CAMERON MCLEAN 1068178

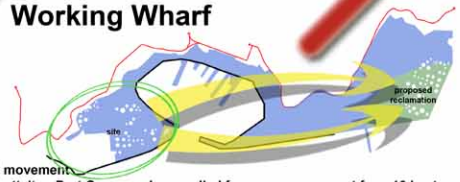
Location

Introduction

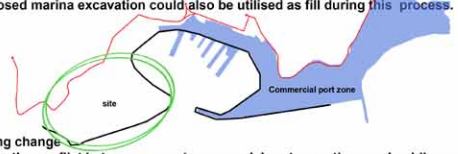
Due to historic Lyttelton's growing popularity, this small, port village is experiencing increasing pressure to grow in accordance. With a limited availability of flat land and with residential and recreation space therefore at a premium, Lyttelton is at pains to meet the growing demand of curent and would-be residents. In addition, with more than 150,000 cruise-ship passengers and crew alighting at Port Lyttelton but by-passing the village itself in favour of the nearby city of Christchurch, Lyttelton is forgoing the opportunity to capture some of the $20 million spent annually by these tourists.

It is clear that Lyttelton must find a way to interrupt for the better, the tourist's immediate on-shore experience.One can be forgiven for choosing to by-pass a chain-link fence, across a rutted stretch of tarmac whilst dodging container cranes and the activities of the day-to-day working port that the wharf doubles as.

Working Wharf



Tank movement
The Lyttelton Port Company has applied for resource consent for a 10 hectare reclamation at Golans Bay. With this in mind, it is proposed that this area be delineated a suitable place to relocate the tank farm. The excess spoil from the proposed marina excavation could also be utilised as fill during this process.

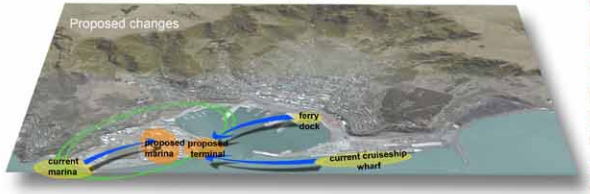


Zoning change
Due to the conflict between current commercial port operations and public access it is proposed that all port operations be located within the zone shown below.

View shafts
Important view shafts to surrounding points of interest such as the town center, Quail Island and Mount Herbert will be taken into consideration when designing.

Context

Tourism / Recreation



Design Program

Marina
- 300 Berths / 55000m2
- 250 Carparks / 3500m2
- Yacht cleaning & maintenance / 5250m2
- Yacht Club / 700m2
- Marina related buildings and open space / 5600m2

Cruiseship Facilities
- Docking wharf / 320m long
- Terminal building / 2000m2
- Carparks / 100 permanent
- Busparks / 40 temporary

Residential
- Dwellings / 600
- Retail amenities will be incorporated within residential development

Recreation
- Recreation fields to host a variety of recreational activities including rugby, soccer, X-games etc / 20000m2
- Related buildings / 600m2
- Carparking / 1700m2

Recreational boating & attractions
- Multiple boat launching areas
- Boat trailer parks / 100
- Small yacht storage and rigging facilities / 2000m2
- Windsurfing storage facilities and club room 300m2 and access to water
- Kayak and small boat rental and storage facilities 300m2

Commercial development
- Office space / 6000m2

With the development of an international cruiseship terminal and the inclusion of a new marina and residential development, it is envisaged that there will be demand for office space with the likes of the Lyttelton Port Company, P&O Cruises, Sealord, Independent Fisheries and Fonterra all potentially occupying office space within the development.

Current Issues

Design influences

FROM TANKS TO TOURISTS
RECLAIMING LYTTELTON'S FUTURE

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Design Intent:

The development of a purpose-built cruise-ship docking wharf and terminal building will provide the catalyst for change in Lyttelton, at the same time as providing much needed residential and marine-based recreational facilities for all Cantabrians.

The core of this design is a centralized marina space which provides 300 berths to offer shelter for sea-going leisure craft. In conjunction with this water-based activity, supporting land-based facilities are also incorporated.

Endemic, native vegetation is used to not only complement the structure and function of the development, but also to provide the ecological value that will encourage desirable birdlife to return to the area, and, at the micro level, for the spawning of marine micro-organisms via the filtration of storm-water run-off and ecological saltwater sink-holes.

To connect and enhance the various land uses, the overall design will be articulated with a selection of materials derived and inspired by the variety of uses and workings of the surrounding commercial industrial port. Strong view shafts are situated in strategic positions to punctuate and draw attention to prominent surrounding land marks. This design will create a cohesive space for tourists, community and industry to occupy and to inject vitality into what is currently a sorely under-utilised space.

Perspective View A: Ecological Saltwater Sink-hole

"Turn now the inquiring eye
To the land's rough edge,
To the antiseptic, salt-tongued, smothering sea:
For the sea's a link..."

Denis Glover, from "The Coaster"

Section A-A' Sports & Recreation with Sculptual Viewing Mound scale 1:300

Section B-B' Ecological Saltwater Sink-hole & Marina scale 1:500

existing industry
existing industry
lookout
harbour viewing mound
yacht storage, maintenance & retail
yacht club
retail
marina viewing mound
marina
cruise-ship terminal
club rooms
existing dinghy storage
sports & recreation
dinghy rigging lawn
existing yacht club
power boat launch & parking
coastal park
coast guard
yacht racing viewing mound
Windsurfing launch

Key

A. The current dry dock and marine industry base will remain. Improved circulation and areas for viewing will be introduced to enable pedestrians to gain a greater sense and feeling of interaction with the day-to-day activities of a working port.

B. This area will display ecological planting communities and environments from within the Banks Peninsula region. Within the confines of remnant tanks, ecological sink holes will be created, designed to provide an environment for sporning micro-organisms, beneficial to the marine environment. Planting within these gardens will graduate from salt-tolerant small species located within the tank sink holes and closer to the harbour edge, to larger trees situated toward the entry to the park. These gardens are reflective of the graduation of environments naturally found in coastal forest conditions.

C. An area of boutique shops, cafes and restaurants invites visitors to experience local produce while the yacht club and tackle shop provide local boaties with the service and facilities required for adventures at sea.

D. This space is designed to express the rocky wind-swept natural environment which can be found on the most exposed ridge and shore lines surrounding Lyttelton harbour. The ground plane is articulated by a series of louvre screens and boulders providing shelter from the ever present winds and evoking the connection to the prominent rock out crops that dominate the shoreline. Planting within this garden will contain plants that naturally inhabit these types of areas.

E. This central civic space is divided into a number of diverse areas via the use of pedestrian desire lines and specimen tree planting. Varying levels and materials adds interest, while providing users the ability to interact with the water.

F. Residential development is clustered in a central position allowing surrounding open space to be used for a variety of recreational activities. This central position enables the residential development to leverage the surrounding views of the marina and open space.

Scale 1:1500

N

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MASTER PLAN

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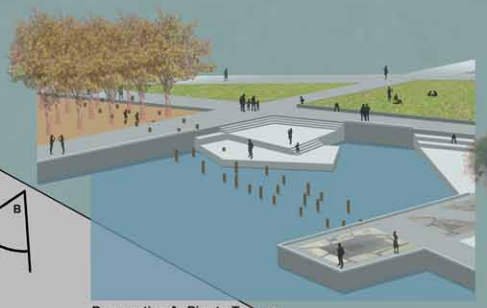

Perspective A: Pier to Terrace

Perspective B: Dry Rocky Wind Garden to Pier

Section - Elevation A-A' Civic Space with Level Changes scale 1:500

sculptural grass mounding providing space to sit and relax while watching the workings of the port

+14.00

yacht club / tackle shop [2 levels]

in-situ concrete setting tablets [informal seating]

in-situ raised concrete planter boxes

boutique retail / restaurants & cafes [2 levels]

+10.00

in-situ concrete seating tablets [informal seating]

+9.55

1-9 / 6 corten steel louvre panel

B

+10.00

dry rocky wind garden [refer to plant strategy for details]

+9.55

kowhai grove providing shade and seating in the hot summer months while abstracting a link to the past

+8.20

+9.10

A'

exposed aggregate concrete terraces

+8.20

recycled wharf piles with rolled wire mesh cage and corten collar providing growing medium for opportunistic plant material

+9.10

commercial office space [2 levels]

secondary cruise-ship, diamond harbour and boat charter docking wharf

raised lawn providing an area to sit and socialise while watching the activities of the marina

+10.45

10 / 6 in-situ raised concrete planter boxes with eucalytpus timber seating

datum 10.00

cruise-ship terminal [2 levels]

in situ concrete seating

in situ concrete seating tablets [informal seating]

A

galvanised grating over storm water run-off sink hole

+10.00

in-situ concrete seating tablets [informal seating] 11 / 6

residential court yards with access onto promenade

+8.85

commercial office space [2 levels]

Scale 1:500

Design intent

During the cruise-ship season (October - March) over 2500 passengers will potentially be disembarking at Lyttelton. The design of the central civic space will allow for passengers to spill out, determine their next move and interact with their immediate surroundings.

Strong lines of in-situ concrete paving lead pedestrians from building exit points. These lines divide the space into a series of areas consisting of local materials and plant species. Diverse, these areas invite a multitude of different uses and provide the tourist a glimpse of the local material pallet.

Residential development in the form of apartment living will activate the south west edge, while the north west edge will be activated by a yacht club, tackle shop, restaurants, cafes and boutique retail.

The main cruise-ship terminal building will act as dual purpose facility, providing space for commercial interests - with companies such as Independent Fisheries, Sealord, Fonterra and the like fitting naturally into this environment.

As a whole the area provides for a multitude of interests. It is important that this space is activated even, during shoulder seasons. This is achieved through the implementation of a diverse range of activities - residential, commercial, retail and recreational.

Key

Plagianthus regius

mixed native trees: Myoporum laetum, Dodonaea viscosa, Pittosporum tenuifolium

Sophora microphylla

residential [2-3 levels]

cruise-ship docking wharf

N

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INTERMEDIATE PLAN

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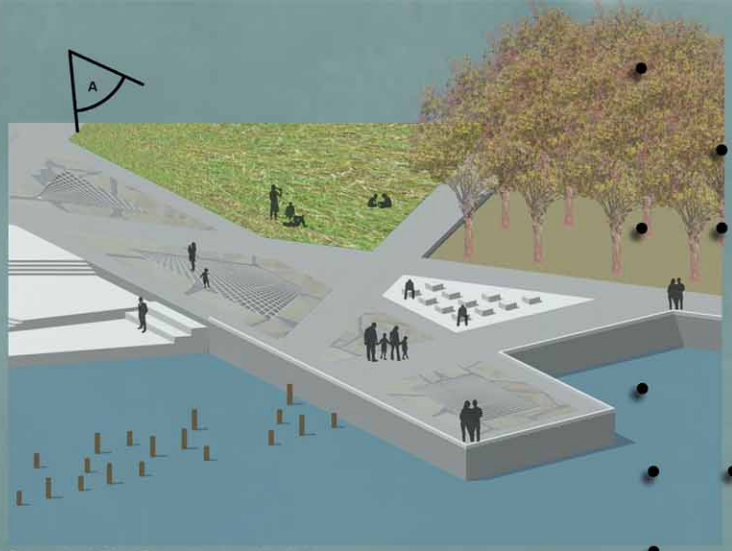

Perspective A: Pier / Terrace / Lawn and Kowhai Grove

oversized terraces steps acting as informal seating

19mm exposed aggregate concrete terraces

recycled wharf piles with rolled wire mesh cage and corten collar providing growing medium for opportunistic plant material

8.200
8.800
9.400
9.100
8.800
9.400

B

raised lawn providing an area to sit and socialise while watching the activities of the marina

low basalt stone retaining wall [informal seating]

10.450

datum: 10.000

9.750

in-situ concrete seating tablets [informal seating]

300x200mm concrete safety edging

recycled wharf piles fitted with pedestrian lighting

galvanised grating over storm water run-off sink hole

halswell quarry natural stone layed as crazy paving

plain in-situ concrete cut into 2mx2m slabs [sand blasted finish]

Perspective B: Raised Lawn to In-zzsitu Concrete Seating

in-situ concrete seating tablets [informal seating]

19mm exposed agregate concrete

kowhai grove providing shade and seating in the hot summer months while abstracting a link to surrounding vegetation of past

10.000

9.550

Design intent

The materials used in this design hark strongly to the local and immediate port surrounds. This selection provides a grounded, earthly feeling - a balanced contradiction to the experience of being at sea. This space ultimately works to meld the two environments and senses through the use of solid materials such as concrete, corten steel and recycled wharf piles.

Large, sand-blasted concrete pavers demarcate desire lines that focus on points of major interest. Articulating spaces between and outside, some spaces of which include large lawns, kowhai groves and tablet seating. These will act as informal meeting and seating points as well as potentially providing an area for impromptu public performances. The sunken kowhai grove provides shade in the hot summer months while abstracting a link to past vegetation.

Exposed aggregate concrete terraces display different levels of exposure dependant on the tide. In acting so, they allow users to interact and experience the water, as well as providing seating and opportunities to view marina activities. Directly adjacent to these terraces, recycled wharf piles reference the primary role of the wharf for port industry. Reflexting their literal punctuation of the water, the lighting poles illuminate the paths in their own punctuating manner.

Core to this design is the central axis, acting as a main transition zone leading people from the main terminal building to the marina's edge. Geometric shapes of local Halswell Quarry stone and galvanised metal grating define the direction with the galvanised metal grating juxtaposing the original intent of reclamation with a desire to engage the harbour once more.

Scale 1:100

N

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DETAIL PLAN

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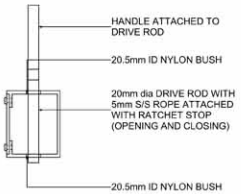
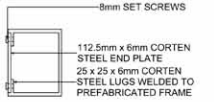
Overall Detail Strategy

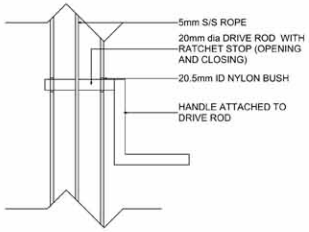
The overall design will be articulated with a selection of materials derived and inspired by the variety of uses and workings of the surrounding commercial industrial port. The extensive use of Corten steel, precast concrete seats and planters, recycled wharf beams and volcanic rock to name but a few will encapsulate a sense of grounding within the sites wider setting, while evoking thoughts of the variety of alternative uses for materials that would otherwise be left to wrack and ruin.



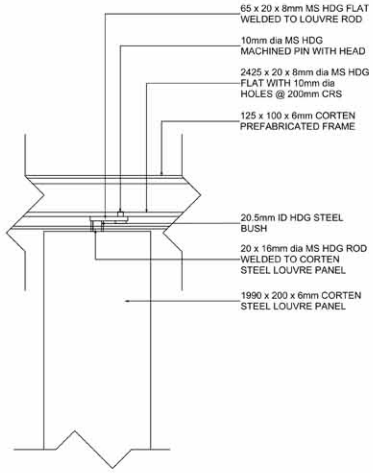
8/6 Plan View: Handle Attachment 1:5



9/6 Plan View: Prefabricated Corten Frame 1:5

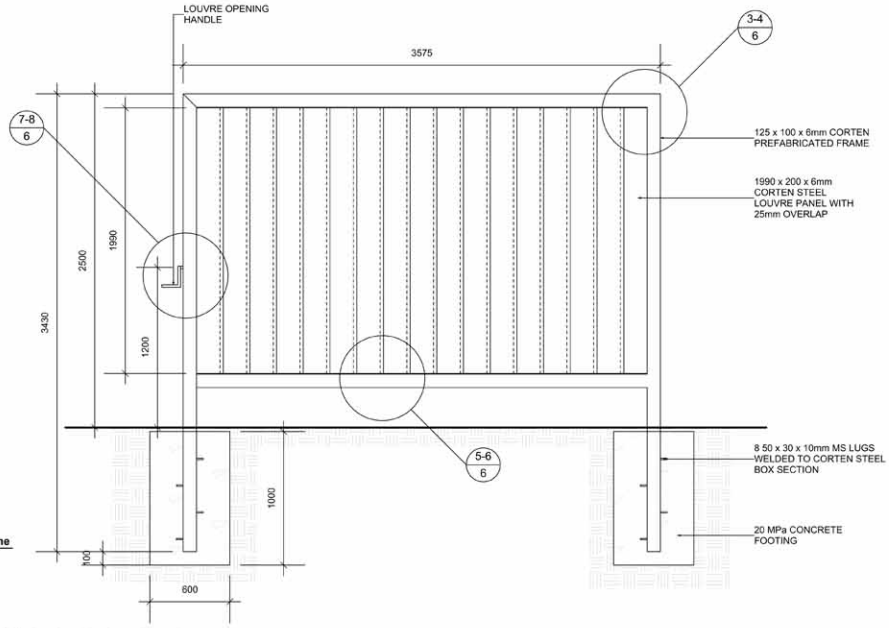


7/6 Section-Elevation: Handle Attachment 1:5

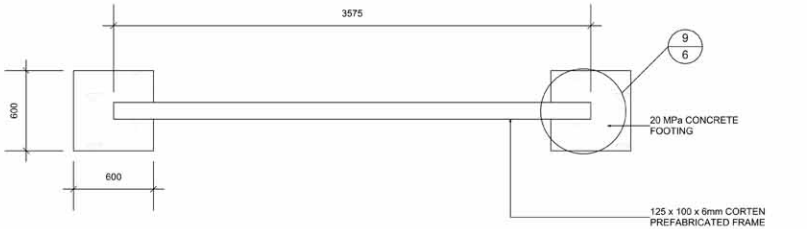


6/6 Section-Elevation Louvre Attachment & Mechanism 1:5

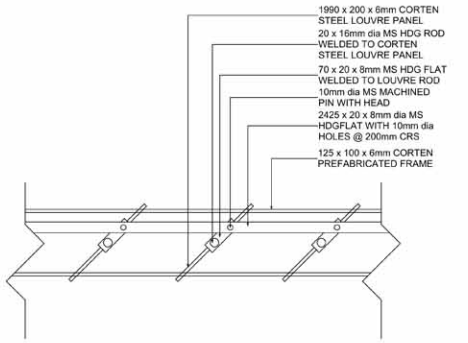
Construction Details



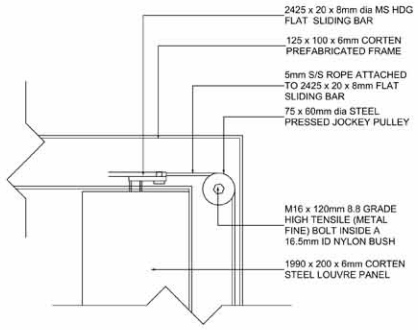
1/6 Section- Elevation: Corten Louvre 1:20



2/6 Plan View: Corten Louvre 1:20

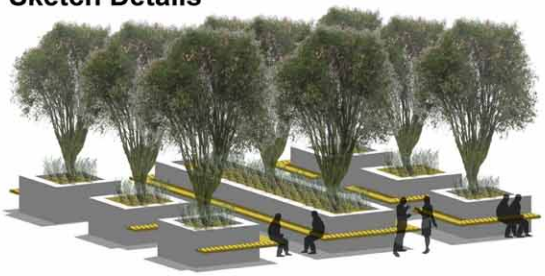


5/6 Plan View: Louvre Mechanism 1:5

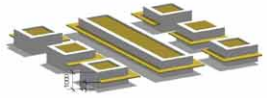


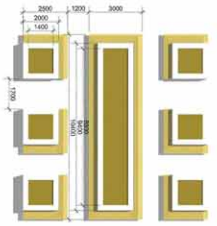
4/6 Section-Elevation: Stainless Steel Wire Rope Attachment & Pulley Mechanism 1:5

Sketch Details

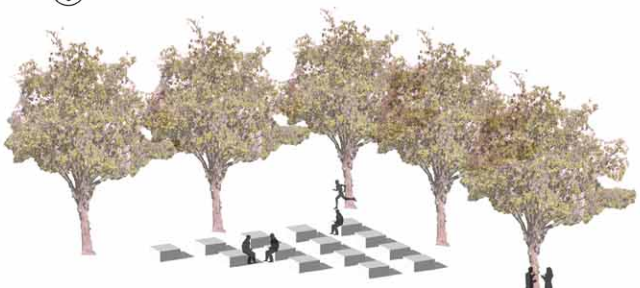


SANDBLASTED IN SITU RAISED CONCRETE PLANTERS WITH EUCALYPTUS SEATING SLATS PROVIDING SHADY PRIVATE SEATING

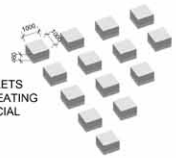




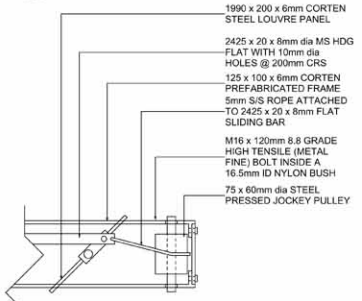
10/6 In situ Raised Planter Model (NOT TO SCALE)



SANDBLASTED IN SITU CONCRETE SEATING TABLETS PROVIDE A VARIETY OF SEATING ARRANGEMENTS AND SOCIAL INTERACTION



11/6 In situ Concrete Seating Tablets Model (NOT TO SCALE)



3/6 Plan View Stainless Steel Wire Rope Attachment &Pulley Mechanism 1:5

NOTES

1. Contractors must verify all dimensions on site prior to commencing work.
2. Figured dimensions are to be taken in preference to scaled dimensions.

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PLANT PALETTE

Cordyline australis
- fragrant flowers
- wide range of growing conditions

Libertia ixioides
-form
-groundcover
- white 3-petalled flowers

Myoporum laetum
-tolerant to coastal conditions
-lower branches pruned to allow for shade
-white flowers

Poa cita
-graceful drooping habit
-tolerant to poor soil
-common throughout canterbury

Phormium tenax
-strong vertical form
-flowers attract birds
-contrast

Plagianthus regius
-divaricating juvenile form
-yellowish green flowers

Corokia cotoneaster
- tangled growth form
- tolerant to dry salt exposed conditions

Cortaderia richardii
-attractive arching plumes

Leptospermum scoparium
-sweet fragrant white flowers
-tolerant to a variety of harsh conditions

Dodonaea viscosa
-papery, creamy coloured seed capules
-tolerant of coastal wind and dryness

Cyperus ustulatus
-vigorous grower

Coprosma repens
-tolerant of salt-laden winds and harsh conditions
-large, thick, glossy leaves

Sophora microphylla
-tangled juvenile form
-beautiful bright yellow flowers
-attractive to birds

Juncus maritimus
-stong vertical structure
-tolerant to salt water

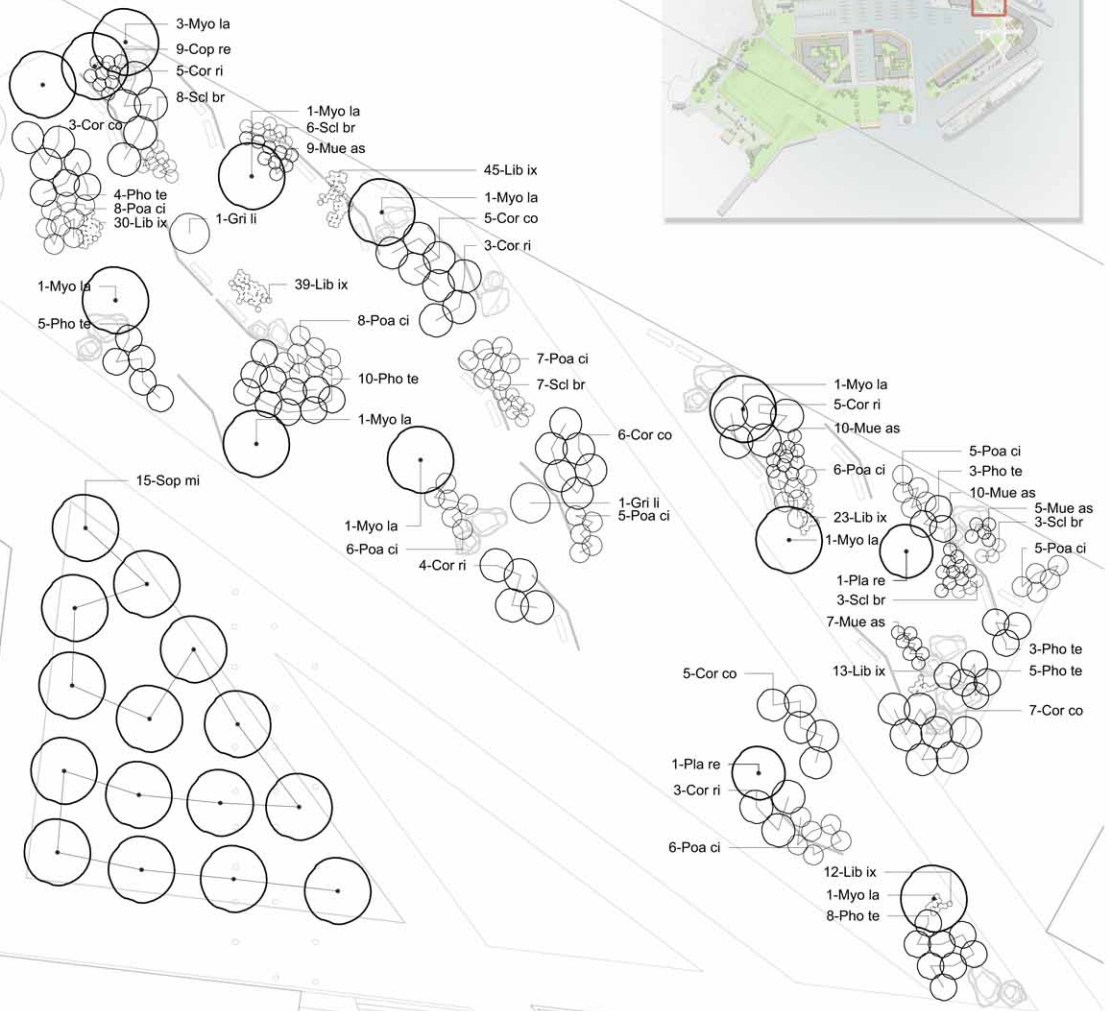
Muehlenbeckia astonii
-contrast
-hardy
-tangled wiry habit

Griselinia littoralis
- attractive deep green oval leaves
-tolerant of coastal condition

Scleranthus brockiei
-contrast
-tight green mound
-novelty

Podocarpus totara
-historic significance as important timber tree to first settlers

DRY ROCKY WIND GARDEN PLANTING PLAN



LOCATOR MAP

Planting Strategy

A. Street Planting and Bio-retention Tree Pits
Tree planting will consist of deciduous or semi-deciduous native trees (kowhai, ribbonwood) located along the street side and around the marina promenade. In addition to framing the pedestrian way, these trees will incorporate bio-retention/filtration strips planted with reeds (juncus). Storm water runoff from the roadway and the marina promenade will be directed into tree pits. Water will collect within the sunken planted tree pits to slowly filter through the soil medium where contaminants will be removed by micro-organisms inhabiting the root zone.

B. Banks Peninsula / Tank Planting
These gravelled and mulched gardens feature plants collected from the environments of Banks Peninsula. The planting will exhibit particular ecological communities and environments from within the Banks Peninsula Region. Within the confines of the remnant tanks, ecological sink holes will be created which will provide an environment for sporning micro-organisms beneficial to the marine environment. The plants sourced will be grown from seeds collected prior to construction of the park. Planting within these gardens will graduate from salt-tolerant small species located within the tank sink holes and closer to the harbour's edge, to larger trees situated toward the park's entry. These gardens are reflective of the graduation of environments naturally found in coastal forest conditions. Planting may include: sea rush, coprosma, flax, toetoe, kanuka, matai, kahikatea etc.

C. Dry Rocky Wind Garden
The large open piece of land located between the main terminal building/civic space and the inner confines of the working harbour has been designed to express the rocky wind-swept natural environment which can be found on the most exposed ridge and shore lines surrounding Lyttelton harbour. The ground plane will be articulated by a series of boulders and rocks reminiscent of the prominant rock outcrops that dominate the shoreline. Planting within this garden will contain plants that would naturally inhabit this rocky, hard shore line, including: ngaio, manuka, flax, coprosma, saltgrass, glasswort and bristle sedge etc.

D. Coastal Park
The coastal park setting running the length of the southern boundary accommodates a framework of native and exotic specimen trees. This planting provides summer shade whilst also serving to punctuate vertically the important reference points throughout this ribbon of active recreation. Specimens include; the native cabbage tree, ngaio, ribbonwood, akeake, karaka and the exotic norfolk pine.

E. Boundary Planting
A collection of native trees and shrubs reminiscent of pre-colonial Lyttelton, and sourced ecologically, will graduate in density from existing dense planting on the northwest cliff-face boundary to that of a more permeable nature towards the centre of the park.

F. Grove Planting
Thoughout the site, a series of disciplined kowhai groves will demarcate space and provide shade and encouragement to native birdlife. Manipulating the theory of Joan Iverson Nassauer these groves, albeit consisting of the more beautiful and accepted Sophora microphylla, will provide a structured and positive showcase of plants that are typically considered unappealing in their natural, "messy" environs, despite their undeniable ecological value.

LOCATOR MAP

Sample Plant List for Dry Rocky Wind Garden

ID	Qty	Botanical Name	Common Name	Scheduled Size
Cop re	9	Coprosma repens	Mirrior plant	PB12
Cor co	26	Corokia cotoneaster	Wire-netting bush	PB12
Cor ri	20	Cortaderia richardii	Toetoe	PB12
Gri li	2	Griselinia littoralis	Griselinia	PB12
Lib ix	162	Libertia ixioides	New Zealand Iris	PB5
Mue as	41	Muehlenbeckia astonii	Shrubby pohuehue	PB8
Myo la	11	Myoporum laetum	Ngaio	PB95
Pho te	38	Phormium tenax	NZ Flax	PB12
Pla re	2	Plagianthus regius	Lowland Ribbonwood	PB95
Poa ci	56	Poa cita	Silver tussock	PB5
Scl br	27	Scleranthus brockiei	Scleranthus	PB5
Sop mi	15	Sophora microphylla	Kowhai	PB95

Scale 1:200