WERRIBEE SOUTH BEACH MASTERPLAN CONCEPT DESIGN REPORT





ACKNOWLEDGEMENT OF TRADITIONAL OWNERS

Enlocus acknowledges the Traditional Owners of the lands and waters around Werribee South, the Bunorong and Wadawurrung people of the Kulin Nations, and pays respect to their Elders - past, present and emerging - and recognises their long and continuing connection to the waters, lands, skies and everything that makes Country.

PROJECT ACKNOWLEDGEMENTS

Enlocus would like to thank and acknowledge the input and assistance of Wyndham City Council in the development of this document.

Prepared by Enlocus for



Project Number 2203

Revision	Status	Date	Ву	Checked
G	ENDORSED MASTERPLAN	26/05/23	MRF	MRF
F	MASTERPLAN ISSUE 5	28/04/23	MRF	MRF
E	MASTERPLAN ISSUE 4	06/3/23	WM	MRF
D	MASTERPLAN ISSUE 3	23/1/23	WM	MRF
C	MASTERPLAN ISSUE 2	07/12/22	WM	MRF
В	MASTERPLAN ISSUE	25/7/22	WM	MRF

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Cover Image: Mouth of the Werribee River and You Yangs as seen from Werribee South Foreshore Reserve

Back Page Image: Coastal dunes looking out to Wyndham Harbour

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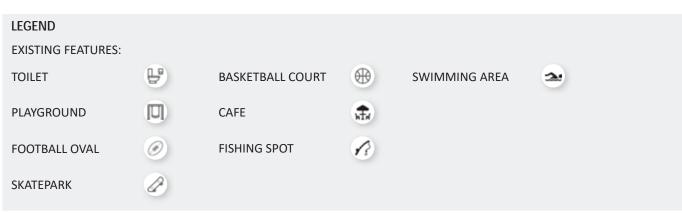
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0 50 100m N 1:5000 at A3







VIEW FROM THE WERRIBEE SOUTH FORESHORE RESERVE TOWARDS THE WERRIBEE RIVER AND THE YOU YANGS



CORNER OF DIGGERS ROAD AND BEACH ROAD: WHERE THE FORESHORE ENDS AND THE WETLANDS BEGIN



DUNE VEGETATION, PRIMARILY MADE UP OF COAST SALTBUSH (ATRIPLEX CINEREA), CREATES A BUFFER BETWEEN THE BEACH AND THE EXPANSIVE FORESHORE LAWNS



FAST REACH: AN OPPORTUNITY FOI

A STEEP HEADLAND CREATES A TIGHT THOROUGHFARE ON THE EXISTING SHARED PATH









1 - 1.5m WIDE EXISTING PATH SECTION TO BE WIDENED TO 2.5m ON DECK SECTION



2.5 - 3m WIDE EXISTING PATH SECTION TO BE RETAINED



NEW ACCESSIBLE DECK PATH TO CONNECT PLAYGROUND TO BAY TRAIL



EXISTING STEEP PATH SECTION TO BE REGRADED AND REPLACED WITH 2.5m RC SECTION

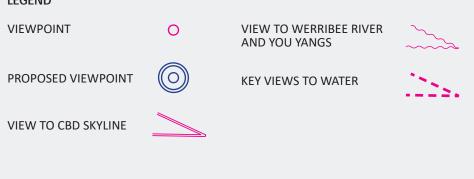


5 EXISTING 2.0m WIDE SECTION TO BE REPLACED WITH 2.5m BAY TRAIL SECTION



6 EXISTING CLIFFSIDE SECTION TO BE WIDENED ONTO DECK SECTION WITH PILE FOOTINGS













2 VIEW TO WERRIBEE RIVER



3 VIEW TO WERRIBEE RIVER



4 VIEW OVER FORESHORE DUNES

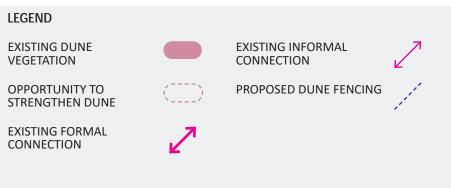


5 LONG VIEW ALONG BEACH AND DUNE



VIEW OVER EAST BEACH TO HARBOUR AND CBD SKYLINE





12





EXISTING LAWN

CONNECTION TO LAWN

SIGNIFICANT INCLINE

EXISTING GRADE







STEEP LAWN BETWEEN BAY TRAIL AND PLAYGROUND



EXISTING STORMWATER PIPE MUST BE SPANNED OVER BY FUTURE BEACH ACCESS PATH



STEEP EMBANKMENT OCCUPIES MUCH OF THE EASTERN LAWN







EXISTING CAR PARKING

PROPOSED OVERFLOW CAR PARKING



BOAT RAMP PARKING + SPILLOVER PARKING



5 24 SPACES +1 ACCESSIBLE SPACE





EXISTING ACCESSIBLE CAR SPACE



PROPOSED ACCESSIBLE CAR SPACE



23 SPACES + 2 ACCESSIBLE SPACES



26 SPACES + 2 ACCESSIBLE SPACES + 6 MOTORBIKE SPACES



24 SPACES + 2 PROPOSED ACCESSIBLE SPACE



18 SPACES + 1 PROPOSED ACCESSIBLE SPACE



3 SPACES + 4 MOTORBIKE SPACES



8 3 SPACES



A PROPOSED PEAK PERIOD OVERFLOW PARKING

10 15 SPACES + 1 PROPOSED ACCESSIBLE SPACE

EXISTING OVERFLOW CAR PARKING 100m RADIUS FROM EXISTING CARPARK





15

Werribee South Beach - Climate Change Projections & Coastal Monitoring Data Sources



Climate change science indicates that Werribee South Beach will be impacted by sea level rise, coastal erosion and increased ground water salinity, over time. The Victorian State Government's Coast Kit service (See above) has mapped projected sea level rise impacts. They have also mapped the locations of existing coastal protection structures including groynes and revetment walls, which help protect the coastline from erosion. Mapping also indicates erosion vulnerability due to coastal protection structures and the geomorphology of the coastline.

Coast Kit modelling indicates that by 2100, sea level rise may cause inundation of beach and lawn areas at Werribee South Beach at high tide and during large storm events. Council plans to restore the coastal dune system where possible, to increase the height of these areas, as a buffer to increasing tide levels and storm surge impacts. Improved lawn areas will also provide amenity for visitors during high tides, where more of the beach may be covered in sea water. Council also plans plant coastal species with a resilience to salinity and erosion to maintain habitat values, shade and amenity throughout the precinct.

The Federal Government's Digital Earth Australia service has mapped erosion pattern on the Werribee South coastline, since 1988 (see right). Based on satellite imagery, the data provides a good indication of local beach growth and erosion patterns over time. The imagery indicates erosion on the west side of the Werribee River (indicated in red) and growth on the eastern side, including Werribee South Beach (indicated in blue). Coastal processes move sand northwards along the coastline, accumulating in the Werribee River mouth, boat ramps and on Werribee South Beach. Dredging to clear sand from the boating channel has also assisted in increasing the amount of sand on Werribee South Beach. The natural and dredging related growth of Werribee South Beach will provide an important buffer for protecting parkland from sea level rise and storm surge in the future.

A climate change adaption pathway has been developed for Werribee South Beach to prioritise Council investment in nature based methods to adapt to future climate change impacts. The pathway indicates the types adaption and retreat interventions required by Council and State government agencies including Department of Environment, Land, Water & Planning (DELWP) and Parks Victoria over time and in response to sea level rise in order to maintain public access, amenity and environmental values at Werribee South Beach.



Werribee South Beach - Adaptation Pathway

Enhancing Adaptive Capacity Interventions







	Sea level rise projections	0.2 m	0.5 m	0.8
	Present Day	By 2040	By 2070	By 2100
	Mitigate	Adapt	Adapt/Retreat	
Planning	 Continue to implement the Wyndham Coastal & Marine Management Plan. (Council) Implement the Werribee South Beach Master Plan. (Council) Completion of the Port Phillip Bay Hazard Assessment Project. Development of third pass sea level rise inundation mapping, erosion and salinity impact analysis projections. (DELWP) Completion of the Western Shorelines of Port Phillip Bay Regional and Strategic Partnership. (DELWP) Implementation of the Victorian Marine and Coastal Strategy, 2022. (DELWP) Undertake detailed analysis and adaptation planning as required to inform the implementation and update of the Adaptation Pathway including triggers for review and change of approach. (Council) 	 Continue to periodically revise and implement the Wyndham Coastal & Marine Management Plan. (Council) Implement State led, Port Phillip Bay wide action plans including: Implementation of the Victorian Marine & Coastal Strategy. Implementation of the outcomes of the Western Shorelines of Port Phillip Bay Regional and Strategic Partnership; and Implementation of the findings of the Port Phillip Bay Hazard Assessment Project. Undertake detailed analysis and adaptation planning as required to inform the implementation and update of the Adaptation Pathway including triggers for review and change of approach. (Council) 	 As per Port P plans, (DELW Undertake de adaptation plinform the im update of the including trig 	hillip Bay wide action (P) as applicable. etailed analysis and lanning as required to applementation and eta Adaptation Pathway gers for review and proach. (Council)
Coastal Management & Engineering	 Support beach renourishment through dredging works. (Parks Victoria) Improve the amenity of lawn areas to increase recreational usage potential during higher tides when beach areas are inundated. (Council) Plant of coastal species to determine their adaptive capacity for erosion and salinity impacts. (Council) Implement dune protection & enhancement works. (Council) Monitor sand levels through the CoastSnap Citizen Science program and State and National coastal monitoring services. (Council) Maintain existing groynes and revetment walls. (DELWP) 	 Support beach renourishment through dredging works (Parks Victoria) and importation of additional sand, as required. Maintain Coastal species with adaptive capacities for erosion and salinity impacts. (Council) Maintain dune protection & enhancement works. (Council) Monitor sand loss and gain through the CoastSnap Citizen Science program and State and National coastal monitoring services. (Council) Maintain and plan extension works to groynes and revetment walls, as required. (DELWP) 	through dred Victoria) and Maintain dur enhancemen Maintain coa adaptive capa salinity impac Support mair extension wo	,

WERRIBEE SOUTH BEACH MASTERPLAN













WERRIBEE SOUTH BEACH MASTERPLAN DESIGN ELEMENTS FOR AREA A

REFER TO AREA PLANS ON P21 FOR LOCATIONS

N1 WETLAND LOOKOUT DECK

NODE 1 DESIGN CONCEPT

Hardwood timber deck that extends from the existing Bay Trail. At a natural high point, this provides a vantage point to look out over Graham's Wetland Reserve, while also spanning over two existing drainage outlets which run beneath Beach Rd. Widened paths create a safe stop for pedestrians and cyclists to navigate onto the Bay Trail or onto future paths leading towards the Werribee River.

The existing shared trail is to be widened to 2.5m along the length of the Werribee South Foreshore Reserve. Where required, path is to be regraded and reinstated to allow for equitable access along the foreshore trail. Approximately 400m of the existing trail at the western extent is in good condition and sufficient width and should be retained.

1 LOOKOUT TOWARDS GRAHAM'S WETLAND RESERVE

Hardwood timber decking (class 1, F17, kiln dried spotted gum), timber balustrade, structure fixed on screw pile footings over existing embankment and spanning existing drainage outfalls.

2 FUTURE PATH CONNECTION TO WERRIBEE RIVER

Allow future connection of proposed timber deck structure to future reinforced concrete (RC) path to Weribee River through Graham's Reserve

3 STEPPED DOWN SEATING

450mm high hardwood timber seating steps (class 1, F17, kiln dried spotted gum)

4 PLANTED BUFFER ON ROAD EDGE

Coastal planting buffer to match feature planting along Bay Trail

5 BAYTRAIL UPGRADE

Shared path to be upgraded to 2.5m wide Bay Trail in reinforced concrete with exposed aggregate mix and areas of sandblasted finish. Approximately 400m length of the Bay Trail at western extent to be retained as it is in good condition and sufficient width for shared use.

FUTURE PATH CONNECTION

2.5m RC path connection is a future component of works of the Werribee South Boating Facility Upgrade Project

8 EXISTING TOILETS FOR FUTURE RENEWAL

Possible future expansion and renewal of toilet block

9 POSSIBLE EV CHARGING FACILITY

Possible EV charging facility, subject to the outcomes of the Parking & Road Safety Study.

10 TIMBER SEAT

Proposed hardwood timber seat with backrest on steel frame, to be fastened to existing timber deck.

11 REFRESH PLANTING

Refresh existing planter beds with coastal planting and two coastal Banksia tree species.

BEACH ACCESS DECK

Hardwood timber deck outstand (class 1, F17, kiln dried spotted gum), structure fixed on screw pile footings. Timber bench with backrest along edge

PLAYGROUND UPGRADE

NODE 2 DESIGN CONCEPT

A new regional playground is proposed for the foreshore to replace the existing ageing playground. Play elements encourage climbing, moving and exploring for the older kids, with gathering, balance and story elements for little ones. Iconic features include a timber bird sculpture as a central play element, with smaller 'nest' climbing posts and bird sculptures marking the migration route to the feeding ground. A border of coastal shrubs favoured by the parrot provides a buffer against the existing road edge. Existing embankment lawn and treed area to be maintained.

The site looks out towards the mouth of the Werribee River, which is home to significant habitat for the critically endangered Orange Bellied Parrot. The playground design encourages kids to jump into the migratory route of the parrot, flying from the breeding grounds in Tasmania's west coast, across the sea to the winter foraging areas along Victoria's coasts.

13 PLANTED PLAYGROUND BORDER

Coastal planting to provide buffer at road edge of playground site.

14 BAY TRAIL WIDENED TO 2.5M

Shared path to be upgraded to 2.5m wide Bay Trail in RC with exposed aggregate mix, colour oxide and sandblasted finish.

15 PLAYGROUND

Demolish and replace existing playground. Elements to include items such as:

- Timber platform nests (custom)
- Timber bird climbing frame (custom)
- Timber bird sculpture posts 10nos. (custom)
- Animal springers and accessible spinners
- Timber stilts
- Rope course
- Accessible basket swing
- Double swing
- Climbing logs
- Play surface 1: 300mm deep washed sand soft-fall
- Play surface 2: Rubber wet pour soft-fall

Seating area to include:

- 3 timber picnic shelters with skillion roof to match existing shelters along the coastal reserve
- 6 picnic table sets
- · Two hardwood timber benches with backrest
- Hardwood timber decking beneath sheltered seating area
- Bicycle hoops
- · Drinking fountain
- Barbeque

16 RETAIN SAND GROOMER ACCESS

Existing 3.2m access route for sand groomer with lockable gate to be retained

17 BANKSIA GROVE

Banksia marginata 45L pot size planted beside existing path

18 REFURBISH EXISTING SEATING STEPS

Replace deteriorated FRP grated stairs, ensuring to finish flush with existing RC pavement. Refresh planting to edge of RC seating steps.

ELEVATED WALKWAY ACCESS TO PLAYGROUND AND LOOKOUT Hardwood timber decking, timber balustrade, structure fixed on screw pile footings. Span existing dune vegetation where possible.

20 NEW PATH SECTION AT ACCESSIBLE GRADE

Replace existing 1:10 steep path section with new aligned 2.5m wide Bay Trail in RC with exposed aggregate mix, colour oxide and sandblasted finish.

DEMOLISH STEEP PATH SECTION

Demolish existing 1:10 steep path section and infill with coastal planting.

GRANITIC SAND DUNE PATH

1.5m wide path with FCR base, granitic sand topping and timber edge.

N3 FITNESS HUB

NODE 3 DESIGN CONCEPT

A coastal fitness hub that caters to users of various ages and abilities. Designed to be a welcoming stop along the Bay Trail, this facility will encourage incidental exercise by locals out on a casual walk, as well as deliberate visits for those looking for a beautiful view while they work on their cardio, strength and flexibility.

23 FITNESS HUB

Outdoor fitness equipment to include items such as:

- Sit up bench
- Assisted step
- Flex wheel and leg lift.
- Double chest press
- Pull Up Station
- Rubber wet pour soft-fall base to to depth required by fitness equipment supplier's specification.
- RC step seating at boundary.
- 24 STAIR ACCESS TO BEACH

RC stairs to provide direct access to beach from Bay Trail beside fitness station

25 NEW DUNE PLANTING

Planting to promote expansion of remnant dune ecologies. Thicker planting to protect foreshore edge from erosion. To be led by City of Wyndham Conservation Team.

26 DUNE PROTECTION FENCE

Wood and wire erosion control fencing to surround proposed extent of dunes, allowing sand accretion and dune migration.

© POTENTIAL COMMERCIAL FACILITIES & SERVICES

© POTENTIAL FACILITIES AND SERVICES CONCEPT

There is strong community support for additional food and drink and other coast related commercial services at Werribee South Beach. These may include:

- Kiosk facilities providing coffee, cold drinks, ice creams and take away food:
- Café facilities;
- Food Trucks during the summer months.

- Vending machines providing drinks, bait and ice servicing the Werribee South Boat Ramps:
- Canoe, kayak and beach equipment hire such as umbrellas and deck chairs; and
- Fishing and river boat tours

This Master Plan has identified several locations that may be suitable for these types of services. Further work is required to determine preferred locations, the financial viability of various service options and local service requirements.

WERRIBEE SOUTH BEACH PARKING AND ROAD SAFETY STUDY

Community concern has been expressed regarding road safety risks in Beach Road and insufficient car parking availability during peak use periods.

Further work is required to formalise existing and new parking areas to ensure safe access for visitors, to improve parking restrictions and to manage road safety risks. This work will be undertaken as an implementation item under the Master Plan.

WERRIBEE SOUTH BEACH MASTERPLAN DESIGN ELEMENTS FOR AREAS B + C

REFER TO AREA PLANS ON P22-23 FOR LOCATIONS

25 NEW DUNE PLANTING

Planting to promote expansion of remnant dune ecologies. Thicker planting to protect foreshore edge from erosion. To be led by City of Wyndham Conservation Team.

26 DUNE PROTECTION FENCE

Wood and wire erosion control fencing to surround proposed extent of dunes, allowing sand accretion and dune migration.

27 FOOD TRUCK AND PICNIC AREA

Three picnic tables to match existing foreshore furniture palette. Three-phase power connection to allow seasonal food truck operation.

788 FORMALISED PARKING IN FRONT OF EXISTING COASTGUARD TOWER

Existing informal gravel parking bays to be sealed and marked.

29 MAINTAINED BEACH ACCESS

Existing access paths through dune vegetation to be maintained.

N4) BEACH PRECINCT

NODE 4 DESIGN CONCEPT

The main visitor area for beach-goers at Werribee South. The precinct will be a first stop, with a new bathroom and change facility, including accessible cubicles. A Changing Places facility will provide visitors living with disabilities a high quality facility with specialised change and bathroom facilities. The precinct will connect Price Reserve with the Werribee South Foreshore Reserve via existing raised crossing. The beach precinct will open out onto a paved plaza with sheltered picnic benches, outdoor shower facilities and bike facilities. A sealed path will allow equitable access down to Werribee South Beach's best swimming location.

30 DEMOLISH EXISTING TOILET BLOCK

Demolish existing toilet block, space to be made good for interim period until possible future relocation of sports pavillion and coast guard tower.

RETAIN RAISED CROSSING

Raised crossing to be retained as main crossing point from Price Reserve and amenities to the foreshore and beach.

TOILET AND CHANGE FACILITIES

Replace existing toilet block with modern facility, including Exeloo (product model: Jupiter) with two ambulant cubicles, one accessible toilet cubicle and one Changing Places unit to provide specialised change and bathroom facilities for visitors living with a disability.

Facilities to have timber skillion roof and facade to complement picnic facilities throughout the foreshore reserve.

33 SHELTERED SEATING

Sharing the same roof as the toilet and change facility, 2 timber benches to be provide views to Price Reserve and waiting area for toilet facilities.

34 BEACH PRECINCT VISITOR AREA

Elevated reinforced concrete (RC) plaza connecting pedestrian crossing to Bay Trail and beach path. Three timber skillion shelters to complement others in foreshore reserve, six picnic tables, four outdoor showers.

35 BEACH ACCESS PATH

RC path connecting beach precinct visitor area with accessible beach deck and access matting.

36 DECKED DUNE WALK

Hardwood timber decking section of dune path with low timber kickrail.

37 DUNE PLANTING TO SCREEN STORMWATER OUTFALL

Extend coastal vegetation southward to screen unsightly stormwater outfall from view. Planting to match existing dune species.

38 PICNIC SETTINGS

RC slab outstand from Bay Trail with picnic benches to match City of Wyndham furniture palette.

39 MAIN VISITOR BEACH ACCESS VIA BOARDWALK ENTRY AND

Hardwood timber deck outstand (class 1, F17, kiln dried spotted gum), structure fixed on screw pile footings. 450mm high timber benches with backrests located along edge of decking. Deck lowers to beach level with connection point for accessible beach mat.

40 BEACH ACCESS MATTING

1.5m wide beach access mat for pedestrians, wheelchair users, strollers, bicycles and light all terrain vehicles. Can be rolled and stowed.

41 SAND GROOMER ACCESS ROUTE THROUGH DUNE

Existing 3.2m access route for sand groomer with lockable gate to be retained

N5 EASTERN BEACH ACCESS

NODE 5 DESIGN CONCEPT

Secondary access to the main swimming beach at Werribee South. This area is at the eastern end of the foreshore lawn, offering a hardwood beach access deck, a private seating environment, stairs to carpark as well as a Banksia woodland grove and mounded lawns for casual rest stops.

LAWN EMBANKMENT

Proposed mounded lawn extending from high points along the Bay Trail to offer panoramic viewing of the Bay

BANKSIA WOODLAND PLANTING

Proposed coastal woodland plantings of *Banksia marginata* and *Banksia integrifolia* to provide moments of shade and add habitat for bird and insect

44 STAIR ACCESS WITH SEATING STEPS

RC steps leading from Bay Trail towards beach access decking. Steps will extend wide to provide a seating environment at the lawn edge.

TIMBER BOARDWALK BEACH ENTRY

Hardwood timber deck outstand, structure fixed on screw pile footings.
450mm high timber benches with backrests located along edge of decking.
Deck lowers to beach level.

46 BAY TRAIL WIDENED TO 2.5M

Shared path to be upgraded to 2.5m wide Bay Trail in RC with exposed aggregate mix, colour oxide and sandblasted finish.

N6 FISHING DECK

NODE 6 DESIGN CONCEPT

The sweeping bend of Beach Rd around the steep cliff creates a tight space for the Bay Trail to reach the next beach. Local fishers use this point for its access to deep water.

To widen the Bay Trail to 2.5m, a deck is proposed to extend over the existing rock revetment wall. This widens to a platform for fishers to give them safe space off of the trail, and an access ramp down to the beach.

47 FISHING DECK OUTSTAND

Hardwood timber decking (class 1, F17, kiln dried spotted gum), balustrade, structure fixed on screw pile footings to span over existing stone revetment

48 STEPPED DOWN SEATING DECK

Stepped down seating to offer unique views towards Melbourne CBD and Wyndham Harbour.

49 BEACH ACCESS RAMP

Timber deck ramp to connect Bay Trail to East Beach. Hardwood timber decking structure fixed on screw pile footings to span over existing dune vegetation.

50 BEACH ACCESS STAIRS

Hardwood timber stairs to connect Bay Trail to east beach through existing dune path.

RAISED DECK SECTION OVER DUNE VEGETATION

Timber deck to align Bay Trail away from road edge. Hardwood timber decking structure fixed on screw pile footings to span over existing dune vegetation.

52 PICNIC AREA

RC slab outstand from Bay Trail with picnic benches to match City of Wyndham furniture palette.

63 RETAINED DUNE VEGETATION

Protection of remnant dune ecologies to defend foreshore edge from erosion. To be led by City of Wyndham Conservation Team.

OFF-LEAD DOG BEACH

Including etiquette and enforcement signage, waste bags and drinking fountain with dog bowl

55 BAYTRAIL TERMINUS

Widened Bay Trail to meet existing shared path leading toward Wyndham

56 FUTURE BAY TRAIL CONNECTION TO WYNDHAM HARBOUR

Future stages of works to investigate continuation of Bay Trail to Wyndham Harbour and beyond

25

WERRIBEE SOUTH BEACH MASTERPLAN PRECEDENT BOARD

SCHEMATIC DESIGN



REFER TO AREA PLANS ON P19-21 FOR LOCATIONS

N1 TIMBER LOOKOUT DECK





LOOKOUT DECK EXTENSION

STEPPED TIMBER SEATING









CHANGING PLACES FACILITY (EXELOO)

TIMBER SKILLION ROOF PICNIC SHELTER

N3 FITNESS HUB

TRAINING INSTRUCTION GRAPHICS



























PLAYGROUND UPGRADE









SOFTFALL: PATTERNED RUBBER, SAND, MULCH











WERRIBEE SOUTH BEACH MASTERPLAN PRECEDENT BOARD

SCHEMATIC DESIGN



REFER TO AREA PLANS ON P19-21 FOR LOCATIONS

PATHS AND MOVEMENT



GRANITIC SAND PATH THROUGH DUNES







ELEVATED TIMBER ACCESS PATH WITH BALUSTRADE



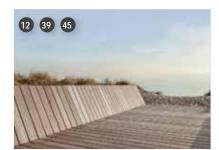


SANDBLASTED PATTERNING AT ACTIVITY NODES



SOLAR BOLLARD LIGHTING ALONG BAY TRAIL

N5 EASTERN BEACH ACCESS



TIMBER DECK BEACH ACCESS



LAWN EMBANKMENT



HONEYSUCKLE, BANKSIA MARGINATA



SEATING STEPS

N6 FISHING DECK



FISHING DECK OUTSTAND



FISHING ROD EYELETS



TIMBER SEATING STEPS



DECK STEPS DOWN FROM PATH

FURNITURE



HARDWOOD TIMBER BENCH



PICNIC BENCHES TO MATCH FORESHORE PALETTE



OVERSIZED STEEL PIPE BALUSTRADE



STAINLESS STEEL ELECTRIC BARBEQUES

PLANTING



COASTAL PLANTING



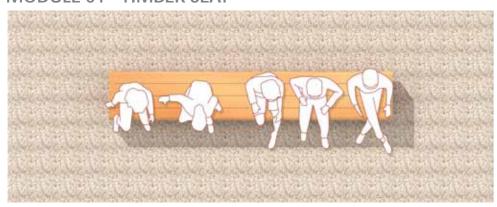


DUNE PLANTING

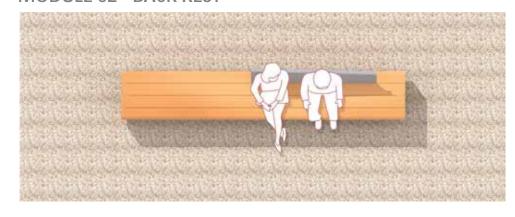


HIGH QUALITY RECREATION LAWN

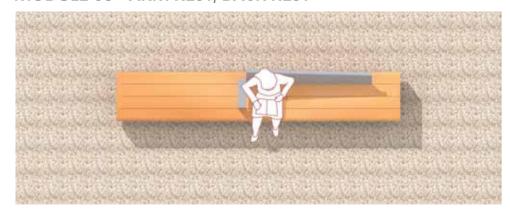
MODULE 01 - TIMBER SEAT



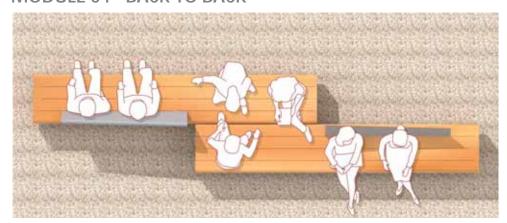
MODULE 02 - BACK REST

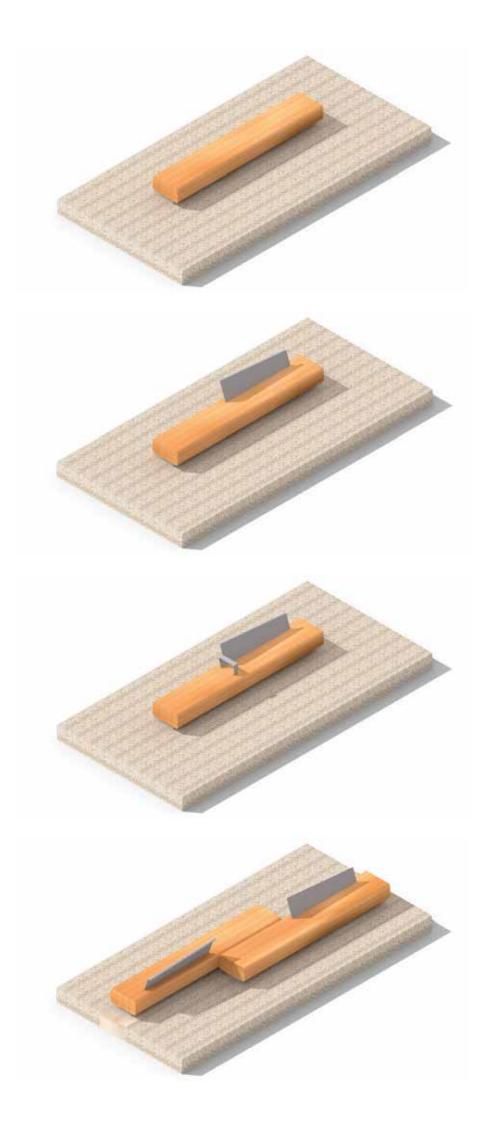


MODULE 03 - ARM REST, BACK REST



MODULE 04 - BACK TO BACK





THE LONG SEAT IS DESIGNED TO FIT AT REST POINTS ALONG THE LENGTH OF THE WERRIBEE SOUTH BEACH FORESHORE RESERVE.

At over three metres in length, the seat is designed with groups in mind. It has room to stretch out, lay a towel when returning from the water, somewhere to perch while waiting for company or watching fishers over the

Folded steel backrests and armrests can be installed to accommodate people with different strengths and abilities.

Class 1 Australian hardwood timber is chosen for its longevity and gradual silvering. The long seat will fit the character of the foreshore, matching to the jetty and the proposed decking outstands along the foreshore.







WERRIBEE SOUTH BEACH MASTERPLAN



KEY SPECIES - TO BE PROTECTED AND EXPANDED WITH WYNDHAM CITY COUNCIL CONSERVATION TEAM

- 1 Banksia integrifolia Coastal Banksia
- 6 Rhagodia candolleana subsp. candolleana -Seaberry Saltbush
- Spinifex sericeus Hairy Spinifex

- 2 Banksia marginata Silver Banksia
- *Distichlis distichophylla --* Australian Salt-grass
- 2 Sarcocornia quinqueflora Beaded Samphire
- 3 Allocasuarina verticillata Drooping Sheoak
- 8 Tetragonia implexicoma Bower Spinach
- 13 Atriplex cinerea Coast Salt Bush

- Melaleuca lanceolata Moonah
- 9 Enchylaena tomentosa Ruby Saltbush
- 14 Salsola tragus subsp. pontica Coast Saltwort
- Araucaria heterophylla -Norfolk Island Pine
- Myoporum insulare Coast Boobialla



COUNCIL CONSERVATION TEAM

- 1 Banksia integrifolia Coastal Banksia
- Poa poiformis Coast Tussock Grass
- Disphyma crassifolium Rounded Noonflower
- 2 Allocasuarina verticillata Drooping Sheoak
- 6 Banksia marginata Silver Banksia
- 11 Crysocephalum apiculatum Yellow Buttons
- 3 Melaleuca lanceolata Moonah
- Chamelaucium uncinatum -Geraldton Wax
- 12 Brachyscome multifida- Cut Leafed Daisy
- 4 Araucaria heterophylla Norfolk Island Pine
- 8 Atriplex cinerea Coast Saltbush
- 13 Tetragonia implexicoma Bower Spinach
- Westringia fructicosaWynnabie Gem
- 14 Carprobrotus rossii Pigface/Karkalla

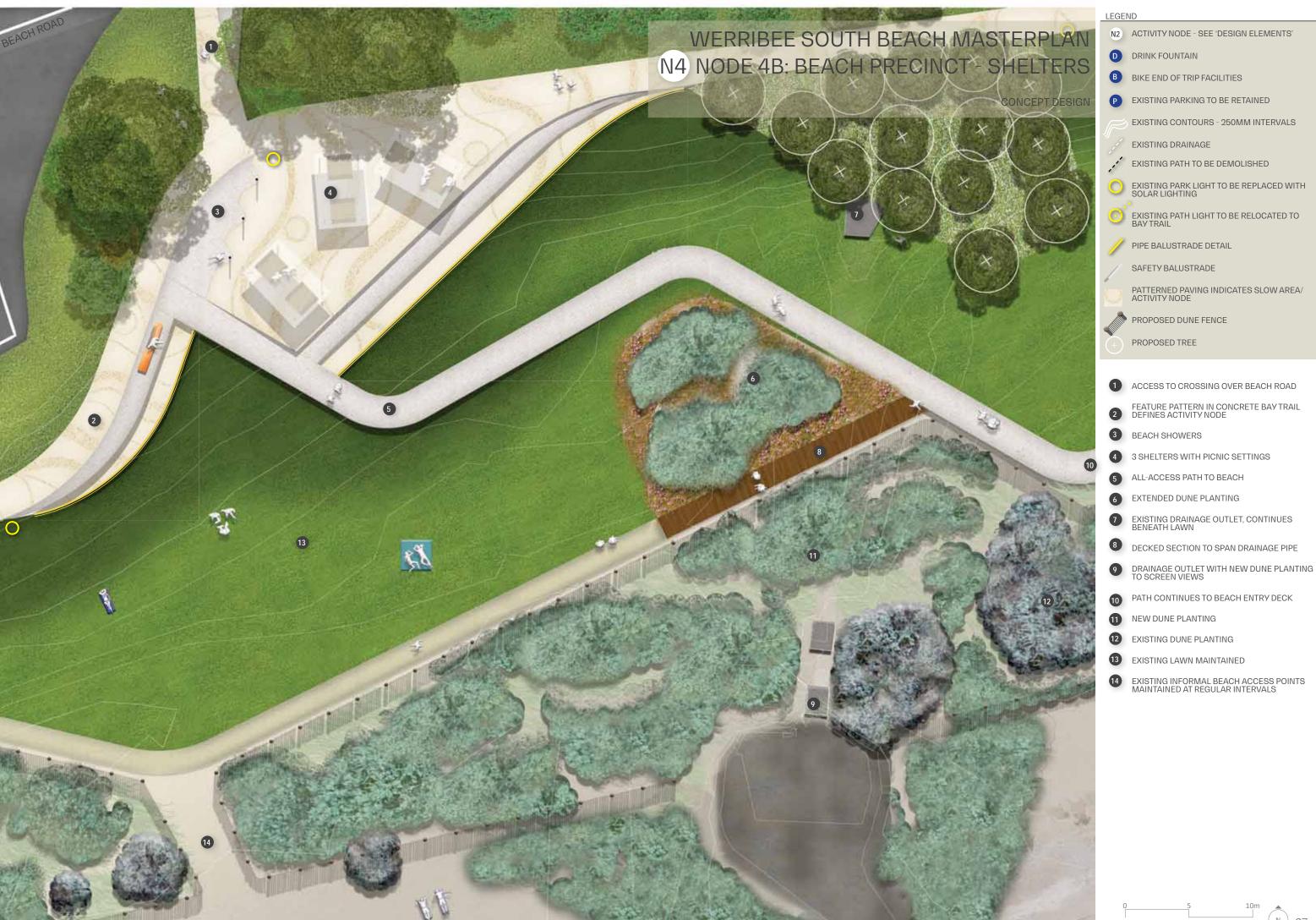














- N2 ACTIVITY NODE SEE 'DESIGN ELEMENTS'
- B BIKE END OF TRIP FACILITIES
- P EXISTING PARKING TO BE RETAINED
- EXISTING CONTOURS 250MM INTERVALS
- EXISTING DRAINAGE
- EXISTING PATH TO BE DEMOLISHED
 - EXISTING PARK LIGHT TO BE REPLACED WITH SOLAR LIGHTING
- EXISTING PATH LIGHT TO BE RELOCATED TO BAY TRAIL
- PIPE BALUSTRADE DETAIL
- SAFETY BALUSTRADE
- PATTERNED PAVING INDICATES SLOW AREA/ ACTIVITY NODE
- DUNE FENCE
 - PROPOSED TREE
- EXISTING LAWN AND EMBANKMENT MAINTAINED
- 2 ACCESS ROUTE FOR BEACH MAINTENANCE VEHICLES
- 3 ACCESS PATH TO BEACH PRECINCT, PARKING AND ACCESSIBLE TOILETS (1:40 GRADE)
- 4 DUNE PATH IN GRANITIC SAND, FOLLOWS BACK OF DUNE VEGETATION
- 5 INFORMAL BEACH ACCESS POINT, ALLOWING SAND GROOMER ACCESS
- HARDWOOD DECK FOR BEACH ACCESS

- FOLDED TIMBER EDGE CREATES RECLINING SEAT
- 00 ACCESS RAMP BETWEEN DECK AND BEACH
- 12 BEACH ACCESS MAT STORAGE UNDER DECK





- N2 ACTIVITY NODE SEE 'DESIGN ELEMENTS'
- D DRINK FOUNTAIN
- B BIKE END OF TRIP FACILITIES
- P EXISTING PARKING TO BE RETAINED
- EXISTING CONTOURS 250MM INTERVALS
- EXISTING DRAINAGE
- EXISTING PATH TO BE DEMOLISHED
- EXISTING PARK LIGHT TO BE REPLACED WITH SOLAR LIGHTING
- EXISTING PATH LIGHT TO BE RELOCATED TO BAY TRAIL
- PIPE BALUSTRADE DETAIL
 - SAFETY BALUSTRADE
 - PATTERNED PAVING INDICATES SLOW AREA/ ACTIVITY NODE
- PROPOSED DUNE FENCE
- PROPOSED TREE
- POSSIBLE ROADSIDE PARKING SUBJECT TO OUTCOMES OF PARKING AND ROAD SAFETY STUDY
- 2.5M WIDE BAY TRAIL MAINTAINED. WIDENED TO 3.0M WIDE WHERE POSSIBLE
- 2 LAWN EMBANKMENT EXTENDED
- 3 EXISTING LAWN MAINTAINED
- 1.8M WIDE DUNE PATH IN GRANITIC SAND
- 5 EXISTING DUNE VEGETATION
- 6 ADDITIONAL DUNE PLANTING
- 7 BEACH ACCESS STAIRS
- 8 SEATING STEPS
- 9 BEACH ACCESS DECK
- 10 FOLDED TIMBER EDGE CREATES RECLINING SEAT

WHY PUT FENCES AROUND THE DUNES?

"DUNES ACT AS **NATURAL BUFFERS** BY PROTECTING THE LAND FROM WIND AND WAVE ACTION AND HENCE ARE IMPORTANT COMPONENTS OF COASTLINE RESILIENCE TO EROSION. THIS WILL BE INCREASINGLY IMPORTANT AS THE IMPACTS OF CLIMATE CHANGE TAKE EFFECT...

HUMAN-INDUCED DISTURBANCE AND DEGRADATION OF COASTAL VEGETATION COMPOUNDS THE VULNERABILITY OF THE DUNES AND COASTAL AREAS TO EROSION ON WERRIBEE SOUTH COASTLINE."

WERRIBEE SOUTH COASTAL CONSERVATION ACTION PLAN 2017-2040, P.33,

