awnings and decks in the Northern Precincts may extend into the street space [footpath or verge] by up to 1.5m and must be structurally cantilevered. Balconies are not permitted to extend into the street space in the Southern precincts.



The minimum clearance height above footpath level of a balcony or overhang is 2.75m. The minimum clearance height of signage is 2.5m

3.2.4 ARTICULATION AND DETAILING

- Large areas of blank wall will not be accepted on the front and / or street facade or where visible from the street or other public space. Where walls without glazed penetrations are unavoidable, other design features must be incorporated, such as colour and texture variation.
- Formal modulation will be sought through placement of windows and openings, balconies and material changes.
- Colour, texture, material and detail are important, to provide scale and visual interest.
- The form and style of buildings should be in keeping with the Maritime theme.

3.2.5 FENCES AND RETAINING WALLS

- Large expanses of solid wall fronting onto public spaces shall be avoided.
- Low walls [up to 1.0m] are permissible along the front boundary of residential developments. Walls of up to 1.8m high are permissible if a minimum of 60% of the wall area is permeable.
- Other boundary fences may be up to 1.8m in height and permeable above 1.0m.
- Fencing to rear and side of dwellings shall be "solid", and not visually permeable. Materials such as *colorbond*, rendered brick, and face brick or constable



3.2.6 PRIVACY

A high standard of acoustic and visual privacy is required for the amenity of residential uses.

- Particular attention should be given to construction materials and techniques that reduce noise transmission between buildings. Sound insulation is particularly relevant to the conditions experienced within a working marine environment.
- During site and building planning phases, separation of activity areas that may involve potential conflict should be considered.
- Acoustic treatment of machinery such as airconditioning, lifts and mechanical services to commercial uses is required.
- Equipment should be located, enclosed and acoustically treated to ensure acceptable noise levels are achieved.

3.2.7 ROOF FORM

These design criteria contain no specific requirement with regard to roof form and variety is encouraged.

Steep pitched roofs [between 25 and 45 degrees] are acceptable, however where low pitched roofs [eg: 15 degrees or less] are proposed, these should be detailed to create the effect of visual lightness.

This effect can be achieved by:

- minimising the visual depth of the roof at the eaves
- upturning the edge of the roof
- utilising broad eaves overhangs, either cantilevered or strutted
- forming a visual contrast through material and / or colour, between the roof and the walls
- emphasising the shadow cast by the roof onto the walls
- minimising the visual weight of the wall area between glazed openings and the underside of the roof.

Awnings with large overhangs should be provided over significant openings on the north, east and west and to shade outdoor areas.

Awnings should also be detailed to appear as thin, lightweight elements. For this reason, bullnose verandahs will not be permitted.



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3.2.8 SERVICES

- All service fittings, fixtures and rubbish bin storage are to be screened from public view.
- All piped and wired services, air-conditioners, clothes drying areas and hot water storage are to be concealed from the street and public view (i.e. located to the back of developments.)
- Solar panels and solar water systems may be visible only where they are located in the same plane as the roof and there is no alternative location that can offer a similar level of solar efficiency.
- No TV aerials will be permitted. All connections will be cabled from a central server.
- Any satellite dishes are to be concealed from public view.
- In general, lot services are located within easements adjacent to rear laneways. The easements shall not be relocated.

3.2.9 ENERGY EFFICIENCY

In accordance with the City of Mandurah's "Sustainable City Plan", buildings should be designed to be energy efficient.

- Particular attention should be given to the principles of passive solar design.
- Energy efficient services and appliances should be chosen.
- Construction materials may be chosen from renewable sources and with regard to their embodied energy levels.
- Lightweight framed and insulated construction (ie. low thermal mass) should be used externally, especially on exposed east and west facades.
- Where masonry construction is used externally on east and west facing facades, these should be appropriately insulated to minimise heat transfer between outside and inside.
- Masonry (high thermal mass) materials should be used internally to retain internal ambient temperature.

DETAILED ELEMENTS

 Insulation to roofs is mandatory and must be R2.0 (min)

The criteria regarding detail elements below, are recommended:

- Ceiling insulation should be provided.
- All windows in excess of 0.6 sq m on the east and west facades should be protected from the summer sun.
- Verandahs and pergolas should be used to provide shade to large openings in east and west facades.
- Metal deck roofing, shingles or slate style is required, and is to be in keeping with the maritime image.
- All doors and windows should have good draft seals.
- All street front facades should have a verandah or canopy to 50% of its length.
- Outdoor living areas should be designed and located to maximise protection from strong winds.
- Ceiling spaces should be ventilated to assist passive cooling.
- Double glazing should be considered for large areas of glass to limit heat transmission.
- Water recycling initiatives are encouraged to be incorporated into building design.



Lightweight construction should be used externally on east and west walls.

3.2.10 EXTERNAL MATERIALS

The choice of the materials for external walls will be made from a selection of at least three of the following:

- rendered brickwork [light, flat, bagged texture]
- timber boarding (to provide the appearance of clear finished or weathered timber)
- fibre cement "boards" (to provide the appearance of clear finished or weathered timber)
- painted timber or fibre cement weather boarding
- · painted flat fibre cement sheet
- custom orb [for walls]
- limestone blocks [natural or reconstituted]
- tilt concrete or precast concrete with textured and painted finishes similar to rendered brickwork

NOTE: At least three different materials must be featured on external walls. The wall area may include gables. Materials used for the roof, eaves and the glazing are not included in the combination of wall claddings required.

- roofs shall be clad in metal deck, shingles or slate style roofing.
- All exposed external walls including parapet walls shall be treated with external finishes as listed above.



3.0

3.2.11 WIND + CORROSION

The City of Mandurah has requirements for building standards in Maritime Precincts.

- All buildings will be required to conform to [Australian Standard] AS 4055 and AS 1170.2 with respect to wind loading.
- Because of the development's proximity to the ocean and the estuary, buildings will require additional corrosion protection measures to ensure they remain structurally sound for their expected lives.
- Consideration should be given to the use of roof sarking, adequate flashings, sloping sills, stainless steel or plastic wall ties, and adequate glazing units.
- Any steelwork cast into masonry construction is to be provided with corrosion protection, in accordance with AS 3700 Masonry Code.
- Attention must also be given to the provisions of the BCA [Building Code of Australia], including those related to Footing and Slab Construction; UnReinforced Masonry; Masonry Accessories; Earthwall Construction; Steel and Timber Framing; Structural Steel; Roof and Wall Cladding; Glazing; and High Wind Areas.

3.2.12 URBAN FORM

It is encouraged that lots identified in the Precinct Requirements as urban markers have a distinctive presence that reflects their position as a link between streets, a vista termination, or entry statement.

Buildings situated at the intersection of roads/lanes/pedestrian accessways play a special role in defining the quality of the adjoining public space and provide landmarks which assist people's understanding of the local environment. Extra height at corners through the use of decorative parapets, tower elements or similar features helps to give prominence to these buildings and is therefore encouraged.

- Corner buildings are to address both frontages, and special treatment is encouraged to mark corners and link streets.
- Buildings that terminate vistas are required to address that vista. Special treatment is encouraged to distinguish that site as a point of visual focus.

Examples of such special treatment include:

- Additional floor height;
- Distinctive roof form;
- Articulation of corner wall elements;
- Variation in materials and colours;
- Special balcony treatments.

In approved instances a "tower element" may take the form of an additional storey if the City of Mandurah is satisfied that it contributes to the landmark quality of the building.

Refer to the Precinct Special Requirements Plans, in the individual Precinct Requirements sections, for the location of these lots.





3.0

4.0 PRECINCT REQUIREMENTS SOUTH

PRECINCT 1 - RESIDENTIAL

These lots generally have rear access from a laneway and front a Venetian waterway. A public access easement is located between the waterway and the building area.

USE

This precinct will be permanent residential or tourist residential use. Residential built form in these precincts shall contribute to the maritime theme.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- The finished ground level is not permitted to be raised.
- Where basement parking is proposed, the internal finished ground floor level may be raised to an appropriate level subject to a practising structural engineer's design certification that no load is imposed on any primary or secondary retaining wall. The exterior ground level will generally not be permitted to be raised except where doing so does not impact on adjacent properties and subject also to certification from a practising structural engineer. Proposals to demolish and reconstruct existing secondary retaining walls will be considered on an individual basis.

SETBACKS AND BUILT FORM

- Ground level street frontages should have a minimum Om setback for garages and 1.5m setback for building envelope.
- Upper floor setback is 0m.
- A setback of 3m from secondary wall is required for lots fronting the Waterway (except where noted on Special Requirements Plan overleaf)
- Balconies can project up to 0m setback from the secondary edge wall and must be setback 0.5m from side boundary.
- No modifications to fencing for dwellings fronting waterways are permitted.
- Where side boundary fronts Public Open Space, minimum setback is 1m. Outlook to the POS from habitable rooms is required.
- Where practicable every residence should have direct access from a living space, to a northerly facing outdoor living area of minimum dimension 4.0m.

PARKING

- Carparking areas should be located on site and screened from public view.
- For non-residential uses, staff parking is to be provided on-site.
- Basement parking is allowed subject to certification from structural engineer, consideration of ocean flood levels & adequate drainage design.

MOORING

Generally lots with waterway frontage have mooring envelope type A, with the exception of:

- Lot 246 has mooring type B.
- Lot 247 has mooring type C.

Refer section 4.7 & Appendix B for details and diagrams.

BOAT LIFTERS ARE NOT PERMITTED.

NOTE

Certain lots within this precinct require special attention. These are indicated on the Special Requirements Plan overleaf. The guidelines for Landmark Buildings are contained in section 3.2.13 of this document.



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design criteria

precinct requirements (south)

PRECINCT 2 - RESIDENTIAL

These lots generally have rear access from street and front either a Venetian waterway or marina.

USE

These precincts will be permanent residential or tourist residential use. Residential built form in these precincts shall contribute to the maritime theme.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- The finished ground level is not permitted to be raised.
- Where basement parking is proposed, the internal finished ground floor level may be raised to an appropriate level subject to a practising structural engineer's design certification that no load is imposed on any primary or secondary retaining wall. The exterior ground level will generally not be permitted to be raised except where doing so does not impact on adjacent properties and subject also to certification from a practising structural engineer. Proposals to demolish and reconstruct existing secondary retaining walls will be considered on an individual basis.

SETBACKS AND BUILT FORM

- Ground level street frontages should have a 0m setback for garages and 1.5m setback for building envelope.
- Upper floor setback is 0m.
- A setback of 3m from edge wall is required for lots fronting waterways.
- Balconies can project up to 0m setback from edge wall. Balconies must be setback 0.5m from side boundary.
- Where side boundary fronts Public Open Space, minimum setback is 1m. Outlook to POS from habitable rooms is required.
- Where practicable every residence should have direct access from a living space, to a northerly facing outdoor living area of minimum dimension 4.0m.
- Side fencing within the 3m setback area is permissible providing it is a maximum of 1.8m high, and at least 60% of wall is permeable above 1.0m (as per clause 3.2.5).

PARKING

- Carparking areas should contained on site and screened from public view.
- For non-residential uses, staff parking to be provided on-site.
- Basement parking is allowed subject to certification from structural engineer, consideration of ocean flood levels & adequate drainage design.

MOORING

Lots fronting a Venetian waterway have mooring type A, with the exception of:

- Lots fronting marina (Lots 259-268;Lot 320) have mooring type D.
- Lot 270 has mooring type E.

Refer section 4.7 & Appendix B for details and diagrams.

BOAT LIFTERS OF ANY TYPE ARE NOT PERMITTED

NOTE

Certain lots within this precinct require special attention. These are indicated on the Special Requirements Plan overleaf. The guidelines for Landmark Buildings are contained in section 3.2.13 of this document.



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design criteria

4.0



SPECIAL REQUIREMENTS PLAN: Precinct 2

PRECINCT 3(A) - MIXED USE RESIDENTIAL GROUND LEVEL DESIGNED FOR COMMERCIAL USE

These lots have rear access via a laneway and front either public open space or a street.

USE

The Precinct 3A will comprise of modest scale tourist, residential and mixed uses, however there is no mandatory commercial use on the ground level.

There is a minimum floor to ceiling height of 4.2m on the ground floor. Buildings are to be designed to achieve both fire rating and disabled access requirements for commercial developments (ie gradients, door widths, circulation spaces, etc)

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- The finished ground level is not permitted to be raised.
- Where basement parking is proposed, the internal finished ground floor level may be raised to an appropriate level subject to a practising structural engineer's design certification that no load is imposed on any primary or secondary retaining wall. The exterior ground level will generally not be permitted to be raised except where doing so does not impact on adjacent properties and subject also to certification from a practising structural engineer. Proposals to demolish and reconstruct existing secondary retaining walls will be considered on an individual basis.

SETBACKS AND BUILT FORM

- Laneway frontages should have a ground floor 0m setback for garages and 1.5m setback for building envelope
- A setback of 0m is permissible for ground level development.
- Residential above ground floor may be built to the property boundary, ie: zero setback, except where northerly facing outdoor living space is required.
- Balconies should be contained within the property boundary.
- Awnings may project 1.5m into the street-space.
- Outlook onto public open space from habitable rooms shall be provided.
- Where practicable every residential apartment or unit should have direct access from a living space, to a northerly facing outdoor living area of minimum dimension 4.0m.

PARKING

- Carparking to be contained on site and screened from public view.
- Where a rear lane is available, vehicle access must be from this lane.
- Basement parking is allowed subject to certification from structural engineer, consideration of ocean flood levels & adequate drainage design.

NOTE

Certain lots within this precinct require special attention. These are indicated on the Special Requirements Plan overleaf. The guidelines for Landmark Buildings are contained in section 3.2.13 of this document.



PRECINCT 3(B) - MIXED USE COMMERCIAL MANDATORY GROUND LEVEL COMMERCIAL

These lots have rear access via a street and front public open space.

USE

The Precinct 3B will comprise modest scale tourist commercial and residential uses.

Commercial uses must occupy the ground floor of any development. For upper floors, proposals will be considered on their individual merit, measured against the fundamental objectives for the precinct to become a predominantly tourist based development.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- Where basement parking is proposed, the internal finished ground floor level may be raised to an appropriate level subject to a practising structural engineer's design certification that no load is imposed on any primary or secondary retaining wall. The exterior ground level will generally not be permitted to be raised except where doing so does not impact on adjacent properties and subject also to certification from a practising structural engineer. Proposals to demolish and reconstruct existing secondary retaining walls will be considered on an individual basis.

SETBACKS AND BUILT FORM

The street front setback will formalise the avenue character envisaged for the streets.

- A setback of 0m is permissible for ground level development fronting the street.
- Residential above ground floor may be built to the property boundary, ie: zero setback, except where northerly facing outdoor living space is required.
- Balconies should be contained within the property boundary. Balconies may, however, project into 1.0m setback to P.O.S
- Awnings may project 1.5m into the street-space.
- Where a side boundary fronts POS or street, minimum setback is 1m. Outlook from habitable rooms shall be provided.
- Where practicable every residential apartment or unit should have direct access from a living space, to a northerly facing outdoor living area of minimum dimension 4.0m.

PARKING

- Car parking to be contained on site and screened from public view.
- Basement parking is allowed subject to certification from structural engineer, consideration of ocean flood levels & adequate drainage design.





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design criteria

4.0

PRECINCT 4 - RESIDENTIAL GROUND FLOOR MAYBE COMMERCIAL

These lots are distributed throughout the development. They either front a street or public open space and all have rear access via a laneway.

USE

These precincts will be Mixed Use Residential, however there is no mandatory commercial use on the ground level.

Where commercial development is proposed, the development should provide for a minimum floor to ceiling height of 4.2m on the ground level, are to be designed to achieve both fire rating and disabled access requirements for commercial developments (ie gradients, door widths, circulation spaces, etc.)

Residential built form in these precincts shall contribute to the maritime theme.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- The finished ground level is not permitted to be raised.
- Where basement parking is proposed, the internal finished ground floor level may be raised to an appropriate level subject to a practising structural engineer's design certification that no load is imposed on any primary or secondary retaining wall. The exterior ground level will generally not be permitted to be raised except where doing so does not impact on adjacent properties and subject also to certification from a practising structural engineer. Proposals to demolish and reconstruct existing secondary retaining walls will be considered on an individual basis.

SETBACKS AND BUILT FORM

- Street frontages should have a 1.5m setback.
- 1.5m rear setbacks for residences.
- Om setback for residence above ground level.
- Om rear setbacks to garages.
- Om setback is permissible for balconies. Balconies must be setback of 0.5m from side boundary.
- Where a side boundary fronts public open space, minimum setback is 1m. Outlook onto the public open space from habitable rooms shall be provided.
- Where practicable every residential apartment or unit should have direct access from a living space, to a northerly facing outdoor living area of minimum dimension 4.0m.

PARKING

• Carparking is to be contained on site and screened from public view.

- For non-residential uses, staff parking to be provided on-site.
- Basement parking is allowed subject to certification from structural engineer, consideration of ocean flood levels & adequate drainage design.





LOT 450 VIVALDI DRIVE - SPECIFIC PROVISIONS

In addition the provisions of Precinct 4A, the following specific provisions apply:

- Minimum setbacks as depicted on the Lot 450 Vivaldi Drive plan.
- Side loading garages may be setback 0m from Vivaldi Drive subject to openings and quality materials/colours being provided on the ground floor elevation facing the street.
- Garages shall have a minimum height of two storeys incorporating floor space above the ground floor capable of use for residential living, as a home office, and/or for short stay use. Major openings shall address the street.

- Awnings may project 1.5m into the street.
- Access to lots shall be via shared easements from Vivaldi Drive.

- Major openings shall address public open space and streets.
- Minimum private open space of 24 square metres.
- A uniform wall / fence shall be installed by the developer adjacent to public open space, to a maximum height of 1m. Pedestrian access adjacent to public open space shall be provided.



design criteria 4.0

PRECINCT 5 - TOURIST

This site fronts the marina and has main street access.

BUILDING ENVELOPE

- The building height shall be one or two storeys.
- Outdoor eating areas are encouraged to water frontages, without limiting public access.
- Given the exposed location, particular care is required for the screening of service areas.

SET BACKS AND BUILT FORM

- There are no set back requirements.
- Uninterrupted public access (a minimum of 3.5m wide) must be maintained to all waterfront areas with disabled access ramps providing access to the waterfront within the development area for lot 4.

PARKING

 Car parking for the tourist /short stay accommodation of this development may be provided by others, offsite. However, where a strata plan for the site depicts permanent residential lots, parking shall be provided in accordance with the requirements of the R-Codes.

BUILDING OVER WATER (JETTIES)

- FFL to be 1.9m AHD minimum
- Continuous public access to all water frontages to be maintained with a minimum 3.5m wide boardwalk.



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SPECIAL REQUIREMENTS PLAN: Precinct 5

design criteria

4.0

PRECINCT 6(A) - MIXED USE COMMERCIAL MANDATORY GROUND LEVEL COMMERCIAL

This precinct faces the marina and the Venetian waterways. It has rear access from a street.

USE

Precinct 6 will be mixed use. Restaurant, retail and café uses are encouraged to provide active ground level frontage.

For upper levels, Council will consider development proposals on their individual merit, measured against the fundamental objectives for the precinct to become a predominantly tourist based development.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- Ground floor areas should provide outlook to public open space.
- Where basement parking is proposed, the internal finished ground floor level may be raised to an appropriate level subject to a practising structural engineer's design certification that no load is imposed on any primary or secondary retaining wall. The exterior ground level will generally not be permitted to be raised except where doing so does not impact on adjacent properties and subject also to certification from a practising structural engineer. Proposals to demolish and reconstruct existing secondary retaining walls will be considered on an individual basis.

SETBACKS AND BUILT FORM

- A setback of 3m from the secondary wall is required at the ground level, except where northerly facing outdoor space is required.
- A setback of 1m from public open space is required where applicable. Outlook onto the public open space from habitable rooms shall be provided;
- Residential above ground floor may be built to the property boundary (i.e. zero setback, except where northerly facing outdoor living space is required);
- Balconies may project up to 0m from edge wall.
- Awnings may project 1.5m into the streetspace.
- Every residential apartment or unit should have direct access from a living space, to a northerly facing outdoor living area of minimum dimension 4.0m.

PARKING

- Carparking is to be contained on site and screened from public view.
- Basement parking is allowed subject to certification from structural engineer, consideration of ocean flood levels & adequate drainage design.

MOORING

Lot 315 has mooring type E.

Refer section 4.7 & Appendix B for details and diagrams.

BOAT LIFTERS OF ANY TYPE ARE NOT PERMITTED

NOTE

This precinct requires special attention as indicated on the Special Requirements Plan overleaf. The guidelines for Landmark Buildings are contained in section 3.2.13 of this document.



PRECINCT 6(B) - MIXED USE RESIDENTIAL GROUND LEVEL DESIGNED FOR COMMERCIAL)

These lots have rear access from street and front a Venetian waterway.

USE

The Precinct 6(B) will be Residential Mixed Use. Restaurant, retail and café uses are encouraged to provide active ground level frontage, however there is no mandatory commercial use on the ground level.

There is a minimum floor to ceiling height of 4.2m on the ground floor. Buildings are to be designed to achieve both fire rating and disabled access requirements for commercial developments (ie gradients, door widths, circulation spaces, etc)

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- Ground floor areas should provide outlook to public open space.
- Where basement parking is proposed, the internal finished ground floor level may be raised to an appropriate level subject to a practising structural engineer's design certification that no load is imposed on any primary or secondary retaining wall. The exterior ground level will generally not be permitted to be raised except where doing so does not impact on adjacent properties and subject also to certification from a practising structural engineer. Proposals to demolish and reconstruct existing secondary retaining walls will be considered on an individual basis.

SETBACKS AND BUILT FORM

The street front setback will formalise the avenue character envisaged for the streets.

- A minimum setback of 3m from the secondary wall is required;
- A setback of 1.5m from public open space is required where applicable;
- Residential above ground floor may be built to the property boundary, ie: zero setback, except where northerly facing outdoor living space is required;
- Balconies should be contained within the property boundary.
- Awnings may project 1.5m into the streetspace.
- A zero setback to street for commercial uses is permissible;

• Every residential apartment or unit should have direct access from a living space, to a northerly facing outdoor living area of minimum dimension 4.0m.

design criteria

PARKING

- Carparking is to be contained on site and screened from public view;
- Basement parking is allowed subject to certification from structural engineer, consideration of ocean flood levels & adequate drainage design.



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SPECIAL REQUIREMENTS PLAN: Precinct 6 (A+B)

design criteria

4.0



4.0 PRECINCT REQUIREMENTS (NORTH)

SEASHELLS RESORT SITE (TOURIST)

USE

The resort site will be mixed use with a mixture of tourist short stay, retail and commercial uses and permanent residential development.

Supporting retail and commercial uses such as cafes and restaurants are encouraged to occupy the ground level frontage and the component of permanent residential is limited to 40 per cent of the total number of units of the development.

BUILDING ENVELOPE

Whilst a landmark resort hotel building may be the long term outcome for this site, a phased development proposal will be considered with lower rise development occurring in the first stage. The type of development envisaged for this site in the immediate future is a campus style family resort, with buildings distributed throughout the landscape. The development should specifically address the beachfront and the street edges.

- Building envelope is to be a minimum of 2 storeys.
- The City of Mandurah may consider proposals for development higher than allowed in the general provisions of this document. Such proposals will be considered on their merit.
- All service areas must be screened from public view.

SETBACK AND BUILT FORM

Due to the area's frontage to the beach consideration should be given to the public nature of these areas. Setbacks are as per the plan. Public facilities such as restaurants and cafes should relate to public pedestrian areas and surrounding public open space. The proximity to the beach should be emphasised and public boardwalks should be considered as a possibility.

Any associated commercial and retail uses may have a zero setback to street frontages

PARKING

- Carparks are to be located within the development. One parking bay per accommodation unit and staff parking is required.
- Carparking areas should be located out of view from street and other public area frontages.

EASEMENT

An easement to enable public access and maintenance of the seawall has been created on the ocean side of the site. The easement is registered on the title in favour of the City of Mandurah.



Resort Site

design criteria

COMMERCIAL

USE

This waterfront precinct will provide a marina focussed commercial retail and hospitality service for tourists and visitors as well as local residents.

Accommodation uses are not permitted.

BUILDING ENVELOPE

- The building height shall be one or two storeys.
- Outdoor eating areas are encouraged to water frontages, without limiting public access.
- Given the exposed location, particular care is required for the screening of service areas.

SET BACK AND BUILT FORM

- There are no set back requirements.
- Uninterrupted public access (a minimum of 3.5m wide) must be maintained to all waterfront areas with disabled access ramps providing access to the waterfront within the development area for lot 4.

PARKING

Carparking for this development will be provided externally by others. Parking is not required within the precinct development site.

BUILDING OVER WATER (JETTIES)

- FFL to be 1.9m AHD minimum
- Continuous public access to all water frontages to be maintained with a minimum 3.5m wide boardwalk.



Marina Tourist Commercial



MIXED USE COMMERCIAL MANDATORY GROUND LEVEL COMMERCIAL

USE

The Mixed Use Commercial Precinct will comprise both commercial and residential uses to take advantage of the marina frontage. Restaurant, retail and café uses are required to provide ground level frontage to Zephyr Mews and Dolphin Drive.

Commercial uses must occupy the ground floor of any development. For upper floors proposals will be considered on their individual merit, measured against the fundamental objectives for the precinct to become a predominantly tourist based development.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.

SETBACK AND BUILT FORM

- Buildings must address Marina frontage and main entry roads.
- A zero front setback is required for ground level tourist-commercial development.
- Residential above ground floor may be built to the property boundary, i.e.: zero setback, except where northerly facing outdoor living space is required.
- Balconies and awnings may project 1.5m into the streetscape subject to payment of a nominal fee to DPI.
- Where possible, every residential apartment or unit should have direct access from a main living space, to a northerly facing outdoor living area of minimum dimension 4.0m (this does not apply to short stay accommodation).

PARKING

- Carparking is to be located internal to the development.
- Carparking areas should be located out of view from street and other public area frontages.



Tourist Commercial Mixed Use North
design criteria

precinct requirements (north)



RESIDENTIAL (A)

USE

The Residential Precinct (A) may comprise both commercial and residential uses to take advantage of the marina frontage, however there is no mandatory requirement for ground floor commercial development. Commercial uses such as restaurants, cafes gift shops and tourist orientated retail, at ground level street frontage, are permitted.

There are no specific requirements regarding the ratio of short stay to permanent residential development in this zone. Council will consider proposals on their individual merit, measured against the objectives of the precinct as a maritime tourist development.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys.
- Residential roof terraces and loft spaces in a fourth level are also permissible.
- · Studio apartments may be built over parking garages.
- A step up of max. 500mm to the interior is possible for ground level residential.

SETBACK AND BUILT FORM

- A front setback of 1.5m is required for ground level residential, except where northerly facing outdoor space is required.
- Residential above ground floor may be built to the property boundary, ie: zero setback, except where northerly facing outdoor living space is required.
- Balconies and awnings may project 1.5m into the streetspace subject to payment of a nominal fee to DPI.
- A zero front setback for commercial uses is permissible.
- Every residential apartment or unit should have direct access from a main living space, to a northerly facing outdoor living area of minimum dimension 4.0m.

PARKING

- Carparking is to be located internal to the development, accessed from a right of way, where possible.
- Carparking areas should be located out of view from street and other public area frontages.



precinct requirements (north)

4.0

RESIDENTIAL (B)

The Northern Residential Mixed Use Precinct (B) contains lots that front the Marina and ocean directly or have vista corridors to the ocean.

USE

This precinct will comprise predominantly of residential with some commercial uses.

Commercial uses such as restaurants, cafes, gift shops and tourist orientated retail, are permitted.

BUILDING ENVELOPE

- The building envelope is to be minimum 2 storeys and maximum 3 storeys;
- Residential roof terraces and loft spaces in a fourth level are also permissible;
- Exception applies to type C lots (refer diagram) where 2 storeys is the maximum, with residential loft space in a third level permissible;
- Studio apartments may be built over parking garages;
- A set up of max. 500mm to the interior is possible for ground level residential.

SETBACK AND BUILT FORM

- Generally, residential lots will have front setback requirements, while a zero front setback for commercial use is permissible;
- Upper level residential may be built to the front boundary;
- Where practicable every residential apartment or unit should have direct access form a living space, to a northerly facing outdoor living area of minimum dimension 4m;
- Awnings may project 1. 5m into the streets pace, however balconies must not protrude outside of boundary;
- Balconies may be built up to front boundary line, providing necessary structural support for them are kept within the lot boundary;
- Balconies must be setback 0.5m from side boundary from side boundary except in the case of type C lots where they shall be 2m from side boundary as indicated on diagram;
- Zero setback for garages in type A and D lots is permissible.
- Generally, garages of type B and C lots are to be internal to the development and are accessed from driveway off internal road; Exception applies to garages of lots B1 and C1 where access is directly from road.

Type A lots (fronting Marina)

 Front setback of 3m and rear setback of 1 m for ground level residential;

design criteria

- Side setback of 1 m is applicable to lot A1 and lot A6 facing P.O.S.
- Zero setback for garages is permissible.

Type B lots (fronting Regatta Turn)

- Front setback of 3m is required for ground level residential;
- Zero setback from side boundaries is acceptable.
- Rear setback of 5m is applicable.
- Garages to lots B2 to B5 are setback 3m from the side boundary with driveway and may be built up to the rear boundary.

Type C lots (fronting Breakwater Parade)

- Front setback of 3m is required for ground level residential;
- Zero setback from side boundaries at ground level is permitted;
- Side setback of 2m is required from boundary at upper level of one side (refer diagram);
- Rear setback of 5m is applicable;
- Garages of lots C2 to C5 have setback of 3m from side boundary with driveway.

Type D lots (fronting Spinnaker Quays)

- Front setback of 1.5m and rear setback of 2m for ground level residential;
- Lot D1 has 3m setback from north boundary and zero setback from south side boundary;
- Lot D3 with has 3m setback from south boundary and zero setback from north boundary.
- All garages are accessed from Spinnaker Quays and zero setback from front boundary is permissible

PARKING

- Car parking is to be located internal to the development, access from road where possible;
- Car parking areas should be located out of view from street and other public area frontages;
- All existing car bays in street are to remain.

design criteria

precinct requirements (north)





design criteria

precinct requirements (north)





precinct requirements (north)

MARINA SERVICE AREA

The general design criteria for the main development sites within the Marina, also apply to the design of the boat ramp, fishing club, yacht club, sea rescue, fisherman's depot, wharf and boat maintenance facilities. The maritime theme sought by the general provisions of the design criteria should be evidenced in the design of these facilities.

BUILDING ENVELOPE

- Height shall be determined by the Council in consideration of the amenity of the Marina and taking into account maximums allowed elsewhere within the development area.
- All service elements must be screened from public view, eg; bin stores , etc..

SETBACK

There are no specific building setback requirements.

MATERIALS

- Painted tilt panel or pre-cast concrete are acceptable materials, in addition to those listed in section 3.2.10.
- External walls shall feature at least two materials and at least two paint colours in accordance with the colour palette guide in Section 3.3.

refer "General Provisions" for more detail.

design criteria

design criteria Appendix A

APPENDIX A COLOUR SCHEDULE

Development proposals must include a colour schedule reflecting the maritime theme, as illustrated.











design criteria Appendix A







design criteria Appendix A





waterways structures

design criteria Appendix B

APPENDIX B WATERWAYS STRUCTURES

GENERAL NOTES

- Many of the waterfront lots have been provided with a boat landing/ berthing/ mooring facility, with steps and timber chafers, at the waters edge. These facilities have been designed for boats of maximum 6m in length. Several of the lots which have been provided with a mooring facility enable mooring of larger boats. Lot owners shall be responsible for any required upgrading or modification of their boating facility to suit their particular boat and such work shall only be carried out with the prior written approval of the City of Mandurah.
- Waterfront lots facing north to the marina have not been provided with a mooring facility and lot owners may install their own jetty for boats up to a maximum length of 10m. Boats shall not be moored directly at the waterway edge wall at these lots and therefore if a boat is required to be moored by the lot owner then a jetty shall be constructed by the lot owner.
- The waterway edge wall, constructed in reconstituted limestone blockwork, is described in the Design Information Package available to all lot owners. This wall and any attachments thereto, such as the timber chafers, are the property of the individual lot owner who shall be responsible for repair and maintenance of the wall and its attachments. The lot owner shall be aware that excessive or undue loadings to the wall, or the chafers, through berthing impact, boat manoeuvring or pull on the chafers, may cause damage to the lot owners property. The waterway edge wall provides both a berthing face for boats, either directly at the chafer, or through a jetty to be constructed out from the wall, as well as an earth retaining function for the foundation soil beneath residential housing belonging to the lot owner. The jetty shall be fixed type of lightweight construction similar to those provided in 'Mini Marina'.
- Circumnavigation of the waterways is restricted to the passage of boats of maximum length of 6m. Boats of larger size can navigate within the waterways in areas which have waterborne access to the main outer boating marina, without passing under any of the waterways bridges. Navigation 'inside' the bridges is limited to the 6m craft due to bridge height, water depth and waterway width, all of which vary throughout the development. The waterways are appropriately signed to aid boating activity within the Mandurah Ocean Marina Venetian Waterways.

Mini Marina

A boat mooring area termed 'Mini Marina' is located within the South Harbour adjacent to Precinct 4. The jetties provide public mooring space, however priority access is afforded to owners of specified lots within Precinct 4.

The City of Mandurah is the manager of jetties within the Mini Marina. The jetties are unserviced and as such attract a lease fee of 50% of the current marina rate.

The jetties are of lightweight construction and are of fixed type. Jetties within type D mooring envelopes in Precinct 2 shall be constructed from the same materials and to the same standard as those within the Mini Marina.

Public Access Easements

Most lots fronting Venetian Waterways contain a public access easement between the water edge wall and the secondary wall. The easement is provided with a concrete pathway, lighting and landscape boxes.

The lot owner is responsible for the maintenance of both retaining walls, the mooring chafers and the boat landing areas.

The City of Mandurah will retain responsibility for the maintenance of the pathway, lighting and landscaping with the easement.

Precinct 2 does not have any public access easements on the waterfront.

The owners of lots within Precinct 2 are fully responsible for the maintenance of the edge walls, chafers and any jetties which may be constructed by the owners.

BOAT LIFTERS OF ANY TYPE ARE NOT PERMITTED WITHIN SOUTHERN PRECINCTS.

waterways structures

design criteria Appendix B

MOORING TYPES

TYPE A

Lots 196 to 223, 238, 240 to 245, 248 to 258, 273, 276, 279, 281 to 286.

- Power boat or rowing craft.
- Maximum boat length 6m.
- Mooring shall be directly at waterway edge wall and timber chafers, attached to the edge wall, have been provided.
- Additional mooring (and fender) piles may be installed by the lot owners within the mooring envelope shown on the Type A drawing. Alternatively the lot owner may make his own arrangements with the neighbouring lot owner to share the cost and the use of a 'joint use' mooring (and fender) pile as shown on the drawing.

TYPE B

Lot 246

- As for Type A except maximum boat length 8m.
- Additional boat fenders, or chafer upgrade, shall be provided by the lot owner to accommodate the type and size of boat to be moored. The mooring chafers attached to the waterway edge wall are intended for a boat of maximum length of 6m.

TYPE C

Lot 247

As for Type A except maximum boat length 10m.

TYPE D

Lots 259 to 268, 320

- Power or sail boat.
- Maximum boat length 10m to be moored within the mooring envelope shown on the Type D drawing.
- Mooring shall be remote from the waterway edge wall at a jetty to be constructed by the lot owner within the jetty envelope shown on the Type D drawing.
- Approval from the City of Mandurah for the construction of the jetty and a jetty licence from the Department of Planning and Infrastructure (DPI), prior to construction of the jetty is required.
- Mooring piles may be installed by the lot owner within the mooring envelope.

TYPE E

Lots 270 and 315

- As for Type D except that the mooring space provided on the northern side of these lots is classed 'Group Mooring' which may accommodate a number of boats at a common (or individual) jetty.
- Approval from the City of Mandurah for boat mooring configurations within the envelope and a jetty licence from DPI, prior to construction of the jetty, shall be obtained by the lot owner.
- Lot 270 has one additional Type A single boat mooring at the location shown on the drawing.
- Lot 315 has three additional Type A boat moorings, combined together as a 'group mooring'.

design criteria Appendix B

waterways structures

MOORING ENVELOPE: TYPES A, B & C



design criteria Appendix B

waterways structures

MOORING ENVELOPE: TYPES D (TYPE E SIMILAR)



screening of services

design criteria Appendix C

APPENDIX C SCREENING OF SERVICES

GUIDANCE NOTES

The Design Criteria requires that Services must be suitably screened from public view.

Care should be taken when considering the position of all services fixtures to ensure that the placement of such services has a minimal impact on the visual amenity when viewed from other developments and public vantage points as well as not to detract from the architectural design of the building to which they service. Ideally, such units should be incorporated within the external walls and roof, or elements that are consistent with the building design.

For the purpose of providing further clarification, the following guidance notes are provided to satisfy the City's interpretation of the Screening of Services requirements required in the Criteria:

Piped and Wired Services, Air Conditioners and Hot Water Storage Units

Located at ground level

If located on the ground level and adjacent to a roadway or public open space or reserve, the unit must be suitably screened by aluminium or hardwood battening or other material, louvered screens in a finish equivalent or to match the external walls of the building, or screened by appropriate landscaping.

Located on external walls

Service units should be prevented from being hung on external walls where possible. Where there is no alternative, a unit hung from an external wall is to be screened from view using materials that match the finish of the wall to which the unit is attached.

On balconies

Where located on balconies, acceptable screening is considered to comprise any of the following:

- The unit is to be finished in a colour to match the finish of the wall to which it is immediately adjacent;
- The units are effectively screened by the obscure or tinted glass balustrades of the balcony. Note, the unit must not extend higher than the balustrade;
- The unit is screened by aluminium or hardwood battens finished to a quality and colour to match that of the finished wall the unit is adjacent to, or
- Suitable screening vegetation in a planter such as a fixed planter or large fixed pot. Note: in order not to compromise the safety of a balustrade a planter or pot located within 1 metre of the balcony balustrade must not incorporate any scalable elements between 150 and 750mm above the balcony floor.

Service units located to the rear of balcony areas (minimum 2 metres from the fagade of the building), adjacent to/within laneways or at the rear of buildings (therefore in locations not readily visible from public vantage points), are generally not considered to be subject to the above requirements.

Solar Panels and Solar Water Systems

These may be visible only where they are located in the same plane as the roof and there is no alternative location that can offer a similar level of solar efficiency

TV Aerials and Satellite Dishes

No TV aerials are permitted and all connections are to be cabled from the central server.

Satellite dishes are to be concealed from public view.