



Part C: Typologies

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Part C: Typologies outlines the design parameters for streetscapes, designated POS areas, and tree and shrub plantings.

The information in this section has been adapted and expanded from the following:

Place Partners – Cockburn Coast Place Making Strategy
TPG in association with Yates Heritage & Big Island Research
Hassell – Cockburn Coast District Structure Plan, Volumes 1 and 2
Hassell – Cockburn Coast Foreshore Management Plan
Site investigations undertaken by Urbis, December 2013





(C) TYPOLOGIES_STREETSCAPES

1.1 Street Tree Hierarchy

Design Intent

The selections of the street trees throughout the various streetscapes are driven by the following factors:

- exposure to prevailing winds
- proximity to built form
- shading from building heights
- soil conditions
- coastal exposure
- overall themes
- location/proximity to POS areas
- striking a endemic vs exotic balance with regards to indigenous and european heritage

The following design factors should be considered when selecting the final tree species:

- changing of street tree species where street interfaces with POS area to mark the entry to the various parks within the development
- selecting landmark trees where appropriate to mark gateways into the various precincts
- establishing habitable spaces below canopies on main streets
- interface with public transport infrastructure to ensure remedial works are minimised when trees mature.
- underground service requirements.

The proponent will require the approval on all species from the City.

Figures 1 and 2 outline acceptable species to establish each streetscape typology, however, approval on final species from local authority will be required.

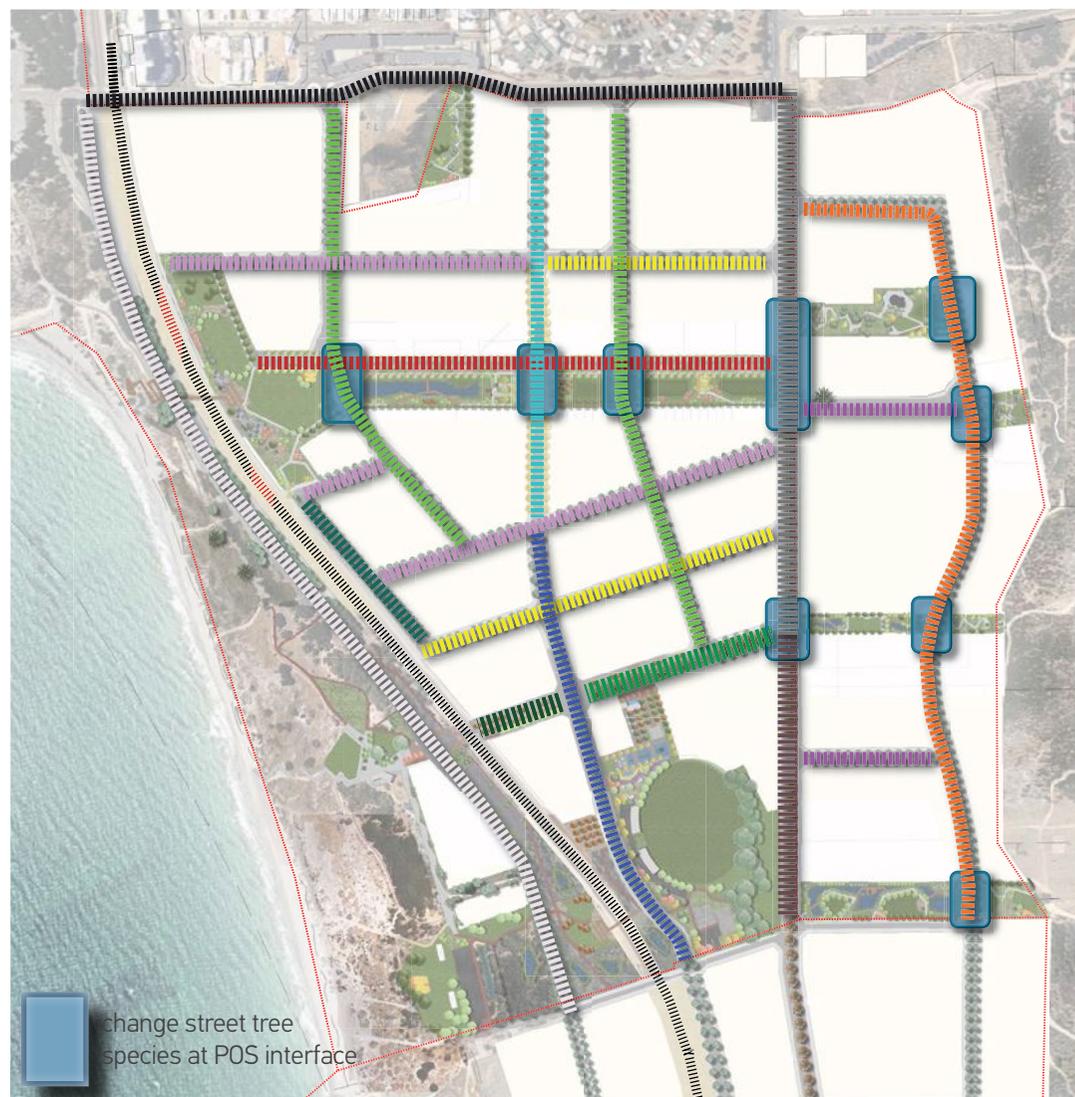


Figure 1_street tree hierarchy plan



Figure 2_street tree species



HILL TOP
PRECINCT



(C) TYPOLOGIES_STREETSCAPES

2.1 Streetscape Typologies

Design Intent

The streetscapes have been designed with coordination with the local authority and civil engineer to create serviceable, habitable streets that have high functional and aesthetic outcomes. They are an evolution of the design intent expressed in the LSP.

Each street typology is distinct to itself in terms of its functional requirements, with a standard minimum aesthetic being applied to all streets.

The streetscape designs promote shared surfaces where possible, and a low speed environment to encourage pedestrian and cycling emphasis over vehicular use

The streetscape typologies have been designed in conjunction with the following considerations:

- Public transport infrastructure and network
- Pedestrian and cyclist networks
- Street Tree Hierarchy
- Material selections
- Proprietary and custom furniture selections
- Planting palettes
- On street parking solutions
- Way finding and signage
- Public Art Strategy
- Water Sensitive Urban Design Principles
- Precinct theming strategies



streetscape typologies location plan



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TYOLOGIES_STREETSCAPES

2.2 Emplacement Crescent Shared Street 1

Emplacement Crescent Shared Street 1 incorporates the following principles:

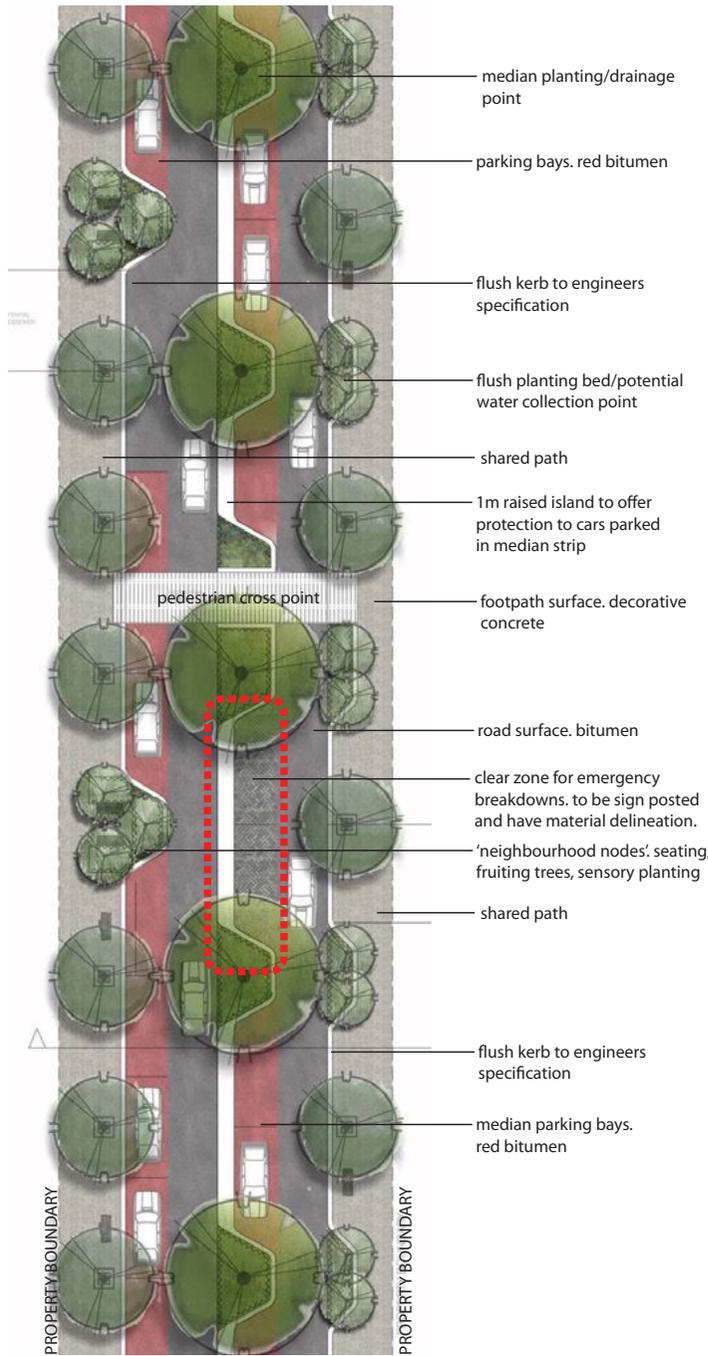
- Median street tree selections that provide a distinct feel to the street
- Supplementary tree species selected from a suite of trees that help create 'neighborhood nodes'.
- To consist of 'neighbourhood nodes' which include sensory and edible experiences through the selection of tree and plant species, and furniture selections that allow habitable zones which promotes ownership of the street
- Implements strong water sensitive urban design principles
- Has generous shared surfaces either side of the street to allow for informal pedestrian and casual cyclists to utilise the street
- Parking bays located in median zone which helps promote a low speed environment. Parking bays to be a minimum of 3.0m wide to allow for car door swings.
- Has raised and segmental kerb located in median that allows for water run off to tree wells and assists with directional parking.
- Furniture to be robust, readily available and easily maintained.
- Consider change in tree species where streetscape interfaces with POS
- Clear zones required in the event of a breakdown. These allow traffic to overtake in specific locations



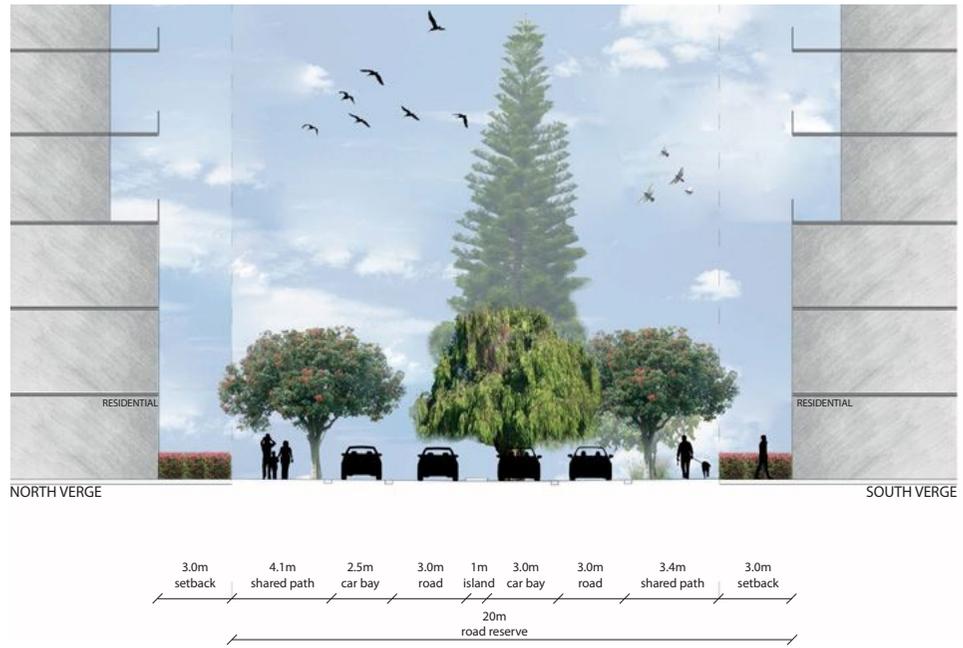
location plan



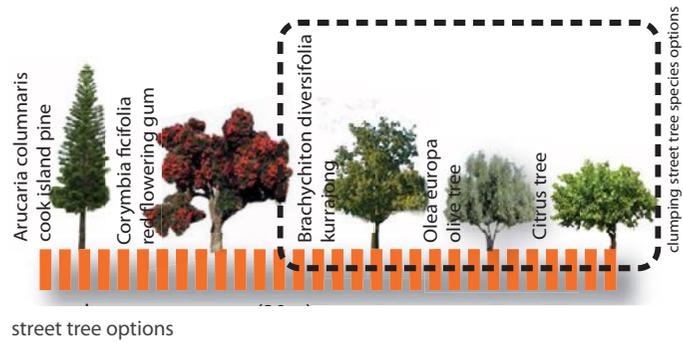
vibe images



Emplacement Crescent Shared Street 1 - Typical Plan



Emplacement Crescent Shared Street 1 - Typical Section



street tree options



(C) TYPOLOGIES_STREETSCAPES

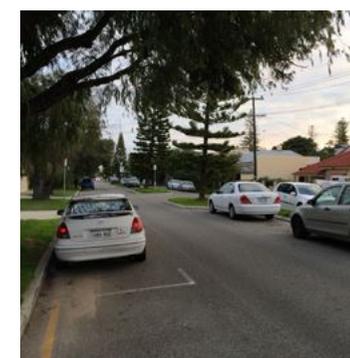
2.3 Emplacement Crescent Shared Street 2

Emplacement Crescent Shared Street 2 incorporates the following principles:

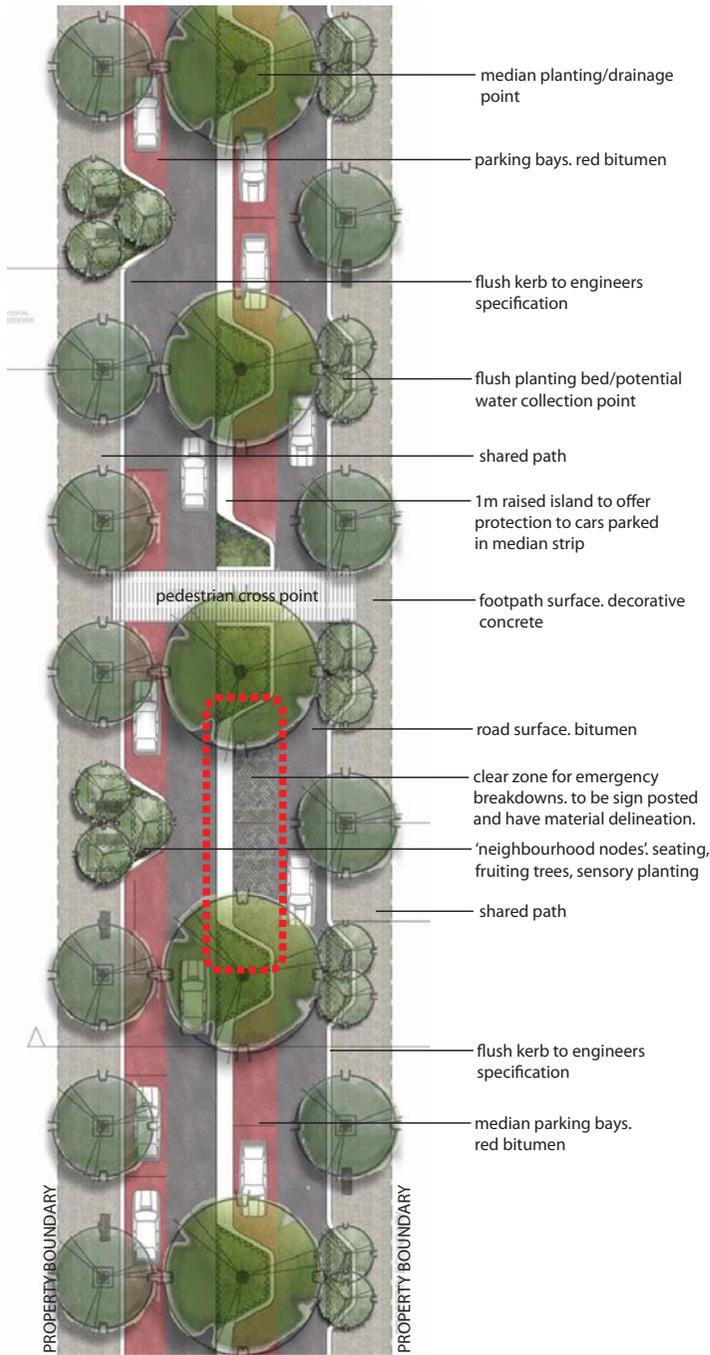
- Median street tree selections that provide a distinct feel to the street
- Supplementary tree species selected from a suite of trees that help create 'neighborhood nodes'.
- To consist of 'neighbourhood nodes' which include sensory and edible experiences through the selection of tree and plant species, and furniture selections that allow habitable zones which promotes ownership of the street
- Implements strong water sensitive urban design principles
- Has generous shared surfaces either side of the street to allow for informal pedestrian and casual cyclists to utilise the street
- Parking bays located in median zone which helps promote a low speed environment. Parking bays to be a minimum of 3.0m wide to allow for car door swings.
- Has raised and segmental kerb located in median that allows for water run off to tree wells and assists with directional parking.
- Furniture to be robust, readily available and easily maintained.
- Consider change in tree species where streetscape interfaces with POS
- Clear zones required in the event of a breakdown. These allow traffic to overtake in specific locations



location plan



vibe images



Emplacement Crescent Shared Street 2 - Typical Plan

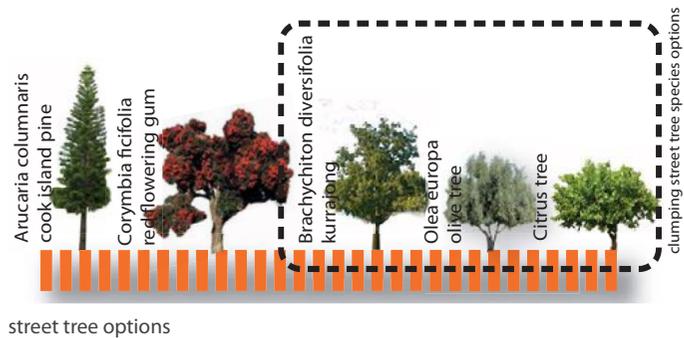


WEST VERGE

EAST VERGE



Emplacement Crescent Shared Street 2 - Typical Section



street tree options



HILLTOP
PRECINCT



(C) TYPOLOGIES_STREETSCAPES

2.4 Hilltop Local Street

Hilltop Local Street incorporates the following principles:

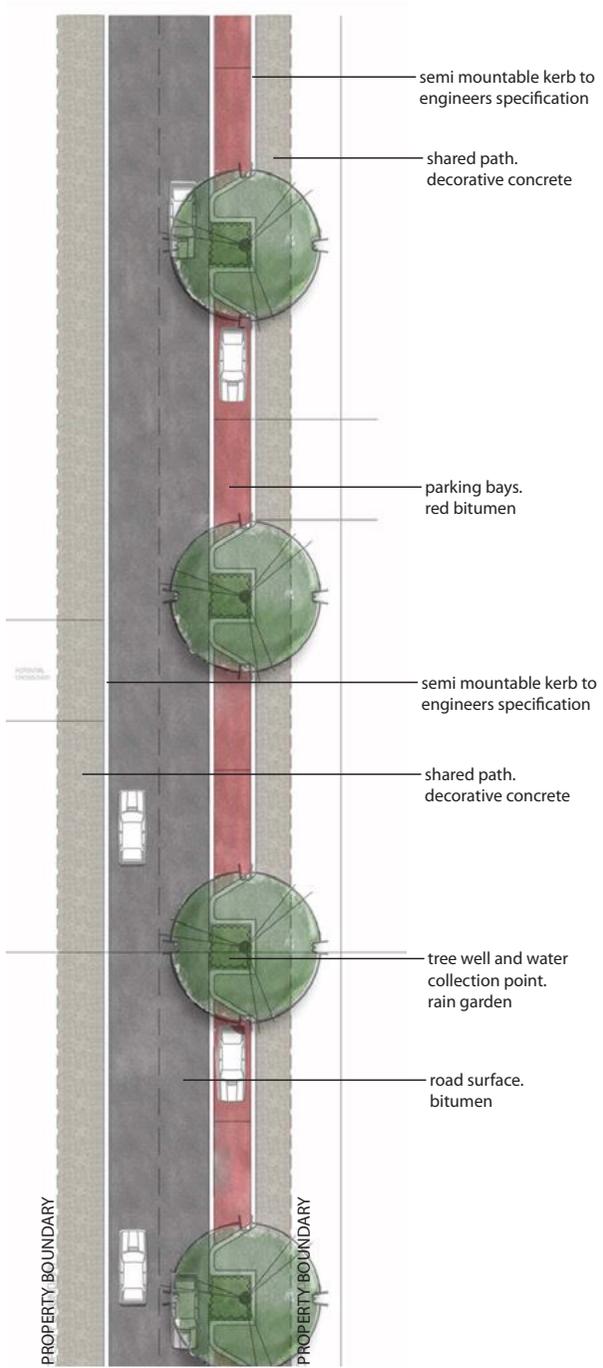
- Street tree selections that provide a distinct feel to the street
- Implements strong water sensitive urban design principles
- Parking bays located in southern side of street in between street trees and water run off collection points
- Furniture to be robust, readily available and easily maintained.



location plan



vibe images



Hilltop Local Street - Typical Plan



Hilltop Local Street - Typical Section



HILLTOP
PRECINCT



TYOLOGIES_STREETSAPES

2.5 Surface Treatment Changes

Design Intent

Surface materials changes should be considered at the following street junctions:

1. Green Link 1/Emplacement Crescent_change in surface material to signify arrival at the POS.
2. Green Link 2/Emplacement Crescent_change in surface material to signify arrival at the POS.



surface treatment changes location plan

(C) POS LOCATIONS

3.1 POS Typologies

Design Intent

The POS typologies have been developed as a response to the functional, overall thematic, and individual precinct requirements within the development.

Each POS typology is distinct to itself in terms of its functional requirements, with a standard aesthetic requirement to be achieved within each POS area.

The POS typologies have been designed in conjunction with the following principles:

- Response to heritage elements
- Response to drainage requirements
- Response to soil contaminants
- Response to built form and building use
- Public transport infrastructure and network
- Functionality requirements
- Pedestrian and cyclist networks
- POS Tree Hierarchy
- Material selections
- Proprietary and custom furniture selections
- Planting palettes
- On street parking solutions
- Way finding and signage
- Public Art Strategy
- Water Sensitive Urban Design Principles
- Precinct theming strategies
- Exercise networks



POS typologies location plan





(C) TYPOLOGIES_POS

3.2 POS Functionality

Functionality allocation

The functionality and amenity assigned to each POS is a refinement of the allocated amenity in Place Partner's 'Cockburn Coast Place Making Strategy' Document (March 2012).

Functionality and amenity allocation has been determined by the following factors:

- existing amenity
- historical/heritage considerations
- areas intended for high use/gathering hubs
- proximity to population density
- proximity to public transport links
- proximity to similar amenity
- proximity to building occupation



bbq area



kickabout area



bicycle track



lookout



cafe



play ground



dedicated dog park



shelter



exercise station



swimming area



horse exercise location



toilets/change rooms



skate park



playground



adventure
playground



outdoor bocce



water play



outdoor
table tennis

POS ACTIVATORS



community
gardens



community
gardens

COMMUNITY AMENITY



bicycle
racks



pavilion
structure



pavilion
structure



beachside
vernacular



beachside
vernacular



gathering on
boardwalks



eco-underpass



beach kiosk/
cafe vernacular



ground plane
reflective water feature

BUILT ELEMENTS IN POS



bosque/plaza



bosque/plaza



alfresco dining

POS PLACE MAKERS



(C) TYPOLOGIES_POS

3.3 Military Park

Military Park is located in the northern portion of the Hilltop Precinct. Its primary function is to serve as a gathering space for residents and employees whilst providing drainage and access capabilities throughout the site.

The park has a distinct change in levels and should look to integrate the theming of the precinct into any build elements such as wall, balustrades, shelters and handrails.

The existing gun plinth is to be retained and enhanced through additional sculptures, interpretive signage and facilities, and is a key driver in informing the rest of the Hilltop precinct.

A kick about area located at the top of the hill, as well as bbq and playground facilities should assist in activating the park.

A combination of Western Australian and european tree and plant species should be selected in order to enhance the military and industrial stories of the site.

Similarly, furniture selections should be robust and of an industrial nature which equally assist in telling these stories.



location plan



military park_vibe imagery

POS Plans demonstrate design intent only and are subject to change throughout the concept design phase of each project



military_general arrangement





(C) TYPOLOGIES_POS

3.4 Hill Top Park

Hill Top Park is located to the east of Hilltop Local Street and has direct access to the Beeliar Regional Park.

The park has a distinct change in levels and should look to integrate the theming of the precinct into any build elements such as wall, balustrades, shelters and handrails.

Equally, the POS should embrace the opportunity for lookout back towards the ocean, and this in turn should inform the artwork strategy for this location.

A kick about area located at the top of the hill, as well as bbq and playground facilities should assist in activating the park.

A combination of Western Australian and european tree and plant species should be selected in order to enhance the industrial stories of the site.

Similarly, furniture selections should be robust and of an industrial nature which equally assist in telling these stories.



location plan



hill top park_vibe imagery

POS Plans demonstrate design intent only and are subject to change throughout the concept design phase of each project



hill top park_general arrangement





TYPOLOGIES_POS

3.5 Green Link 1

Green Link 1 is located on the southern border of the Hilltop Precinct. The primary function of the eastern portion of the park is to offer public amenity, outlook opportunities and access to Beeliar Regional Park; whilst the western portion of the park concentrates on assisting drainage functionality and access throughout.

The park has a distinct change in levels and should look to integrate the theming of the precinct into any build elements such as wall, balustrades, shelters and handrails.

Kick about areas are to be inter-dispersed throughout the drainage basin dominated POS areas, and should be assisted by facilities such as bbq's, shelters, playgrounds and naturescape play areas.

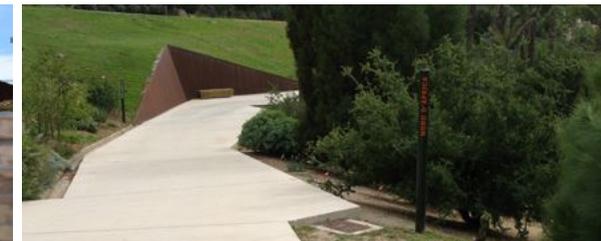
Pedestrian bridges, platforms and lookouts are to be integrated within the POS and take interesting routes that lead the public past the offered amenity and through the naturalistic drainage basin.

Tree and planting species should primarily be Western Australian natives with a few key european species in order to create a space that promotes flora and fauna diversity.

Furniture selections should be robust and of an industrial nature which assist the theming of the precincts.

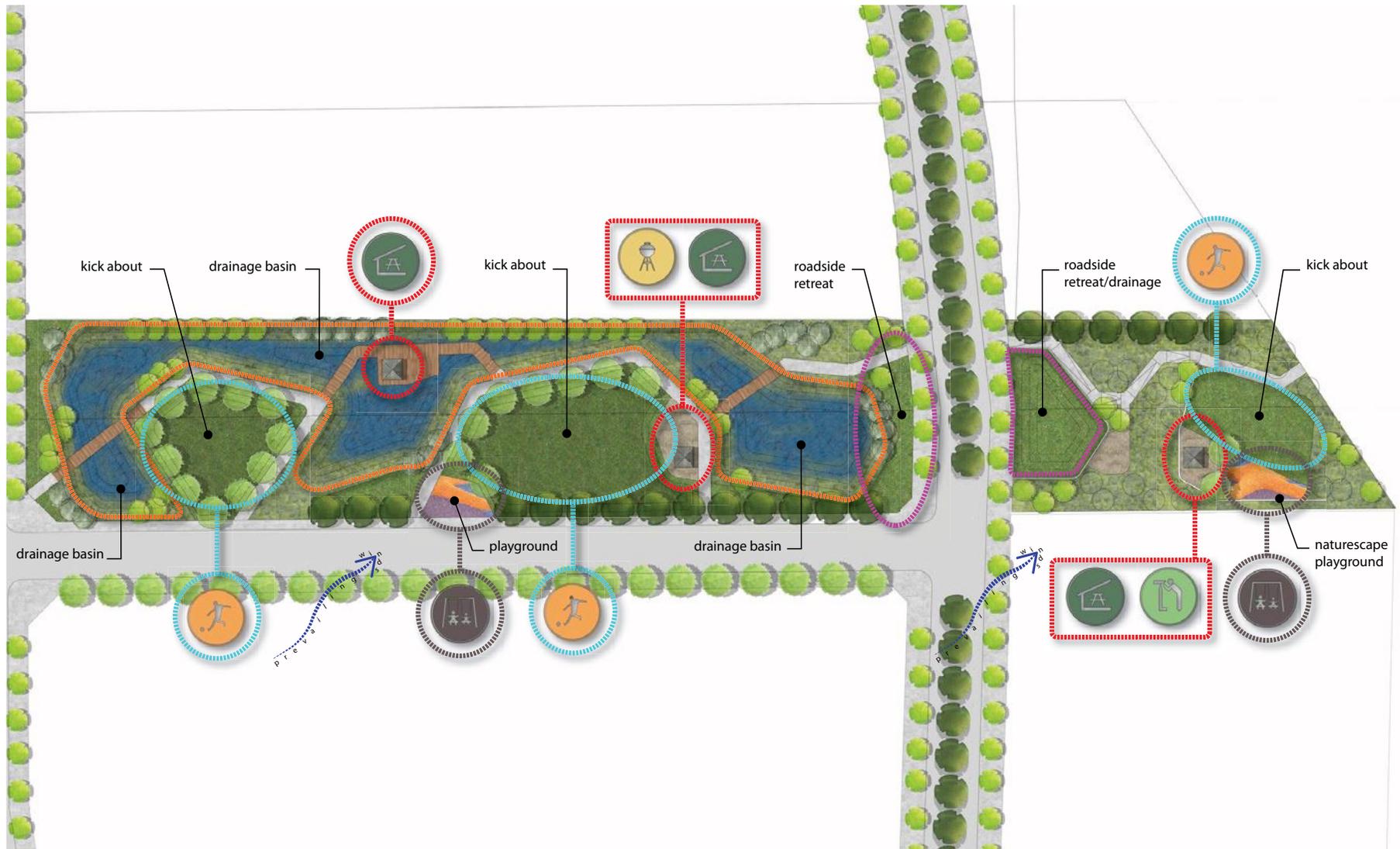


location plan



green link 1_vibe imagery

POS Plans demonstrate design intent only and are subject to change throughout the concept design phase of each project



green link 1_general arrangement



HILLTOP
PRECINCT



(C) TYPOLOGIES_POS

3.6 Green Link 2

Green Link 1 is located on the southern border of the Hilltop Precinct. The primary function of the eastern portion of the park is to offer public amenity, outlook opportunities and access to Beeliar Regional Park; whilst the western portion of the park concentrates on assisting drainage functionality and access throughout.

The park has a distinct change in levels and should look to integrate the theming of the precinct into any build elements such as wall, balustrades, shelters and handrails.

Kick about areas are to be inter-dispersed throughout the drainage basin dominated POS areas, and should be assisted by facilities such as bbq's, shelters, playgrounds and naturescape play areas.

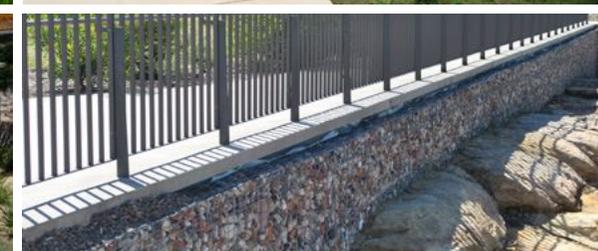
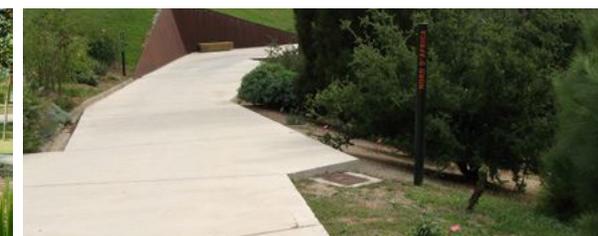
Pedestrian bridges, platforms and lookouts are to be integrated within the POS and take interesting routes that lead the public past the offered amenity and through the naturalistic drainage basin.

Tree and planting species should primarily be Western Australian natives with a few key european species in order to create a space that promotes flora and fauna diversity.

Furniture selections should be robust and of an industrial nature which assist the theming of the precincts.



location plan



green link 2_vibe imagery

POS Plans demonstrate design intent only and are subject to change throughout the concept design phase of each project



green link 2_general arrangement





(C) TYPOLOGIES_POS

4.0 POS Tree Hierarchy

Design Intent

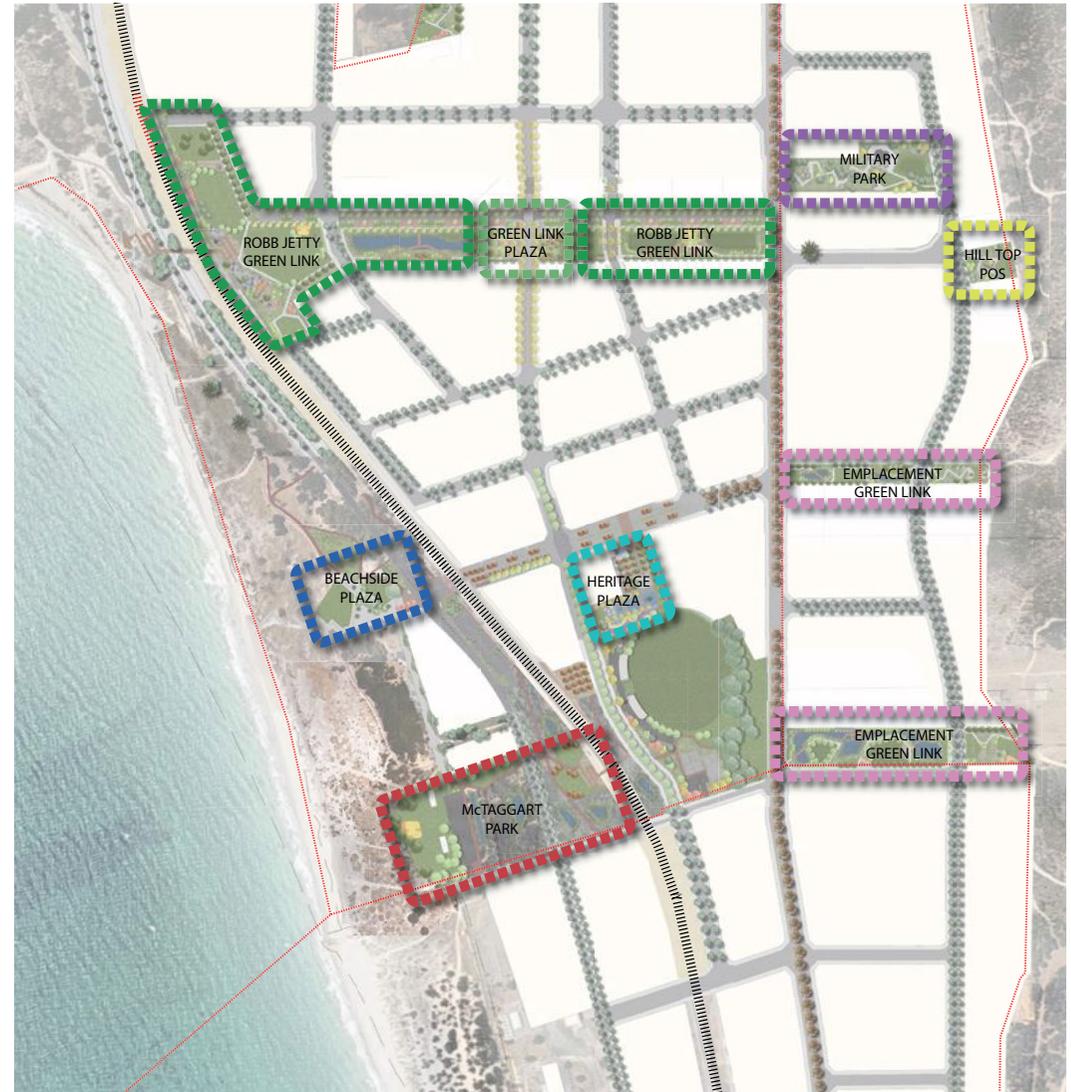
The selections of the street trees throughout the various POS areas are driven by the following factors:

- exposure to prevailing winds
- proximity to built form
- shading from building heights
- soil conditions
- coastal exposure
- heritage influences
- overall themes
- striking a endemic vs exotic balance with regards to indigenous and european heritage
- suitability for drainage requirements
- providing variety throughout the development that promotes fauna diversity and habitation.
- safety and surveillance

The following design factors should be considered when selecting the final tree species:

- selecting landmark trees where appropriate to mark gateways into the various precincts
- establishing habitable spaces below canopies in kick about areas
- selecting appropriate species in areas of water inundation
- underground service requirements.

The designer will require the sign off on all species from the City.



pos tree hierarchy plan



HILL TOP
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robb jetty_beachside plaza

- Araucaria heterophylla
norfolk island pine
- Melaleuca lanceolata
rottnest island tea tree
- Metrosideros excelsa
nz christmas tree
- Erythrina indica
coral tree
- Casuarina equisetifolia
horsetail sheoak

robb jetty_mctaggart park

- Melaleuca lanceolata
rottnest island tea tree
- Metrosideros excelsa
nz christmas tree
- Casuarina equisetifolia
horsetail sheoak

robb jetty_heritage plaza

- Gleditsia tricanthos
honey locust
- Delonix regia
royal poinciana
- Eucalyptus victrix
little ghost gum

hill top precinct_green links

- Jacaranda mimosifolia
- Tipuana tipu
- Erythrina indica
coral tree
- Banksia integrifolia
coastal banksia
- Eucalyptus platypus
round leaved moort
- Casuarina equisetifolia
horsetail sheoak
- Melaleuca quinquenervia
paperbark tree
- Olea europaea
olive tree
- Eucalyptus forrestiana
fuchsia gum

**REFER TO ROBB JETTY
PRECINCT**

robb jetty_green link plaza

- Jacaranda mimosifolia
- Eucalyptus victrix
little ghost gum

hill top precinct_military pos

- Eucalyptus utilis
coastal moort
- Jacaranda mimosifolia
- Eucalyptus wandoo
white gum
- Casuarina equisetifolia
horsetail sheoak
- Melaleuca quinquenervia
paperbark tree

robb jetty_green link

- Eucalyptus gomphocephala
tuart tree
- Ficus macrocarpa hillii
cherry gum
- Erythrina indica
coral tree
- Banksia integrifolia
coastal banksia
- Eucalyptus platypus
round leaved moort
- Casuarina equisetifolia
horsetail sheoak
- Melaleuca quinquenervia
paperbark tree
- Conyobia ficifolia
red flowering gum
- Eucalyptus rudis
flower gum
- Agonis flexuosa
peppercorn tree

hill top precinct_hill top pos

- Delonix regia
royal poinciana
- Erythrina indica
coral tree
- Eucalyptus wandoo
white gum
- Casuarina equisetifolia
horsetail sheoak
- Melaleuca quinquenervia
paperbark tree



TYPOLOGIES_PLANTING

5.0 Planting Typologies

Design Intent

The selections of the plant species throughout the various POS areas and streetscapes are driven by the following factors:

- exposure to prevailing winds
- shading from building heights
- soil conditions
- coastal exposure
- heritage influences
- overall themes
- suitability for drainage requirements
- providing variety throughout the development that promotes fauna diversity and habitation.

The following design factors should be considered when selecting the final plant species:

- selecting plant species that provide sensory diversity
- selecting plant species that are adaptable and can be presented in a number of aesthetic scenarios, ie, natural form and hedge form
- selecting appropriate species in areas of water inundation
- selecting species that will cope with little to no irrigation
- underground service requirements.

Irrigation requirements shall be agreed with the local authority and designed by a certified irrigation designer.

The designer will require the sign off on all species from the City.



Hilltop Precinct_POS

POS's should be a sensory experience with a variety of native and exotic species.

Plant species should explore the opportunity to enhance any military, industrial or other themes established in the POS design development phase.

Species should be proven in an urban environment, be water wise and display varying textures and colours.

Area	Type	Genus species	Common Name	WA Native or Exotic	Notes
Emplacement Park	Grasses/Sedge	Lomandra longifolia sp.	Lomandra	Australian Native	
		Anigozanthos sp.	Kangaroo Paws	WA Native	
	Groundcovers	Acacia lasiocarpa	Glow Wattle	WA Native	
		Eremophilla glabra	Kalbarri Carpet	WA Native	
		Grevillea preissii	"Sea Spray"	WA Native	
	Small Shrub to 1m	Lavendula dentata	Lavender	Exotic	
		Westringia dampieri	Coastal Rosemary	WA Native	
		Rosmarinus officinalis	Rosemary	Exotic	
		Leucophyta brownii	Cushion Bush	WA Native	
		Chrysocephalum apiculatum	Yellow Buttons	Australia Wide	
		Olearia axillaris	Coastal Daisy Bush	WA Native	
	Medium Shrub to 2m	Alyogyne huegelii	Native Hibiscus	WA Native	
		Alyogyne hakeifolia	Native Hibiscus	WA Native	
	Other	Xanthorrea preissii	Grass Tree	WA Native	



location plan

Hilltop Precinct_Internal Lots

Internal planting within the lots should be mainly Western Australian natives with approved exotic species complimenting the native palette.

Species should be proven in an urban environment, be water wise and display varying textures and colours.

All species to be hardy, easily maintained and well presented.

Area	Type	Genus species	Common Name	WA Native or Exotic	Notes
Emplacement Park_Internal Lots	Grasses / Sedges	Liriope muscari	Evergreen Giant	Exotic	
		Limonium preissii	Sea Lavender	Exotic	
	Small Shrub to 1m	Tulbaghia violacea	Society Garlic	Exotic	
		Lomandra confertifolia	Lomandra Seascape	Australian Native	
		Conostylus candicans	Grey cottonheads	WA Native	
		Strelitzia reginae	Bird of Paradise	Exotic	
		Anigozanthos sp.	Kangaroo Paws	WA Native	
		Lavendula dentata	Lavender	Exotic	
		Juniper conferta	Shore Juniper	Exotic	
		Rosmarinus officinalis	Rosemary	Exotic	
		Scaevola crassifolia	Thicket Leafed Fan Flower	WA Native	
		Pimelea ferruginea	Pink Rice Flower	WA Native	
	Medium Shrub to 2m	Echium candicans	Pride of Madeira	Exotic	
		Alyogyne huegelii	Native Hibiscus	WA Native	
		Alyxia buxifolia	Sea Box	WA Native	
		Viburnum tinus	Viburnum	Exotic	
	Large shrubs 2m+	Hibiscus tiliaceus	Cottonwood	Exotic	
		Rhaphiolepis indica	Indian Hawthorn	Exotic	
		Murraya paniculata	Orange Jessamine	Exotic	
			Bougainvillea sp.	Bougainvillea	Exotic



location plan

Note : The species list is a pre-approved list only. Additional species would be acceptable subject to sign off from the City.

