

SERENITY COVE STAGE 16 & 17

COVENANT MANAGEMENT PLAN

SIME DARBY SERENITY COVE DEVELOPMENT PTY LTD



Form
landscape architects

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A 4/6 KYABRA ST, FORTITUDE VALLEY Q 4005 T 07 3216 0606 F 07 3216 0608 W FORMLA.COM.AU

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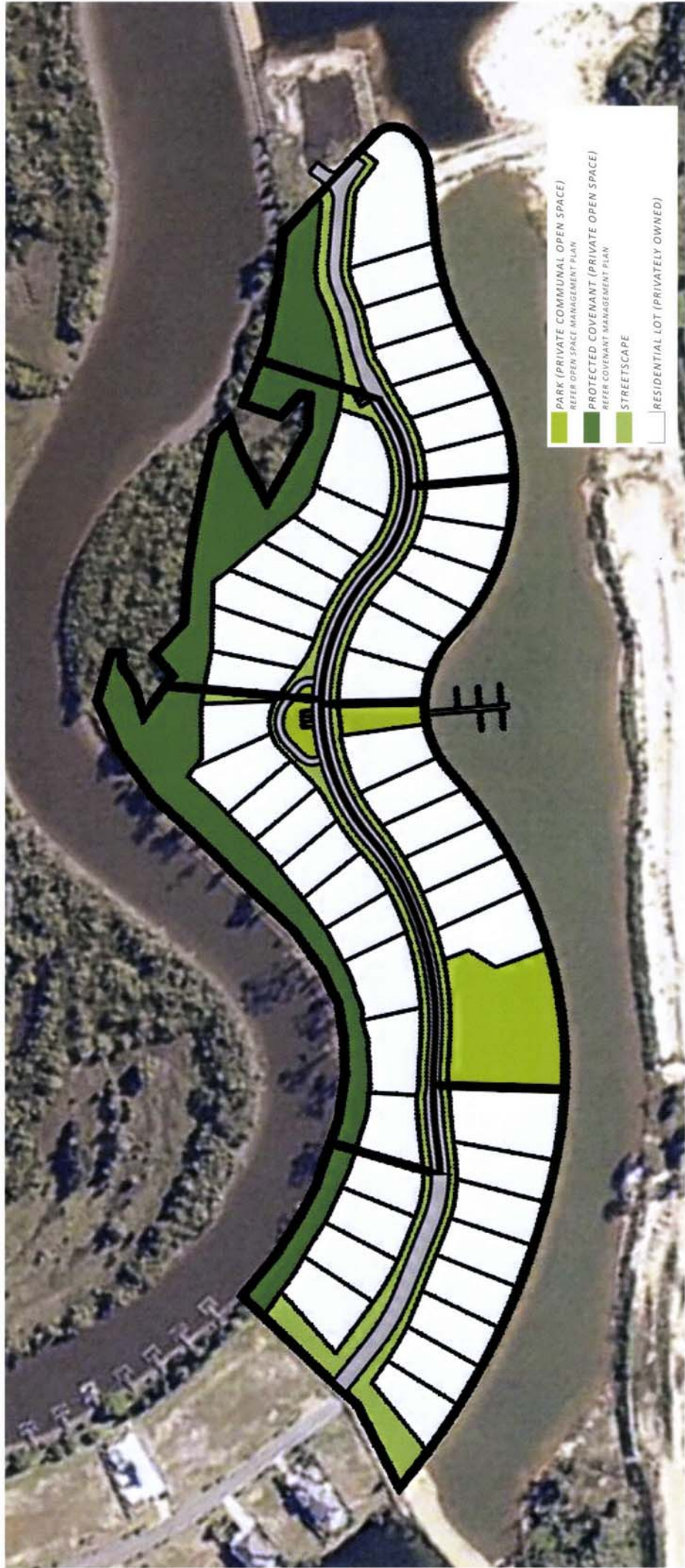
SUBJECT SITE

INTRODUCTION & SITE DESCRIPTION

The primary purpose of this Covenant Management Plan (CMP) is to ensure that the specified 'Covenant Area' for the Serenity Cove Stage 16 & 17 is maintained and preserved for the life of the development and the use of the premises. The CMP has been developed for the purpose of preserving the site's environmental integrity, coastal management and to provide a buffer for native plants and animals. Additionally, it outlines the responsibilities for the developer during the development phase as well as the ongoing Management Measures and Monitoring for the land owner or covenantor.

The proposed development of Serenity Cove Stages 16 & 17 stretches over 9.4 hectares of peninsula land bordered by Saltwater Creek to the north and Lake Serenity to the south in the Hope Island precinct of the Gold Coast. Serenity Cove is being developed primarily as a quality waterfront residential community with a high standard of lifestyle aspects. The subdivision includes 2 primary waterfront land areas surrounding Salt water creek, and Lake Serenity. The area is being developed with a focus on a harmonious relationship between the built and natural environments.

The site's topography is best described as being relatively level and low lying with varying bench levels both natural and artificial. The site's total area is approximately 9.4 ha, 1.13 ha of which is allocated to the Covenant Area. The site is a large single allotment in the Parish of Coomera and is described as Lot 705 on SP136233. The site is heavily disturbed due to previous uses, which included turf farming and extractive industry. Since the rezoning in 1998 it has been vacant and is currently covered with 3m of preloam with pockets of protected remnant trees and vegetation.



DESIGN DESCRIPTION

The proposed development area consists of 3 distinct landscape precincts, Park Communal Open Space, Streetscape and Public Open Space.

Park (Private Communal Open Space)

This precinct forms the basis of the primary recreational area for residents and their visitors. It comprises a harmonious interaction between the built and natural, the remnant and new. Thoughtful spatial arrangement within planting and building design, will foster a sense of place and order, while demonstrating a responsiveness to both natural and built constraints within the site.

Within the primary park, there exists a number of tree species and isolated habitats as can be seen from the site photographs. This park will retain all trees as identified by an arborist to be significant and further be enhanced through revegetation of the space. In the remnant pockets of cleared land landscape embellishments, paths, a shelter, lawn pockets and terracing will be incorporated to create a suitable space for residents to recreate in.

The pocket park will be a more formal landscape, providing quiet open space to enhance the adjacent streetscape and provide access to the pontoon.

These landscape precincts will be the property of the Body Corporate and maintained by the body corporate, under the agreed Open Space Management Plan which outlines management issues of Open Space Areas.

Protected Covenant (Private Open Space)

This precinct provides an environment that responds to the sensitive waters edge.

Dedicated landscaped areas skirting water bodies and controlled access to the edge of Saltwater Creek demonstrate a sensitive approach to the natural environment on the creek bank. This area shall comprise of protected existing vegetation and restricted access which will enable a combination of assisted and natural regeneration of the zone. An accompanying Open Space Management Plan has been prepared to support the rehabilitation and intended dedication of this space as public land.

This landscape precinct will be the property of the Body Corporate and maintained by the body corporate, under the agreed Covenant Management Plan.

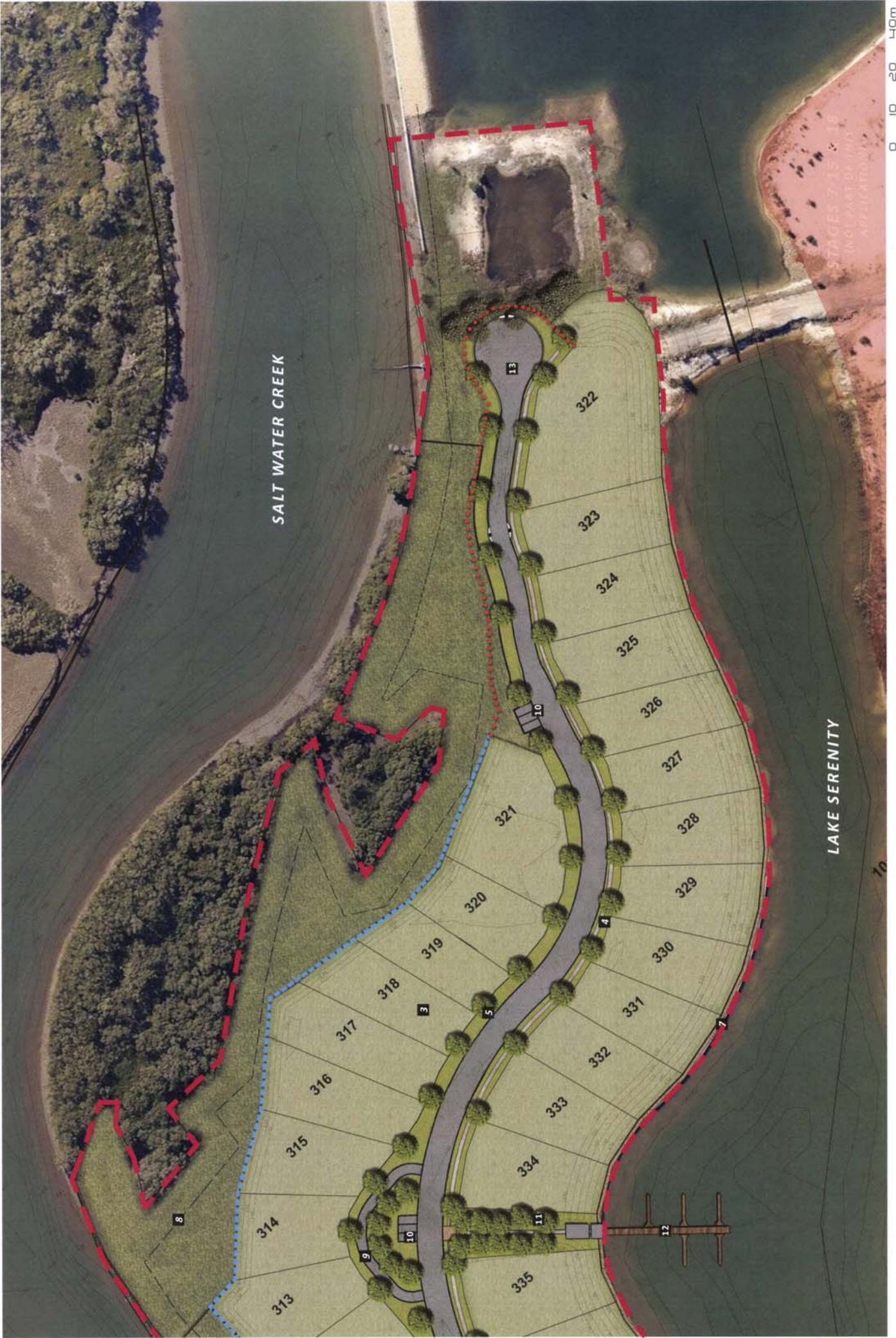
Streetscapes

Beyond the entry point the road continues through the heart of the development servicing all residential allotments. Within this area, avenue tree planting and identity treatment will occur, the presence of which will establish both a precinct identity and the sequential experience of orientation, arrival and entry. It is intended that the streetscapes will more specifically provide casual social interaction by extending the 'garden' landscape of the eventual residences into the public realm. Where appropriate, roads will respond to WSUD principles to achieve a reduced stormwater coefficient, therefore mitigating possible ecological disturbances.

This landscape precinct will also be the property of the Body Corporate and maintained by the body corporate.

Stage 16 & 17 Open Space dedication	
Category	Area
Open Space - Private Communal	0.4 ha
- Covenant Area	1.13ha
Private residential Lot	6.68ha
Streetscape & roadway	1.19ha
Total site area (stg 16 & 17)	9.4 ha







FLORA & FAUNA DESCRIPTION

Existing vegetation generally consists of pockets of Swamp She-Oak Open Forest and stands of Eucalypt spp. These vegetation communities exist in areas designated for open space pockets along the bank of Saltwater Creek and within the open space areas.

The 'Vegetation Management Plan' (VMP) prepared by SKM (May 2005) identified the existing vegetation within the dedicated open space in Stage 16. Key species include 25 x Pink Bloodwoods, Acacia spp., 10 x Coastal Banksias, 20 x Cheese Trees, 3 x Blue Gums, 20 x SwampBox, and 50 x Swamp She oaks.

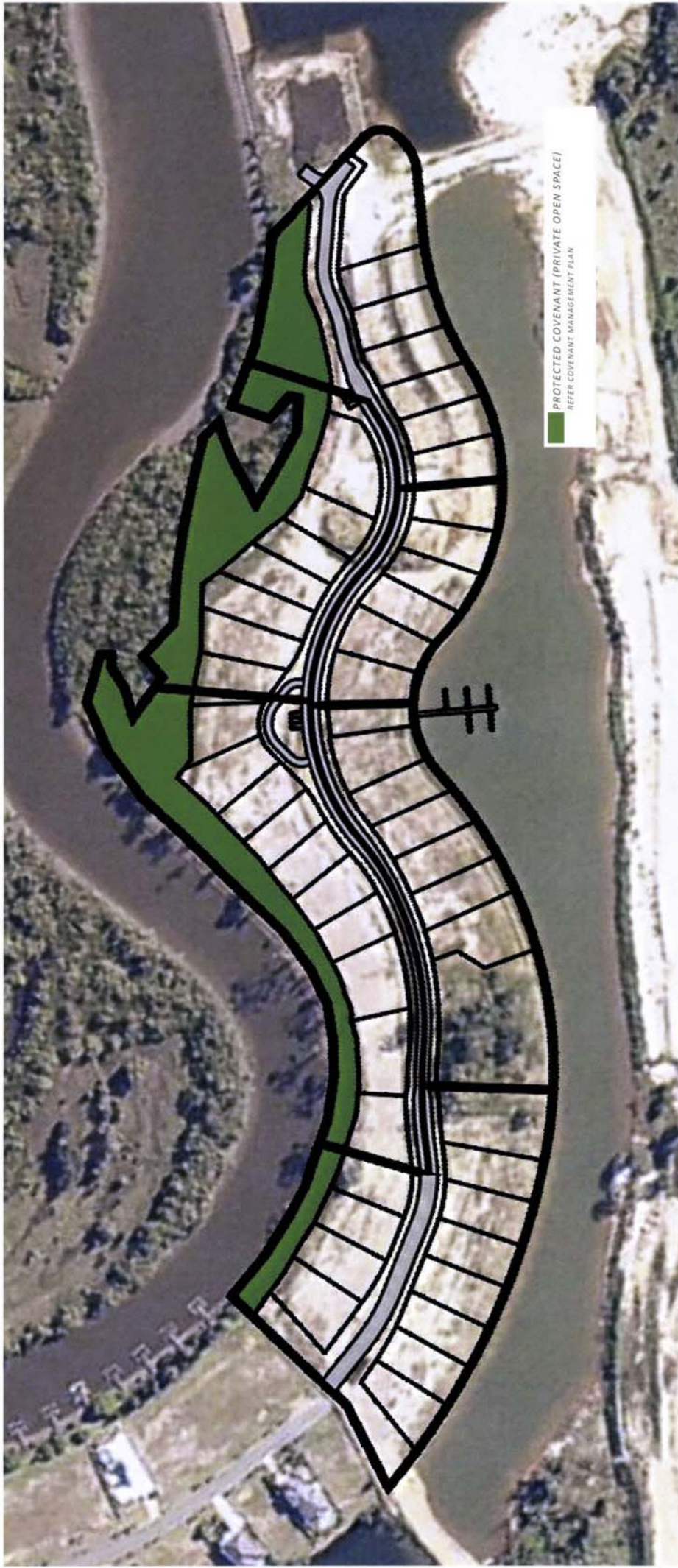
The VMP identified 4 groups of Vegetation types, namely

- Cleared Creek Edge with remnant Trees,
- Disturbed landscape with Casuarina regrowth,
- Casuarina forest
- Cleared lakeside park with retained Remnant trees.

According to the VMP, there are no endangered, vulnerable or rare flora species observed on the proposed development site.

The site's Fauna Movement is described in the 'Buffer Width and Environmental Concerns - Oyster Cove' report prepared by Ison Environmental Planners (2004).

This report states that the existing fauna of the site either inhabit mangrove and salt marsh areas or the open grassy woodland on the remainder of the site. The majority are birds which do not require corridors for dispersal to other habitat areas. For mangrove dwelling species such as the Collared kingfisher, Striated heron and Mangrove honeyeater there will be no change to the extensive mangrove habitat.



COVENANT AREA - ACCESS & PROHIBITED ACTIVITIES

Pedestrian access is not permitted except for maintenance in accordance with Rehabilitation Management Plan and for adjoining land owners of Lots 301-314 where access is permitted within the designated footpaths.

The covenant boundary must at all times remain fully fenced on the boundaries adjoining lots 313-321 and frontage of road from lot 321 to the entry of the lock and weir to discourage and prohibit pedestrian access. Bollards are to be installed and maintained to delineate the covenant boundary adjoining lots 301-313.

Within the Covenant Area, the following activities must not be undertaken, unless otherwise permitted by the approved Covenant Management Plan:

- Clearing, lopping or removal of any native plants;
- Erection of any fixtures or improvements, including buildings or structures;
- Construction of any trails or paths;
- Depositing of any fill, soil, rock, rubbish, ashes, garbage, waste or other material
- Foreign to the protected area;

- Entry for pedestrians, other than routine maintenance
- Keeping or permitting the entry of domestic animals or any other animals that are not indigenous to the Covenant Area, and
- Performance of any other acts which may have detrimental impact on the values of the Covenant Area

VEGETATION MANAGEMENT

The following section of this report will provide a summary of the Vegetation Management Plan (SKM, 2004) in regards to the management of the covenant area during construction, establishment and on-going management.

The majority of the site is highly modified through clearing. No continuous canopy is typically present with the vegetation characterised by isolated trees in slashed grassland. Pink Bloodwood (*Corymbia intermedia*) is the most common species, whilst several large Blue Gum (*Eucalyptus tereticornis*) were present.

Other tree species include Broad leaved Paperbark (*Melaleuca quinquenervia*) and Willow Bottlebrush (*Callistemon saligna*). No understorey is properly defined but typically understorey species are present as isolated trees and include Coast Banksia (*Banksia integrifolia*), Tuckeroo (*Cupaniopsis anacardioides*) and Swamp Box (*Lophostemon suaveolens*). Weed growth includes Groundsel (*Baccharis halimifolia*), Brazilian pepper (*Schinus terebinthifolius*), Singapore daisy (*Spagnetticola trilobata*), and *Asparagus africanus*.

CONSTRUCTION PHASE MANAGEMENT

Prior to the construction phase areas identified for retention and rehabilitation will be fenced off to provide protection and prevent movement of silt and sediment from the construction site through to the retention areas. All other areas will be cleared of vegetation for construction purposes. The proposed landscaping plans do provide for sufficient vegetation replenishment in these areas.

It has been recommended that the following measures be taken in the initial construction phase:

- Any hollow ground/arbooreal logs shall be relocated from areas to be cleared into protected areas to supply additional cover for any displaced fauna
- Areas of vegetation to be retained to be clearly demarcated using surveyors flagging tape and star pickets prior to clearing. The flagging tape and star pickets shall be installed at the drip line of retained trees to avoid damage to the root zone, and construction workers shall be made aware of these areas
- No construction mechanical activity or storage of materials/machinery is to be undertaken within the flagged zones
- The contractor shall be directed to avoid pushing trees into these areas to minimise damage of retained vegetation
- All cleared vegetation (apart from invasive species) is to be chipped and utilised as mulch on site. Millable timber shall be recycled appropriately
- A spotter-catcher will inspect site for native fauna prior to commencement of works
- Weed species to be stored separately from native vegetation, and disposed of at a suitable disposal facility
- Stores of vegetation to be checked for weed species prior to mulching
- Wastewater is to be treated to ensure weed species are not dispersed from the site
- All cleared vegetation (apart from invasive species) is to be chipped and utilised as mulch on site. Millable timber shall be recycled appropriately, and
- Weed species and rubbish shall be removed by hand where appropriate. If chemical control is required chemicals shall be used in areas that are not in close proximity to creeks and significant species.

2.3.1.2 ESTABLISHMENT PHASE MANAGEMENT

The establishment period for planting will be controlled by the landscape contractor. Protective fencing will be retained in place until the end of this phase. During the establishment phase it will be ensured that the vegetation will be established to an extent that it will not perish and be able to rely on the areas natural systems to maintain vigor and health. This will be achieved through a controlled watering system. Immediately after planting watering will be required, then three days following, another watering will occur. The plants will then require

supplementary watering once a week for 4 weeks, then once a month for the remaining 12 months. Within this period it should be provided that in revegetated areas, canopy growth reduces the need for excessive weed removal.

ONGOING MANAGEMENT AND MAINTENANCE REGIMES

The "on" maintenance period will begin upon the satisfactory completion of the establishment phase. During this period the developer is responsible and liable for maintaining all open space areas and for the rectification of defects. The "On" Maintenance period will continue for a period of 12 months. Once all site construction works have been completed to the satisfaction of the developer, the temporary vegetation protection fence shall be removed. Continuous monitoring and maintenance regimes for the landscape areas shall be adopted to ensure the continued growth of the area and to ensure that the objective to return the vegetation to its original state is achieved.

ASSISTED NATURAL REGENERATION

It is proposed the natural regeneration shall be the main form of rehabilitation within the subject site. The protected area of the site, and consequently the only area eligible for natural regeneration practices, is currently vegetated with a natural vegetation community described in the VMP as isolated vegetation community described in the VMP as isolated forest dominated by *Melaleuca quinquenervia*, *Lophostemon suaveolens*, mixed *Eucalyptus* and *casuarina* species. Assisted natural regeneration practices can be employed to encourage and promote regeneration. The following practices are considered suitable for the subject site;

- Weeding of infested areas to promote regeneration and decrease competition; and
- Mulching - to improve water/soil retention and suppress weeds – however over mulching can prevent regeneration by reducing light availability.

2.3.2.1 WEED REMOVAL

Weed removal is the initial stage undertaken in the assisted regeneration process. A number of invasive and environmental weed species occur on the site in very low densities. Table 1.0 below, outlines the declared and environmental weed species recorded in the area. It also presents the weed species declaration status under the Land Protection (Pest and Stock Route Management) Regulation 2003 (current as of the date of this report) and the recommended control techniques.

All herbicide application carried out during the development and maintenance phases must be carried out by persons who hold an Agricultural Chemical Distribution License and comply with the Agricultural Chemicals Distribution Control (ACDC) Act 1966. Herbicides must be used in accordance with the manufacturers recommended application methods and rates. Licensed weed Control Contractors will utilise industry best practice methods during weed control including the use of frog friendly herbicides in close proximity to creeks and water bodies. It is also important that bank stability is not jeopardised by weed removal works.

The Gold Coast City Council Natural Areas Management Unit recommends private land holders carry out rehabilitation works as detailed within the "Common Weeds of Northern NSW Rainforest - A practical manual on their identification and control – 3rd edition" that is produced by the Big Scrub Rainforest Landcare Group. (This recommendation is not an official policy of the Gold Coast City Council). Additional information with regard to a weed's status and control techniques may be obtained from the Department of Natural Resources and Mines (NRM), the Qld Department of Primary Industries (DPI) and the Gold Coast City Council's Natural Areas Management Unit. It should be noted that the status of the declared species list may change over time and should be checked regularly.

COVENANT MANAGEMENT

The following maintenance schedule is recommended for the subject site:

- Weed maintenance – After completion of works, the removal of any identified invasive and environmental weeds shall be carried out as follows:
 - One (1) month after initial treatment – retreat weed infested areas, and spot spray.
 - Three (3) months after initial treatment – follow up weed treatment.
 - Six (6) months after initial treatment – follow up weed treatment.
- Subsequently, weed maintenance shall be carried out periodically (a minimum of once per year) by the landholder to ensure that weeds do not re-establish;
- A thorough annual inspection of the site must be conducted. Weed outbreaks are to be identified and subsequently eradicated. The thorough inspection is to include:
 - Target control of all living weeds; and
 - The entire area shall be thoroughly inspected and weed control methods employed as per Table 2.4
- Maintenance of natural regeneration areas is to take place quarterly for the first year to ensure that the regeneration strategies put in place are adequate, and adjusted as necessary, and to promote the growth of new seedlings. The following activities are to be conducted quarterly in the first year of regeneration:
 - Weed control in accordance with this plan; and
 - Mulching and watering as required.
- Subsequently, the regeneration areas shall be monitored every 2-3 years. Monitoring and restoration is to entail:
 - Removal of excess seedlings in areas of high regeneration (where needed);
 - Excess seedlings from high yielding areas can be transplanted to areas of low regeneration;
 - Weed control to be applied to areas of excessive weed growth;
 - Mulching and tilling where necessary

2.3.2.3 CONSTRUCTION PHASE MANAGEMENT

The following strategies should be undertaken in the rehabilitation zones as part of the development operations over the subject site:

- Reputable, licensed horticulturalists, Landscaper and Weed Controller must be engaged to carry out all rehabilitation works;
- Clear delineation of the areas and zones to be rehabilitated;
- Native vegetation is to be retained;
- No construction activity or storage of materials/machinery is to be undertaken within the rehabilitation zones;
- Exposed soils will be mulched to improve fertility and reduce erosion and entrainment;
- Woody debris will be retained to provide habitat and nutrients to the ecosystem;
- Placement of slow release fertiliser will be required among plantings (to be used as per the manufacturers instructions);
- A three (3) month watering schedule will be required as outlined in the works program below; and
- Evaluation of the success of the planting will be required twelve (12) months after the completion of rehabilitation works. If less than 1 stem per meter are successful,

supplementary planting will be required.

After a three (3) month establishment period including monthly progress checks and weekly irrigation if required, there should be a minimum 90% survival rate and Operational Phase maintenance applies. If plants are found to be dead or in a poor state of health, they should be replaced with new specimens and the establishment period extends for another three (3) months.

OPERATIONAL PHASE MANAGEMENT

The following regular maintenance activities are recommended for the proposed rehabilitation areas:

- Weed maintenance – ongoing removal of any identified invasive and environmental weeds in accordance with requirements and recommendations of this report; and
- Passive maintenance of revegetation areas such as removal of anthropogenic refuse, monitoring access points and mitigating any effects, identifying and mitigating erosion.

A 12 month maintenance period including monthly watering of plantings, supplemental weeding summer and winter as well as replacement of lost plant stock is followed by the final standard maintenance period including weeding when required.

INSPECTIONS

1. Routine Inspections Space Areas

- Undertake monthly inspections for weed invasion, litter accumulation and damage/vandalism;
- Undertake inspections after significant rainfall or storm event to repair eroded areas
- Inspect planted areas for weed invasion;
- Inspect structures (i.e. bollards & paths, access areas, fencing, weir inlet/outlet piping) for damage/vandalism;
- Complete maintenance record forms; and
- Check Safety signage.

2. Annual Inspections

- Undertake yearly to inspect the condition of covenant area and report any damage or maintenance requirements to relevant personnel;

MAINTENANCE

Routine maintenance of the covenant area involves weed control, collection of litter and minor remedial works.

1. Weed Management

- Remove all weeds detected during routine inspection. Table 1 on the following page describes typical weeds, their status, rank and recommended control methods.
- Aim of hand pulling, digging and manually chipping is to remove weed including roots when the plant is less than 3 months old to avoid rapid infestation
- Do not use herbicides for weed control in areas where water contamination may occur. Where herbicide control is necessary use frog friendly bioactive glyphosate only.
- Bag and dispose of all weed plant material at an appropriate waste management facility.
- Remulch weeded areas as necessary and monitor for regrowth of regeneration species.

The following maintenance schedule is recommended;

- Weed maintenance – After completion of works, the removal of any identified invasive and environmental weeds shall be carried out as follows:
 - One (1) month after initial treatment – retreat weed infested areas, and spot spray.
 - Three (3) months after initial treatment – follow up weed treatment.
 - Six (6) months after initial treatment – follow up weed treatment.
- Subsequently, weed maintenance shall be carried out periodically (a minimum of twice per year) by the landholder to ensure that weeds do not re-establish;

A thorough annual inspection of the site must be conducted. Weed outbreaks are to be identified and subsequently eradicated.

2. Litter Management

- Ensure regular removal and disposal of any accumulated litter/debris around natural regeneration areas.

3. Establishment

- Maintenance of vegetated rehabilitation areas is to take place as specified.

4. Remedial Works

- Minor damage to rehabilitation from erosion should be repaired during routine maintenance activities.
- Exposed soils will be mulched to improve fertility and reduce erosion and entrainment.
- Damage to any protective fencing should be reported and rectified as required

5. Setup and Site Preparation

- Consult and engage the services of a licenced horticulturalist, reputable landscaper and weed controller
- Notify relevant parties such as affected residents and/or Council personnel prior to undertaking major maintenance operations;
- Setup site equipment and establish appropriate controls;
- Ensure no equipment or waste are placed or stored within the regeneration area.

6. Decommissioning

- Undertake site cleanup removing all litter, debris and other obstructions from the site.
- Remove all equipment and ensure site is left in a clean working order; and
- Repair any damaged caused as a result of maintenance activities

botanical name	common name	class	rank	recommended control method
<i>Eragrostis curvula</i>	African Lovegrass		34	- Hand pull - Backpack spray with Glyphosate (360 g/L) (1:1 water)
<i>Ambrosia artemisiifolia</i>	Annual Ragweed	Class 2		- Where feasible hand pull - Plants may be slashed or mown prior to setting seed (i.e. at the early flowering stage or immediately prior to flowering) - Registered herbicides: Dicamba e.g. Banvel 200R; 22L/ha, 1.5L/100L, 330mL/10-15L-150m² or Bromacil 800g/kg.
<i>Asparagus plumosus</i>	Asparagus Fern	Class 3	57	- Hand pull - Backpack spray with Glyphosate (360 g/L) (1:1 water)
<i>Gomphocarpus physocarpus</i>	Balloon Cotton Bush		86	Hand pull and remove from site
<i>Ageratum houstonianum</i>	Blue Billygoat Weed		115	- Hand pull - Backpack spraying with Glyphosate (360 g/L) (1:1 water)
<i>Nymphaea caerulea</i> ssp. <i>zanzibarensis</i>	Blue Waterlily		66	Hand pull and dispose
<i>Schinus terebinthifolia</i>	Broad-leaved Pepper Tree	Class 3	9	Basal bark spray or cut stump method using 1:1 glyphosate (360 g/L)
<i>Cinnamomum camphora</i>	Camphor Laurel	Class 3	8	Stem injection (2mL of 1:1 Glyphosate-IPA) trees up to 25cm in diameter (2mL of undiluted Glyphophosphate-IPA) for trees with 25-60 cm diameter and left insitu.
<i>Celtis sinensis</i>	Chinese Celtis	Class 3	7	Cut and paint using 1 part glyphosphate to 1.5 parts of water
<i>Mimosa pudica</i> var. <i>hispida</i>	Common Sensitive Plant		102	- Do not disturb plants before spraying - Fluroxpyr/Starane 200 1.5 L/ha
<i>Senna pendula</i> var. <i>glabrata</i>	Easter Cassia		45	Hand pulling or digging Larger infestations - cut and paint with Glyphosate (360g/L) at a rate of 1 part water
<i>Cynodon dactylon</i>	Green Couch			Hand pulling is not recommended There are no specific herbicides for common couch grass in Australia but glyphosate is effective when plant is actively growing
<i>Lantana camara</i>	Lantana	Class 3	1	Hand pulling or digging; Chipping or grubbing; Foliar Spraying – Glyphosphate 1L/ 100L water; Stem injection - Triclopyr (Garlon 600) 1L/60L diesel
<i>Ipomea cairica</i>	Mile-a-minute		28	- Cut and paste stems with Glyphosate (360g/L) at a rate of 1:1 in water - Foliar spray with Dicloram (75g/L) and 2, 2, D-amine (3000g/L) at a rate of 1L or herbicide per hectare - Foliar spray also with Dichlorprop (600g/L) ie DP600 ata a rate of 0.5/100L water
<i>Ageratina riparia</i>	Mistflower		25	Hand pulling or digging (burn & dispose off site); Glyphosate (360 g/L) 0.5L/100L
<i>Cyperus brevifolius</i>	Mullumbimby Couch		161	- Small infestations -manually chip out with hand tools; Glyphosate 360 @ 6 L/ha or 1 L/100L water when actively growing. - For small weed infestations where spraying is risky it can be painted onto specific weeds or else applied using a rope wick applicator.

<i>Ochna serrulata</i>	Ochna		22	Cut stump, paint with undiluted glyphosate (360 g/L)
<i>Brachiaria mutica</i>	Para Grass		42	- Regular slashing or grazing. - Chemical control using foliar application of glyphosate (360 g/L at a rate of 1 part herbicide to 1 part water).
<i>Brachiaria decumbens</i>	Signal Grass		120	Mechanical, hand removal, or backpack spraying with Glyphosate (360g/L at a rate of 1 part herbicide to 1 part water).
<i>Desmodium uncinatum</i>	Silver-leaved Desmodium		64	Mechanical or hand removal.
<i>Sphagneticola trilobata</i>	Singapore Daisy	Class 3	16	Foliar spray with metsulfuron-methyl (600 g/L).
<i>Macroptilium atropurpureum</i>	Sirato		51	- Handpull, chip or mow. - Removing the whole crown by grubbing is the most effective manual/mechanical control method. - Foliar spraying with Grazon DS* diluted at 35mL per 100 L water. - Spraying with glufosinate-ammonium (Touchdown*) when actively growing.
<i>Setaria sphacelata</i>	South African Pigeon Grass		85	Small infestations -manually chip out with hand tools; Herbicides may be used, however refer Department of Natural Resources and Water for more information on which herbicides may be used.
<i>Schefflera actinophylla</i>	Umbrella Tree			- Sidewinder injections of Glyphosate 360* undiluted (10mL per 15cm stem diameter). Stem inject with equal parts solution of Glyphosate 360* and water. - Dig up/hand pull young plants.

Table 1.0
Typical Weeds and Removal Techniques

COVENANT AREA MAINTENANCE FORM

LOCATION: Oyster Cove Stage 16 & 17

DESCRIPTION:

Site Visit Details

Site Visit Date:

Site Visit By:

Weather:

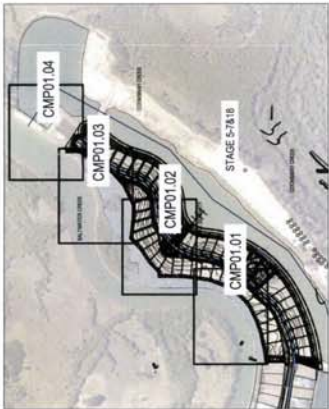
Purpose of Site Visit	Tick	Complete Section
Routine Inspection	☐	Section 1 only
6 Monthly Maintenance	☐	Section 1, 2 and 3
Biannual Inspection	☐	Section 1, 2 and 3
Section 1: INSPECTION		
Any weeds or litter in vegetated rehabilitation area? (if yes, complete Section 2-Maintenance)		Yes / No
Any visible damage to vegetated rehabilitation area? (if yes, complete Section 3 - Condition)		Yes / No
Any dead or dying plants? (if yes, complete Section 3 - Condition)		Yes / No
Any bare ground or excess mulch build up (if yes, complete Section 3 - Condition)		Yes / No
Any obstruction or damage to protective fencing? (if yes, complete Section 2 - Maintenance)		Yes / No

Inspection Comments:

Section 2: MAINTENANCE

Are there weeds in the vegetated rehabilitation area?	Yes / No
Were the weeds removed (if no comment over page)?	Yes / No
Is there litter in the vegetated rehabilitation area?	Yes / No
Was the litter collected this site visit (if no comment over page)?	Yes / No
Is there and damage/obstruction to protective fencing where erected bounding the vegetated rehabilitation area?	Yes / No
Was the damage/obstruction rectified this site visit (if no comment over page)?	Yes / No
Is there exposed soil in the vegetated rehabilitation area?	Yes / No
Was the area remulched this site visit (if no comment over page)?	Yes / No

APPENDIX A - REHABILITATION PLANTING PLANS



KEY PLAN
SCALE 1:1000

FINISHES SCHEDULE

SYMBOL	ITEM	FINISHES / SPECIFICATION
	ZONE 1: REHABILITATION MODULA '1'	REHABILITATION PLANTING TO COVENANT AREA
	ZONE 2: REHABILITATION MODULA '2'	REHABILITATION PLANTING TO COVENANT BATTER
	ZONE 3: REHABILITATION MODULA '3'	LOW HEIGHT REHABILITATION PLANTING TO LOTS 301-313
	BUSH TRACK	REFER TO LANDSCAPE PACKAGE FOR DETAILS
	POOL FENCE	REFER TO LANDSCAPE PACKAGE FOR DETAILS
	TIMBER BOLLARDS	REFER TO LANDSCAPE PACKAGE FOR DETAILS
	POOL FENCE GATE	REFER TO LANDSCAPE PACKAGE FOR DETAILS

PLANT PALETTE		Common Name	Size	Planted Rehabilitation Zones		
Botanical Name				1	2	3
Trees						
Alphitonia excelsa		Red Ash	Tubestock		✓	✓
Acacia leiocalyx		Hickory Wattle	Tubestock		✓	
Banksia integrifolia		Coast Banksia	Tubestock		✓	✓
Callistemon salignus		White Bottlebrush	Tubestock		✓	✓
Casuarina glauca		Swamp She Oak	Tubestock		✓	✓
Corymbia intermedia		Pink Bloodwood	Tubestock		✓	
Corymbia tessellaris		Moreton Bay Ash	Tubestock		✓	
Cupaniopsis anacardioides		Tuckeroo	Tubestock		✓	
Eucalyptus siderophloia		Grey Iron Bark	Tubestock		✓	
Eucalyptus tereticornis		QLD Blue Gum	Tubestock		✓	
Glochidion ferdinandi		Cheese Tree	Tubestock		✓	✓
Hibiscus tiliaceus		Cottonree	Tubestock		✓	
Lophostemon suaveolens		Swamp Box	Tubestock		✓	✓
Melaleuca quinquenervia		Broad-leaved Paperbark	Tubestock		✓	✓
Shrubs						
Acacia sophorae		Coastal Wattle	Tubestock	✓	✓	✓
Austromyrtus dulcis		Midyim	Tubestock	✓		
Banksia robur		Swamp Banksia	Tubestock	✓	✓	✓
Breynia oblongifolia		Coffee Bush	Tubestock	✓		
Canthium odoratum		Shiny-leaved Canthium	Tubestock	✓		
Clerodendrum floribundum		Lolly Bush	Tubestock	✓	✓	✓
Duboisia myoporoides		Corkwood	Tubestock	✓	✓	✓
Haakea actites		Wallum Haakea	Tubestock	✓	✓	✓
Leptospermum polygalifolium		Wild May	Tubestock	✓		
Grasses, Sedges & Ground Covers						
Crinium pedunculatum		Swamp Lily	Tubestock	✓		✓
Dianella caerulea		Blue Flax Lily	Tubestock	✓		
Fimbristylis tristachya		Saltmarsh Sedge	Tubestock	✓	✓	✓
Hardenbergia violacea		False Sarsparilla	Tubestock	✓		
Imperata cylindrica		Bladey Grass	Tubestock	✓	✓	✓
Isolepis nodosa		Knobby Club Rush	Tubestock	✓		
Juncus kraussii		Salt Sedge	Tubestock	✓	✓	✓
Lomandra hystrix		Slender Mat Rush	Tubestock	✓		
Lomandra longifolia		Spiny Head Mat Rush	Tubestock	✓		
Sporobolus virginicus		Saltwater Couch	Tubestock	✓	✓	✓
Themeda triandra		Kangaroo Grass	Tubestock	✓	✓	✓

* Plant selections are based on the VMP by SKM and the GCCC Protected Coastal Plant Selection Guide

4500

4800

5000

5000

Rehabilitation planting
MODULE '1'

Shrub
Groundcover

Rehabilitation planting
MODULE '2'

Tree
Shrub
Groundcover

Rehabilitation planting
MODULE '3'

Tree
Shrub
Groundcover

design stage
COUNCIL APPROVAL

amendments

issue date	description	by
pr00 21/11/11	Council Approval	cw
pr01 11/03/13	Council Approval	sh
pr02 19/04/13	Council Approval	sh
pr03 07/05/13	Council Approval	sh

Form

act 097 234 305

client

Sime Darby Serenity Cove

project

Serenity Cove

Stage 16 & 17

drawing title

Rehabilitation Plan

Cover Sheet

job no.

11208

drawing no.

CMP 01-00

drawn

CW

checked

SH

date

Mar '13

form landscape architects

6/4 tulara street

fortitude valley q 4006

p 07 3216 0606 f 07 3216 0608

SPECIFICATION NOTES

Extent of Works

- 1. Fences
- 2. Decomposed Granite Paths
- 3. Rehabilitation Planting
- 4. Weed Management
- 5. Pest Management
- 6. Inspection of Works
- 7. Establishment/Maintenance
- 8. Defects Liability

Fencing

- 1. Covenant area shall be fenced from the boundary of the lots adjoining the covenant area (Lots 314-321) through to the lock & weir, as indicated on Drawings **CMP01.01-CMP01.04**.
- The fence shall prevent pedestrian, domestic animal and vehicular access.
- Fence is to be pool fence.
- Timber bollards, as indicated on Drawings **CMP01.00-CMP01.02**, shall delineate the lot boundaries adjoining Salt Water Creek (Lots 301-313).

Decomposed Granite Paths

- 2. Paths shall extend from the backs of the indicated lots to the top of the rock vermet wall as indicated.

Rehabilitation Planting

Rehabilitation Zones

Four vegetation zones have been identified. These are in accordance with the approved areas in Vegetation Management Plan prepared by Sinclair, Knight, Merz (24 May 2005). Three of these zones require planting. These zones have corresponding planting modules detailed on the previous page.

Zone 1 (Planting Module '1')

Incorporates the 'Transition zone' between the development and the existing vegetation and Salt Water Creek.

Zone 2 (Planting Module '2')

Incorporates the 'buffer zone' where heavy planting is required to form a visually impenetrable vegetation barrier in areas with limited existing canopy.

Zone 3 (Planting Module '3')

Incorporates the 'buffer zone' where an extensive canopy exists and under storey regeneration is required.

Zone 4

Incorporates the area of existing planting outside the covenant area that requires maintenance and weed management only.

Rehabilitation Works

- All works shall be in accordance with the Environmental Buffer and Revegetation Plan prepared by Sinclair, Knight, Merz (August 2004).
- Shall be conducted in areas shown on **drawings CMP01.01-CMP01.04**, from property boundary to covenant boundary and shall re-establish the pre existing vegetation communities of the site, while supporting surrounding private areas & public open spaces.

General Planting

- All planting to be local provenance plant stock and is to be sourced from seed or vegetative material located no further than 10 kilometres from the subject site.
- All plants shall be true to their scheduled nomenclature, well formed, hardened off stock. They shall be grown in potting medium with their root system firmly established, but with no large roots growing out of the container.
- Form and habit for the plant shall be normal for the plant as scheduled and no plant shall be cut back so severely that the growth and development of the desired plant form is retarded.

- All plants shall be free from living insect pests and insect and or disease injuries.
- Planting stock is to be randomly planted (Not in rows) at the densities identified in the planting modules.
- Planting stock should be local provenance indigenous plant. If local provenance isn't available, stock should be sourced from the nearest available area.

Cultivation

- Open areas shall be ripped to a depth of 300mm.
- Areas around the roots of existing trees shall be cultivated by hand/ auger to 300mm.

Mulching

- Specified mulch shall be spread to a minimum depth of 100mm to the identified planting areas.

Weed Management

- Remove all weeds by environmentally acceptable methods including by hand and non-residual, pre-emergents and systemic herbicides.

Pest Management

- The landscape contractor shall ensure all materials brought to site shall be free of Fire Ants, Fire ant Eggs, Nut Grass and Myrtle Rust.

Inspection of Works

- The landscape contractor shall arrange a time prior to the completion of works with the Landscape Architect for the Practical Completion/Pre-maintenance inspection of the works.
- The landscape contractor shall arrange a time with the Landscape Architect for a Final inspection of the works at the end of the Establishment/Maintenance period.

Establishment / Maintenance

- The landscape contractor shall establish the works for a period of twelve(12) months.
- All and plants shall be watered so as to ensure continuous healthy growth.
- Weeds and rubbish shall be regularly removed from planting areas.
- Remove all weeds by environmentally acceptable methods including by hand and non-residual, pre-emergents and systemic herbicides.
- Replace all plants that are unhealthy or dead. Replacements shall be of a similar size, quality and identical species or variety of that plant unless otherwise directed.
- Provide trimming to all plants using the combined methods of thinning-out and heading-back to encourage natural growth habit of plants - never shear.
- Apply a liquid fertiliser every four(4) weeks to all plants. Fertiliser to be complete with macro and micro nutrients as can be absorbed by plants under foliar application.
- Generally protect mulched and planted areas from damage, malicious, irresponsible or accidental. Reinstate damaged areas to original specifications
- The landscape contractor shall notify the presence of myrtle rust in accordance with the Environmental Protection Agency (Queensland) guidelines.

Defects Liability

- The landscape contractor shall consolidate the works and make good all defects for a period of fifty-two(52) weeks after practical completion and shall leave the works in a clean and tidy condition.

amendments

issue	date	description	by
pr00	21/11/11	Council Approval	cw
pr01	11/03/13	Council Approval	sh
pr02	19/04/13	Council Approval	sh
pr03	07/05/13	Council Approval	sh

Form

actn 0197 234 305

client

Sime Darby Serenity Cove

project

Serenity Cove

Stage 16 & 17

drawing title

Rehabilitation Plan

General Notes

job no.

111208

drawing no.

CMP 01-001

drawn

CW

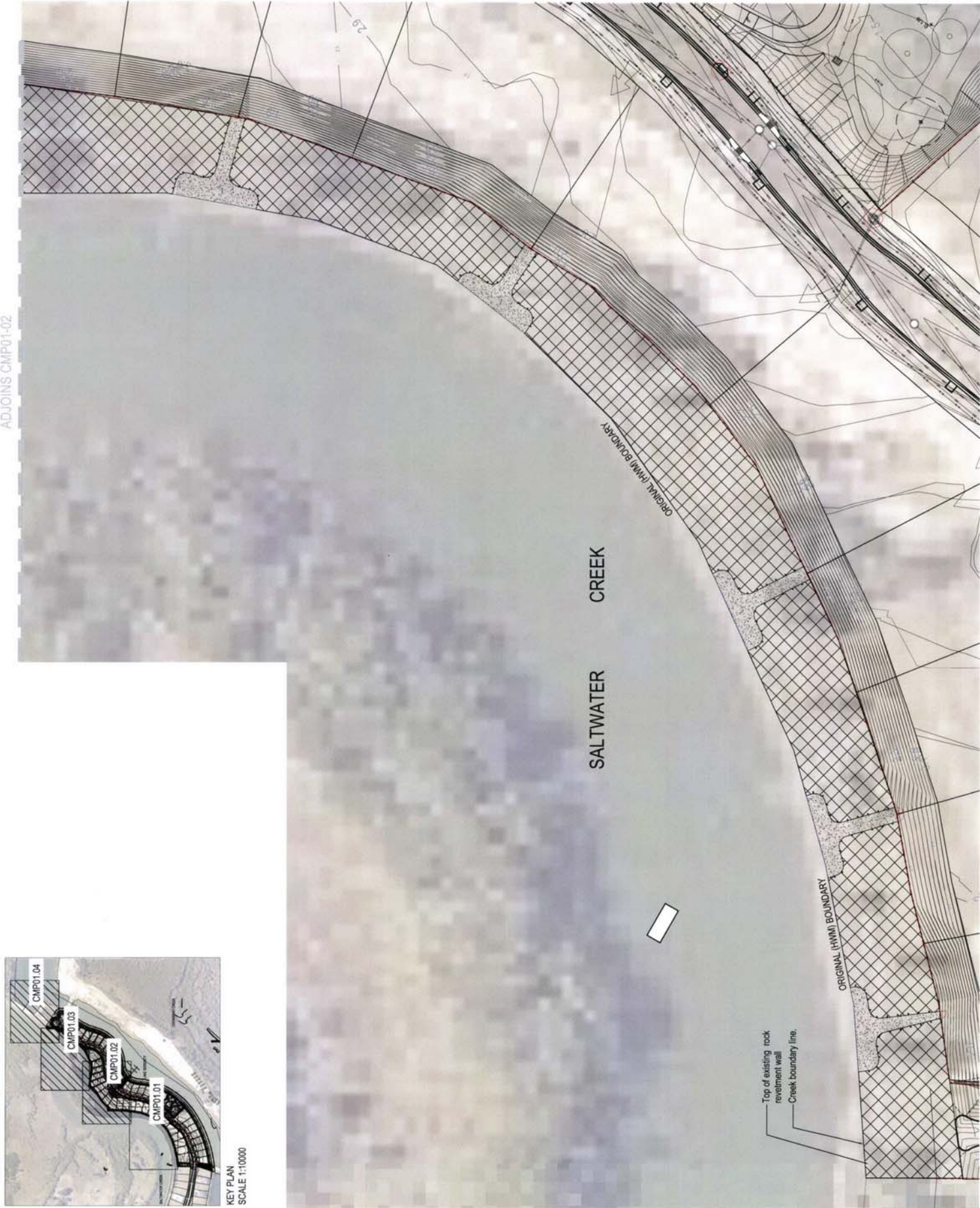
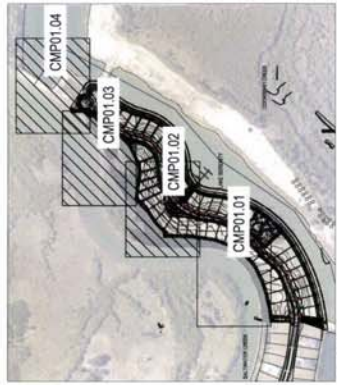
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SH

date

Mar '13

ADJOINS CMP01-02



design stage
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pr01	11/03/13	Council Approval	sh
pr02	19/04/13	Council Approval	sh
pr03	07/05/13	Council Approval	sh

Form

asn 097 234 305

client
Sime Darby Serenity Cove

project
Serenity Cove
Stage 16 & 17

drawing title
Rehabilitation Plan



job no.
111208

drawing no.
CMP 01-01

drawn
CW

checked
SH

date
Mar '13



form landscape architects
5/41 Kudrya Street,
Northside Valley Q 4006
p 07 3216 0506 f 07 3216 0508

design stage
COUNCIL APPROVAL

amendments		by
issue date	description	by
pr00 21/11/11	Council Approval	CW
pr01 11/03/13	Council Approval	sh
pr02 19/04/13	Council Approval	sh
pr03 07/05/13	Council Approval	sh

Form

actn 0197 234 305

client

Sime Darby Serenity Cove

project

Serenity Cove
Stage 16 & 17

drawing title
Rehabilitation Plan

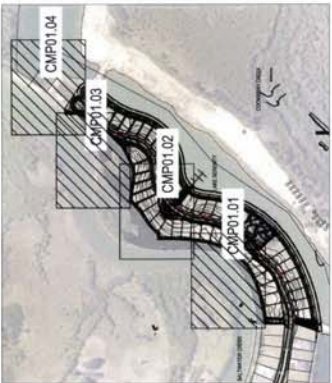
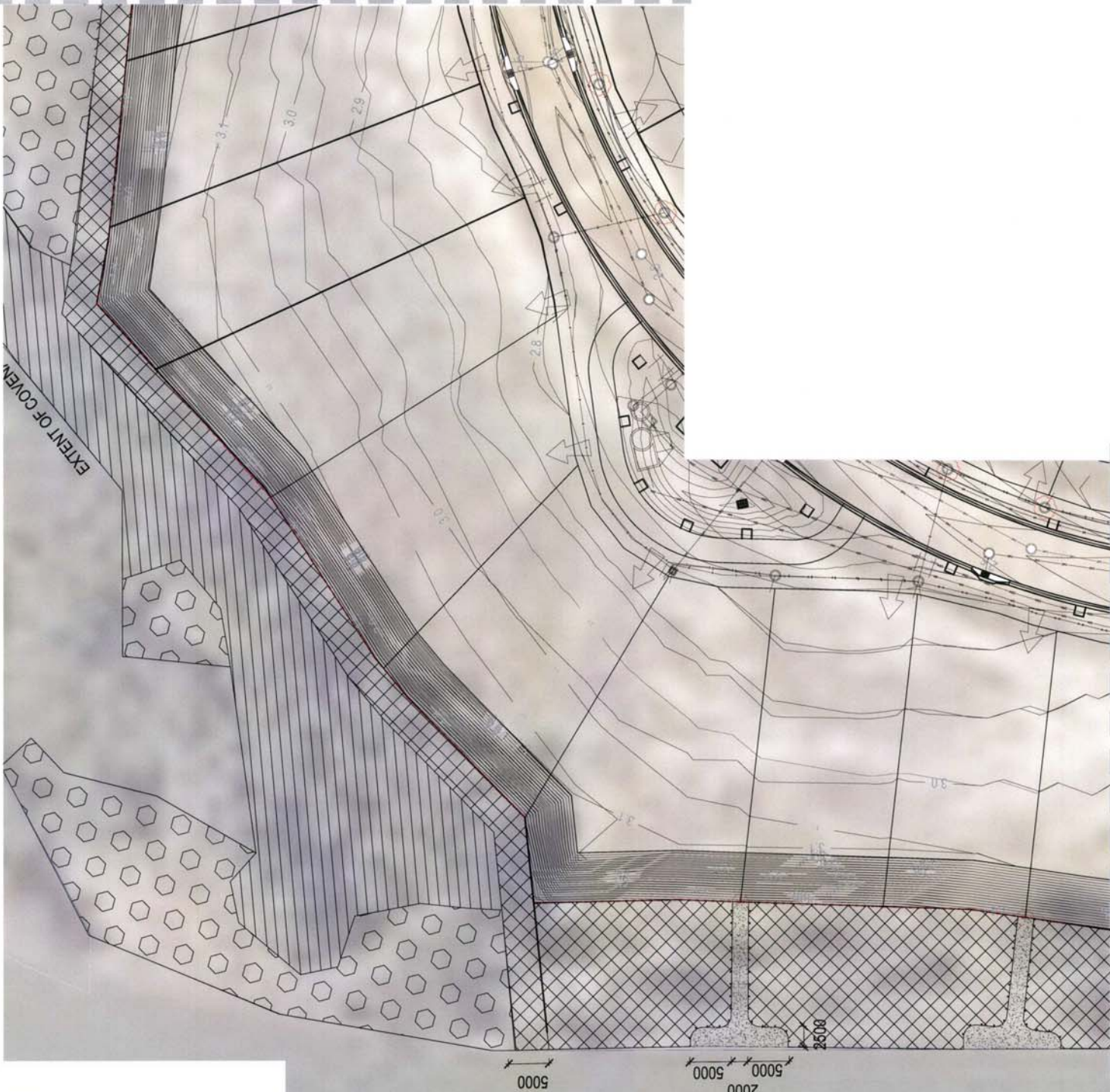


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111208 CMP 01-02

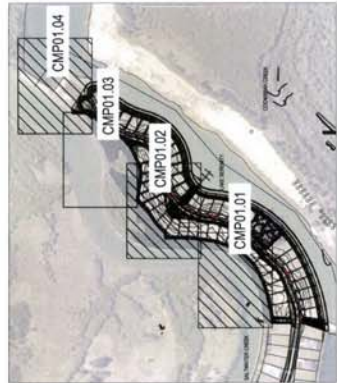
drawn checked date
CW SH Mar '13



form landscape architects
5/41 Kuala Lumpur Street,
Fortitude Valley Q 4006
p 07 3216 0506 f 07 3216 0508



ADJOINS CMP01-01



KEY PLAN
SCALE 1:10000

WATER CREEK

ADJOINS CMP01-04

ADJOINS CMP01-02

design stage
COUNCIL APPROVAL

amendments			by
issue	date	description	
pr00	21/11/11	Council Approval	CW
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pr02	19/04/13	Council Approval	sh
pr03	07/05/13	Council Approval	sh

Form

actn 097 234 305

client
Sime Darby Serenity Cove

project
Serenity Cove
Stage 16 & 17



drawing title
Rehabilitation Plan

job no.	drawing no.
111208	CMP 01-03
drawn	checked
CW	SH
	date
	Mar '13

0 5 10 25m
Scale: 1:5000 A3

Form landscape architects
5/4 Kubbra Street
Fortitude Valley Q 4006
p 07 3216 0606 f 07 3216 0608

design stage
COUNCIL APPROVAL

amendments		by
issue date	description	
pr00 21/11/11	Council Approval	cw
pr01 11/03/13	Council Approval	sh
pr02 19/04/13	Council Approval	sh
pr03 07/05/13	Council Approval	sh

Form

actn 097 234 305

client

Sime Darby Serenity Cove

project

Serenity Cove

Stage 16 & 17

drawing title

Rehabilitation Plan

job no.

111208

drawing no.

CMP 01-04

drawn

CW

checked

SH

date

Mar '13

0 5 10 25m

Scale: 1:500@A3

Form landscape architect:

S/A Kuebra Street,

Fortitude Valley Q 4006

p 07 3216 0606 f 07 3216 0608

