

Development Plan
December 2014
Version 7

(Supersedes all previous versions).

WYNDHAM

HARBOUR

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II SUPPLEMENTARY TECHNICAL REPORTS

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Approved by: DEE GOMES

WYNDHAM CITY COUNCIL

Date: 19 February 2016

Design Guidelines Fender Katsalidis Mirams Architects

VOLUME 1

- 1 **Landscape Concept** Tract Consultants (December 2014)
- 2 **Flora and Fauna Assessment** Brett Lane & Associates (June 2013)
- 3 **Transport Management Plan and Wyndham Harbour Addendum Traffic Engineering Assessment** Ratio Consultants Pty Ltd (November 2009) and supplementary update (December 2014)
- 4 **Drainage and Stormwater Management Plan** Pat Condina & Associates (December 2009) and Addendum (March 2014)
- 5 **Servicing Report** Watsons Pty Ltd (November 2009 and supplement December 2014)
- 6 **Sustainability Initiatives** ES Link Services Pty Ltd (July 2009)

VOLUME 2

- 1 **Coastal Processes Report** Water Technology Pty Ltd (July 2010 and supplement December 2014)
- 2 **Dredging Investigation Report** Water Technology Pty Ltd (July 2010 and supplement December 2014)
- 3 **Breakwater Design Investigations and Testing** Water Technology Pty Ltd (August 2009 and supplement December 2014)
- 4 **Wyndham Harbour Development at Werribee South : A Cultural Heritage Management Plan** TerraCulture Pty Ltd (July 2008)
- 5 **Site Contamination Summary Report** Coffey Environments Pty Ltd (April 2007)
- 6 **Acoustic Review** Burton Acoustic Group (July 2007)
- 7 **Air Quality and Odour Report** URS Australia Pty Ltd (July 2007)

VOLUME 3

- 1 **Concept Design and Drawing Package - Maritime Infrastructure** Hyder Consulting Pty Ltd (September 2009, supplement May 2012 and supplement Design Basis Report - Full Maritime Works December 2014)
- 2 **Works Methodology Report** Coffey Geotechnics Pty Ltd (November 2009 and supplement December 2014)
- 3 **Supplementary Geotechnical Investigation** Coffey Geotechnics Pty Ltd (September 2009 and supplement September 2014)
- 4 **Revised Additional Geotechnical Investigation - Stage 1** Coffey Geotechnics Pty Ltd (July 2007)
- 5 **Stage 2 - Geotechnical Investigation and Groundwater Monitoring** Coffey Geotechnics Pty Ltd (December 2007 and supplement June 2012)
- 6 **Groundwater Protection Management Plan** Coffey Geotechnics Pty Ltd (April 2008 and supplement December 2014)
- 7 **Installation of HDPE Geomembrane Liner** Coffey Geotechnics Pty Ltd (July 2007)
- 8 **Construction Environment Management Plan** URS Australia Pty Ltd (March 2008)*
- 9 **Operations Environment Management Plan** URS Australia Pty Ltd (March 2008)*

* These supplementary reports may be amended and approved from time to time in accordance with the Conditions of Permit WYP2365/08

1. INTRODUCTION

The Wyndham Harbour Development Plan has been prepared by Watsons Pty Ltd in conjunction with a number of specialist consultants, on behalf of Wyndham Harbour Pty Ltd.

The Development Plan comprises three parts:

1. The Development Plan Report
2. The Design Guidelines
3. The Supplementary Technical Reports
(Volumes 1-3)

The Development Plan Report provides background to the Wyndham Harbour project (previously Wyndham Cove Marina), an overview of the project elements and outcomes of the technical investigations. It includes the Development Plan itself and the Staging Plan for the Wyndham Harbour project.

The Supplementary Technical Reports (Volumes 1-3) provide the technical detail of the various investigations completed and conclusions reached. These reports provided direction for decisions made during the development of the project and underpin the final outcome.

These documents have been prepared in accordance with the requirements of the Wyndham Planning Scheme (Development Plan Overlay 9) and also form the basis for an application for consent under the Coastal Management Act 1995.

The original Development Plan and Supplementary Reports were endorsed by Wyndham City Council on the 1 May 2008 and have since been amended from time to time.

2. BACKGROUND

Wyndham Harbour will provide a marina and safe boat harbour facility on the western side of Port Phillip Bay and realise a proposal which was first envisaged in the 1980's when the Werribee Harbour Environment Effects Statement (EES) designated a site in Duncans Road and adjacent seabed as the preferred location for a marina.

A concept plan was adopted as part of the original EES which included 300 marina berths, marina servicing facilities, dry boat storage, accommodation, commercial, recreation and sports facilities. The concept plan relied on 9.6 hectares of seabed reclamation for the development.

The site was subsequently zoned "Werribee Harbour Zone" and legislation was enacted which provided for the granting of a Crown Lease over the seabed and foreshore reserve. In the 1990's, the zoning was changed to its current zoning - "Special Use Zone Schedule 1 - Werribee South Marina".

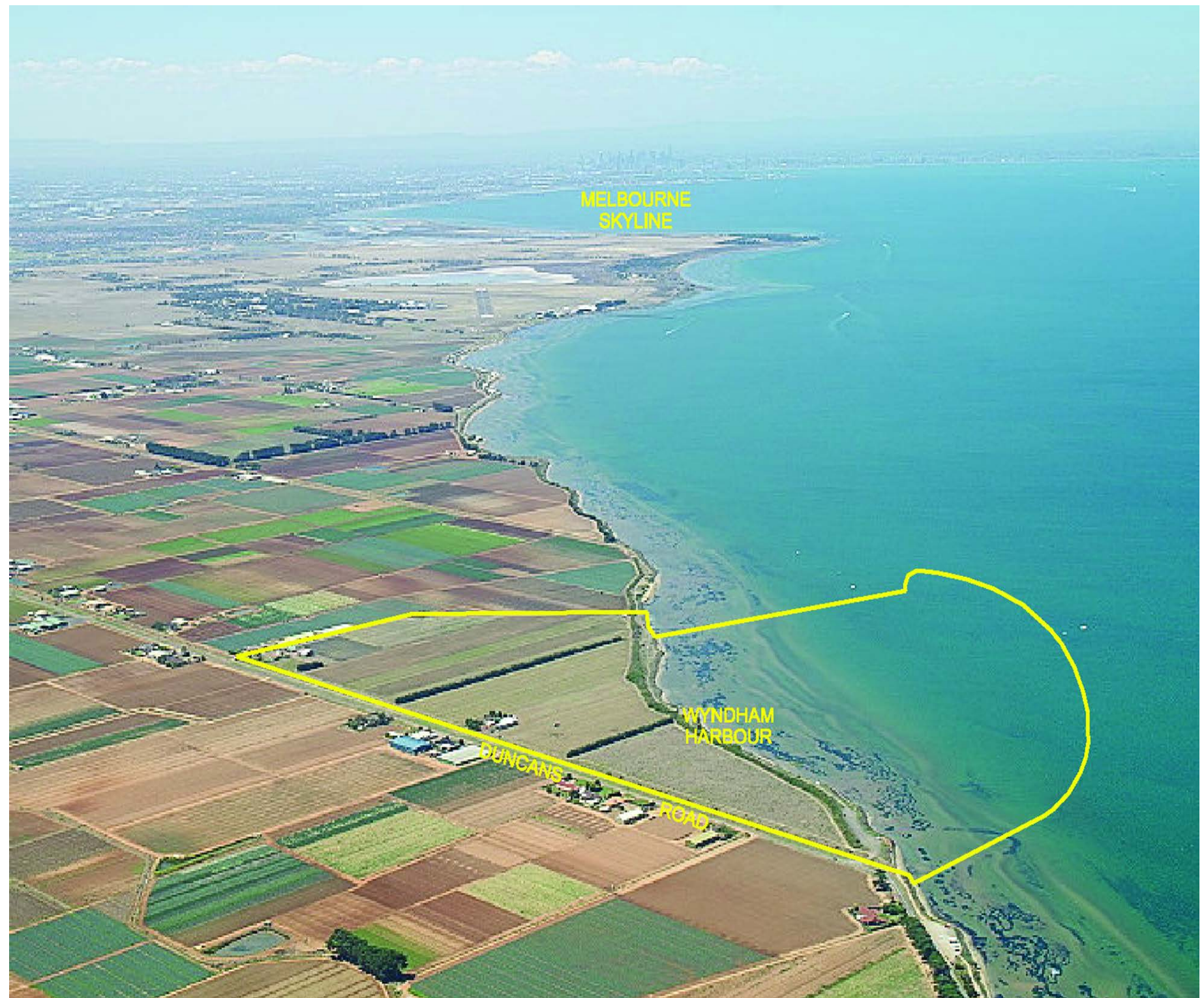
The marina has been continuously supported by various State and Local government policies and the site is currently included in the Victorian Coastal Strategy and Melbourne 2030, as an appropriate location for a marina development.

Despite this legislative and statutory framework, the land has remained undeveloped. The original marina proposal was not economically viable based on the land area and tenure available, and the composition of the development components permitted under the zoning provisions.

Wyndham Harbour Pty Ltd (previously Wyndham Cove Marina Pty Ltd) acknowledged that reclamation of 9.6 hectares of seabed in accordance with the 1989 concept plan was no longer an environmentally acceptable option due to potential for adverse impacts on the bay which would be created by large scale reclamation of seabed.

To facilitate the development without the potential for adverse environmental impacts, Wyndham Harbour Pty Ltd developed a concept plan which does not rely on significant seabed reclamation and restricts the majority of development of the built form (apart from sea walls, marina servicing area, berths etc.) to the land based parcel.

Wyndham Harbour Site and City Skyline



- Forms the basis for 2013 application for consent under the Coastal Management Act 1995 to use and develop coastal Crown Land; and
- Addresses feedback received from various authorities since the Panel hearing.

The Department of Sustainability and Environment (now called Department of Environment and Primary Industries) also granted a long-term lease of Crown land under the Werribee South Land Act 1991. This will secure the statutory framework for development and use of the Crown Land seabed and foreshore in accordance with the Development Plan.

In order to achieve this, Wyndham Harbour Pty Ltd purchased the adjoining 20.8ha freehold title to create an environmentally responsive concept plan which is designed around Ecologically Sustainable Design (ESD) principles and incorporates water reuse systems, landscaped buffers around the perimeter of the site and significant areas of open space. These elements could not be achieved on the original 4.4ha freehold title.

The new proposal also incorporated substantial off-site benefits including carbon sequestration within the Upper Werribee Catchment to offset greenhouse gas emissions, upgrading of local infrastructure such as Duncans Road, and contributing towards the upgrading of the Werribee River boat ramp facilities and/or the completion of the Bay Trail between Point Cook and Werribee South.

To enable the development to proceed in accordance with the new concept plan, a Planning Scheme amendment was required to reconfigure the Special Use Zone, change the provisions of the zone and incorporate new overlay controls.

Advice was also sought from the Minister for Planning as to whether an Environment Effects Statement was required for the new proposal. The Minister directed that an EES was also to be completed.

The Minister for Planning authorised the preparation of Amendment C71 to the Wyndham Planning Scheme and directed that an Environment Effects Statement also be prepared under the provisions of the Environment Effects Act 1978. Both documents were required to be exhibited concurrently.

In addition, the Commonwealth Minister for Environment and Heritage advised that the proposed development required approval as a “controlled action” under the provisions of the Commonwealth Environment Protection & Biodiversity Conservation Act 1999 (EPBC Act). The Minister accredited the Victorian EES process

as the environmental assessment process under the provisions of the EPBC Act.

The EES process enabled members of the public and relevant authorities to evaluate the proposed development and its potential environmental, social and economic impacts. The EES for Wyndham Harbour (then “Wyndham Cove Marina”) was prepared in accordance with Assessment Guidelines, issued by the Department of Sustainability and Environment (now called Department of Environment and Primary Industries) following public exhibition and comments. The EES contained the following key components:

- Description of the proposed development and site;
- Description of the statutory approvals required and conformity of the proposal with government policies and plans;
- Evaluation of alternative development options;
- Description of the community consultation process associated with the EES; and
- Assessment of the potential environmental, social and economic impacts of the proposal.

The EES assessed in detail the “Preferred Concept” on which the current proposal is based.

Exhibition of the EES and amendment was carried out between 7 July and 1 September 2005. A Panel Hearing was subsequently conducted over 8 days in November and December 2005 to consider the EES, Amendment C71 and the 145 submissions received during the exhibition period, of which 129 were in support of the proposal and only 16 were either conditional or opposed to it.

The Panel Report was released in February 2006 and concluded:

“ Overall, the Panel considers that the Wyndham Cove Marina Development will result in a net community benefit to the Wyndham community and the State of Victoria...It will provide a much needed boating facility on the western side of Port

Phillip Bay and will bring significant social and economic benefits to the region.”

The Panel Report recommended that the Minister for Planning adopt Amendment C71 and the EES, subject to specific recommendations.

In May 2006, the Minister for Planning released his EES Assessment Report in support of the proposal, specifying a number of recommendations “to be considered as part of the decision-making process under the Planning and Environment Act 1987”.

Amendment C71 was finally ratified by Parliament and gazetted on 19 October 2006.

On 29 October 2006, the Commonwealth Minister for Environment and Heritage granted approval for the project under the Environment Protection and Biodiversity Protection Act 1999 subject to conditions.

Detailed geotechnical investigations carried out as a result of the EES process and the recommendations in the Ministers Assessment Report have informed the Development Plan. Some changes to the overall layout, which formed part of the EES and amendment documents, have been necessary to address the physical conditions of the site. These changes include the relocation of the marina service area to the southern section of the site, adjacent to the base of the main breakwater.

This Development Plan Report therefore:

- Addresses the requirements of Amendments C71 and C126 (a minor housekeeping amendment) which have now been incorporated into the Wyndham Planning Scheme;
- Forms the basis for consideration of planning permit applications to be lodged with Wyndham City Council for development and use of the Wyndham Harbour site;
- Addresses the recommendations of the Ministers EES Assessment Report;
- Includes information required to satisfy the requirements of the EPBC Act approval;

3 STATUTORY PLANNING CONTEXT

The statutory planning context for Wyndham Harbour comprises the following:

- Wyndham Planning Scheme
- EES Assessment Report (Minister for Planning)
- EPBC Act conditions of consent

3.1 Wyndham Planning Scheme

3.1.1 Planning Policy Framework

Planning Policy espoused in the Wyndham Planning Scheme which is directly related to the proposal includes the State Planning Policy Framework, Municipal Strategic Statement and Local Planning Policy:

State Planning Policy Framework (SPPF)

Clause 15.08 of the SPPF refers to “Coastal Areas”. The objective for coastal areas is “to protect and enhance the natural ecosystems and landscapes of the coastal and marine environment, ensure sustainable use of natural coastal resources and achieve development that provides an environmental, social and economic benefit enhancing the community’s value of the coast”.

Clause 15.08 of the SPPF also requires decision making by planning authorities to be consistent with the Victorian Coastal Strategy 2002.

The Wyndham Harbour site is designated in the Strategy as a “Safe Harbour” and “Coastal Recreation Zone” which is described as a major regional boating destination capable of sustaining recreational opportunities for large numbers of people and contributing to a highly active waterfront.

Municipal Strategic Statement

The Wyndham Planning Scheme incorporates a Municipal Strategic Statement which includes a Tourism Plan and Strategic Framework Plan for the municipality. The Tourism Plan designates the Wyndham Harbour site as “marina site” and Werribee South is designated as “tourist precinct” in the Strategic Framework Plan.

One of Council’s strategies in the Municipal Strategic Statement for tourism is to “Realise the potential for supporting land uses (such as a foreshore marina) near key tourism assets, taking into account the effect on adjoining land uses”. The marina is the realisation of a long planned development in a designated location. It will complement other tourist facilities in the immediate area including Werribee Mansion, Werribee Open Range Zoo, Point Cook Coastal Park and the RAAF Museum.

Local Planning Policy

The land is included in the Werribee South Policy of the Municipal Strategic Statement, which seeks to retain agricultural land, while encouraging “tourism and recreation development of peripheral locations that is sensitive to agricultural land use and activity”. The proposal recognises this sensitivity to nearby agricultural uses and responds by incorporating a significant 30 metre wide vegetation buffer between the activity areas and adjoining rural properties.

3.1.2 Zoning

The Wyndham Harbour site is covered by three zones:

- Special Use Zone – Schedule 1 Wyndham Cove Marina
- Green Wedge Zone
- Public Park and Recreation Zone

As a result of the gazettal of Amendment C71, the Wyndham Planning Scheme Special Use Zone was reconfigured to enable the inclusion of a portion of the abutting 20.8ha freehold title in the zone and to provide an opportunity to extend the Public Park and Recreation Zone along the foreshore reserve and restore continuity of the zone around the coastline.

The amendment also extended both the Planning Scheme boundary and the Special Use Zone over the seabed to cover the marina infrastructure including the breakwater. These critical elements would otherwise have been outside the area covered by the Wyndham Planning Scheme.

Amendment C156 then changed the boundary of the Special Use Zone to align with the northern title boundary.

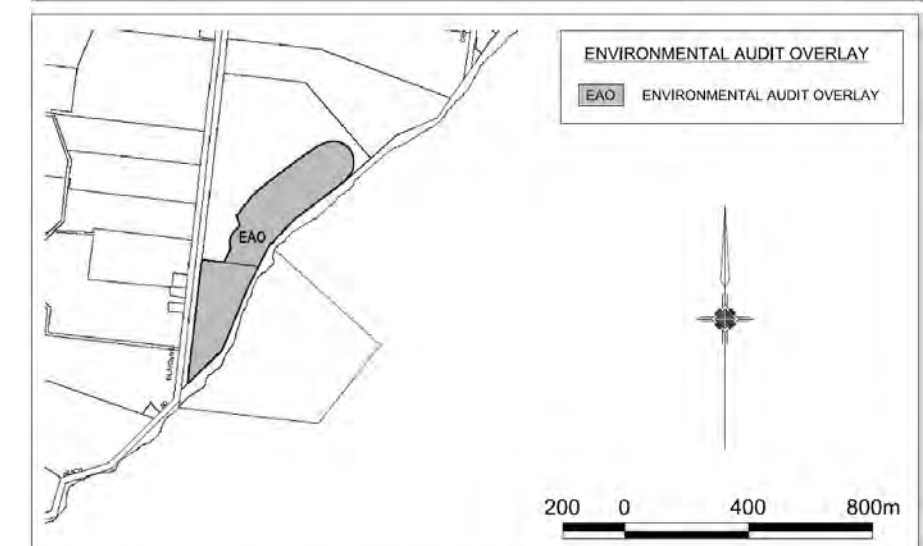
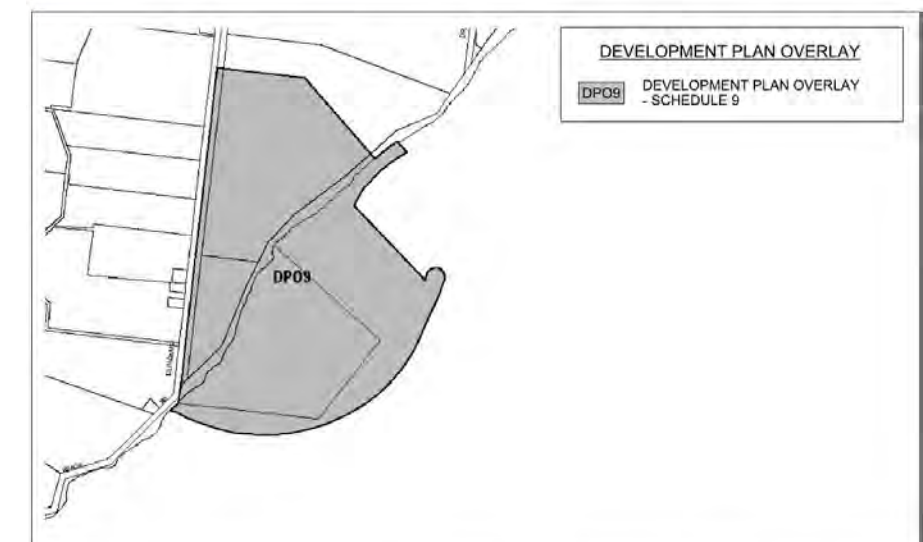
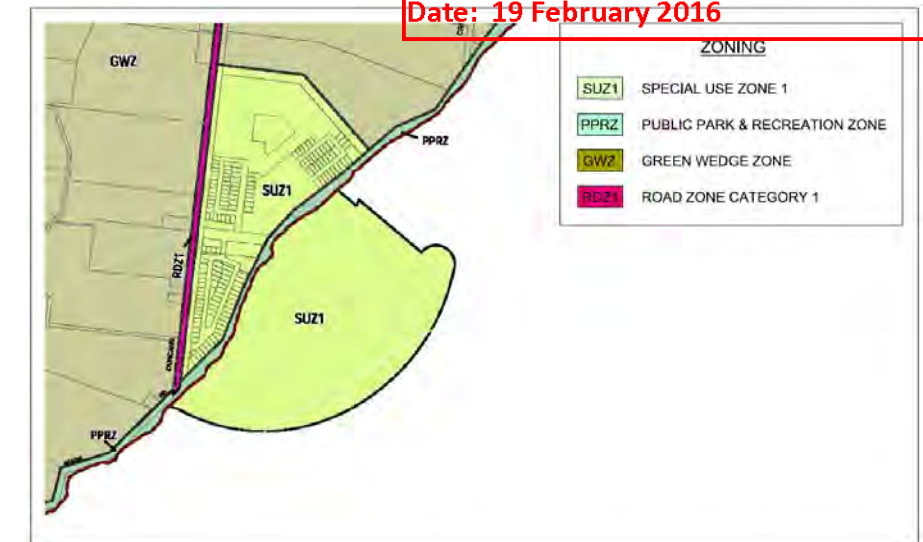
The Special Use Zone specifies a number of land uses associated with the Wyndham Harbour development which are “as of right” or conditional including a Pleasure Boat Facility of not more than 1000 berths, retail premises up to 3,000m² gross leasable floor area, residential building and up to 240 dwellings. A permit is required for any variations which exceed these conditions.

3.1.3 Overlay Controls

The Wyndham Harbour site is affected by the following overlay controls of the Wyndham Planning Scheme:

- Development Plan Overlay – Schedule 9 Wyndham Cove Marina
- Environmental Audit Overlay

As the project straddles the Special Use Zone, Public Park and Recreation Zone and Green Wedge Zone, integration of the various elements of the project is designed to occur through the Development Plan Overlay which covers the entire site inclusive of the marina harbour area.



WYNDHAM PLANNING SCHEME

The Development Plan Overlay triggers the requirement for approval of a Development Plan. This document has been prepared pursuant to the Development Plan Overlay provisions which are detailed in Section 7 of this report.

3.2 Minister's EES Assessment Report

Following consideration of the Panel Report for the EES and Amendment C71, the Minister for Planning released his "EES Assessment Report". The report stated that the recommendations are required to "be considered as part of the required decision-making under the Planning and Environment Act 1987".

The inquiry panel's recommendations are reproduced below with the Minister's assessment response. The Minister's recommendations in terms of Amendment C71 have been implemented by incorporation in to the Planning Scheme and have therefore not been reproduced below.

Air

Panel recommendations

1. Seek expert advice prior to completion of the Construction Environment Management Plan, to determine whether additional dust modelling is required, and to develop an appropriate monitoring regime. Revise the Construction Environment Management Plan based on this advice, to include appropriate triggers for implementing dust suppression actions.
2. Include protocols in the Operations Environment Management Plan for the marina management to work with the EPA and nearby farmers to reduce significant dust impacts at Wyndham Cove that may arise from agricultural activities on nearby market gardens.
3. Include protocols in the Operations Environment Management Plan for the marina management to work with the EPA and nearby farmers to reduce odour impacts that may arise from agricultural activities on nearby market gardens, principally from the spreading of manure.
4. Include protocols in the Operations Environment Management Plan for the marina management to work with Melbourne Water to assess, record and report odour

impacts that may arise from the operation of the Western Treatment Plant.

Minister's response

It is my assessment that the above recommendations be supported.

Land

Panel recommendations

5. Prior to preparing the application for consent under the Coastal Management Act 1995 for marina construction and excavation, the Proponent and DSE (with advice from the EPA) agree on the scope of issues to be addressed in the application including (but not limited to):
 - Further full profile sediment sampling for contaminants.
 - Specific construction sequencing.
 - Proposed turbidity minimisation measures, expected performance standards to keep impacts on marine ecology within acceptable limits and appropriate responses proposed if performance standards are not met.
 - Proposed groundwater aquifer protection measures (including wet/dry excavation).
 - Location and management of onshore bund areas and dewatering processes/impacts.
 - Other issues as required under the Best Practice Guidelines for the Environmental Management of Dredging.
 - A risk assessment of the above measures and consideration of responses necessary in the event of a project component failure (eg localised aquifer dewatering and increased saline intrusion).
6. Incorporate the outcomes of the Coastal Management Act consent process into the Construction and Operations Environment Management Plans for areas covered by that Act as appropriate.

Minister's response

It is my assessment that the above recommendations be supported.

Marine water quality and coastal processes

Panel recommendations

7. Include consideration of the following in the Coastal Management Act consent application process:
 - The need for monitoring of sensitive sites along the shoreline to detect unforeseen shoreline changes resulting from marina construction.
 - The detailed design and operation of the sand bypass system including timing and quantities.
 - The need for drift algae management to meet environmental and recreational objectives.
8. Prior to preparing the application for consent under the Coastal Management Act 1995 the Proponent and DSE (with advice from the EPA) agree on the scope of issues to be addressed in the application regarding marine water quality including (but not limited to):
 - Development of an appropriate framework for marine water quality investigations based on the SEPP (WoV) Schedule F6.
 - Identification of predicted exceedences of criteria and management measures proposed.
 - Development of detailed monitoring, reporting and ameliorative action frameworks for unexpected exceedences.

Minister's response

It is my assessment that the above recommendations be supported.

Biodiversity

Panel recommendations

9. Maximise opportunities for marine habitat creation in preparing the detailed design of the marina.
10. Incorporate specific details in the Construction and Operations Environment Management Plans of how impacts on the existing Berm Grassy Shrubland EVC areas are to be minimised during construction and how EVC Net Gain objectives will be achieved.
11. Amend the Residential Guidelines within the Operations Environment Management Plan to include information for residents on natural values in the area including Ramsar wetlands and the Berm Grassy Shrubland EVC.

Minister's response

It is my assessment that the above recommendations be supported.

Noise

Panel recommendation

12. Include protocols in the Operations Environment Management Plan for the marina management to work with the EPA and nearby farmers to reduce noise impacts that may arise from agricultural activities on nearby market gardens.

Minister's response

It is my assessment that the above recommendation be supported.

Cultural heritage

Panel recommendation

13. Adopt and implement the recommendations of the TerraCulture Pty Ltd (December 2004) report - "Wyndham Cove Marina, Werribee South, Archaeological Investigation", through Clause 3 – Requirements for Development, in the Schedule to the Development Plan Overlay.

Minister's response

It is my assessment that the above recommendation be supported.

Traffic and parking

Panel recommendation

14. Undertake a further traffic assessment of Duncans Road as and when required by VicRoads.

Minister's response

It is my assessment that the above recommendation be supported.

Recreation and tourism

Panel recommendation

15. Give consideration to the following matters in preparing detailed designs for recreational and tourism issues including:
- The need for public toilets and other facilities at strategic locations within the development.
 - Discussions with the City of Wyndham regarding the provision of 'off the beach' sailing facilities in the marina or on the Werribee South foreshore.
 - Facilitating the transit of traffic (pedestrian and bicycle) through the development on the Bay Trail.

Minister's response

It is my assessment that the above matters be considered in the detailed design of the project.

Environmental management

Panel recommendations

16. Revise the Construction Environmental Management Plan to include comments in this Panel report, issues raised in the peer review, and issues raised by DSE, the EPA and the Responsible Authority in the development of the detailed design of the project.
17. Review the Operations Environment Management Plan to ensure that proposed actions are practical and cost/effective and can be realistically implemented.
18. Revise the Operations Environment Management Plan to include comments in this Panel report, decisions in the Minister's Assessment, issues raised in the peer review, and issues raised by DSE, the EPA and the Responsible Authority.

Minister's response

It is my assessment that the above recommendations be supported.

3.3 EPBC Act Conditional Consent

Approval for the project was issued by the Commonwealth Minister for Environment and Heritage in October 2006 subject to conditions which relate to:

- Ensuring continuity of sand movement along the coastline
- Providing the community with information regarding the Point Cook Ramsar area
- Creating a management regime for the foreshore and open space to assist protection of the Orange Bellied Parrot
- Surface water management

The approval conditions have also been varied from time to time to reflect changes to the proposed works following further detailed design.

These various elements, together with the requirements of the *Coastal Management Act 1995*, provide the framework for the current approval process against which the Development Plan Report will be assessed.

4. EXISTING CONDITIONS AND SITE ANALYSIS

4.1 Site Description

The Wyndham Harbour site is located approximately 25 kilometres south-west of Melbourne's CBD in the City of Wyndham, one of Victoria's fastest growing municipalities. It is approximately half an hour's drive from Melbourne via the Princes Freeway and Duncans Road and is only 10 km south of Werribee city centre. The coastal village of Werribee South is just over one kilometre to the east, at the mouth of the Werribee River.

The site has a total area of 72.11ha and comprises both land and seabed.

The freehold land component covers a total of 25.21ha, and is bounded by 2.05ha of channel reserve (along side Duncans Road).

A lease/license agreement for the use of the channel reserve will be entered into between Southern Rural Water and Wyndham Harbour Pty Ltd.

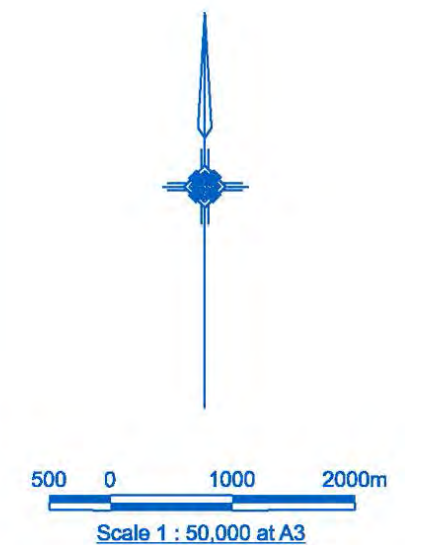
The Crown Lease area includes 37ha of seabed (Unreserved Crown Land) and 4.84ha of Foreshore Reserve.

wyndham harbour site area

	Hectares
FREEHOLD	
Total Freehold	25.21
CROWN LAND	
Foreshore Reserve & Seabed	41.84
Other Crown Land	5.06
Total Crown Land	46.90
TOTAL SITE AREA	72.11



Locality Plan



4.2 Site Analysis

The on-shore section of the Wyndham Harbour site is relatively flat with a slight fall to the east. Most of the site is currently unused vacant land which was previously developed for agricultural purposes and now displays the remnants of a lucerne crop, two dwellings and associated outbuildings. The foreshore reserve along the east of the site is significantly degraded. It is characterised by a rough unconstructed track, extensive weed infestation, dumped rubbish and some small areas of Coast Saltbush. The seabed component of the site is uniformly flat and featureless with soft silty sand shelving gently seawards with underlying stiff grey basement clay.

The land on surrounding properties is characterised by market gardening with ancillary cool stores and large machinery sheds. Lot sizes in the area range from farms of around 20ha down to small house lots excised from farm holdings. The eastern part of the site (seabed) is located within Port Phillip Bay.

The site has a frontage to Duncans Road of 1006 metres, although a 20 metre wide Crown Land Channel Reserve extends along the length of Duncans Road on the east side between the subject land and the road reserve. This contains an open irrigation channel which has an outfall to Port Phillip Bay just to the south of the site.

The site directly abuts the foreshore reserve for a distance of approximately 950 metres. The foreshore is currently in a degraded state with minimal indigenous vegetation, significant infestation of weed species and a rough, unconstructed vehicle track. The low bluffs between the foreshore and the water line are covered with rock armouring.

The seabed component of the site is uniformly flat and featureless with soft, silty sand shelving gently seawards with underlying stiff grey basement clay. The Werribee coastline is relatively stable, with a small rate of sand transport in a northerly direction. The quantity of sand movement is directly related to the dredging of the Werribee River mouth.

There are no significant landscape features on the site other than a 2-3 metre high hedge of exotic species (mirror bush and box thorn) which extends along the eastern fence line and rows of cypress pines which separate the internal paddocks.

Opportunities

- The site enjoys panoramic views of Port Phillip Bay to the east, along the coastline to the north and south, to Melbourne's city skyline to the north-east and to the You Yangs to the south-west.
- There is potential to increase local connectivity through the extension of the Bay Trail and additional open space networks.
- There is potential to protect and regenerate the remnant indigenous vegetation along the coastal foreshore.
- Creation of a wetland system will contribute towards surface water management and landscape amenity.
- Adoption of a suitably wide buffer on the northern boundary will appropriately address urban / rural interface issues

Constraints

- Adjacent rural land uses need to be sensitively buffered from any impacts as a result of development.
- New residential developments also need to be sensitively buffered from any impacts as a result of adjacent agricultural activities
- Remnant coastal vegetation needs to be protected and rehabilitated.
- Prevailing winds and exposure of the coastline must be considered.
- Constraints related to physical conditions of the site including location and depth of the aquifer.

View northwards across the project site with Duncans Road to the left



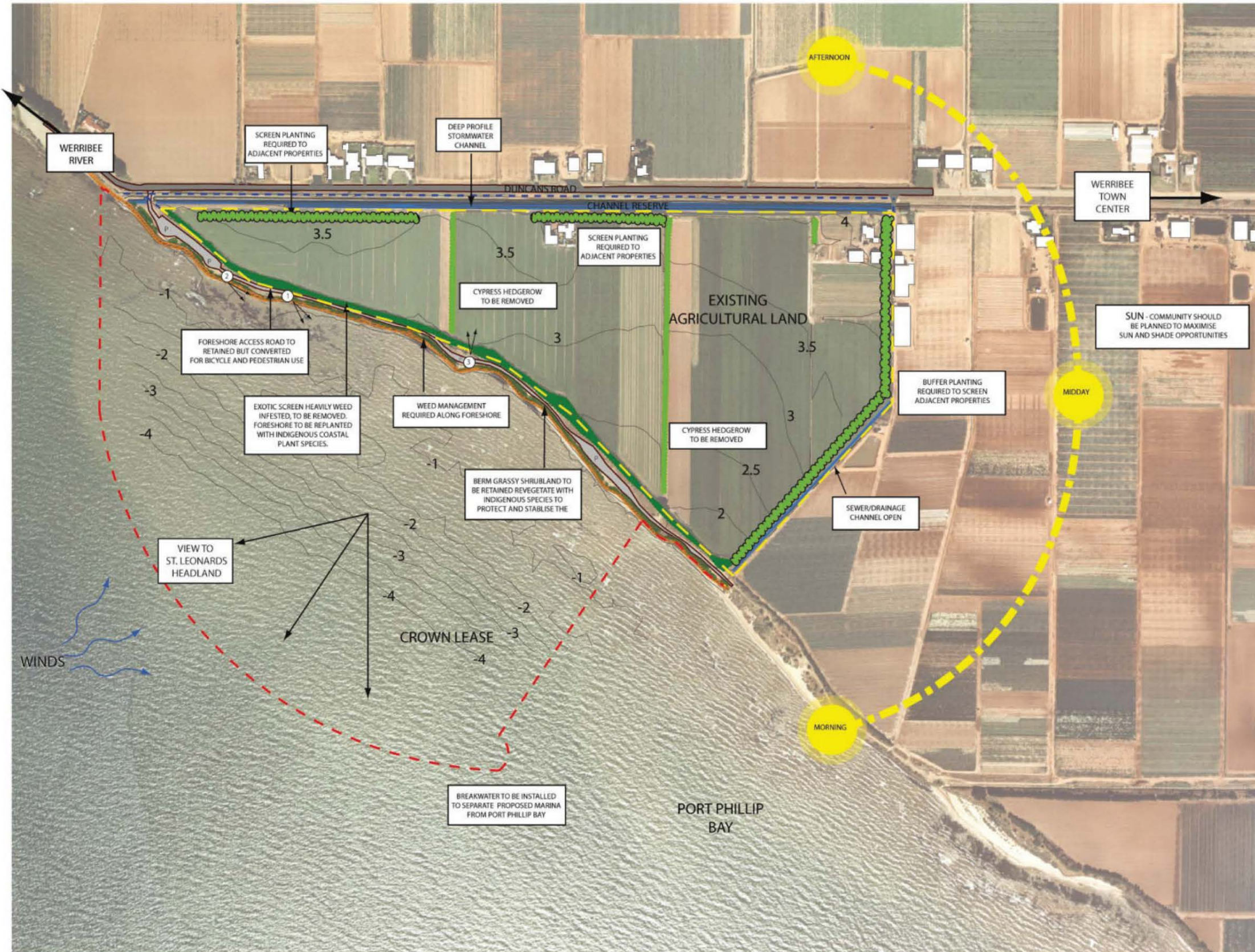
Current land uses



Foreshore reserve and the eastern boundary of the site



Site Analysis Plan



Tract



1 View to the CBD



2 Berm Grassy Shrubland



3 Cypress hedgerow

- LEGEND**
- Road
 - Vehicular Track
 - Rock Armour
 - Berm Grassy Shrubland
 - Future Screening
 - Existing Cypress Trees
 - Contour
 - Drainage Channel
 - Residence
 - Parking
 - Views
 - Photo Location
 - Freehold Land

5. OVERVIEW

Wyndham Harbour will be a marina facility of State significance designed to meet the demand for a marina and safe boat harbour on the west side of Port Phillip Bay. The site has been earmarked for a much needed facility which has been identified in various State and local policy documents for many years.

Wyndham Harbour will comprise:

- a marina of up to 1,000 berths (once Stage 7 is constructed / completed);
- dry boat storage for up to 390 boats;
- marine servicing area;
- commercial and marina associated uses;
- marina centre;
- up to 375 residential lots ;
- apartments; and
- landscaped open space areas and wetlands landscaped with indigenous species.

The project has been designed to embrace and showcase ESD practices. The wetlands area will be both a significant environmental and recreational resource as well as a stormwater treatment facility for the development.

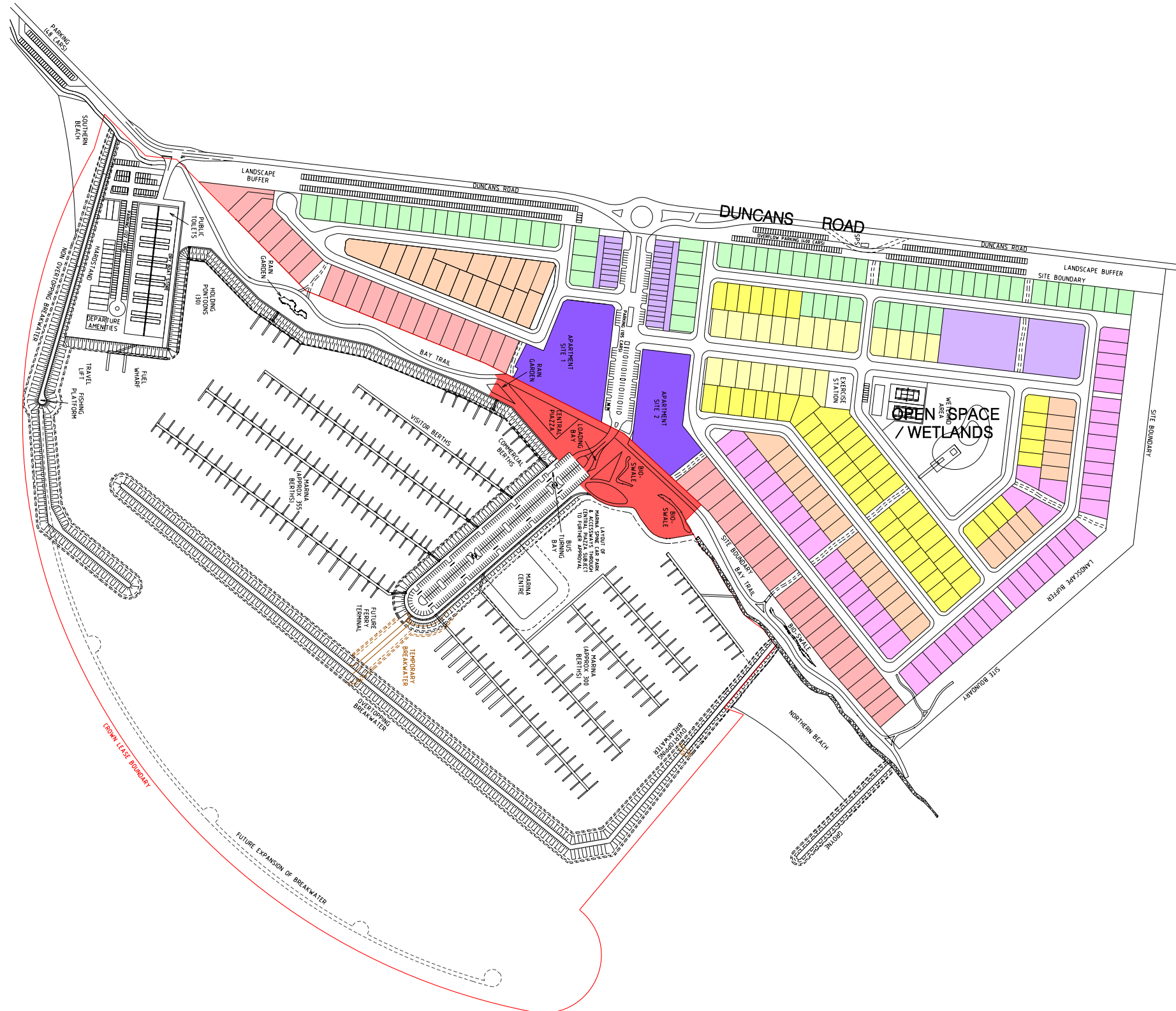
The marina and safe boat harbour design includes a main breakwater approximately 900m long, a smaller breakwater on the southern side 530 metres long and a 50 metre wide entrance channel. In addition to an extensive area of pontoon berths for recreational craft, the marina includes berthing facilities for use by the aquaculture industry and makes provision for a future ferry terminal.

Wyndham Harbour Pty Ltd has based its approach to development around key principles that produce a balance in ecological sustainability, commercial viability and social responsibility. Onsite initiatives include water harvesting and reuse, renewable energy generation, efficient thermal building design and energy demand management. Wyndham Harbour Pty Ltd will also implement an off-site program to establish tree plantations and habitat revegetation within the upper catchment of the Werribee River.

6. OBJECTIVES OF THE DEVELOPMENT

The principle objectives of the Wyndham Harbour project are to:

- provide a safe boat harbour at a location earmarked for this type of facility by State and local government for over 15 years;
- facilitate increased opportunity, a new focal point and destination for recreational boating activities on the western side of Port Phillip Bay;
- provide a major tourist destination for the west of Melbourne;
- provide a facility which generates long term employment;
- facilitate a leading edge development which encapsulates ESD principles including stormwater harvesting, treatment and reuse, solar energy systems, and wetlands to treat stormwater from the site;
- offset the impact of greenhouse gas emissions generated by the development through the revegetation and habitat restoration of 500 hectares within the upper catchment of the Werribee River;
- create an appropriate landscaped buffer (which will be available for use by the community) between the marina development and surrounding rural properties;
- create new flora and fauna habitat in the locality;
- rehabilitate the degraded coastline in the vicinity of the marina by revegetation using indigenous species;
- improve the amenity, public accessibility and recreational opportunities of the foreshore and Port Phillip Bay;
- provide a new sandy beach in an area with limited beaches suitable for community use;
- assist in the completion of the Bay Trail between Werribee South and Point Cook; and
- contribute towards the upgrading of facilities at the Werribee South boat ramp.
- protection of the aquifer



- TOWNHOUSES
- WATERFRONT
- BAYSIDE PLUS
- BAYSIDE
- PARKVIEW
- LIFESTYLE PLUS
- LIFESTYLE

UP TO 375 LOTS TOTAL

- APARTMENTS
GROUND FLOOR: COMMERCIAL FLOOR SPACE
APARTMENTS AND CARPARKING
LEVELS 1-5: APARTMENTS

- CENTRAL PIAZZA

910 CAR SPACES:
MIN. 250 ON MARINA SPINE
122 ADJACENT DRY BOAT STORE
138 ADJACENT CENTRAL PIAZZA AND MAIN BOULEVARD
400 IN OVERFLOW AREA

NOTES:

ACCESS POINTS TO & FROM CAR PARKS & ALL OTHER INTERSECTIONS TO BE DETAILED AT ENGINEERING DESIGN STAGE

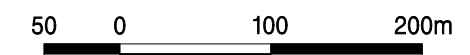
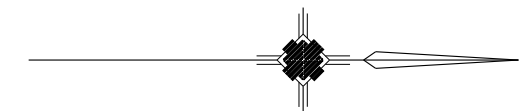
T-INTERSECTION FROM DUNCANS ROAD WILL HAVE PASSING & TURNING LANES

ALL FOOTPATHS ALONG ROADS TO BE AT LEAST 1.2 METRES WIDE

OVERFLOW CAR PARK WILL BE DESIGNED TO ALSO CATER FOR OVERLAND FLOWS

RESIDENTIAL COURTS WILL BE DESIGNED TO COUNCIL'S ENGINEERING STANDARDS & MAY BE LINKED TO FORM A CONNECTED ROAD

DETAILED DESIGN WILL NOMINATE BICYCLE PARKING FOR 30 BICYCLES & MOTORCYCLE PARKING

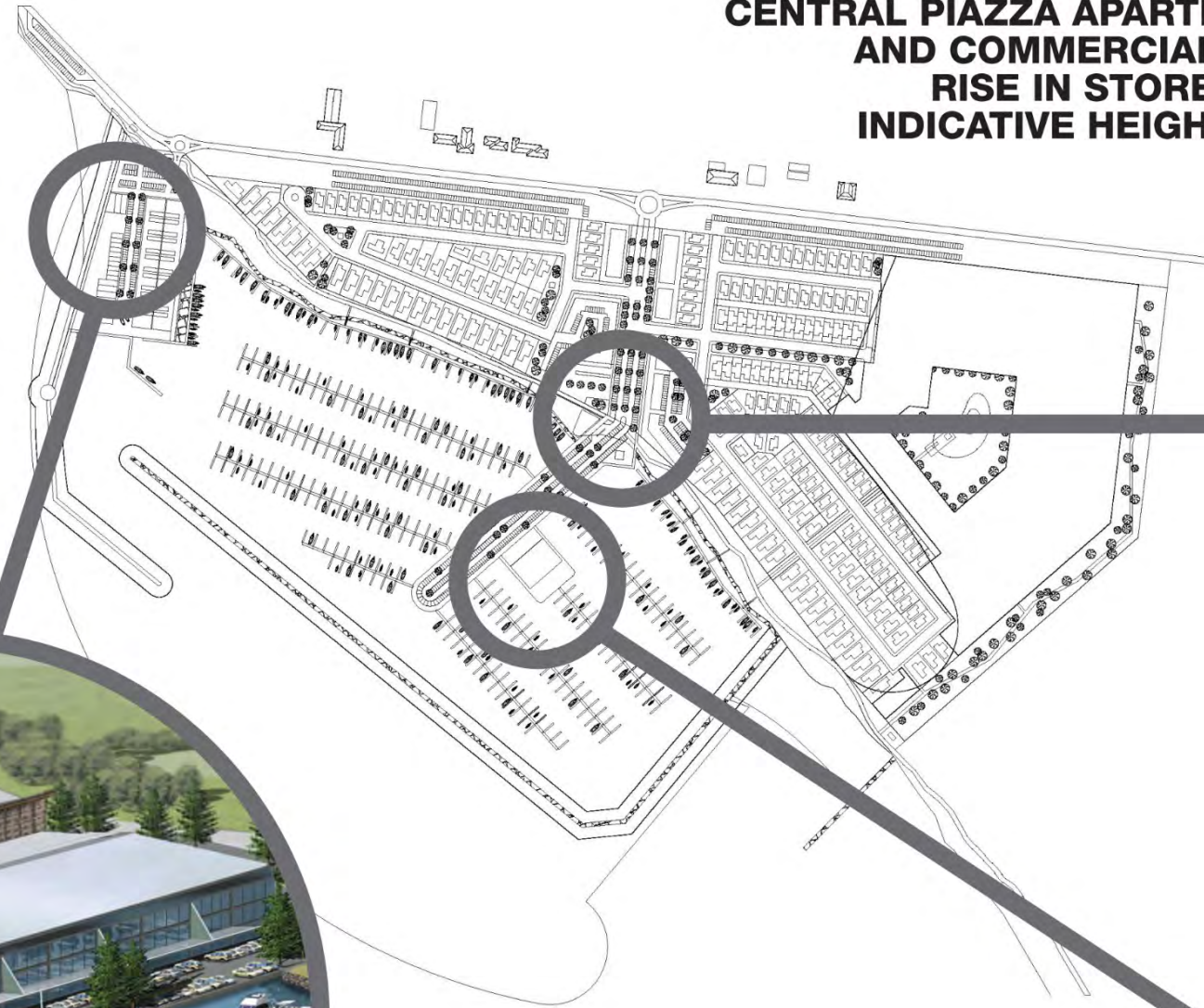


Wyndham Harbour



Artist's impression of potential future development of the Wyndham Harbour Site.

**CENTRAL PIAZZA APARTMENTS
AND COMMERCIAL AREA
RISE IN STOREYS: 05
INDICATIVE HEIGHT: 19m**



**THE MARINA CENTRE
RISE IN STOREYS: 02
INDICATIVE HEIGHT: 15m**



**DRY STACK BUILDING
RISE IN STACKS: 4-5
INDICATIVE HEIGHT: 19m**



7 DEVELOPMENT PLAN REQUIREMENTS

The Wyndham Harbour Site is entirely covered by the Development Plan Overlay Schedule 9 – Wyndham Harbour Marina. This Development Plan Report and Supplementary Reports have been prepared in accordance with the requirements of the Development Plan Overlay Schedule 9.

The purpose of this overlay is stated as:

“PURPOSE

The development plan provides the criteria to ensure the coordinated and integrated development of Wyndham Harbour Marina.”

7.1 Development Plan Inclusions

Clause 3.0 of the Overlay controls requires the Development Plan to show, as appropriate:

- the location of all proposed land uses within the plan area (onshore and offshore) generally in accordance with the Wyndham Harbour Marina Land Use Framework Plan,
- a proposed layout pattern which provides:-
 - o a convenient and safe internal road network and car parking layout;
 - o a convenient and safe pedestrian network;
 - o convenient and safe pedestrian and road linkages to surrounding areas including coastal paths;
 - o pedestrian linkages between the car park and the beach;
 - o a continuous public path between the northern and southern sections of the foreshore reserve while allowing for movements associated with boating activities and marina operations;
 - o for energy efficient building design elements that address energy efficiency and greenhouse gas emissions;
 - o a sensitive interface with adjoining rural land;
 - o for commercial and service facilities necessary to support the marina operations;
 - o details of access arrangements to and from Duncans Road;

- o details of existing vegetation to be removed;
- appropriate public open space which:-
 - o Includes land within the Public Park and Recreation Zone to be generally set aside for beach recreation, coastal paths and landscaping including revegetation;
 - o takes into account the sensitivities of the coastal location, existing coastal vegetation and proposed water management systems such as water bodies;
 - o Includes appropriate public access areas and facilities;
- areas which are accessible to the public;
- the stages (if any) by which the development of the site is to proceed and information as to the timing and provision of infrastructure and other key facilities associated with the staging of the development;
- building materials and colours to be muted tonings of low-reflective material;
- an outline of infrastructure treatment including road reservations, water supply, wastewater, overall drainage management plan, energy and telecommunication services;
- the location of the proposed pump houses for the sand by-pass operation and sewerage reticulation;
- the areas of the land where applications for licensed premises may be made in the future;
- details of the variations to the requirements of clause 52.14 in relation to any boat sales on the land;
- any other matters necessary to support the Wyndham Harbour development.

Clause 3.0 makes provision for the development plan to be prepared in stages.

7.2 Supplementary Reports

Clause 3.0 also states that a Development Plan must be accompanied by:-

- the Site Analysis and the Design Guidelines Report;
 - the Transport Management Plan;
 - the Overall Drainage Management Plan;
 - the Landscape Plan;
 - the Cultural Heritage Management Plan;
 - the Groundwater Protection Management Plan;
 - the Construction Environment Management Plan; and
 - the Operations Environment Management Plan.
- A Works Methodology Report is also required to be submitted prior to the commencement of the construction of the marina basin.

7.3 Decision Guidelines

Clause 4.0 sets out the following Decision Guidelines to be taken into consideration by Council when considering whether to approve a Development Plan:

- (a) the Environment Effects Statement Wyndham Cove Marina Development Main Report dated June 2005 and the Supplementary Reports Volumes 1, 2 and 3 to that document and the Minister’s Assessment which provide a detailed assessment of the environmental values and features of the site;
- (b) the Wyndham Harbour Design Guidelines (as amended to the satisfaction of the Responsible Authority from time to time);
- (c) the Wyndham Harbour Landscape Concept; and
- (d) the purpose of the Schedule.

8 WYNDHAM HARBOUR DEVELOPMENT PLAN

The Development Plan provides the overall framework for the development of Wyndham Harbour in accordance with the provisions of the Special Use Zone, and the Development Plan Overlay and the Land Use Framework Plan.

The Development Plan establishes the general layout of the site and indicates the various land use categories. The residential precincts are then further defined as waterfront, bayside plus, bayside, parkview, lifestyle plus, lifestyle and townhouses with a range of lot sizes up to 650m².

The Development Plan is intended to:

- establish certainty in terms of the overall use and development of the site;
- provide sufficient flexibility to allow for possible minor changes at the detailed design phase;
- provide the foundation on which the more detailed Concept Masterplan has been developed; and
- be endorsed as the statutory “umbrella” document within which further planning approvals for various stages of the development will sit.

The Development Plan provides the framework for the detailed plans which will be prepared for planning applications to be lodged for each stage of the project. The Concept Masterplan, which has been included in this Development Plan Report, provides an indicative layout of Wyndham Harbour in a conceptual form. The overall layout of the land uses as shown on the Development Plan is driven by the natural formation of coastline and imposed boundaries on land and sea.

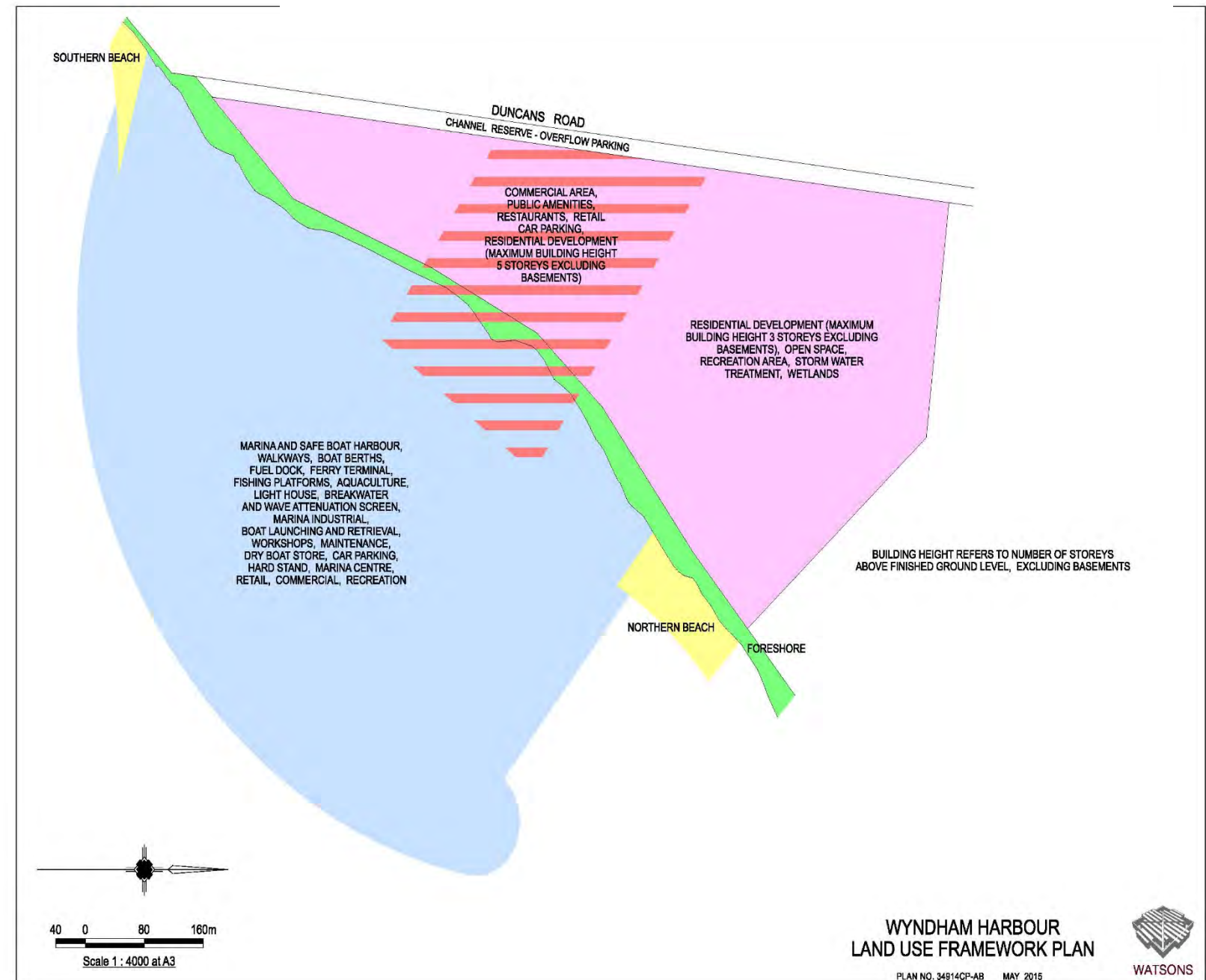
The marina breakwater follows in parallel with the existing contour of the coastline and provides shelter to the marina from prevailing southerly winds. Road networks flow from the unique shape of the site boundaries with the wetlands creating a focus for recreational activity in the northern precinct. Dwellings are orientated for optimum aspect to the sea and maximum access to sunlight.

As a working marina, boat maintenance is essential. This activity is set in the base of the main breakwater with direct harbour access to the haul out area,

hardstand and multi-level dry store for up to 390 boats for marina service.

The Central Piazza forms the focal point of the development and is a protected gathering place for people. Within this built form is a waterfront promenade, cafes, bars, restaurants, retail and marina services with apartments above. A Central Access Spine provides a public promenade to the floating marina walkways and pontoons as well as vehicular access for berth holders.

The Marina Centre, an iconic building with bar/bistro, change rooms, operations and harbourmaster facilities, is located centrally in the marina with 360 degree views of the harbour area.



Wyndham Harbour Development Plan

NOTES

RESIDENTIAL COURTS WILL BE DESIGNED TO COUNCIL'S ENGINEERING STANDARDS

FUNCTIONAL LAYOUT PLANS FOR ALL ROUNDABOUTS WILL BE SUBJECT TO COUNCIL APPROVAL PRIOR TO CERTIFICATION OF PLAN OF SUBDIVISION

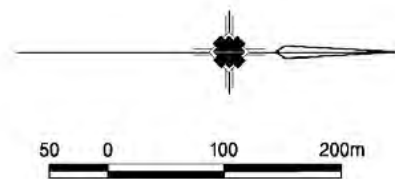
FUNCTIONAL LAYOUT PLANS FOR ALL INTERSECTIONS WITH DUNCANS ROAD WILL BE SUBJECT TO COUNCIL AND VICROADS APPROVAL



DEVELOPMENT PLAN

RESIDENTIAL	
	GENERALLY 90 - 170 sqm
	GENERALLY 200 - 450 sqm
	GENERALLY 300 - 650 sqm
	ROADS & CAR PARKING
	MIN. 500 CONSTRUCTED SPACES & 400 OVERFLOW SPACES
	CONSTRUCTED SPACES TO INCLUDE :
	- MIN. 250 ON MARINA SPINE
	- MIN. 105 ADJACENT CENTRAL PIAZZA & BOULEVARD
	- MIN. 110 ADJACENT MARINA SERVICE AREA
	COMMERCIAL / RETAIL / ACCOMMODATION / CAR PARKING *
	MARINA BERTHS, PONTOONS & FAIRWAYS
	FUTURE MARINA EXPANSION
	MARINA CENTRE *
	MARINA SERVICE AREA / DRY BOAT STORAGE / COMMERCIAL / RETAIL *
	LANDSCAPED OPEN SPACE
	BEACHES
	NON-OVERTOPPING BREAKWATER
	OVERTOPPING BREAKWATER

* AREAS WHERE APPLICATIONS FOR LICENSED PREMISES MAY BE MADE IN FUTURE



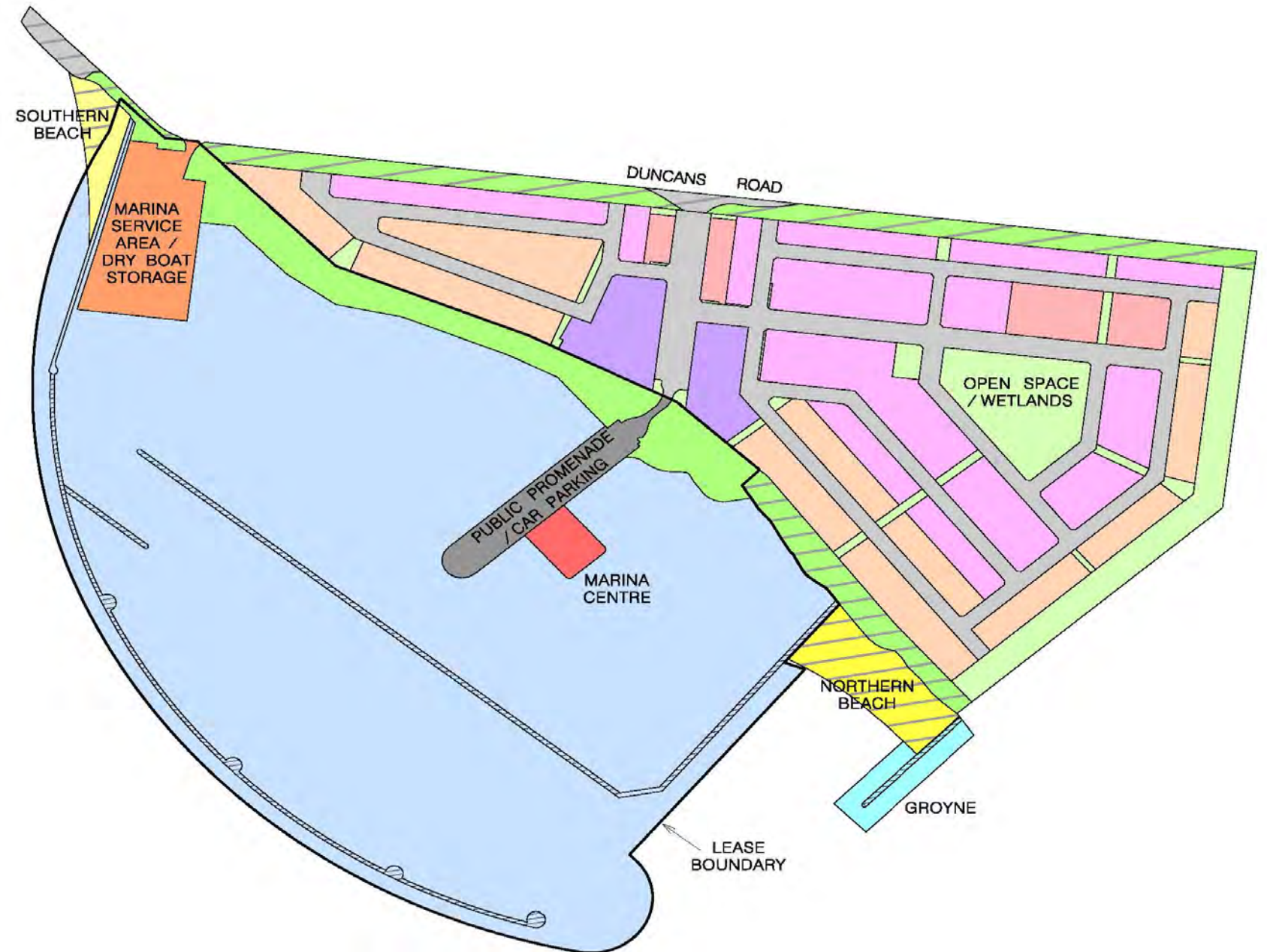
9 LAND USE BUDGET

The site is a total of 72.11ha comprising 25.21ha of freehold land and 41.84ha of Crown Lease area and 5.06ha of other crown land.

Of the 72.11ha total project area, 53.96% of the site comprises marina related uses, 12.11% of the site is designated for residential development and 14.32% has been set aside for open space and beaches (not including the publicly accessible Central Access Spine in the marina harbour or the public section of the breakwater and fishing platform).

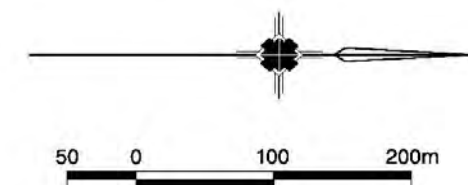
Summary land budget

LAND USE	Ha	% site area
Residential	13.54	18.78
Commercial / retail / apartments	1.42	1.97
Roads and carparking	7.72	10.70
Marina related	38.54	53.45
Open space / beaches	10.89	15.10
TOTAL SITE AREA	72.11	100%



LAND USE BUDGET
 (AREAS ARE IN HECTARES)

FREEHOLD	25.21
CROWN LEASE AREA	41.84
OTHER CROWN LAND	5.06
TOTAL	72.11
RESIDENTIAL	13.54
GENERALLY 90 – 170 sqm	1.13
GENERALLY 200 – 450 sqm	6.97
GENERALLY 300 – 650 sqm	5.44
ROADS & CAR PARKING	7.72
FREEHOLD	6.42
LEASE AREA (PUBLIC PROMENADE / BERTH HOLDER CAR PARKING)	0.95
OTHER CROWN LAND	0.35
COMMERCIAL / RETAIL / APARTMENTS	1.42
MARINA BERTHS / WATERWAYS / BREAKWATER	36.00
MARINA CENTRE	0.32
MARINA SERVICE AREA	1.67
LANDSCAPED OPEN SPACE	9.39
FREEHOLD	3.83
LEASE AREA	2.67
OTHER CROWN LAND	2.89
BEACHES	1.50
SOUTHERN BEACH (LEASE AREA)	0.23
SOUTHERN BEACH (OTHER CROWN LAND)	0.24
NORTHERN BEACH	1.03
GROYNE	0.55



10 RESIDENTIAL PRECINCTS

10.1 Overview

The layout of the residential precincts is based on the unique shape of the site's existing coastline and wetlands design.

Appropriate contouring of the land will enable residential lots to enjoy views to either the bay, the wetlands, CBD or to landscaped open space areas where applicable, as shown on the residential cross section below and the plan of finished levels on page 20. The residential types are categorised as waterfront, bayside plus, bayside, parkview, lifestyle plus, lifestyle and townhouses. Townhouses have also been incorporated to extend the diversity of housing types. These may be located into the northern end of the development either side of the main entry.

The orientation of all residential lots is determined by which an objective to allow maximum light penetration into each house from the north and to obtain optimum views for each house.

The residential precincts will comprise a diverse mix of dwelling types and lot sizes as outlined below:

Waterfront	500-650m ²
Bayside Plus	450-500m ²
Parkview	350-510m ²
Bayside	350-600m ²
Lifestyle	300-400m ²
Lifestyle Plus	300-500m ²

10.2 Design Guidelines

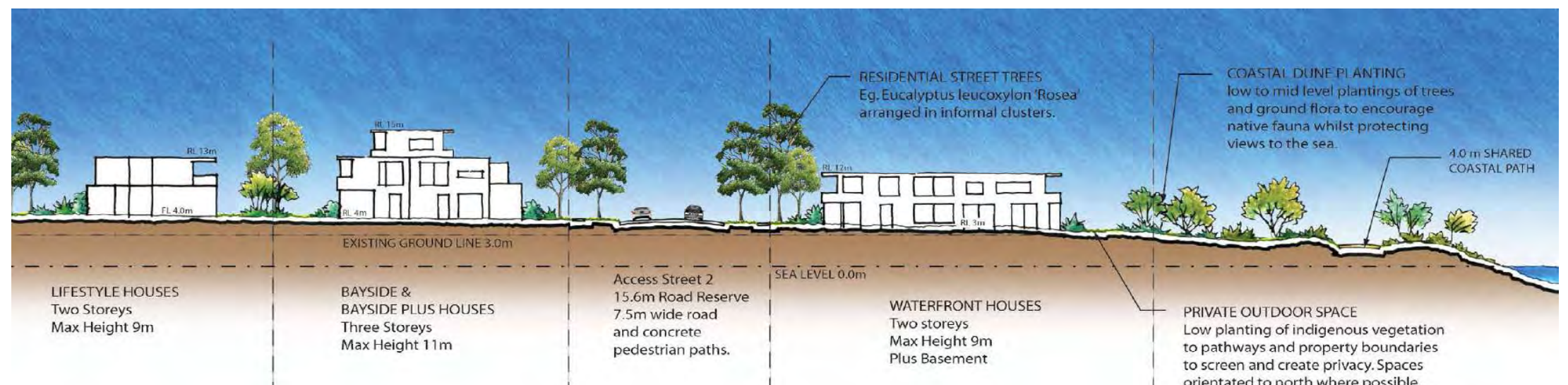
Design Guidelines have been prepared by Fender Katsalidis Mirams Architects to guide the development of the residential areas of Wyndham Harbour. A copy of the Design Guidelines is attached as a Supplementary Report to this Development Plan Report.

The Guidelines seek to build a unique character specific to Wyndham Harbour. They encourage creativity and individual expression by ensuring each house is designed and orientated to maximise the natural characteristics of each lot with respect to topography, views, orientation, access, privacy, easements and location of services. The Guidelines are supplemented by further detail, including building envelopes, by a Memorandum of Common Provisions (or Restrictive Covenants) for each stage of built form development and will become a restriction on each title.

The Design Guidelines and title restrictions are intended to be interpreted alongside all statutory controls, including planning and building controls.



Residential Landscape



The Design Guidelines incorporate parameters for each of the house types relating to elements such as orientation, sunlight, aspect, space allocation, setback, access, garages, privacy, open space etc and including the following:

- To reinforce the scale and quality of the landscape and streetscape within the residential precinct, the height for all houses above finished ground level is two storeys (bayside and bayside plus to “attic style” 3 storeys) and waterfront lots may include basement parking, with some variations in the built form to prevent overshadowing and overlooking into adjoining lots.
- Orientation and alignment of houses on each lot will respond to the setbacks.
- House siting is determined by environmental principles, amenity and enhancement of view corridors to the sea and Melbourne CBD.
- Solar access to private open spaces and living areas is optimised through northerly orientation.
- Setbacks address the need for landscaped frontages and privacy of open space.
- Designated building envelopes will provide a degree of consistency to establish a neighbourhood character of defined scale while allowing diversity of built form.
- Houses will be the primary built form, with elements such as fences, walls, garages, pergolas being secondary, but integral, to the building.
- Each dwelling design, siting and orientation will complement rather than dominate others. Massing of houses will allow sufficient useable sunlit private open space for each lot. Garages are to be incorporated into the built form.
- Acoustic and visual privacy between houses is maximised by:
 - o avoiding direct views to adjoining private open spaces;
 - o designing outdoor terraces and paved areas to capture views while ensuring privacy from neighbours and the public; and

- o using balustrade, screen planting, louvres and timber screens designed as integral components of the main house.
- In all house designs, ESD principles will be adopted by:
 - o providing northern orientation to living areas and private open space;
 - o allowing sun access and penetration during winter months and controlling it during summer months;
 - o providing thermal mass internally for cooler months by use of construction techniques and materials; and
 - o cross ventilation and capturing prevailing breezes through the location of doorways and windows.
- The design elements of all built form will be compatible, complementary to each other and sympathetic to the surrounding environment.
- The external appearance and materials used in the construction of buildings will be fundamental to creating the character of Wyndham Harbour.
- Materials of a more natural and subdued tone will be adopted to create a coherent and unified coastal resort environment and minimise the visual impact of the built form.
- External materials used will:
 - o reflect the colours and textures of the surrounding environment;
 - o be compatible with the overall design in style, texture, colour and character;
 - o be authentic and genuine rather than simulated or artificial; and
 - o incorporate only colours which will harmonise and blend with the colours of the coastal environment.
- Simple roof forms will be used, with enough variety to visually break up the overall scale of the building.
- Roofs will be clad in materials and colours that blend with the adjacent natural hues and are generally of low reflectivity.

Front setbacks for all residential lots are a minimum of 4m for lot areas less than 600m² and 4.5m for lot areas greater than 600m². Although Rescode does not apply to this project under the ‘Special Use Zone,’ Rescode parameters will also be adopted for side setback requirements.

The Design Guidelines also describe the architectural themes and design parameters for the key built form elements:

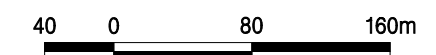
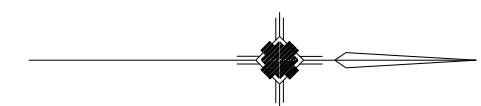
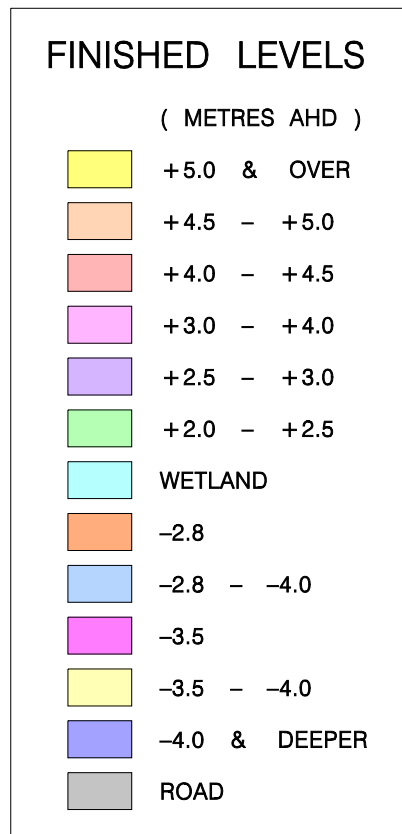
- The Central Piazza buildings
- The Marina Centre
- The dry boat storage facility

These are illustrated indicatively on the 3D “snapshots” on page 13. These iconic buildings will form significant landmarks in the local and regional area.

It is intended that the Design Guidelines will supplement the Planning Scheme controls that govern the site. This will provide a high degree of certainty in terms of the quality and character of proposed development within Wyndham Harbour.

10.3 Design Review Committee

Any proposed development within Wyndham Harbour will be subject to a review and approval process which will be established to uphold the intent of the Design Guidelines and the MCP (or Restrictive Covenants). Central to the review process is the establishment of the Wyndham Harbour Design Review Committee, responsible for reviewing and approving all proposed housing and landscape designs. The Design Review Committee is then responsible for issuing either approval of the proposed designs and/or recommending changes to design proposals to achieve consistency with the Design Guidelines. The Committee will consist of a Council Representative, an Architect, a Landscape Architect and a representative of Wyndham Harbour Pty Ltd, all familiar with the history of the project and its aims.



11 COMMERCIAL PRECINCT

11.1 Built Form

The Development Plan includes the Central Piazza which is the focal point of Wyndham Harbour. It is designed to be a central gathering place for orientation within the development and a destination in its own right. It presents an opportunity to create a new public amenity with a real sense of place. The design seeks to achieve an appropriate built form for its coastal setting in terms of scale, bulk, height and materials. It is expected to become a significant tourist destination and community meeting place.

The main building flanking the Central Piazza is five levels. The scale of the building has been determined in the context of the adjacent marina centre and surrounding buildings and is functionally appropriate for gathering places of this dimension.

At ground level, retail areas will be a mix of operable solid and transparent materials such as glass, aluminium and timber. At the upper levels, again a mix of solid and transparent materials will shade residents from sun and allow views to Port Phillip Bay and beyond. Detailed design of the built form will be provided as part of the planning application documentation.

Artist's Impression: View Through Central Piazza



11.1.1 Ground Level

The Central Piazza is formed by a town centre square which enables and encourages visitors and residents access to meander through and enjoy the retail facilities, and also acts as a hub for boat brokers. The Waterfront marina berths opposite the Central Piazza also provide

boat brokers with ample space for displaying boats on sale to the public.

The promenade forms the public and active face of the area. This Promenade area will be planted with trees for shade and paved for comfort and amenity. It forms an important continuation of the Bay Trail from Point Cook to Werribee South and beyond. The main boulevard provides access to the marina drop off areas, marina centre-and servicing retail businesses.

The buildings allow for naturally lit retail space at ground level and apartments above. The inner face of the main building attracts sunlight and is best suited to retail use such as cafes, bars and restaurants which can extend onto the promenade. To ensure the retail area is clearly protected from the active bay trail and piazza space users, a change in levels will be incorporated. This will create an enjoyable seating area in an outdoor environment overlooking the Central Piazza, marina centre and Port Phillip Bay. Further detail will be provided during detailed design.

11.1.2 Other Levels

The building width allows for dual aspect 1, 2 and 3 bedroom apartments which enjoy natural ventilation. Floor plans take advantage of views facing out over the marina and Port Phillip Bay. Terraces to the front of each apartment give outdoor amenity and shade apartments from the sun.

11.2 Commercial Activities

Land uses in the commercial precinct and marina service area are controlled by the Special Use Zone provisions and allow for a range of retail and commercial activities which will support the local community, visitors to Wyndham Harbour and the needs of the marina users.

A range of retail and commercial activities are likely to be established at the Central Piazza ground level as well as administration/office space. It would be expected that most of the cafes/restaurants would be licensed. There is also potential for establishment of some commercial

activities on the marina hardstand area in conjunction with marina focussed uses.

Details of the allocation of floor space to various users will form part of the planning application for the Central Piazza and hardstand buildings and will be generally as outlined in the table below:

Commercial Floor Space	
Commercial floor space	Floor area m ²
Food and Drink Premises	1095
Shops/offices	200
Restaurants	745
Tavern	300
Total	2340

Indicatively, the total 2,340m² of commercial floor space will be provided in the following locations:

- 1000m² will be provided on the ground floor of Apartment Site 1 consisting of a mix of food and drink, shops/offices and restaurant.
- 300m² will be provided on the ground floor of Apartment Site 2 consisting of a mix of food and drink, shops/offices and restaurant.
- 600m² will be provided in Marina Centre consisting of a mix of food and drink, restaurant, shop and tavern.
- 440m² will be provided on the Marina Service Area consisting of a mix of shops, food and drink and restaurant.

All built form is subject to detailed design and further approval.

11.3 Marina Centre

The Marina Centre situated adjacent to the Central Access Spine will house the marina management and associated change rooms and storage, the coast guard, and future bar and restaurant/bistro.

11.4 Marina Park

An area of the foreshore on the northern side of the central spine within Central Piazza (north) will be widened to create the Marina Park. While providing the clay liner similar to the southern foreshore, this also provides an opportunity for an integrated "soft" landscape which will feature:

- a purpose designed amenities building with community room, public toilet facilities, change rooms and events storage
- fully landscaped bioswale and pathway system
- grassed open space for active play
- integration of the Berm Grassy Shrubland within the landscape design

Central Piazza Precinct*



*All built form including hard and soft landscaping elements within the Central Piazza Precinct Plan are subject to further detailed design and approval.

12 HARBOUR PRECINCT

12.1 Harbour Overview

The 41.84 hectare harbour area has the potential to provide for up to 750 wet berths with future expansion up to a total of 1000 wet berths, all in a range of sizes. The wet berths are accessed by floating walkways and pontoons from the Central Access Spine. The harbour is surrounded by a breakwater approximately 900 metres long protecting it from wave action travelling from the south and east, with a smaller breakwater protecting the harbour against wave action from the north and south.

The harbour will be a minimum depth of -2.8m AHD in the southern harbour and a minimum of -3.5m AHD in the northern harbour to allow for the majority of anticipated craft types and keel configurations. Creation of the marina will require excavation of up to 210,000 cubic metres of material.

The Development Plan includes the following marine structures which are essential to the functionality of the site:

- The non overtopping breakwater
- The main breakwater
- The southern breakwater
- The northern breakwater
- The Central Access Spine
- The marina service area
- The northern groyne

Conceptual cross sections are provided below and further construction details are provided in the report Concept Design – Maritime Infrastructure, prepared by Hyder Consulting.

Provision of the Central Access Spine within the marina basin is to ensure the commercial serviceability and feasibility of the outer berths by securing reasonable walking distances for berth owners with equipment.

In addition to the fixed structures listed above, floating pontoons extending from the Central Access Spine will provide access to the majority of marina berths. Additional pontoons are also located along the edge of the coastline with access from the shared pathway along the foreshore reserve.

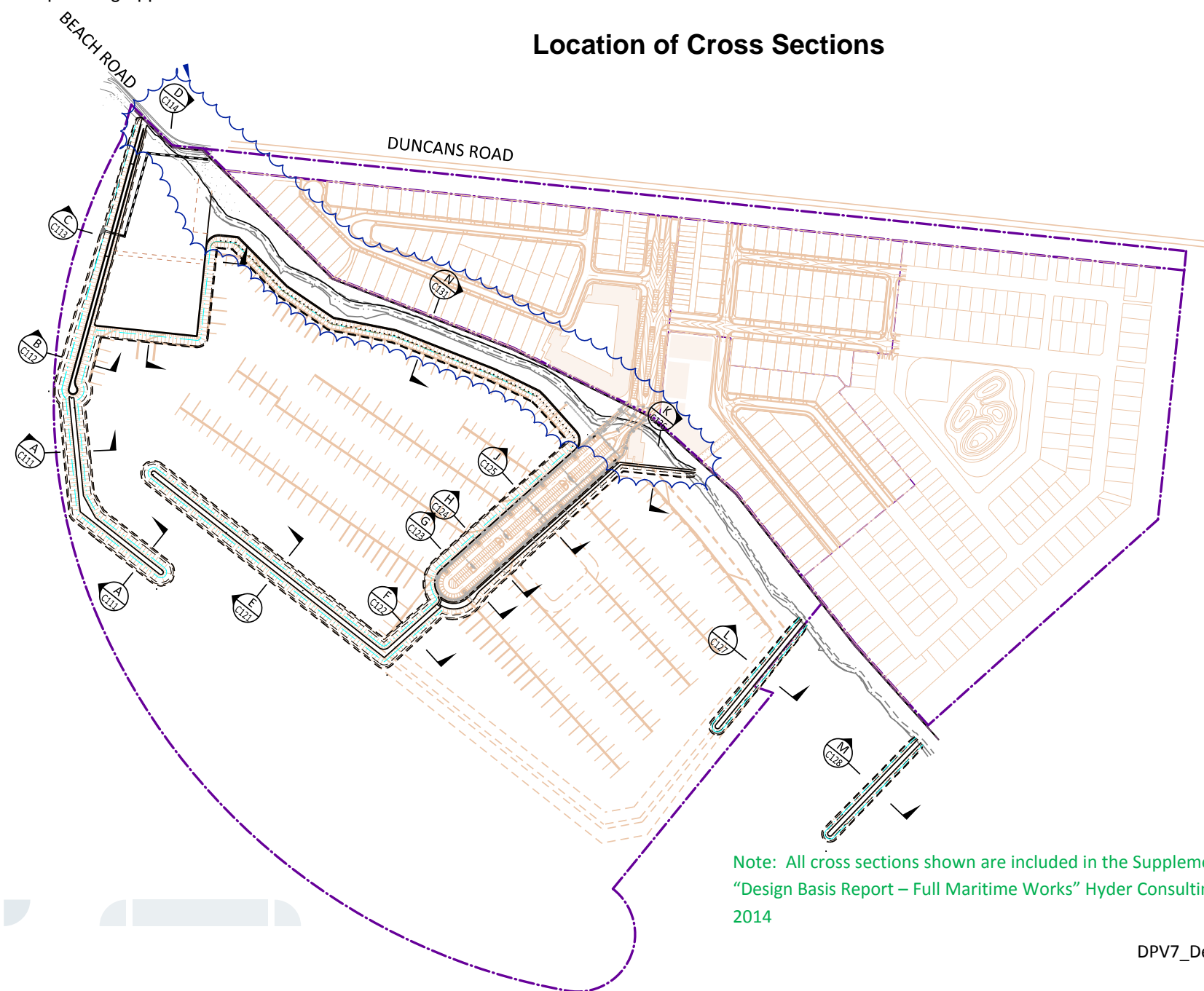
Approval for the marine structures and dredging works will be sought from Parks Victoria as the local port manager. Details of the proposed dredging regime and breakwater design are set out in the “Dredging Investigation” report and “Breakwater Design Investigation” report prepared by Water Technology.

Berth sizes will range from 10m to 30m. Provision will also be made for a minimum of 20 berths for visiting boats. Additional visitor berths will be available at the discretion of the marina manager depending on vacancies. A detailed layout of the marina berths and fairways will be provided at the planning application

phase. Berth sizes and fairway widths will be in accordance with AS 3962 - 2001 - Guidelines for Design of Marinas.

The provision of a berth for a possible future ferry service to other parts of Port Phillip Bay is subject to future approvals and is not part of the current proposal.

The crown lease area provides an opportunity for a future extension to the marina. This would be subject to further planning approval.



Note: All cross sections shown are included in the Supplementary Report – “Design Basis Report – Full Maritime Works” Hyder Consulting Pty Ltd Dec 2014

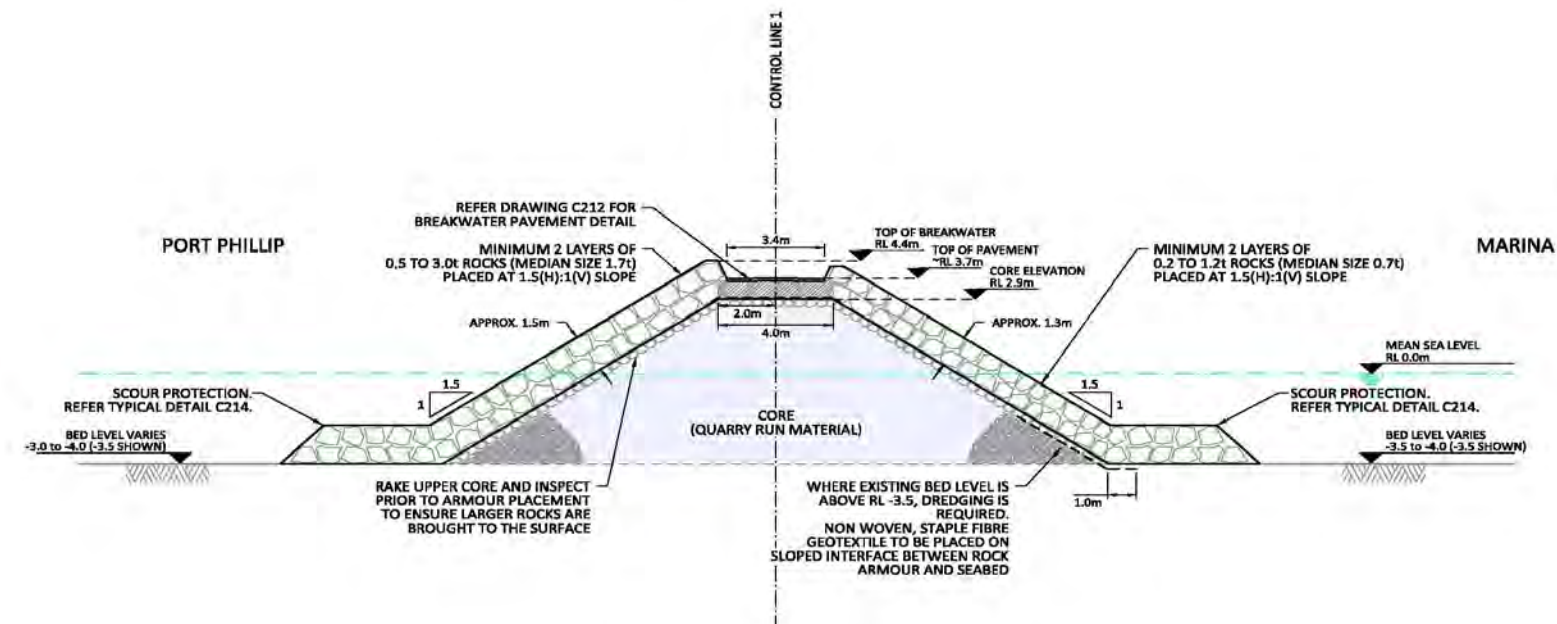
12.2 Harbour Protection

The harbour is protected by a main breakwater constructed of rough quarried granite rock with larger rocks providing external armouring. The total footprint of the breakwater on the seabed is approximately 42,800m² (36,100m² main break water and 6,700m² northern breakwater).

The southern breakwater is divided into two sections. The first 290m from the coastline is designed to enable public access for walking, fishing and sightseeing and has a crest level of 4.4m AHD to provide protection against overtopping. The balance of approximately 240m will not be accessible to the public and will be designed to be an overtopping structure, during storm conditions, with a crest level of 2.3m AHD as per the main breakwater.

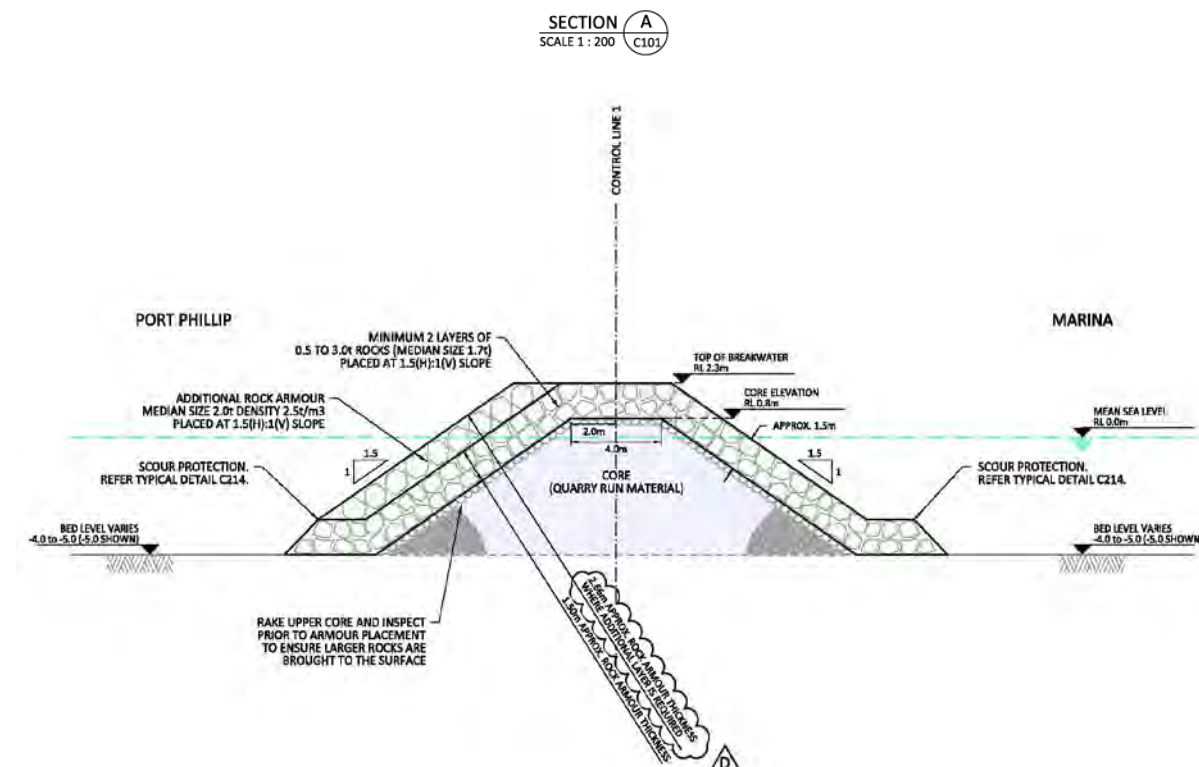
The main breakwater is 900m in length and is designed to be an overtopping structure with an initial crest level of approximately 2.3m AHD which protects the harbour from the north-east to south-east wave action, with provision to increase the height of the breakwater to a level of approximately 2.70 AHD, should the effects of climate change be encountered in the future.

Non Overtopping Breakwater (Public Access)



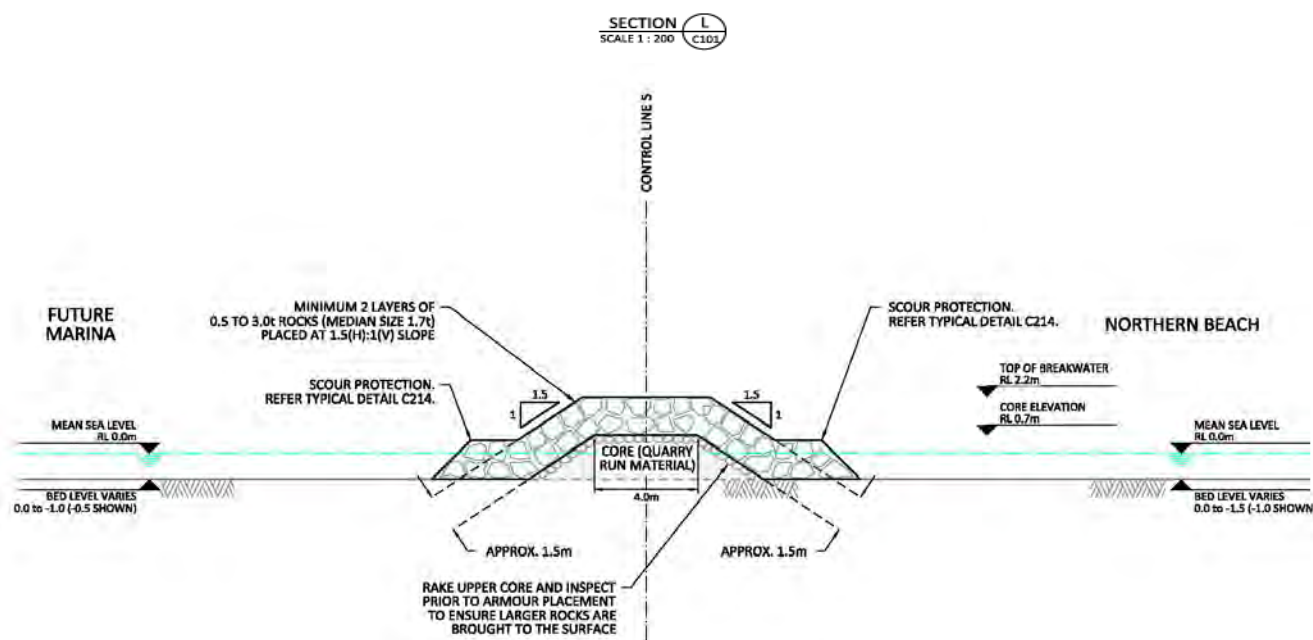
SECTION B
 SCALE 1 : 200
 C101

Overtopping Breakwater



SECTION A
 SCALE 1 : 200
 C101

Northern Breakwater



SECTION L
 SCALE 1 : 200
 C101

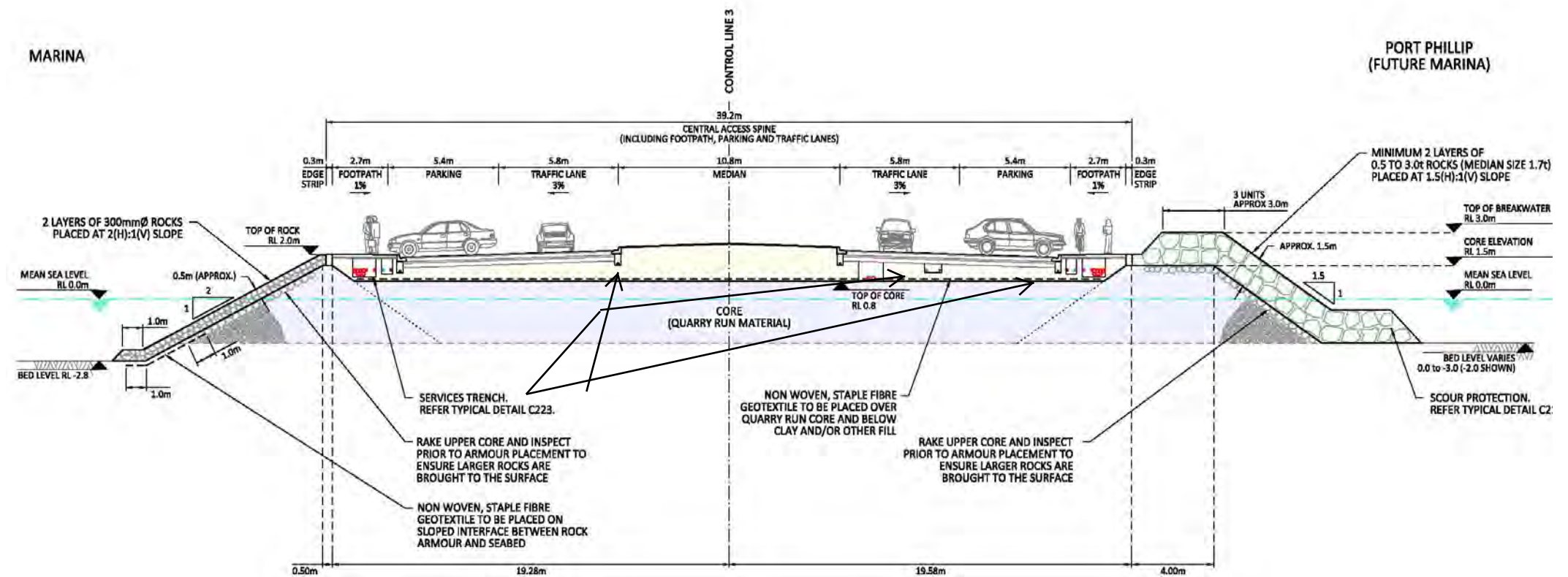
12.3 Central Access Spine and Marina Centre

A Central Access Spine provides the main access to the marina berths. It is a rock structure with paved surface suitable for vehicular access. It provides car parking for a minimum of 250 cars. The Central Access Spine will be landscaped with salt tolerant species to create a Promenade for pedestrians to enjoy the ambience of the boats and waterways of the harbour. Car parking on the Central Access Spine will predominantly be available only to berth holders although pedestrian access is available to the public. Car parking will be strictly controlled by the marina management body.

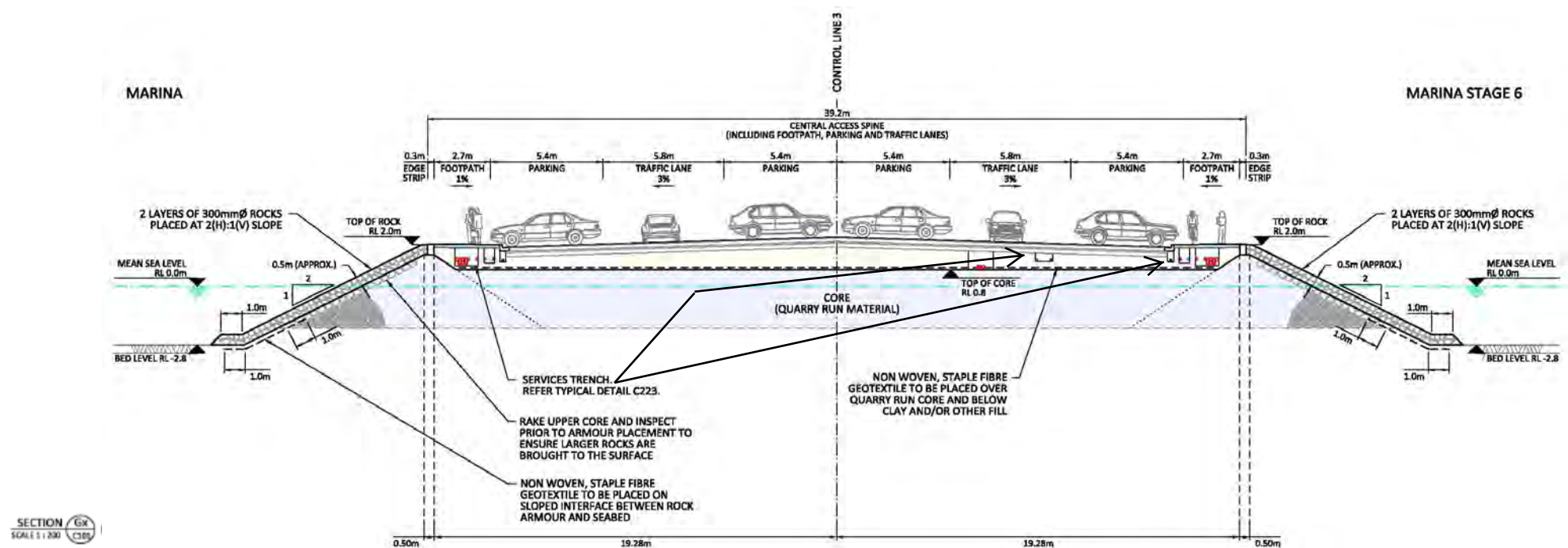
The Central Access Spine also provides access to the proposed Marina Centre.

The Development Plan makes provision for a Marina Centre in the heart of the marina inclusive of a bar and bistro. Its pivotal siting close to the Central Access Spine provides optimum views over boat berths, walkways and fairways which is critical for security and surveillance over the marina. The Marina Centre will be an iconic building designed with an architectural relationship to both the apartment buildings and the dry boat storage building. The location provides visitors with a direct experience of water and views of the marina.

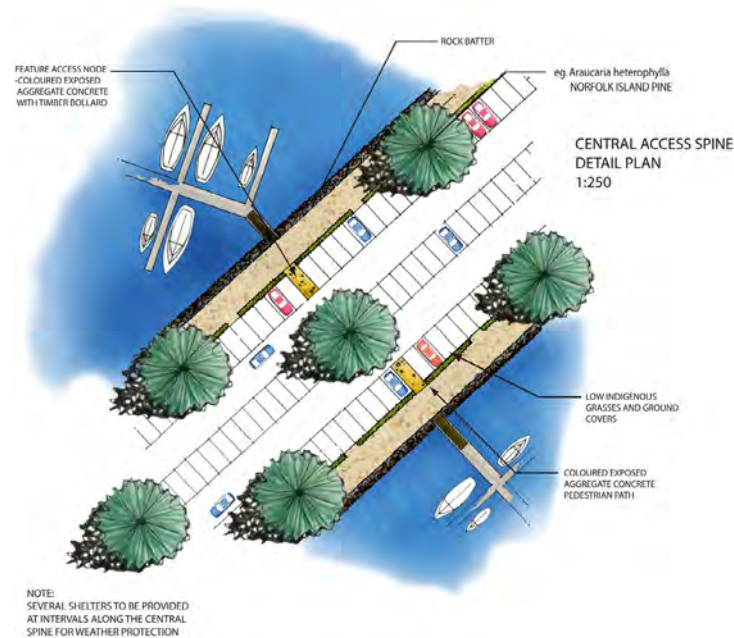
Central Spine Details (Stage 2)



Central Spine Details (Stage 6)



Central Access Spine Detail Plan



12.4 Marina Service Area

A marina of up to 1000 berths requires facilities to service, maintain and store craft. At the southern end of the harbour, the size and location of the hardstand area is designed to accommodate a haul out facility, service hardstand repair area and dry storage for up to 390 boats together with appropriate car parking for users and staff. A pump-out facility and refueling station with sufficient capacity to cater for all berths will be located adjacent to the hard stand area. Allowance is to be made for the construction of a secure pumping station within the marina hardstand area and, if required, will be a concrete masonry structure approximately 2.5 x 2.5 x 2.5m. The exact location will be determined during the detailed design of the hard stand area.

The built form of the dry storage facility will reflect the architectural themes and design parameters set out in the Design Guidelines prepared by Fender Katsalidis Mirams Architects.

Following reclamation works to create the marina service hardstand in Stage 2, the area will be paved and line marked for car parking as part of Stage 5. The hardstand area will also be utilised as part of the works zone for construction/dredging works on the northern harbour to be undertaken in Stage 6. Construction of the dry boat store on the hardstand will be undertaken after northern harbour construction/dredging works has been completed, unless an alternate methodology is developed in consultation with relevant authorities and approved.

Wyndham Harbour also has the capability to provide for the future establishment of both a ferry terminal on the Central Access Spine and an aquaculture service facility adjacent to the hardstand area. Both would be subject to future applications.

Marina Service Area

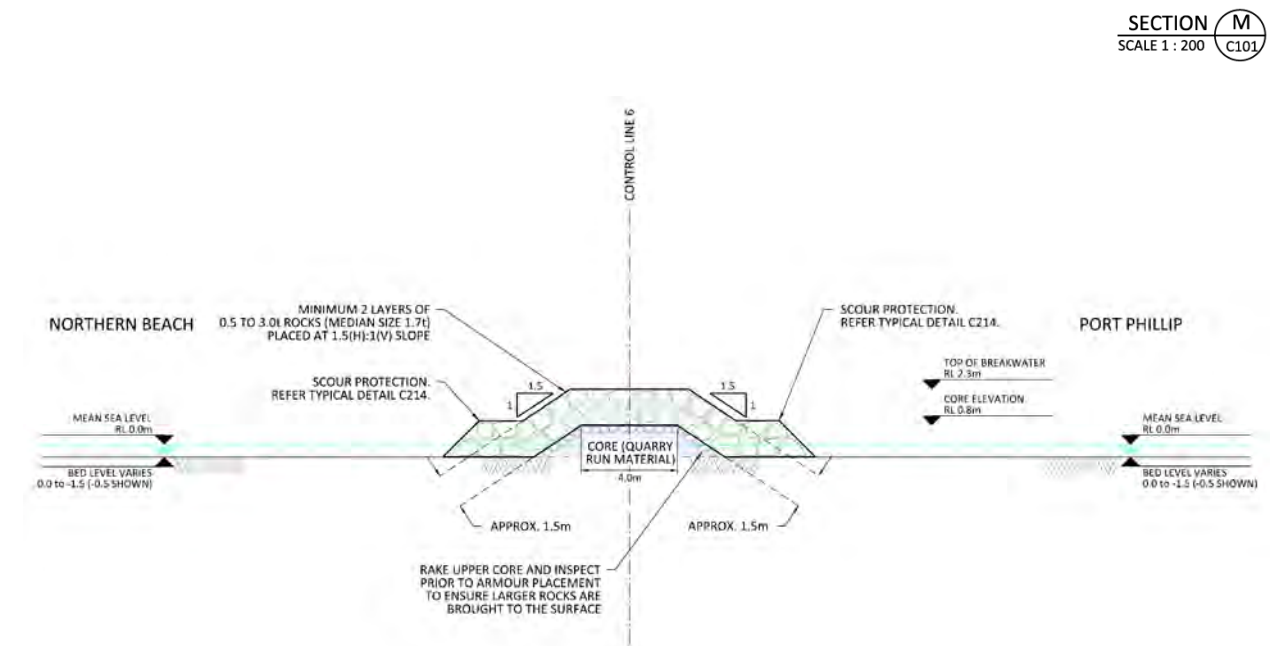


Indicative site plan (subject to Council satisfaction)

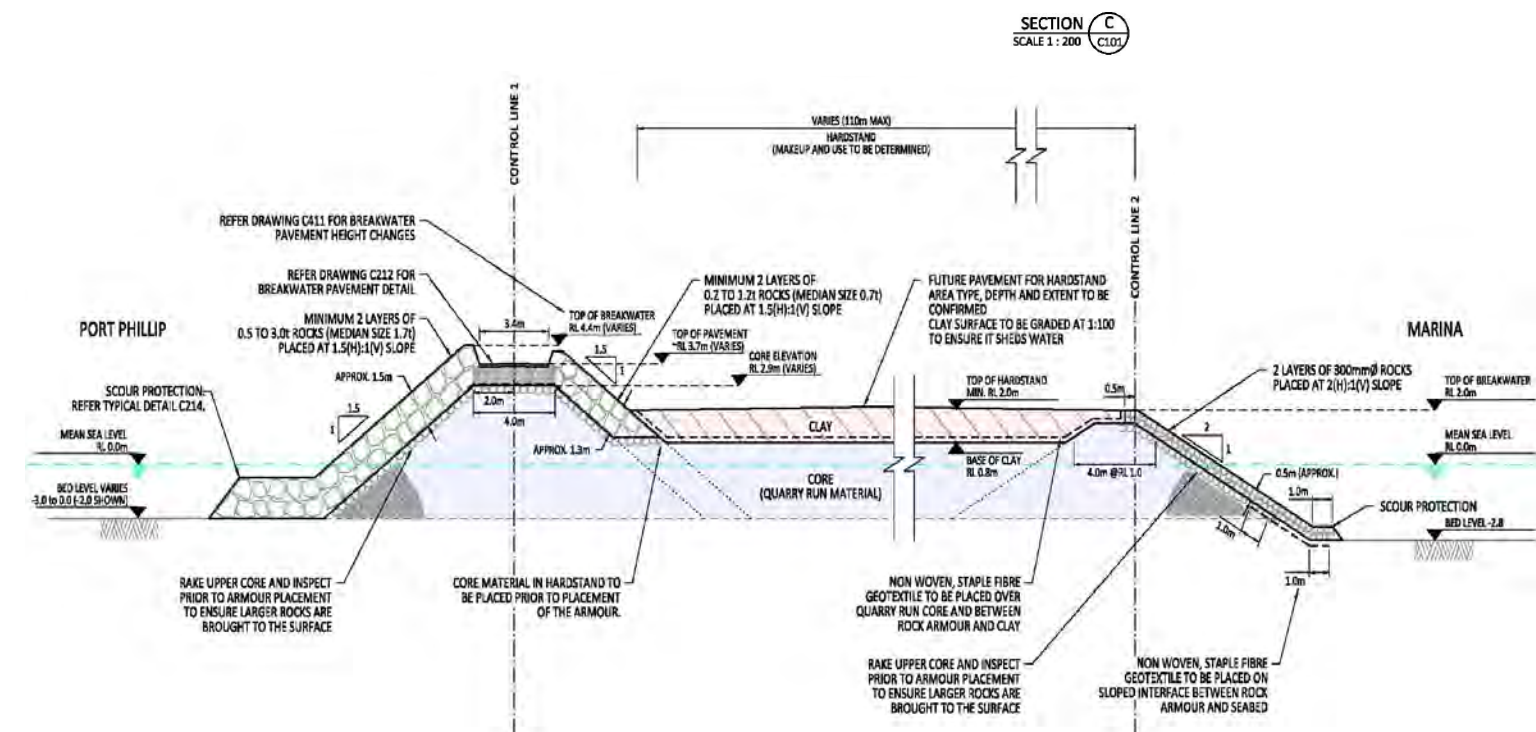
12.5 Northern Groyne

The Northern Groyne is located to the north of the new sandy beach. It will stabilise the beach by restricting sand movement. The crest level of 2.0m AHD means that this structure will be occasionally overtopped by the waves during storm events and therefore public access will be prohibited.

Northern Groyne Details



Public Access Breakwater Details and Hardstand Area



13 WETLANDS

The site is almost devoid of any significant vegetation as a result of many years of agricultural use and, in recent times, minimal land care in an ecological sense. Indigenous vegetation is limited to small areas of berm grassy shrubland along the coastal bluffs, although these are infested by introduced weed species.

The Wyndham Harbour Development Plan therefore provides an opportunity for restoration of the degraded habitat and a net gain of indigenous vegetation by establishing a substantial area of open space, wetlands and foreshore rehabilitation.

Approximately 1.3ha has been set aside in the northern section of the site for specifically designed wetlands surrounded by landscaped open space, shared pedestrian and cycle paths, viewing platforms and rest areas. The wetlands precinct is directly linked to a further 3ha of foreshore reserve which extends one kilometre north-east to south-west along the coastline.

The wetlands park will serve a number of functions as follows:

- It will be a destination for passive recreational activities as well as active pursuits including walking and cycling;
- It forms part of an open space network with linkages to other open spaces and shared pathways extending throughout the site and continuing through to Werribee South via the Bay Trail; and
- It enables the effective storage and treatment of stormwater generated within the development.

Details of the proposed landscape concept and species to be used are outlined in the Landscape Concept plans prepared by Tract Consultants. Details of the surface water management system are included in the "Drainage and Stormwater Management Plan" (Pat Condina & Associates, see Volume 1 of the Supplementary Technical Reports).

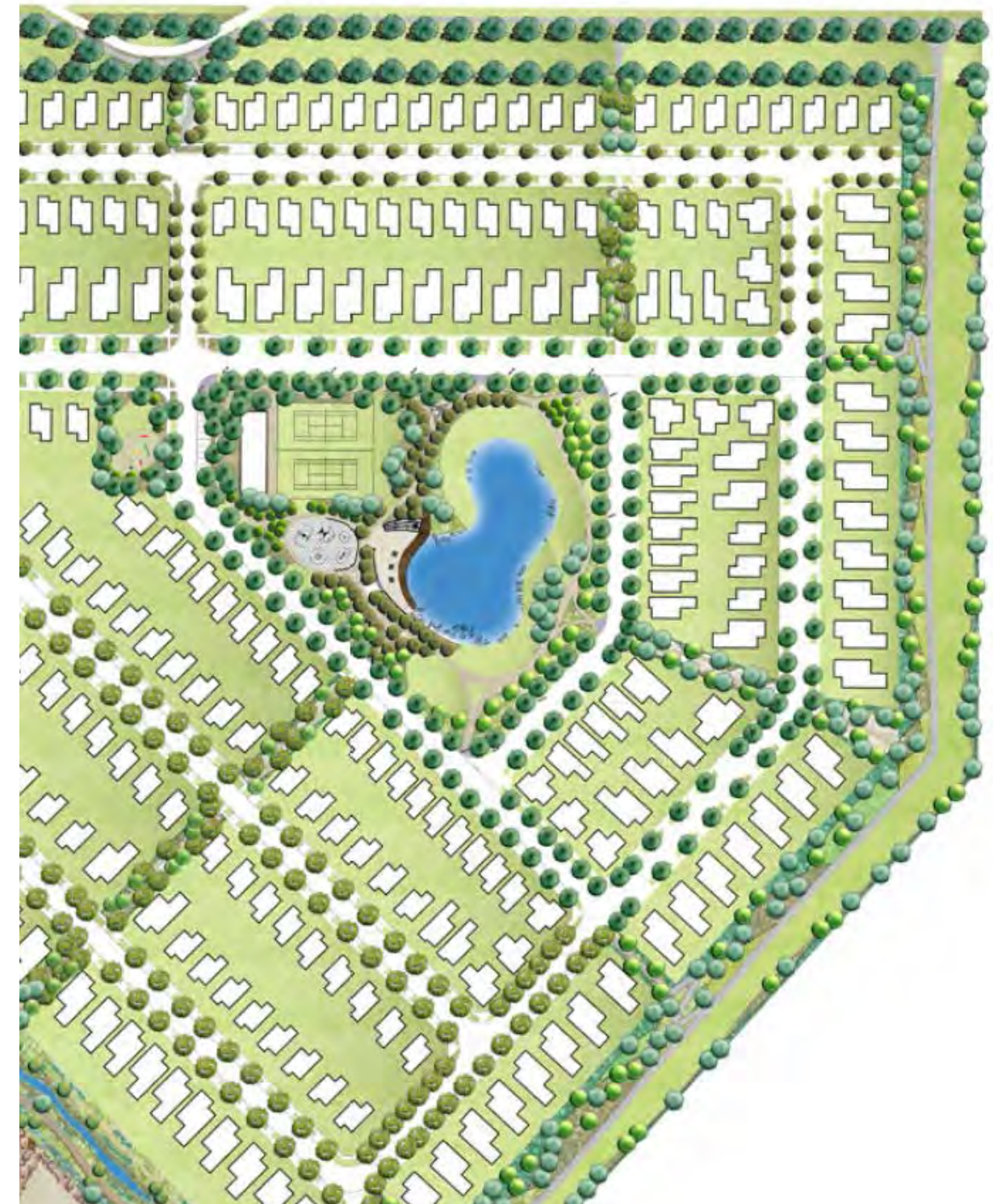
The wetlands park enables this multi-functional area to be designed to satisfy the Water Sensitive Urban Design objectives and ESD philosophy of the project. The surface water treatment system is sufficient to treat all

surface water directed into the wetlands from the development.

Stormwater treatment in the proposed wetlands offers benefits in terms of reduction in discharge of surface water pollutants to the environment.

Modelling of the stormwater generated by the development has demonstrated that the proposed treatment measures would treat stormwater above the current Melbourne Water Corporation Best Practice (BPM) standards.

Indicative Wyndham Harbour Wetland Area



14 FORESHORE PRECINCT

14.1 Coastal Foreshore

The Werribee foreshore in this area is significantly degraded. It has poor amenity, minimal vegetation and restricted access to the water due to the extensive areas of heavy basalt rock armouring. Small sections of Berm Grassy Shrubland remain, which provide a starting point for rehabilitation of the coastline.

Wyndham Harbour incorporates significant benefits for the ecological values of the coastline as well as improved public access to the bay. These benefits include:

- rehabilitation and replanting of indigenous coastal vegetation;
- creation of formalised public access paths;
- assisting in the construction of the missing link in the Bay Trail between Point Cook and Werribee South; and
- creation of two sandy public beaches.

The Development Plan introduces the opportunity for the creation of a network of formalised linkages to enable movement through the site from north to south along the foreshore. These include shared pathways for pedestrians and cyclists, timber boardwalks, rest and viewing areas and links to the car parking area, marina harbour, breakwater and the Central Piazza. The extension of the Bay Trail from Campbells Cove to Wyndham Harbour would provide a much needed continuous link between Point Cook and Werribee South.

The conceptual landscape plans prepared by Tract illustrate the substantial replanting which will supplement and complement the remnant vegetation along the coastline. Chosen species are appropriate to the location, the coastal environment and their intended function in the landscape.

The re-establishment of the foreshore as a high amenity, accessible, public area will be of significant community benefit and form an integral part of the open space network (see Section 16).

14.2 Beaches

The City of Wyndham coastline has very few sandy beaches, with the exception of those adjacent to the Werribee River mouth which are regularly nourished by sandy material dredged from the river entrance to retain sufficient depth for boats accessing the Werribee South boat ramps. The creation of a public beach to the north of the marina harbour and the expansion of the beach to the south of the main breakwater will therefore be attractive to many residents in the local area.

The seabed currently has a layer of sandy material over the underlying clays. This material is to be removed from the harbour area during construction and is of sufficient volume to produce the northern beach ranging from 35 to 100 metres in width. A rock groyne at the northern end will ensure stability of the beach by restricting sand movement. Sand will be imported from an external source for the extension to the existing southern beach.

Track along foreshore reserve



Existing parking area near south end of the site



Erosion behind the rock armour along the coastal bluff



15 LAND STATUS – PUBLIC AND PRIVATE

The Wyndham Harbour site is a total of 72.11 hectares in area and will comprise the following elements:

- 25.21ha freehold land;
- 41.84ha of Crown Land made up of seabed and foreshore reserve; and
- 5.06ha of other crown land.

15.1 Freehold Land

Lot 1 of LP 222211P is a triangular parcel of 4.4ha. Lot 2 is a 20.8ha title which abuts the northern boundary of Lot 1. Lots 1 and 2 will form the parent titles for the subdivision of the land which is necessary for the development to proceed. The subdivision will create individual titles to the residential lots and commercial premises as well as Common Property. Wyndham Harbour Pty Ltd is also arranging for lease/license over the 2.05ha Channel Reserve along Duncans Road to provide for access, overflow parking and landscaping following the underground piping of the irrigation channel flows. Appropriate easements will protect the irrigation channel and ensure its continued function.

15.2 Crown Land

The seabed component of the site is designated “Unreserved Crown Land” while the Foreshore Reserve is Crown Land “Temporarily reserved for recreation and tourism”. A lease which is subject to specific terms and conditions was attested by the Minister in August 2010 and was issued by Wyndham City Council (as Committee of Management pursuant to the Crown Land (Reserves Act) 1978) to Wyndham Harbour Pty Ltd. This lease will be managed by Wyndham City Council as the Committee of Management. As Committee of Management, the Council will administer the lease, collect rental payments and expend the rental revenue for the improvement of the coastline in the Werribee South precinct.

15.3 Owners Corporation Areas and Responsibilities

It is proposed that an Owners Corporation will be established to be responsible for the management and maintenance of designated areas. Owners Corporation areas will include:

- the foreshore reserve including the Bay Trail, bio-retention systems, Central Piazza and the new northern beach
- all Common Property on the freehold land including wetlands and landscaped areas
- all landscaping within road reserves; and
- all landscaping and parking within the Channel Reserve.

All holders of freehold titles in Wyndham Harbour, including residential lots, apartments, and commercial premises in the Central Piazza, will be required to pay an annual fee to the Owners Corporation. The Owners Corporation will be responsible for the management, ongoing maintenance and monitoring of the landscaping, all public areas, infrastructure, foreshore reserve, bioretention system and the northern beach. The management and maintenance obligations of the Owners Corporation and Marina Operator will be outlined within the Operations Environmental Management Plan (OEMP) (refer to Section 32.2). The Owners Corporation and Marina Operator will enter into a Section 173 Agreement with Council to be registered on the common property, which outlines the obligations for compliance with the OEMP and the requirements of the above-mentioned lease.

Offshore, the Marina Operator will be responsible for the management and maintenance of the marina harbour and infrastructure including:

- the breakwaters;
- hardstand and service area;
- marina berths;
- walkways;
- Central Access Spine;
- The Marina Centre;
- Sand by-pass system.

Marina berths will be subleased out by the Marina Operator for varying long and short term periods. All lessees will be required as a condition of their sublease to pay an annual fee to the Marina Operator which will be responsible for the management, maintenance, and operations of the marina berths, walkways and associated infrastructure.

The Marina Operator’s responsibilities will be outlined in the Maintenance Plan to be approved under the Crown Lease.

The Owners Corporation shall enter into an OEMP Activation Section 173 Agreement with Council to address maintenance responsibilities for bioretention systems.

Land Status and Public Access Plan



PROPOSED LAND STATUS & MAINTENANCE RESPONSIBILITIES			
	OWNERSHIP	ACCESS	MAINTENANCE
[Grey Box]	COUNCIL	PUBLIC	COUNCIL
[Orange Box]	CROWN	PUBLIC	COUNCIL
[Green Box]	PRIVATE	PUBLIC	OWNERS CORPORATION
[Yellow Box]	CROWN (LEASE)	PUBLIC	OWNERS CORPORATION
[Yellow Box]	CROWN	PUBLIC	OWNERS CORPORATION
[Yellow Box]	CROWN (LEASE)	PUBLIC (PEDESTRIAN & PART VEHICULAR) / BERTH HOLDERS (VEHICULAR)	OWNERS CORPORATION / MARINA OPERATOR
[Yellow Box]	CROWN (LEASE)	RESTRICTED PUBLIC ACCESS	OWNERS CORPORATION / MARINA OPERATOR
[Blue Box]	CROWN (LEASE)	MARINA OPERATOR / BERTH HOLDERS	OWNERS CORPORATION / MARINA OPERATOR
[Blue Box]	CROWN (LEASE)	NO PUBLIC ACCESS	OWNERS CORPORATION / MARINA OPERATOR
[Blue Box]	CROWN	NO PUBLIC ACCESS	OWNERS CORPORATION / MARINA OPERATOR
[Pink Box]	PRIVATE	NO PUBLIC ACCESS	LAND OWNERS

16 OPEN SPACE NETWORK

Wyndham Harbour will complement and enhance the attractions of Werribee South to the local community and visitors. The landscaped open space network will provide linkages to the Bay Trail extending along the foreshore reserve within the site, and through to the existing Bay Trail to Werribee South and ultimately to Campbells Cove. The community facilities within Wyndham Harbour will provide for the establishment of a space for community meetings in the Marina Park amenities building and facilities for the coast guard within the Marina Centre building.

Of the 72.11ha total project area, approximately 16.35% of the site has been set aside as publicly accessible areas. The concept plan for Wyndham Harbour includes extensive landscaped open space, shared pedestrian and cyclist paths and wetlands as well as 1.49ha of beaches with a continuous, publicly accessible foreshore reserve extending approximately 1 kilometre north-east to south-west along the coastline. This totals 11.8ha of landscaped public open space. It also makes provision for public access to the southern breakwater to the extent of the fishing platform 290m from shore, and to the Central Access Spine in the marina harbour.

The total area of land set aside for open space within the freehold component of the site is 3.35ha. This equates to 14% of the freehold area.

The open space network will extend throughout the Wyndham Harbour site via shared walking and cycling paths linking through the following recreational nodes:

- the wetlands park;
- the southern breakwater to the extent of the fishing platform;
- the central access spine located centrally to the marina harbour area;
- the rehabilitated foreshore reserve and the Bay Trail; and
- the new sandy beaches.

The open space network will be landscaped with appropriate indigenous coastal species to supplement and complement the remnant vegetation along the coastline and will include features such as strategically located mounding, areas for water bodies, timber boardwalks, viewing platforms and rest areas.

16.1 The Wetlands Park

As outlined previously, the wetlands park comprises 1.3ha of specifically designed wetlands surrounded by landscaped open space, shared pedestrian and cycle paths, viewing platforms and rest areas. The wetlands precinct is directly linked to a further 3ha stretch of foreshore reserve which extends approximately one kilometre northeast to south-west along the coastline.

The wetlands park will provide a destination for passive recreational activities as well as active pursuits including walking and cycling. It forms an important part of the open space network with linkages to other open spaces and shared pathways extending throughout the site and continuing through to Werribee South via the Bay Trail.

Mounding and planting in strategic locations around the wetlands park will provide visual interest as well as habitat creation. Details of the proposed landscape concept and species to be used are outlined in the Landscape Concept plans prepared by Tract Consultants (refer to Volume 1 of the Supplementary Technical Reports).

16.2 Breakwater and Fishing Platform

The southern breakwater has been designed to provide for public access along the first 290m with a fishing platform at the 290m point. This will provide opportunities for walks out along the breakwater to view the marina or the coastline towards Werribee River or to watch the activity occurring at the haul out facility on the marina hardstand area. It also provides a safe location for fishing with the water depth at approximately 3m. Public access will be prevented past the fishing platform by an appropriate structure and signage as the balance of the breakwater is designed to be overtopped by wave action in storm events.

16.3 Central Access Spine

The Central Access Spine will be a public open space accessible to all pedestrians and forming part of the open space network. It has a dual function as a space for passive recreation and as a parking area for berth holders.

The 280m long, 39m wide, structure provides a place for walking, viewing the marina and boat activity and also access to The Marina Centre. Car parking at 90 degrees on either side and down the centre of the Central Access Spine will be interspersed with landscaping at the entry to each of the floating pontoons to the boat berths. This enables berth holders to park in close proximity to their boats to enable ease of loading and unloading gear. Vehicular access will be controlled by the marina managers by a security gate at the entry point of the central spine.

	Ha	% of total freehold land (25.21ha)	% of total project site area (72.11ha)
FREEHOLD			
Wetlands Park (excluding water body)	1.125		
Landscaped areas	0.688		
Landscape buffer along northern boundary	1.716		
Total open space on freehold land	3.529	14.00%	4.90%
CROWN LAND (incl. lease area)			
Foreshore Reserve / Central Piazza	3.651		
Central Access Spine / Promenade	1.072		
Publicly accessible breakwater	0.130		
Beaches	1.1.497		
Landscape buffer along Duncans Road	1.909		
TOTAL OPEN SPACE/PUBLIC ACCESS AREAS (not including visitor berths)	11.788		16.35%

16.4 Foreshore Reserve and the Bay Trail

The rehabilitation of the foreshore as a high amenity, publicly accessible open space will create significant benefits in terms of landscape values, recreational opportunities and habitat creation.

The Bay Trail currently extends from the north as far as the Point Cook Coastal Park. A section of the Bay Trail has also been constructed along Beach Road, Werribee South, through to the southern boundary of the Wyndham Harbour site.

In July 2002, Parks Victoria prepared a draft "Preliminary River and Bay Trail Concept Plan" as part of the "Werribee Precinct Project". The draft Concept Plan refers to the construction of a shared use trail network linking the Werribee township with Port Phillip Bay by paths along the Werribee River through to the Bay then northwards to the City of Hobsons Bay via Campbells Cove Road. Wyndham City Council

manages this section of the coastline and would be responsible for construction of this section of the Bay Trail. This would effectively complete a missing link between Point Cook Coastal Park and Werribee South.

The completion of this section of the Bay Trail requires the acquisition of a strip of coastal land through the Point Cook RAAF base by the State Government. Notwithstanding this, Wyndham Harbour Pty Ltd has agreed to financially contribute towards the completion of the Bay Trail between the northern boundary of the site and the southern end of Campbells Cove Road – approximately 5 kilometres in total and/or upgrading the Werribee South boat ramp facilities. This is additional to construction of the Bay Trail within the Foreshore Reserve which is covered by the Wyndham Harbour Crown Lease, as an integral part of the project works.

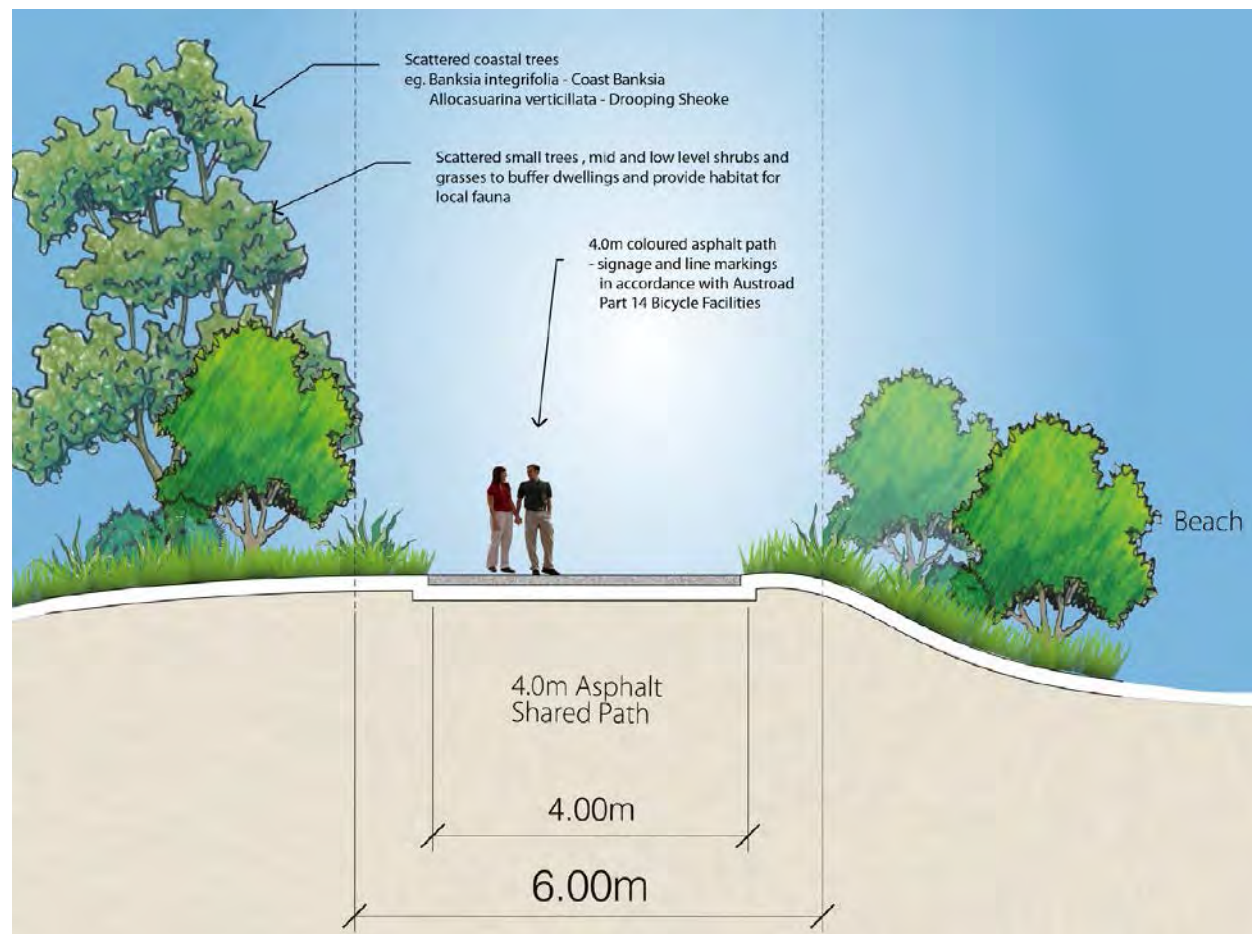
The Bay Trail is to be constructed along the 1km stretch of coastline within the foreshore reserve with a 2.5m wide bicycle path, 1.5m wide footpath and 1.0m clearance either side. Coloured asphalt has been selected as the surface material for its durability. Landscaping between the shared path and the adjacent residential area will incorporate appropriate low dune vegetation, scattered trees and shrubs, as depicted on the landscape plans prepared by Tract, to provide a high amenity coastal path while protecting the view lines and privacy of dwellings.

As outlined in Section 24, in order to adequately protect the underlying aquifer, a clay liner approximately 20 metres wide is to be placed along the coastal interface prior to the dredging of the southern harbour. As a by-product of these protection measures, the foreshore will effectively be widened, providing additional public open space adjacent to the Bay Trail and further opportunities for planting of indigenous vegetation.

The new Bay Trail will clearly promote community use of the open space network within Wyndham Harbour and will be of significant recreational benefit to residents of Werribee, Werribee South and Campbells Cove, as well as the proposed residents of Wyndham Harbour. It will create a definitive link to the wetlands park, the Promenade, marina harbour, breakwaters and fishing platform. It will form part of the circuit of shared pathways around the perimeter of Wyndham Harbour with linkages to the existing Bay Trail to the south of the site, and providing a future link to any extension of the Bay Trail through to Campbells Cove/Point Cook.

A Section 173 Agreement will be the statutory mechanism for ensuring delivery of this part of the project and would be executed by Wyndham Harbour Pty Ltd and Wyndham City Council.

Coastal Shared Path



Different Levels of Accessibility within the Foreshore Reserve

Bay Trail to the south of the site



Track to the north of the site



16.5 Sandy Beaches

The open space network also includes two new sandy beaches. A 1.03ha sandy beach is to be created adjacent to the northern breakwater using material removed from the marina harbour during construction. The sandy material currently forms a layer over the underlying clays and is of sufficient volume to produce a beach ranging from 35 to 100 metres in width, cover an approximate area of 10,000m² at mean high tide. The beach will be stabilised by a groyne at the northern end.

The existing narrow beach located to the south of the main breakwater will also be extended to create a sandy beach approximately 4000m² at mean high tide. This beach will be created using suitable sand imported from an external source.

The beaches will be available to all members of the public and the northern beach will be maintained by the Owners Corporation. They will provide a location for beach users to swim, sunbathe or participate in other water based activities in a location which is directly linked to other open spaces and opportunities for other recreational pursuits. The northern beach is accessed from the Bay Trail or the Main Boulevard car park. The southern beach is adjacent to a car park on Beach Road which is to be upgraded as part of the project.

16.6 Public Open Space Contribution

As outlined in the table below, the Wyndham Harbour Development Plan provides over 3ha of open space on the freehold portion of the site which is available for recreational use by the public.

In addition to the open space within the freehold land:

- significant areas within the Crown Lease area have been set aside for public recreation and open space; and
- a substantial financial contribution is being made towards the construction of extensive recreationally based infrastructure works.

These include:

- \$350,000 being provided for the extension to the Bay Trail between the site and Campbells Cove/Point Cook and/or improvements to the public boat ramp facilities at Werribee South;
- The creation of up to 20 permanent public visitors / day trippers berths (other berths will be made available for visitors at varying locations in the marina depending on vacancies at the time and subject to arrangements with the marina managers);
- Construction of the Bay Trail within the site;
- Construction of shared (publicly accessible) pedestrian and bicycle pathways through the open space areas and linkages through the site;
- Construction of the two new public beaches;
- Provision of a community meeting room within the Amenities Building in Marina Park;
- Provision of facilities (floor space and berth) for the local coast guard operations;
- Public access to:
 - o the first 290m section of the southern breakwater and public fishing platform; and
 - o the Central Access Spine in the centre of the marina itself.
- Provision of two tennis courts and clubhouse for Wyndham Harbour residents. These can be booked by the Community;
- Construction of visitor car parking and outdoor gym adjacent to Wetlands Park

Open space on freehold land

	Ha	% of freehold land (25.21 ha)
OPEN SPACE ON FREEHOLD LAND		
Wetlands Park (excluding water body)	1.125	
Landscaped areas	0.688	
Landscape buffer along northern boundary	1.716	
Total open space on freehold land	3.529	14.00%

All of the open spaces and public areas will be maintained and managed by the Owners Corporation in accordance with a Section 173 Agreement executed between Wyndham City Council and Wyndham Harbour Pty Ltd.

Open Space Network Plan Wyndham Harbour



- Legend**
- External Vehicular Traffic
 - - - Internal Vehicular Traffic
 - - - 4.0m Coastal Path
 - - - 3.0m Section of Bay-trail crossing Piazza
 - - - 3.0m Footpath to Central Piazza & Spine
 - - - 2.5m Shared Path
 - - - 2.0m Footpath / Walkway
 - - - 1.2-1.5m Footpath

Notes: Potential conflict between pedestrians and vehicles at locations where pathways meet vehicular traffic will be minimised by appropriate treatment at the detailed design phase. All footpaths along roads to be at least 1.2m

17 COMMUNITY FACILITIES

The most significant community facility to be provided by Wyndham Harbour is a much needed boating facility and safe boat harbour on the western side of the bay. It will also incorporate the infrastructure to service it - berthing facilities, floating pontoons, car parking for berth holders in proximity to the berths, marina centre, coast guard etc. The marina will implement a key component of the Victorian Coastal Strategy that identifies the need for a safe boat harbour between Williamstown and Geelong.

In addition to the marina itself, other community facilities to be either incorporated into the development or upgraded as part of the proposal include:

- An extensive, landscaped open space network as outlined above and including construction of the Bay Trail through the site;
- A contribution towards further extension of the Bay Trail towards Point Cook and / or towards the upgrading of the Werribee South boat ramp facilities;
- Facilities for the Australian Volunteer Coastguard;
- A community meeting room; and
- An area set aside for possible future use for community facilities including tennis courts.

17.1 Upgrading of Werribee South Boat Ramp Facility

As part of the project, Wyndham Harbour Pty Ltd has committed to contributing towards the extension of the Bay Trail and/or upgrading of the Werribee South boat ramp facilities. The possibility of improvements to the boat ramp facilities was raised in response to:

- A recognition of the need to cater for **all** of the boating community; and
- Consultation with local boat ramp users in November and December 2004.

Information Sessions held by Wyndham Harbour Pty Ltd in November and December 2004 were attended by numerous local boat ramp users who indicated a strong preference for the launching of trailer boats to remain at the existing location in the Werribee River rather than creating a new, duplicate facility within the marina development.

A Section 173 Agreement is to be executed by Wyndham Harbour Pty Ltd and Wyndham City Council to ensure the delivery of this commitment.

17.2 Upgrading of Beach Rd Car Park

Wyndham Harbour Pty Ltd has also committed to designing and upgrading the informal gravel car park on Beach Rd located just to the south of the main breakwater. This will ensure that public car parking is available for up to 50 cars in an all weather, linemarked and landscaped car park adjacent to the Werribee South foreshore and the Bay Trail.

17.3 Coast Guard Facilities

The development of Wyndham Harbour will enable the relocation of the Australian Volunteer Coastguard from its current site in Werribee South to a major, state of the art boating facility. The coastguard will be provided with a boat mooring and/or tie-up facility and office space within the Marina Centre (minimum of 15m² floor area).

Details of the arrangements for the relocation of the coastguard to Wyndham Harbour are to be included in a Section 173 Agreement executed by Wyndham Harbour Pty Ltd and Wyndham City Council following discussion with the Australian Volunteer Coastguard.

17.4 Community Meeting Room

A community meeting room of at least 6 x 5 metres floor area is to be provided within the Amenities Building in Marina Park for use by the Point Cook and Werribee South communities. This creative, multi-functional space will be available for use free of charge by community groups.

17.5 Proposed Community Recreation Facility

Two tennis courts and Wyndham Harbour clubhouse facility are to be constructed adjacent to the Wetlands Park together with visitor parking and an outdoor gym. The tennis courts and clubhouse will be managed by the Wyndham Harbour Owners Corporation and can be used by the community via the booking system.

18 LANDSCAPE DESIGN

18.1 Landscape Objectives

Wyndham Harbour is situated within the flat plains of Werribee South adjacent to Port Phillip Bay. The present landscape is characterised by the nearby market gardens, with windrows of Cypress trees dividing properties. The area is flat and open with wide views both north-east to the city and east to the bay. The site itself contains few trees and is bounded on the east-side by a degraded foreshore.

The landscape to be developed at Wyndham Harbour, both public and private areas, is to be a high quality landscape that visually enhances the site and provides an ecologically sustainable response to the development of the area. It draws on elements of the Werribee South foreshore to provide a visual link between these two areas on the coastline, particularly by continuing the use of Norfolk Island pines as a dominant landscape element.

The Norfolk Island Pine has been used successfully in coastal locations around Melbourne due to its significant wind and drought tolerance, reliability and its ability to withstand concentrated salt spray. These traits together with its statuesque form and strong cultural associations with Werribee South, make it the ideal feature tree in the Wyndham Harbour landscape.

Conceptual Landscape guidelines have been prepared by Tract Consultants Pty Ltd and are attached as a Supplementary Report (Volume 1).

Overall landscape objectives for the site are to:

- Develop landscapes to enhance and complement the sites architecture and proposed uses;
- Integrate the natural environment in a manner appropriate to the site;
- Where appropriate retain and enhance existing indigenous vegetation communities;
- Embrace ESD practices through the use of water sensitive urban design initiatives;
- Develop a high quality, long-term landscape theme that is cohesive with the coastal context;

- Assimilate the public with the private landscape to create a cohesive design; and
- Create and sustain a landscape that is aesthetically appealing, culturally appropriate and environmentally sensitive.



In order to achieve these objectives, the following landscape guidelines will be applied:

- Trees, shrubs and grasses will be chosen which respect and reflect the local environment;
- Local, indigenous and native species will be preferred and sourced locally where possible;
- No weed species will be used;
- Plant species will focus on those which are low-maintenance, drought-resistant and fauna friendly;
- Hard landscape elements will highlight and complement the vegetation;
- Materials will be chosen to enhance the coastal landscape theme of Wyndham Harbour; and
- The boulevards and Duncans Road will be tree lined and suitably landscaped.

18.2 Central Piazza

The landscape design for the Central Piazza aims to:

- Maximise the use of outdoor spaces;
- Create a focal point and place of destination;
- Reflect coastal values and aesthetics;
- Include low maintenance, drought resistant planting;
- Balance functionality and visual appearance; and
- Integrate the built form in a cohesive, open landscape character.

The landscape design is characterised by a timber boardwalk and paved promenade around the Central Piazza, featuring Norfolk Island Pines, Coastal Banksia and open spaces to ensure ease of movement and views through to the bay and marina. The paving will comprise of stone or similar material punctuated with street furniture such as seating, lighting, steps and ramps.

Features of the Marina Park located within the Central Piazza (north) include;

- a purpose designed amenities building with community room, public toilet facilities, change rooms and events storage
- fully landscaped bioswale and pathway system
- grassed open space for active play

Central Piazza Landscape Plan

Please note this plan is indicative only and subject to further detailed design



18.3 Main Approaches and Car Parking

Norfolk Island Pines have been selected as the primary feature tree for the site. While not indigenous, the species has strong cultural associations with and grows well in coastal environments. These trees will extend the local theme of Norfolk Island Pines already planted along Beach Road and the Werribee South foreshore.

The landscape buffer along Duncans Road will incorporate a double row of Norfolk Island Pines planted in turf grasses and spaced to allow car parking in the overflow parking areas.

The Norfolk Island Pines then lead down the main entry road towards the marina and commercial centre, allowing direct views to the bay.

The view of the site from Beach Road is similarly framed by Norfolk Island Pines while still allowing views through to the marina and the bay beyond.

Additional car parking adjacent to the dry storage facility and along the Central Access Spine will be landscaped with feature trees suited to these more exposed locations.

Beach Road View



18.4 Wetlands and Open Space

The objectives of the landscape design for the wetlands and open spaces are to:

- Improve the quality of storm water being discharged;
- Retard the discharge of stormwater post rain events;
- Create habitat for local flora and fauna; and
- Create a network of shared paths around the wetlands with links to the Bay Trail.

The open space network incorporates a 2.5m path which winds through the wetlands and provides access to the beach, Bay Trail, Duncans Road, the main entry and through to the Central Piazza.

Swale plantings and moundings direct surface water towards the wetlands and filter runoff in an environmentally sustainable manner. Species selection for planting within and around the perimeter of the water body includes a variety of grasses, rushes and sedges to enhance this function as well creating an attractive recreational environment.

In addition to the widespread planting of a diverse array of indigenous understorey species, important provision is made within the wetland precinct and northern buffer area for the establishment of both the preferred nesting sites (eucalypt hollows) and roost trees (copses of *Leptospermum* and *Melaleuca*) for the endangered Orange Bellied Parrot.

Further information on the wetlands function is provided in section 12 and 21 of this report and in the Drainage and Stormwater Management Plan (refer to Volume 1 of the Supplementary Technical Reports).

18.5 Residential Precincts

Residential boulevards will be lined with informal clusters of Pink Yellow Gums (*Eucalyptus leucoxylon* "Rosea") a striking, long flowering, medium sized eucalypt tolerant of exposure and providing excellent shelter and shade qualities.

Residential frontages will be integrated into the streetscapes to provide a cohesive, open landscape

character. Individual lots will be landscaped with predominantly indigenous vegetation, using trees and shrubs to create shade, amenity and buffers for residents while preserving views to the bay and wetlands where possible.

18.6 Foreshore

The shared path to be created along the foreshore reserve, will sit adjacent to the existing and regenerated Berm Grassy Shrubland along the top of the coastal bluffs. The landscape design protects this where possible and enhances it with appropriate indigenous plantings including plant material sourced locally.

The shared path will form an extension to the existing Bay Trail to the south of the site, with links to the Wetlands, Central Piazza and Duncans Road.

18.7 Interface with Rural Land

The development site is bounded on the west side by a landscaped buffer and road reserve (Duncans Road) and on the east side by the coastline which effectively discourages any extension of development in those directions. The northern boundary is not so well defined, being a title boundary between two properties.

To address this, and provide a definitive edge to the northern boundary of the development site, is a parkland buffer between Wyndham Harbour and the adjoining agricultural property to the north will be created. This places an absolute and sizeable distance between the built form and high activity areas and the dwellings further to the north along Duncans Road.

In addition, the open space buffer incorporates mounding and indigenous screening vegetation which will ensure the interests of adjoining farmers are protected and the occupants of the Wyndham Harbour dwellings and marina operators can exist in a separate yet compatible and harmonious environment.

Residential Landscape Plan



19 FLORA AND FAUNA

The flora and fauna values of the site are minimal. The existing area is highly modified and comprised of predominantly introduced vegetation, however, the rehabilitation of the coastal vegetation along the foreshore reserve will significantly improve habitat opportunities and vegetation links. A detailed assessment of the flora and fauna values of the site, potential impacts and mitigation measures is provided in the Supplementary Technical Report prepared by Brett Lane & Associates (refer to Volume 1).

19.1 Ramsar Wetlands

The proposed development is located in proximity to the "Port Phillip Bay (Western Shoreline) and Bellarine Peninsula Ramsar Site" which includes Melbourne Water Western Treatment Plant, located approximately 1.5km from the site, and Point Cooke Coastal Park which is approximately 5 kilometres from the site. Wyndham Harbour has been identified as a controlled action under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) due to the potential for indirect impacts on the Ramsar wetlands and the potential habitat for the endangered Orange Bellied Parrot.

The potential for indirect impacts on the Ramsar wetlands via increased boating activity and interruption of longshore sediment transport processes has been assessed. Longshore movement of sand northwards is important for the maintenance of habitat for wading birds around Point Cooke Coastal Park.

The proposed development and associated activity is not expected to have a significant impact on the Ramsar wetlands on the basis that the Ramsar sites are principally fringed by areas of shallow water within the Bay that are unsuitable to the types of water craft that will be accommodated by the marina. Additionally, a sand bypass system is to be installed which will involve regular bypassing of sediments from the south of the main breakwater to a location north of the northern groyne. A monitoring protocol is also to be established which will assess the sand build up to the south of the breakwater. The sand bypass system and the monitoring protocol are a requirement of the EPBC Act consent and are detailed in the Coastal Processes Report and the Operations Environmental Management Plan (refer to Volume 3 of the Supplementary Technical Reports).

The Development Plan Report and all Supplementary Technical Reports form the documentation to be submitted to the Commonwealth Department of Environment and Heritage in response to the conditions of EPBC Act consent.

19.2 Marine Ecology

The management and mitigation measures set out in the Environmental Management Plans (Construction and Operations - refer to Volume 3 of the Supplementary Technical Reports) will address the risk of impacts to the marine environment. It is acknowledged that there will be impacts on the soft bed ecosystem associated with breakwaters and

harbour excavation. These activities will result in the removal or covering of the soft seabed environment, and associated losses of infaunal organisms. Losses as a result of excavation activities will be insignificant in the regional context due to the abundance of soft seabed areas in the bay from St Kilda to Avalon. New infaunal communities are expected to gradually mature in number over 2 to 3 years after construction activities cease.

The loss of marine habitat and species during construction will be offset by new beaches and rocky substrates, which will be gradually colonised over time. Turbidity, sedimentation, stormwater, wastewaters and litter impacts will be reduced by implementing appropriate control measures.

The type of boating accommodated by the marina is also unlikely to result in the establishment or spread of invasive marine species harmful to the ecology of the Bay.

19.3 Vegetation

The development will significantly improve the terrestrial (land based) flora or fauna values over the majority of the subject land as the existing area is highly modified and comprised of predominantly introduced vegetation. Further, the current foreshore reserve and vegetation will be rehabilitated with indigenous coastal vegetation.

19.3.1 Existing Vegetation

The majority of the site is comprised of former market gardens and lucerne cropping paddocks. It has been highly modified through clearing and supports predominantly introduced species.

Vegetation within the freehold section of the site is limited to crop species, rows of cypress trees along internal fencelines and a dense hedge of the introduced Mirror Bush and African Boxthorn. As a result it has negligible conservation significance.

The Brett Lane & Associates study identified a total of 8 indigenous plant species and 37 introduced species. No plants of national or state conservation significance were found although 4 species of regional conservation significance within the Otway Plain Bioregion were recorded within the foreshore reserve. The Otway Plain Bioregion is a region that encompasses most of the lowlands south of the Princes Highway, and extends from Port Campbell to the Bellarine Peninsula.

The foreshore reserve contains a narrow strip of small intermittent patches of remnant vegetation within an endangered Ecological Vegetation Class (EVC) called "Berm Grassy Shrubland". This remnant vegetation is typically in poor condition and mostly occurs as Coast Saltbush over exotic grasses and herbs. The total area of the EVC is 0.42ha.

Mirror Bush and Box Thorn Hedge along Eastern Boundary



Coastal vegetation north of site



View across Wyndham Harbour site towards the City



19.3.2 Vegetation to be Retained

Approximately 37% (0.16ha) of the existing Berm Grassy Shrubland EVC on site (0.42ha) is to be retained and will be protected by appropriate fencing during construction. It will be rehabilitated by regeneration of the indigenous vegetation and removal of weed species. Details of these works are included in the Construction and Operations Environmental Management Plans. This will significantly improve conservation, habitat and recreation values, achieving a substantial net gain in indigenous vegetation.

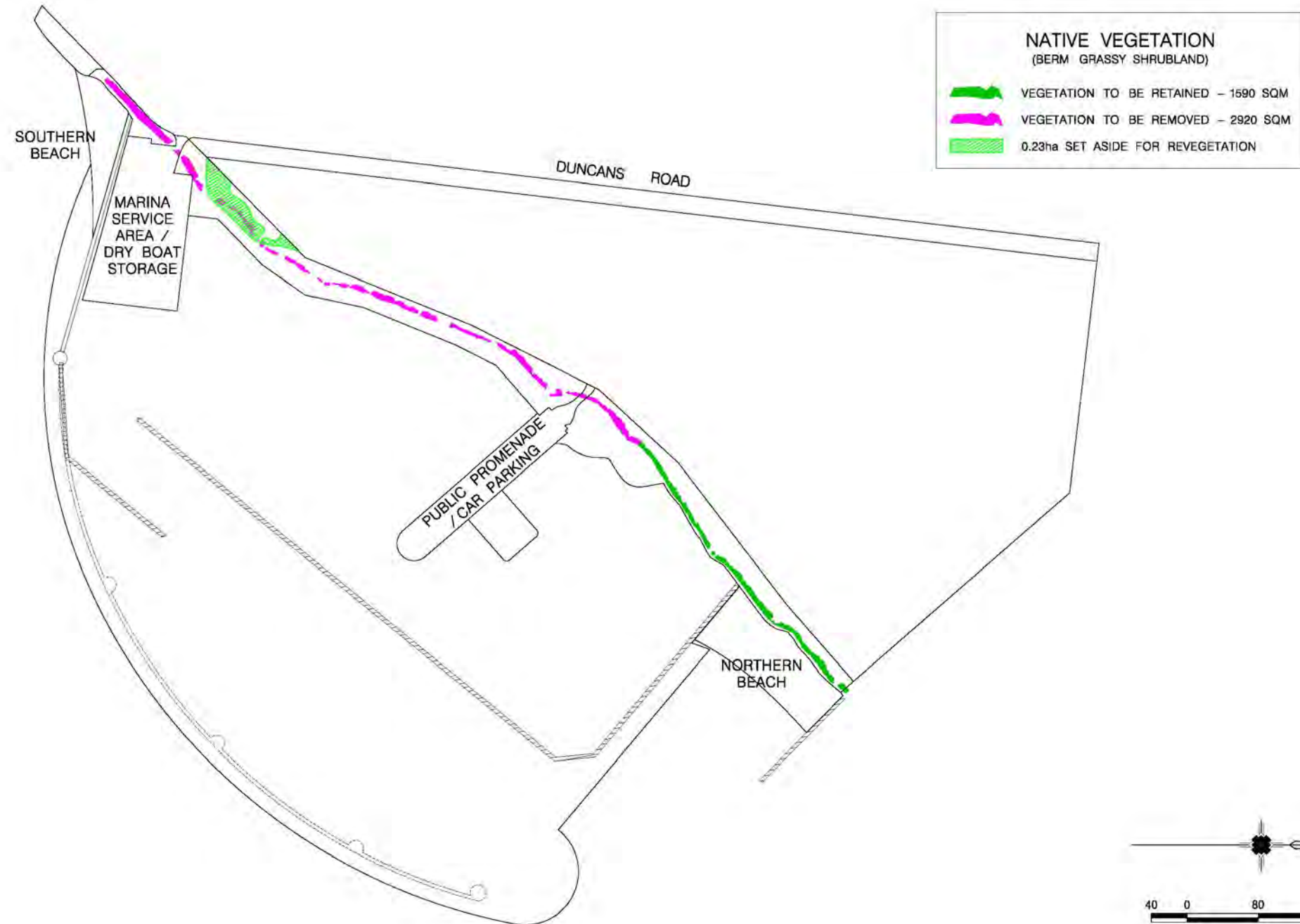
The Berm Grassy Shrubland in the southern section of the harbour is to be removed to enable the extension of the foreshore. However, the strip of vegetation north of the centre spine has been retained and integrated into the landscape design of the Marina Park and northern foreshore.

In accordance with the Native Vegetation Framework 2002, the offset requirements for Wyndham Harbour have been calculated by Brett Lane & Associates as a net gain of 0.15 habitat hectares. This will be met by a combination of onsite revegetation and the protection and maintenance of an offsite offset that supports Berm Grassy Shrubland. The creation of 1.3ha of open space and wetlands, planted with a range of locally indigenous plants will provide environmental benefits which will substantially outweigh the loss of this very small area of vegetation.

Approximately 500ha of indigenous replanting will also be carried out within the Werribee River catchment area as part of the Wyndham Harbour project, as outlined in section 29.

The conditions specified in the EPBC Act consent include the implementation of a management regime for the foreshore area which protects and rehabilitates the Berm grassy shrubland to increase the quality and extent of the habitat for the Orange Bellied Parrot. These issues are addressed in detail in the Supplementary Technical Reports which will also form the documentation to be submitted to the Commonwealth Department of Environment and Heritage in response to the conditions of consent.

Berm Grassy Shrubland Plan



20 ACCESS AND CIRCULATION

20.1 External Vehicular Traffic

The Wyndham Harbour development will result in extra traffic on Duncans Road from approximately 2600 to 6700 vehicles on weekdays and from approximately 3400 to 6300 vehicles on weekends. Ratio Consultants have prepared a detailed Traffic Management Plan which is attached in Volume 1 of the Supplementary Technical Reports. Ratio have advised that Duncans Road has capacity to cater for this increase in traffic without any significant adverse impacts, subject to some infrastructure improvements being carried out.

These improvements have been negotiated with both Wyndham City Council and VicRoads. As a result, and in accordance with the provisions of Clause 5.0 of the Development Plan Overlay, a Section 173 Agreement has been executed between VicRoads, Wyndham City Council and Wyndham Harbour Pty Ltd in relation to the upgrading of road infrastructure external to the development site.

The Agreement requires Wyndham Harbour Pty Ltd to:

- Upgrade the following intersections:
 - o Aviation Road and Duncans Road;
 - o Robbs Road and Duncans Road;
- Upgrade the northern culvert crossing in Duncans Road;
- Seal the shoulders of Duncans Road for a width of 2 metres for a distance of 100 metres on its approaches to the intersection with Robbs Road, Aviation Road and Whites Road;
- Construct roundabouts or other intersection treatments at the proposed access points from Wyndham Harbour to Duncans Road; and
- Provide a monetary contribution towards the upgrading of Hoppers Lane and Duncans Road.

These improvements are to be staged as the construction of Wyndham Harbour progresses.

20.2 Access from Duncans Road

Vehicles travelling to the site will be coming predominantly from the north. The Development Plan takes this into account and adopts a major view corridor to the water from the Duncans Road entry roundabout and down the Central Access Spine. The main entrance boulevard provides access to car parking and to the residential precincts, and will be completed in Stage 1 and 2 of construction.

A roundabout on Duncans Road at the southern end of the site is incorporated into the Development Plan to provide direct access to the hardstand area, dry storage facility and to the car parking area at the base of the breakwater.

Duncans Road turning into Beach Road



View north along Duncans Road



20.3 Internal Street Network

The Street Hierarchy Plan designates the individual functions and construction types of each of the internal streets.

The Entrance Boulevard is the main point of entry to Wyndham Harbour with two 6.4m wide pavements, footpaths either side and a central landscaped median also integrated with carparking.

The streets within the residential precinct are designated as Access Street level 1 and 2 reflecting their function within the street network. Level 2 streets carry higher volumes of traffic than level 1.

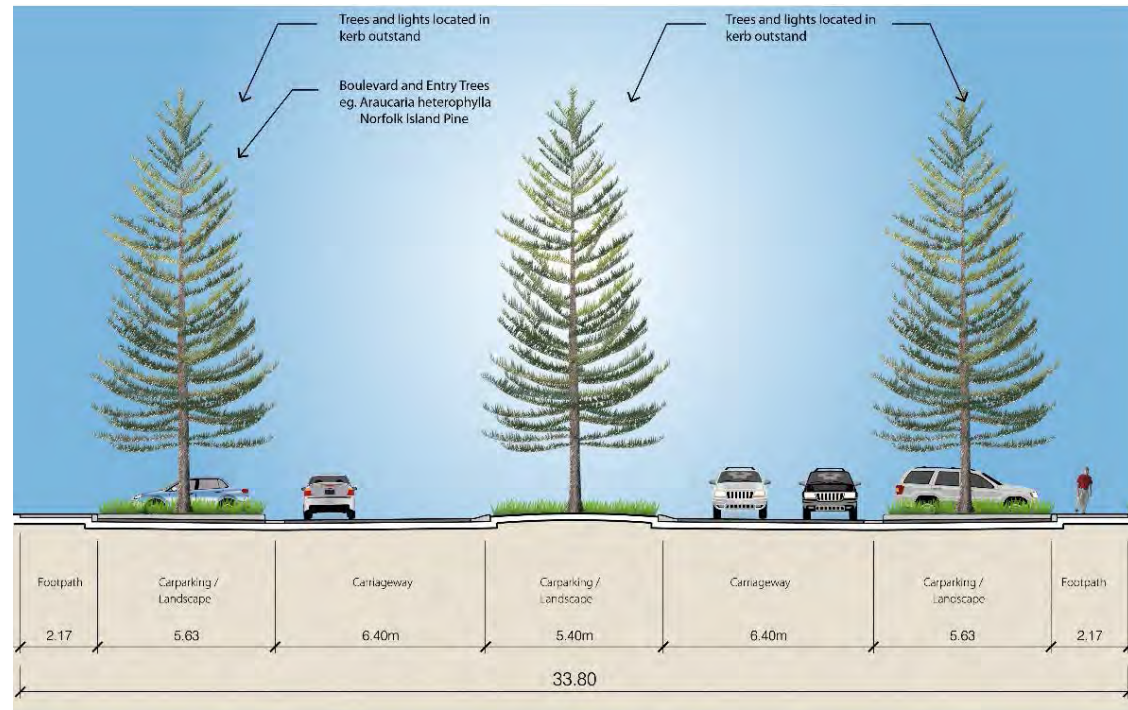
Details of the landscaping of all streets within the network are provided in the Landscape Plans prepared by Tract.

Street hierarchy

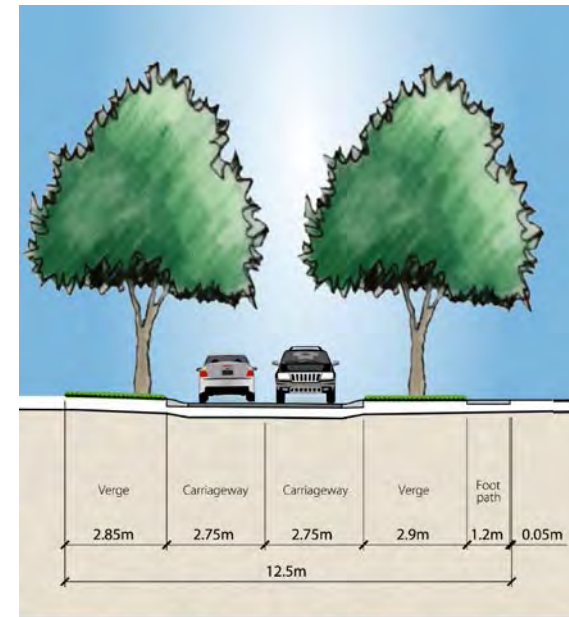
Street Element	Entrance Boulevard	Street Type Access Street 2A	Access Street 2B	Access Street 1	Access Place
Road Reserve	33.8m	21.7m	15.6m	15.6m	12.5m
Pavement Width	Dual Carriageway- 6.4m each side	7.5m	7.5m	7m	5.5m
Nature strip (verge)	n/a	5.5m each side	2.50m each side	3.05m each side	2.9m north side 2.85m south side
Footpath	2.17m each side	1.5m each side	1.5m each side	1.2m each side	1.2m one side
Parking	Designated 90 degree parking both sides and central aisle	Parking available both sides	Parking available both sides	Parking available both sides	Parking one side.

Street Hierarchy Plan

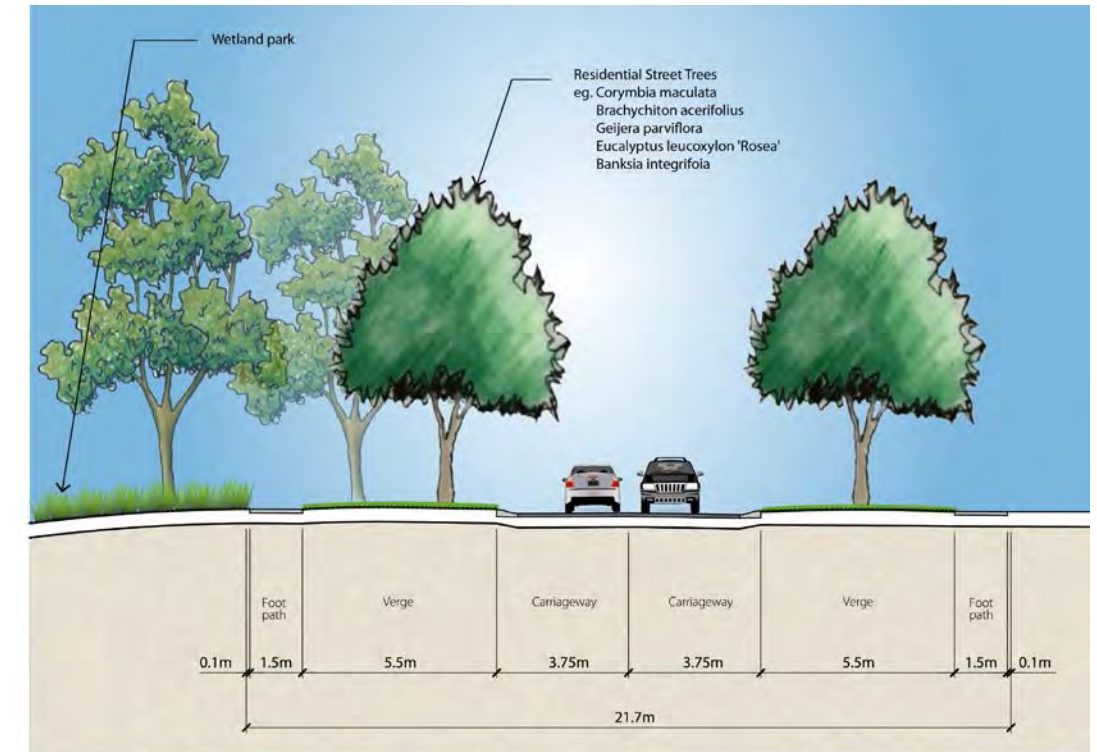




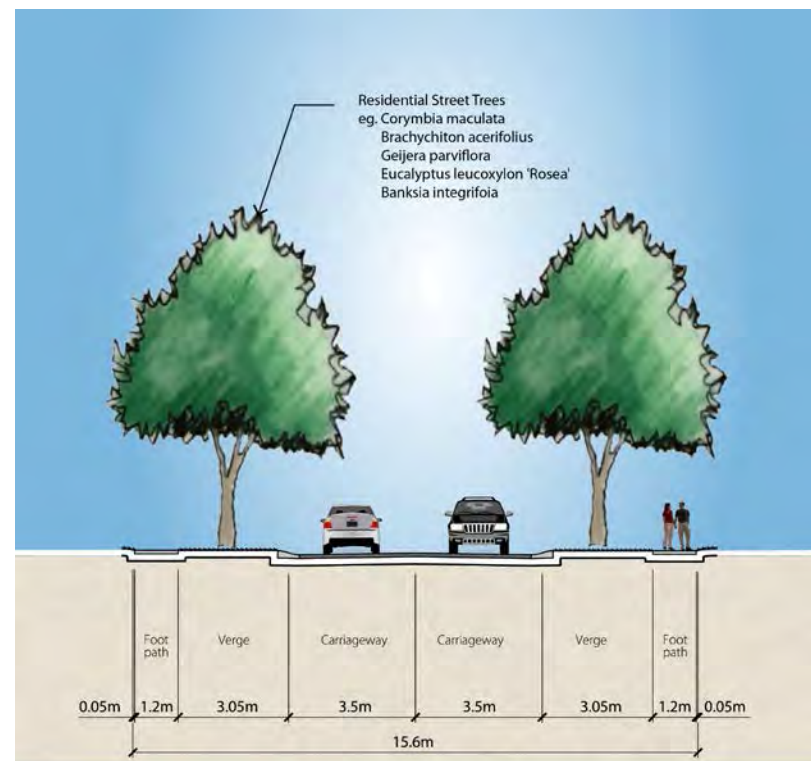
ENTRANCE BOULEVARD



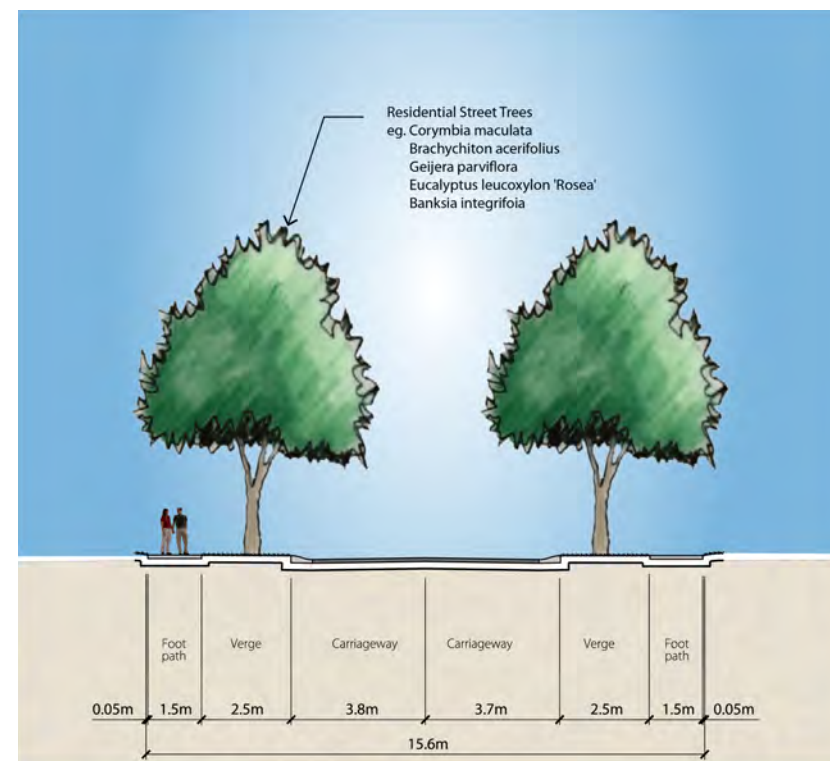
ACCESS PLACE



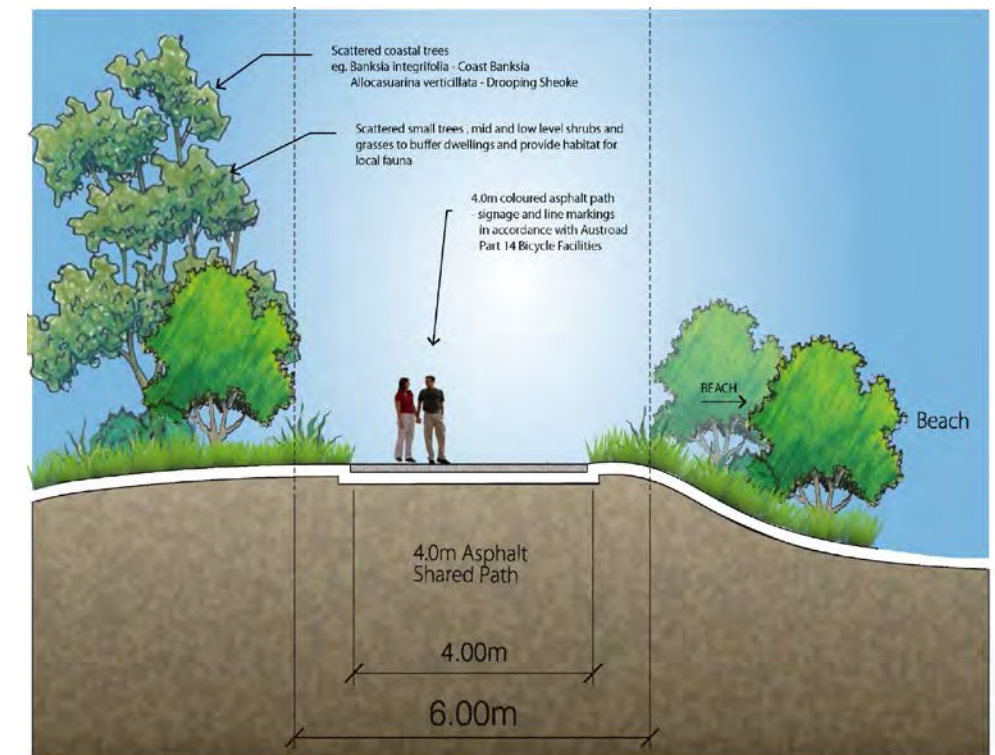
ACCESS STREET 2A



ACCESS STREET ONE



ACCESS STREET 2B



CENTRAL SHARED PATH/ BAY TRAIL

20.4 Car Parking

Car parking is provided in four locations:

- The Central Access Spine - predominantly intended for vehicular access by berth holders only to provide close access to berths for dropping off gear, crew or passengers;
- At grade parking – on the Main Boulevard and western end of the central spine for commercial activities and recreational visitors;
- Marina services parking – adjacent to the dry boat store and marina services area for parking generated by the boat storage facility, marina service staff and visitors using the breakwater; and
- Overflow parking – an extension to the at-grade parking area to be used when required at peak activity times.

A total of over 900 car parking spaces are provided.

Details of the car parking assessment is provided in the Transport Management Report prepared by Ratio. A summary of the car parking analysis is provided in the table opposite.

With overlapping of usage, shared use of parking areas and varying peak times associated with the commercial activities, the demand for spaces will be satisfied by the parking areas provided.

Access to and from car parks will be finalised at the detailed design phase with all design plans approved by Council prior to construction.

20.5 Pedestrian and Cycle Links

The Development Plan provides the opportunity for pedestrians and cyclists to move freely through the site by way of a network of shared pathways linking the car parking areas, the Bay Trail to the south, Duncans Road, the wetland area, the foreshore, the marina and the Central Piazza.

Access to the beach can be gained either through the Central Piazza then along the foreshore reserve using

the Bay Trail, or through the wetlands walking tracks or using linkages from the wetlands path then through the northern residential area.

A minimum of 30 bicycle parking spaces will be spread across 3 locations around the Central Piazza. These locations will be determined at the detailed design phase.

Further information regarding the linkages throughout the site are provided in the section detailing the Open Space Network and public access areas.

20.6 Public Transport

Public transport is available to Werribee South in the form of a bus service along O'Connors and Diggers Roads. The closest part of the bus route to the Wyndham Harbour site is at the corner of Whites Road and Duncans Road (around 600 metres to the north) or at the corner of O'Connors Road and Beach Road (just over a kilometre to the south west). Initial discussions with the local bus company indicate that the alteration of the bus route to provide a service to Wyndham Harbour would involve continuing the line of travel along Duncans Road then Beach Road.

Car parking assessment based on concept masterplan

Land Use	Provision Rate	Classification under Cl.52.06*	Parking Ratio	Parking Spaces Required
Food and Drink Premises	1095m ²	Food and Drink Premises other than listed in Table	4 spaces per 100m ² LFA	43
Shops	200m ²	Shop	4 per 100m ² LFA	8
Restaurants	745m ²	Restaurant	0.4 spaces per patron @2m ² per patron and seating area being 2/3 LFA	98
Tavern	300m ²	Tavern	0.4 spaces per patron @2m ² per patron and seating area being 2/3 LFA	39
Wet Berths	660 berths	Not Specified	0.4 spaces per wet berth (median NSW standard)	264
Dry Berths & Ancillary Services	390 berths	Not Specified	0.2 spaces per dry berth (median NSW standard)	78
Residential	50 Visitor Parking Spaces	Dwelling	Visitor Parking - 1 space per 5 dwellings for developments of 5 or more dwellings	50
Office	60m ²	Office	3.5 per 100m ²	2
Tennis Court Facility	2 courts	Tennis Courts	4 spaces per court	8
Community Meeting Room	30m ²	Not specified	6 spaces	6
Total				596

Notes: All visitor parking for residential uses must be provided within the development site except for apartments and townhouse sites on Quay Boulevard.
 Detailed design – All built form is subject to detailed design and further approval
 *Cl. 52.06 Wyndham Planning Scheme

Parking spaces provided	
Quay Boulevard	105
Central Spine - West	33
Central Spine - East	250
Marina Service Area	122
Tennis Facility	8
Sub-total	518
Overflow parking - North	200
Overflow parking - South	200
Total	918

21 SURFACE WATER MANAGEMENT

The surface water management strategy for Wyndham Harbour has been prepared by Neil Craigie Pty Ltd in association with Pat Condina & Associates (refer to Volume 1 of the Supplementary Technical Reports). The strategy is designed to satisfy contemporary Best Management Practices, through application of the principles of Water Sensitive Urban Design (WSUD). These principles are centred on achieving integrated water cycle management solutions linked to an ESD focus aimed at:

- Treating urban stormwater to meet water quality objectives for discharge to surface waters;
- Using stormwater in the urban landscape to maximise the visual and recreational amenity of developments;
- Protecting natural systems;
- Reducing runoff and impervious surfaces by use of infiltration, local storage, mulched landscape areas and other porous surfaces; and
- Adding value while minimising development costs.

To achieve these objectives, the overall surface water management strategy is comprised of three components:

1. Site stormwater quantity management;
2. Site stormwater quality management; and
3. Wetland and water feature management.

The selection of appropriate WSUD techniques addresses the particular characteristics, constraints, opportunities and values to be protected on and around the site. For the subject area these are considered to be as follows:

1. The development will generate increased stormwater runoff from roofs and other impervious areas which requires both quantity and quality management but also offers reuse supply opportunities.
2. The development will generate significant quantities of stormwater (either as roof collection or through on-site storages). This is proposed to be used to satisfy as far as practicable the annual requirement for toilet flushing and garden watering.

3. The open space area allows opportunity for location of treatment wetlands, a water feature and construction of vegetated and bio-retention swales along the open space/development interface and along the development coastal interface.

Application of the principles of WSUD will also result in a significant reduction in current pollutant loads discharged to the bay from the site.

The Owners Corporation shall enter into a Section 173 Agreement with Council to address maintenance responsibilities for bioretention systems.

The proposed monitoring program will also provide data to substantiate this benefit and provide guidance for future environmental management of the site.

The extended foreshore will also allow for improved design and functionality of the bioswales located in the area to the south of the central spine. These improvements include the increased separation from the active Bay Trail pathway and a reduction in batter gradient to the bioswales which consequently assists the wetland planting environment and increases the effectiveness of the bioswales.

The key elements of the sustainable surface water management strategy for the site are set out in the table below:

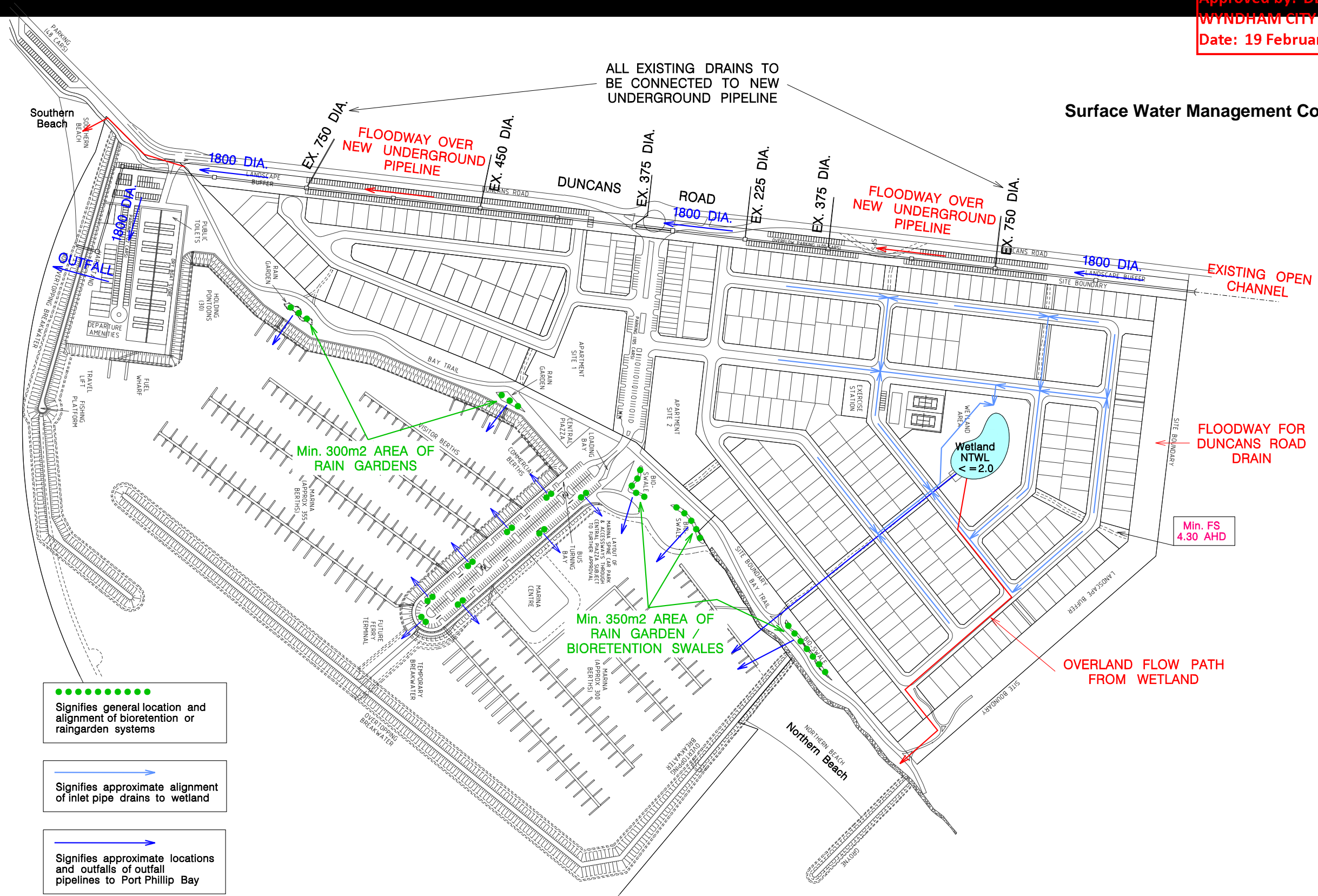
Surface water management techniques

WSUD Technique	Location	Catchment Area Served
Treatment wetland accepting flows from site development via wetland and sediment trap and incorporating open water feature pool	Adjacent to residential area.	Total of approximately 15.4ha
Vegetated and/or bioretention swales onshore	At residential/open space interface and at residential/coastal reserve interface	Approximately 8ha
Bioretention systems off-shore	Along marina service spine road/parking area	Approximately 1.8ha

Duncans Road drain outfall

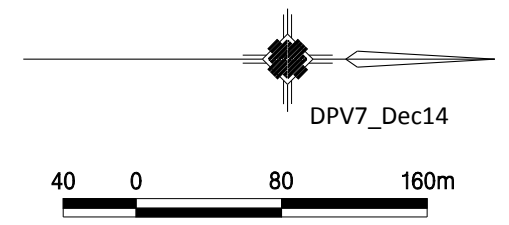


Surface Water Management Concept Plan



- Signifies general location and alignment of bioretention or raingarden systems
- Signifies approximate alignment of inlet pipe drains to wetland
- Signifies approximate locations and outfalls of outfall pipelines to Port Phillip Bay

NOTE: FINAL LOCATION OF DRAINAGE INFRASTRUCTURE TO BE DETERMINED BY DETAILED ENGINEERING DESIGN



22 SERVICING

The existing services in the surrounding area have service capacity limitations and all will require upgrade or augmentation works to service Wyndham Harbour, as outlined in the Servicing Report (refer to Volume 1 of the Supplementary Technical Reports).

22.1 Water

The nearest reticulated potable water source for the development is in Duncan's Road, however the 100mm diameter main does not have sufficient capacity to service the development. There is also an elevated service tank in Werribee South, however this supply does not have sufficient pressure to supply the development. Subject to a hydraulic investigation being carried out by City West Water, a permanent reticulated supply to Wyndham Harbour will be provided by extending a water main to the existing water supply system in Werribee – a distance of approximately 10 kilometres. This will provide an opportunity for other properties to improve their own service by connection to the upgraded system.

22.2 Gas

There is no existing reticulated gas supply in the immediate vicinity of the marina site. Supply will be provided by connecting to the existing gas main at the intersection of Hacketts Lane and Sneydes Road in Werribee South approximately nine kilometres to the north. Extension to the natural gas supply will provide an opportunity for other properties to connect.

22.3 Electricity

The existing system has insufficient capacity to cater for the additional demand placed on it by the development and as such the overhead system in Duncans Road would need to be augmented. These overhead works will be carried out by Powercor. It is proposed that the power lines in the vicinity of the site will be undergrounded.

22.4 Telecommunications

There is an existing underground telecommunications supply in Duncans Road fronting the marina site which is inadequate to service the development. The infrastructure will require upsizing of the existing cable to the exchange in Werribee South. This will comprise approximately 700 metres of 100mm diameter pipe to be installed along Duncans Road to the site.

22.5 Wastewater Management

Wyndham Harbour will be connected to City West Water's existing sewerage system at the Werribee South Sewerage Pumping Station (SPS 174). This will involve construction of a sewerage pumping station at Wyndham Harbour and a delivery pipeline to SPS174, and the replacement and upsizing of the existing SPS174 delivery pipeline to Melbourne Water's Western Treatment Plant.

23 COASTAL PROCESSES

Changes to the existing bathymetry outside the boundaries of the proposed marina are expected to be minimal.

Substantial investigative work analysing the coastal processes and potential impacts as a result of the development are assessed in the Coastal Processes Report prepared by Water Technology (refer to Volume 2 of the Supplementary Technical Reports).

Modelling results indicate that the impact of the development on circulation patterns is localised to an area within about 500m of the marina. The development will result in negligible changes to the regional current and would have no impact on tidal variation in Port Phillip Bay.

The development will result in localised modification of the wave climate where the breakwaters create adjacent wave shadow zones. This may result in some modification to sediment transport which is considered to be at acceptable levels.

Modelling results indicate that tidal exchange times in the marina basin are sufficient to maintain adequate water quality conditions within the marina. Copper concentrations are likely to be elevated within the marina basin over time, associated with leaching from copper based antifouling paint. These quickly reduce to background levels outside the marina. Wind induced overturning and wave mixing has not been included in modelling, however such processes would result in a significant reduction in concentrations adjacent to the coastline.

Approximately 210,000m³ of material will be removed from the marina basin to achieve a minimum depth of - 2.8m AHD in navigable areas. The material to be removed consists mainly of a thin layer of fine sand or muddy sand overlaying stiff clays. The material will be excavated in the wet, with adequate strategies in place to avoid and manage any potential environmental impacts associated with the dredging. All material excavated from the marina basin will be reused on site to maximise beneficial use.

Maintenance dredging is not likely to be required for at least 10 years, probably much longer, as potential sources of sedimentation in the marina are limited.

A beach will be created from sand excavated from the marina basin and located to the north of the northern breakwater. A groyne is proposed to be constructed to prevent the migration of sand sediments and stabilise the new beach.

Sand bypassing, by mechanically moving beach sand from the south side to north side of the marina, may be required to preserve the existing longshore sediment transport from the south-west. The build up of sand to the south of the main breakwater will be monitored. If the build up reaches the trigger level set in the Operations Environment Management Plan (refer to Volume 3 of the Supplementary Technical Reports), sand by passing will commence. To facilitate this, infrastructure will be installed during construction of the marina harbour to enable transportation of fluidised sediments via a slurry pipeline to an appropriate location approximately 350m to the northeast of the development, returning the sand to the littoral zone. Further details of the sand by pass system are provided in the Coastal Processes Report. This process will ensure that the marina does not have an unacceptable adverse impact on longshore movement of sand.

24 GROUNDWATER PROTECTION

Wyndham Harbour is to be constructed in proximity to an underlying aquifer which forms part of the Deutgam Water Supply Protection Area. Construction of the harbour will require excavation of material from part of the marina seabed to a depth of -3.5m AHD.

In order to protect the beneficial use of the aquifer, the Planning Scheme provisions of the Development Plan Overlay Schedule 9, require submission of a Groundwater Protection Management Plan with the Development Plan and also completion of a Works Methodology Report prior to commencement of construction of the harbour basin.

The Groundwater Protection Management Plan prepared by Coffey Geotechnics (refer to Volume 3 of the Supplementary Technical Reports) forms part of this Development Plan report. It is the culmination of extensive geotechnical investigations, groundwater testing and modelling of the environmental conditions both with and without the development. It reflects input from both Southern Rural Water and their consultants, SKM Pty Ltd.

The Groundwater Protection Management Plan demonstrates that, provided the coastline is suitably lined with an appropriate non-permeable material, no detrimental impact on the beneficial use of the Werribee South aquifer is likely to occur as a result of the excavation of the harbour.

To achieve this level of protection, the original proposal involved the installation of a 30m wide HDPE (synthetic) liner on the seabed along the coastal interface. A revised approach for the southern foreshore and part of the northern foreshore (within Stage 2 of the development), which is supported by Southern Rural Water, is to use a clay liner which would widen the foreshore area by approximately 20 metres.

Installation of the clay liner will involve removal of the existing rock armour along the shoreline, installation of water filled barriers approx. 30m offshore over a length of 60m, dewatering the enclosed area, stripping the sub-grade, then placing and compacting the clay fill in

200mm thick layers to reach the design level. The water filled barriers will then be removed. This will be repeated progressively in 60m sections along the 480m length of the foreshore in Stage 2. Geotextile and armour rock will also be placed along the batter slope down to sea level.

This approach has only been applied to Stage 2 of the development.

As well as protecting the aquifer, the widening of the foreshore will provide additional public open space adjacent to the Bay Trail and opportunities for further landscaping.

The Plan also recommends ongoing monitoring of selected boreholes at a number of locations across the development site and specifies mitigation measures. These have been incorporated into the Environment Management Plans.

Other reports which have been prepared by Coffey Geotechnics to support and overlap with the Groundwater Protection Management Plans are:

- Stage 1- Revised Additional Geotechnical Investigations;
- Stage 2- Geotechnical Investigation and Groundwater Monitoring Bore;
- Supplementary Geotechnical Investigation; and
- Works Methodology.

These reports form part of Volume 3 of the Supplementary Technical Reports to this Development Plan (refer to Development Plan Report Disk).

25 ARCHAEOLOGY

Wyndham Harbour will have impacts on the three Aboriginal archaeological sites identified during the archaeological study which has been completed by Terraculture (see Supplementary Report - Volume 2). The development is expected to have a direct impact on registered Aboriginal archaeological sites AAV 7822 – 1486, 7822-1487 (stone artefacts located on the vehicle track) and 7822-0181 (recorded in 1989 but not found during the recent survey). Consent has been obtained from the Wurundjeri Tribe Land Compensation & Cultural Heritage Council Inc. to disturb these sites. A Cultural Heritage Management Plan has been approved (see Supplementary Report - Volume 2) in accordance with the requirements of the Aboriginal Heritage Act 2006.

In relation to historical sites, the development will have a direct impact on a hedge and pump house (Heritage Victoria Inventory number D7822 – 0592), which have a 'D' classification from Heritage Victoria and do not require consent for removal. The development may also impact on imprecisely located historical sites which are potentially located on the sea floor in the locality, including ship wrecks and plane wreck sites. Monitoring will occur during excavation and any potentially historically significant artefacts from ship or plane wreck sites will be reported to the Maritime Heritage Unit of Heritage Victoria in accordance with the Construction Environment Management Plan.

26 SITE CONTAMINATION

The freehold part of the site is covered by an Environmental Audit Overlay. The purpose of the overlay is stated in the Wyndham Planning Scheme as follows:

“To ensure that potentially contaminated land is suitable for a use which could be significantly adversely affected by any contamination.”

Clause 45.03-1 of the Planning Scheme requires that: “Before a sensitive use (residential use, child care centre, pre-school centre or primary school) commences or before the construction or carrying out of buildings and works in association with a sensitive use commences, either:

- A certificate of environmental audit must be issued for the land in accordance with Part IXD of the Environment Protection Act 1970, or
- An environmental auditor appointed under the Environmental Protection Act 1970 must make a statement in accordance with Part IXD of that Act that the environmental conditions of the land are suitable for the sensitive use.”

The Wyndham Harbour site was previously used for agricultural purposes, including market gardening. A Phase 1 Environmental Site Assessment conducted by Coffey Environments indicated that the most likely risk of contamination at the site is associated with previous agricultural land use such as leaching of nutrients, pesticides and herbicides and possible machinery fuel stores.

Coffey Environments is currently completing a comprehensive assessment of the site including the materials proposed for excavation and reuse on site. The work is proceeding under the direction of an EPA accredited Environmental Auditor (Noel Arnold Pty Ltd). Due to the staging requirements of construction, certain areas may be considered separately and more than one audit report may be completed. However, the Certificate or Statement of Environmental Audit will be issued prior to any sensitive use of the Site commencing, thereby satisfying the requirements of the overlay.

27 ACOUSTICS

The acoustic impact from the proposed development has been assessed by Burton Acoustic Group (refer to Volume 2 of the Supplementary Technical Reports) and is predicted to be minimal. The Evening Period Noise Limits (6pm to 10pm) for a few residential locations within the proposed development may be exceeded during periods of activity associated with boat maintenance and storage facilities.

However, there are various noise control mechanisms available to minimise this potential impact including appropriate building design and material use, type of equipment used and limits on hours of operation for particular uses. Additional acoustic modeling will be required once the boat storage and service building designs have progressed. Noise control measures will then be incorporated into the design to ensure compliance with the applicable maximum noise levels pursuant to the State Environment Protection Policies N-1 and N-2.

Operating hours throughout the construction and operation of the Wyndham Harbour development will be required to ensure compliance with the EPA Guidelines and relevant Council Local Laws unless otherwise agreed to in writing by the Responsible Authority.

The Wyndham Harbour Operations Environment Management Plan also provides the opportunity to address any potential noise impacts identified throughout the operational phase of the development and identifies the scope for resolution and compliance.

Noise modelling carried out for the development site has demonstrated that construction and operational noise from the proposed development would not exceed EPA standards beyond the site. In addition, it is predicted that any increases in traffic volumes, whether commercial or non-commercial, will have minor impact on existing residents of Duncans Road in terms of noise.

28 AIR QUALITY

URS has completed an assessment of Air Quality issues associated with Wyndham Harbour (refer to Volume 2 of the Supplementary Technical Reports).

Atmospheric dispersion modeling was used to predict particulate and pollutant impacts from the construction and operation of the facility, including impacts from vehicles, exposed earth, dust and vehicular exhaust. This modeling revealed that the concentrations of common air pollutants generated from combustion sources is not likely to cause elevated pollutant levels that will exceed state and federal guidelines and levels. The use of dust suppression techniques has also been modelled and clearly demonstrates that off-site dust impacts can be controlled ensuring compliance to the SEPP-AQM design criteria can be comfortably achieved. To control dust emissions from the construction phases of the site a number of dust suppression techniques have been proposed and incorporated into the Construction Environment Management Plan.

A qualitative and quantitative assessment of odour from existing sources surrounding the site and those associated with the marina has been carried out and shows that there is low likelihood of offensive odours impacting on the proposed Wyndham Harbour development.

29 SUSTAINABILITY INITIATIVES

Wyndham Harbour will implement a number of significant sustainability initiatives including revegetation of indigenous terrestrial flora, rehabilitation of the coastal foreshore and construction of wetlands. These actions will have a positive impact on native flora and fauna by providing more food plants and habitat for native fauna as well as offsetting any potential direct impacts of the development.

The wetlands component of the proposed development has been designed to treat stormwater flows from the site and treats water prior to discharging into the bay.

Mains water usage within the development will be reduced through:

- installation of rainwater tanks for toilet flushing and irrigation of private open space; and
- use of 3rd pipe recycled water for irrigation of public open space.

It is expected that 60% reduction in potable water use can be achieved by implementing these measures.

The houses in the development will have a minimum "5 star" energy rating using government approved rating software and in addition, incorporate ESD principles for housing as described in the Design Guidelines. This compares to an average "2.2 star rating" for "typical" houses in Victoria. This will reduce greenhouse gas emissions by an estimated 1.3 tonnes per household per year. In the overall development, this will result in a reduction of more than 312 tonnes of greenhouse gasses per year when compared with "typical" houses.

To further offset Carbon Dioxide emissions produced by the development, carbon sequestration will be achieved through a program of revegetation of 500 hectares in the Upper Werribee catchment. At a catchment/regional level this will have environmental benefits including erosion control, improved water quality in the Werribee River, salinity control, increased biolinks and biodiversity, and pest flora and fauna control.

Pursuant to Clause 5.0 of the Development Plan Overlay provisions for Wyndham Harbour in the Planning Scheme a Section 173 Agreement has been executed which details:

- "arrangements, to the satisfaction of the Responsible Authority, in relation to:
- a) off-set planting in the upper catchment of the Werribee River; and
 - b) other sustainability initiatives to be incorporated in the development"

The Agreement details the arrangements with Grow West and ES Link Services for the planting and monitoring of 500ha within the Upper Werribee Catchment, to be staged over an agreed period of time.

30 STAGING

The development of Wyndham Harbour is planned to take place over a 5 year period, commencing in 2010. The staging will allow for the release of titles for the residential element on completion of each Stage with exception of Stage 1 which will be released once the first 300m of the Southern Breakwater is constructed to an agreed height (minimum RL 0.8m) to the satisfaction of Council and with the provision of a binding Construction Contract between the Developer and the Builder for the completion of the entire Southern Breakwater as part of the Stage 1 Marina Works.

Council may allow the release of titles within a stage prior to completion of previous stages, subject to Council satisfaction that other arrangements are in place to ensure the completion of the previous stage within a reasonable timeframe.

The various elements involved in each of the stages of construction shown on the Staging Plan are outlined below:

Stage 1

- A minimum of the first 300m of the Southern Breakwater to be constructed to an agreed height (minimum RL 0.8m)(to the satisfaction of Council)(and the provision of a binding Construction Contract for the completion of the entire Southern Breakwater) for the Statement of Compliance for the Stage 1 Residential Subdivision.
- The completion of construction of the overtopping and non-overtopping sections of the Southern Breakwater beyond and including the first 300m.
- Electricity to be connected to site
- Telephone to be connected to site
- Site preparation to be completed to Stage 1 residential land area
- Roads and civil works to be completed to Stage 1 residential land
- Power, Water and Sewer to be completed to Stage 1
- Wetland excavation to be completed
- Landscaping to Stage 1 residential land to be completed*
- Creation of superlot for Southern apartment site

Stage 2A

- Site preparation to be completed to Stage 2A residential land area
- Roads and civil works to be completed to Stage 2A residential land
- Power, Water and Sewer to be completed to Stage 2A
- Gas to be connected to site
- Duncans Road main intersection to be completed, in its entirety (prior to statement of compliance for lots in the northern portion of Stage 1)*

- Duncans Road upgrade works to be completed
- Piping of Duncans Road drain adjacent to Stage 1 land to be completed
- Landscaping to Stage 2A residential land to be completed*
- Landscaping to wetlands to be completed*
- Landscaping to Main Boulevard to be completed*
- Landscaping to channel reserve (adjacent to Stage 1 land) to be completed including 275 overflow car spaces*
- Creation of superlot for Northern apartment site

Stage 2B

- Site preparation to be completed to Stage 2B residential land area
- Roads and civil works to Stage 2B to be completed
- Power, Water and Sewer to be completed to Stage 2B land
- Landscaping to Stage 2B residential land to be completed*
- Construction of northern buffer including completion of landscaping and bike paths *

Stage 2

- Phase 1 Breakwater to be constructed to point equal to alignment of Central Spine
- Central Spine to be constructed
- Construction of the first section of Northern Overtopping Breakwater in accordance with the length shown in the approved Coastal Processes Report
- Dredging of Marina Basin to Stage 2 area to be completed
- Sand bypass system installation to be completed
- Coastal Revetment Walls including landscaping, foreshore rehabilitation and Bay Trail adjacent to Stage 1, 2A and 2B land to be completed
- First 150 Berths to Stage 2 marina basin to be installed and remainder (up to 300 berths) to be installed in Stage 5
- Salt Water flushing system to be completed (if required)
- Construction of the southern beach, and adjacent car park
- Reclaimed land for Drystack and Hardstand area to be completed (including construction access to Duncans Rd)
- Installation of clay liner and extension of the foreshore, south of the central spine and Central Piazza North
- Temporary breakwater and berths to be completed
- Marina Centre land reclamation to be completed
- Marina Centre (temporary) incorporating marina operations and coast guard only, to be provided
- Installation of car parking associated with Stage 2 marina berths to be completed and installation of temporary and permanent landscaping and associated hardworks on Central Spine and building pad
- Construction of northern groyne

Stage 3

- Construction of Town Centre civil works including main boulevard and Central Piazza (south)**
- Central Piazza (south) paved public area to be completed**
- Southern apartment building including retail / commercial facilities to be completed

Stage 3A

- Construction of the northern beach
- Northern apartment building to be completed
- Central Piazza (north) including amenities building and community room to be completed (public area adjacent to northern apartment building)

Stage 4

- Landscaping to Stage 4 to be completed*
- Roads and civil works to be completed to Stage 4 residential land** (Plan of Subdivision may be split into sub-stages)
- Power, water and sewer to be completed to Stage 4
- Landscaping to Channel Reserve (adjacent to Stage 4 land) to be completed including 125 overflow car spaces
- Piping of Duncans Road drain adjacent to Stage 4 to be completed
- Recreation Facility/Clubhouse including two tennis courts to be completed

Stage 5

- Landscaping to Stage 5 to be completed*
- Roads and civil works to be completed to Stage 5 residential land** (Plan of Subdivision may be split into sub-stages)
- Power, water and sewer to be completed to Stage 5
- Marina Centre (combining Marina Club and Operations) to be completed and temporary Marina Centre to be removed
- Duncans Road intersection adjacent to the hardstand to be completed
- Marina Hardstand paving and car parking to be completed.
- Remaining berths from Stage 2 to be installed *

Stage 6

- Phase 2 Breakwater to be completed
- Phase 2 Northern Breakwater to be completed
- Dredging of Marina Basin to Stage 6 area to be completed
- Berths to Stage 6 marina basin area to be installed (progressively as required)
- Installation of car parking associated with Stage 6 marina berths to be completed and removal of temporary landscaping on Central Spine.
- Temporary breakwater and berths to be removed

- Drystack to be completed along with facilities, commercial elements, public toilets and refurbishment of existing car parking.

Stage 7

- Future expansion of Marina (10-20 years) (Details of the expansion will require amendments to this Development Plan)

It should be noted that these stages reflect the indicative stages of the construction program and may differ from the staging of the various planning permit applications.

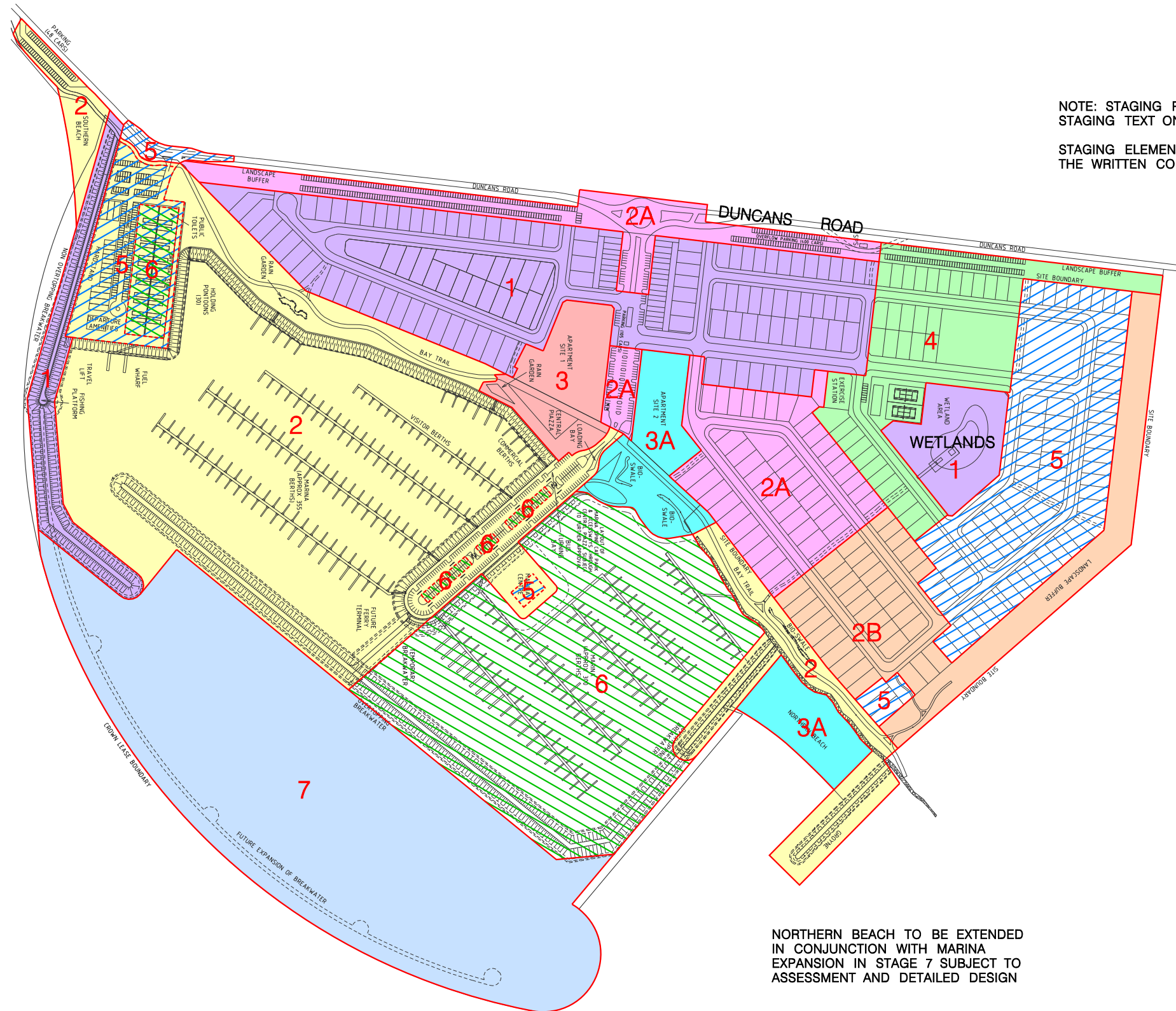
* Works may be bonded as agreed with Wyndham City Council

**Public works may be bonded subject to agreement with Council and amendment of relevant planning permits to Council's satisfaction.

CONSTRUCTION STAGING PLAN

NOTE: STAGING PLAN TO BE READ IN CONJUNCTION WITH STAGING TEXT ON PAGE 49 OF THE DEVELOPMENT PLAN

STAGING ELEMENTS MAY BE VARIED FROM TIME TO TIME WITH THE WRITTEN CONSENT OF THE RESPONSIBLE AUTHORITY

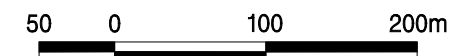
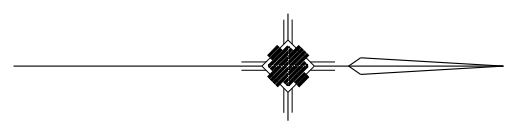


NORTHERN BEACH TO BE EXTENDED IN CONJUNCTION WITH MARINA EXPANSION IN STAGE 7 SUBJECT TO ASSESSMENT AND DETAILED DESIGN

PROJECT STAGING

- STAGE 1
- STAGE 2
- STAGE 2A
- STAGE 2B
- STAGE 3
- STAGE 3A *
- STAGE 4
- STAGE 5
- STAGE 6
- STAGE 7

NOTE: STAGING NOT NECESSARILY REFLECTIVE OF CONSTRUCTION SEQUENCING
 * FORESHORE EXTENSION TO BE COMPLETED IN STAGE 2



31 WORKS METHODOLOGY

Clause 2.0 of the Development Plan Overlay provisions of the Planning Scheme states that a planning permit authorising the development of Wyndham Harbour must include a condition which requires submission of a Works Methodology Report which demonstrates that the construction of the marina basin will not have a material adverse effect upon the beneficial use of the underlying aquifer. The Works Methodology Report must be to the satisfaction of Southern Rural Water and must be submitted prior to commencement of construction of the marina basin.

Coffey Geotechnics have prepared a Works Methodology Report which includes an overall construction methodology and staging sequence for the project as well as details of construction for the main components of the offshore works and canal construction. The report refers to performance management measures and contingency measures and also makes reference to further detail in overlapping documents including:

- Groundwater Protection Management Plan
- Construction Environment Management Plan
- Operations Environment Management Plan

These documents form part of the Supplementary Technical Reports to this Development Plan Report - Volume 3.

32 ENVIRONMENT MANAGEMENT PLANS

The Construction and Operations Environment Management Plans (CEMP and OEMP) will provide for the implementation of the management and mitigation measures and will minimise and manage any impacts the construction activities and ongoing operation of the site could have upon the surrounding environment.

Both the CEMP and the OEMP also include monitoring and measuring procedures to ensure the continuous improvement of the environmental framework. Both EMP's have been prepared by URS and form part of the Supplementary Reports to this Development Plan Report.

32.1 Construction Environment Management Plan (CEMP)

The CEMP will act as the key tool for environmental management and performance of the project during construction. The CEMP sets out a schedule of control measures to be implemented to manage the impact of construction activities on the environment. It also outlines the statutory and regulatory requirements relating to the project, identifies requirements for monitoring, auditing and reporting activities, and defines management accountability.

Elements of the project covered in the CEMP include:

- Noise and vibration;
- Air quality, dust and odours;
- On site soil, sediment and erosion control;
- Surface water and associated impacts on Port Phillip Bay;
- Dredging;
- Groundwater;
- Marina hardstand and marina centre construction;

- Terrestrial flora and fauna;
- Cultural heritage;
- Traffic and access;
- Visual amenity;
- Emergency preparedness, response and contingency planning;
- Chemical and fuel management;
- Waste minimisation and management;
- Environmental training and competence;
- Environmental monitoring;
- Incidents;
- Corrective and preventative action; and
- Environmental evaluation and review.

32.2 Operations Environment Management Plan (OEMP)

The OEMP will be the key tool for environmental performance of Wyndham Harbour during its operation and occupation. The OEMP sets out objectives, environmental issues, control measures, relevant legislation, requirements for monitoring, auditing and reporting activities, and defines management accountability.

The OEMP identifies the environmental control measures needed to minimise the impact of daily operations on the surrounding environment. These control measures will assist in maximising the long-term sustainability of the marina complex. The OEMP addresses the following operational aspects of Wyndham Harbour:

- Residential and harbour guidelines;
- Commercial guidelines;
- Harbour guidelines;
- General management measures;
- Water quality monitoring program;
- Environmental management; and
- Audit and review of the OEMP.

33 CONCLUSION

Wyndham Harbour is a project of strategic significance in a local, regional and State context. It will provide a purpose-built, integrated marina and residential development incorporating a safe boat harbour, extensive boating infrastructure and facilities, a network of public open spaces, wetlands and shared paths, and offering substantial environmental benefits as a result of the sustainability initiatives built into the concept. Wyndham Harbour will satisfy an identified need for a safe boat harbour in this location in accordance with State government policy as well as providing a wide range of social, environmental and economic benefits for the local and regional community.

This Development Plan provides a framework for the development of the site generally in accordance with the Environment Effects Statement, the Ministers Assessment and the Wyndham Planning Scheme Development Plan Overlay - Schedule 9. It is supported by this Development Plan Report, which provides an overview of the Concept Masterplan and the Supplementary Technical Reports which detail the comprehensive investigations which have been undertaken.

The Development Plan, the accompanying Development Plan Report, Design Guidelines and the Supplementary Technical Reports (Volumes 1-3) respond to and satisfy the requirements of the Development Plan Overlay – Schedule 9.