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Body Corporate Services

The Chief Executive Office
Douglas Shire Council
Attention: Jenny Elphinstone
Planning Compliance
PO Box 723
**MOSSMAN QLD 4873**

19TH June 2015

Dear Sir/Madam,

**RE: Pool Resort, 19-37 St Crispins Avenue, Port Douglas**

I refer to our meeting on the 27th April 2015 where we discussed the remediation works necessary for the rooftop areas of the western boundary apartments at Pool Resort marked as units 1 -16 on the attached site plan (Annexure A). To accompany proposed Landscape Plan LP01 Issue D 29/05/2015 which was forwarded to your office by John Sullivan of Hortulus Landscape Design & Management on 18th June 2015, I have attached the scope of works recommended to remove the soil from these rooftop areas (Annexure B) plus the specifications of the 4mm mineral back torch on membrane (Annexure C).

I would be grateful if you could review the scope of works and accompanying documentation and present to Council for approval at their next meeting on Tuesday 7 July 2015. Should you require any further information please do not hesitate to contact me on 0433 872 611.

Kind regards,

Cameron Kohring
Chairperson
Body Corporate for POOL Community Titles Scheme 37139

HORTULUS
LANDSCAPE DESIGN & MANAGEMENT
HORTULUS AUSTRALIA PTY LTD
ABN NO. 84 105 194 821

The Chief Executive Officer
Douglas Shire Council
Attention; Jenny Elphinstone
Planning Compliance,
PO Box 723
Mossman QLD 4873

June 18th, 2015

Dear Sir/Madam,

**RE; Pool Resort 19-37 St.Crispins Ave, Port Douglas.**

Thank you for your time to discuss the issues facing Pool Resort in the repair and restoration of the western boundary apartments on the 27th of April, 2015. I have attached the proposed Landscape Plan LP01 Issue D 29/5/2015, and report covering our discussion and outlining the proposed landscape solutions to resolve the issues they face.

I would be grateful if you could review the proposal and present to Council for approval of these proposed works. Please do not hesitate to contact me if you require further information or clarification on any of the issues.

Kind regards,

John Sullivan Bach.App.Sc.Hort.

PO Box 798, Port Douglas Qld 4877.
Phone (07) 4099 1861 Mob: 0412 944 793 Fax: (07) 4099 1861

HORTULUS
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# LANDSCAPE REVIEW
# FOR PROPOSED WESTERN SCREEN PLANTING, FOR POOL RESORT.
# 19-37 St.Crispins Ave, Port Douglas.
# 12th June 2015.

Created by Hortulus Australia Pty Ltd , Po Box 798 Port Douglas, 0412 944 793
hortulus_aust@conxx.com, www.hortulus.com.au

## INTRODUCTION:

Pool Resort located on the western side of St.Crispins Avenue, was designed and built during 2008-9. Along the St.Crispins Ave frontage are two story apartment buildings that face west over a large lagoon pool, and a view onto the adjoining Mirage Golf Course. On the other side of the pool to the western boundary, are a series of single story apartments which face the golf course. These buildings have roof gardens/lawns which have failed due to poor construction methods, requiring the removal of vegetation so as to salvage the apartments below.

This report only reviews the western boundary apartments, and outlines the proposed amendment to the existing landscape in view of Douglas Shire Council's requirements for multi-dwelling developments. It should be read in conjunction with the proposed landscape Plan LP01 Issue D 29/5/2015, prepared by Hortulus.

## HISTORY:

The original Development Approval for the "Pool" complex showed a series of "dunes" to the roof of the western apartments allowing access from the east for maintenance and planted with locally native vegetation, providing visual screening to the neighboring property. This allowed the apartments on the west boundary to be located close to the boundary without the need for dense screening vegetation and to utilize the views into the adjoining land.

During the Building Application stage and subsequent construction the ideal of the original concept was lost and the resulting landscape completely inadequate. The "dune" roof gardens were reduced to basic lawns on an inaccessible boxed roof, allowing for no maintenance of the turf and no screening to the development from the western aspect. The construction of these roof gardens hasn't been adequate resulting in a gross failure of the water proofing, with massive damage internally to many apartments. The only solution to rectify the dwellings is the permanent removal of all roof garden material, resurface the area and leave the roofs clear so as drainage can be maintained at all times.

The resultant issue is the lack of vegetation to the western boundary as required by Douglas Shire Council that needs to be rectified.

## PROPOSED LANDSCAPE PLAN:

Due to the location and design of the buildings, a traditional dense screen planting of mostly native vegetation could result in low light and reduced natural ventilation to the apartments.

**Figure 1 Apartments 1 to 4 with swimming pool to the west boundary.**

On average the buildings (patios & pools) on the western boundary are located between two to three and a half meters off the boundary, and all front an existing open drainage line that is approximately six meters wide. This drainage area is irregularly maintained and has very marginal fall, only actually flowing in the Wet Season. (It may be better to developed it into a permanent wetland with a maintained fish population)

**Figure 2 Apartments 5 to 10 showing the boundary peg at the bottom of photo with pink ribbon. Note the existing lawn, the slope with rock and drainage line on adjoining property. There is some additional vegetation such as wattle and melaleuca present**

The apartments are generally narrow and deep with a front “boxed” patio, creating quite a dark space internally, with minimal natural air flow. These factors all combine to create a unique set of circumstances to be able to provide the best outcome for the existing owners and the Douglas Shire Council.

**ONSITE MEETING; Monday 27th April 2015.**

Meeting with Jenny Elphinstone (DSC) and representatives of the Pool Resort Body Corporate and their Insurers onsite, highlighted the issues and illustrated the incurred damage to property. The overall issues to mediate the impact of the buildings are set out below.

1. The Body Corporate has agreed to amend the existing colour scheme (white) of the Complex within 5 years, to a scheme to be approved by Douglas Shire Council.
2. Paint the western facing pool walls of the two plunge pools on the west boundary to a dark colour immediately following the approval of the new scheme.
3. Rooftop areas to be excavated and remediated using torched membrane as shown on site.
4. Apartments to maintain light and breeze as much as possible when considering vegetation types.
5. Hedge type planting required along the top of drainage line embankment for safety.
6. Advanced planting not required as smaller vigorous plants will probably outgrow advanced plants within 5years.

**Landscape Philosophy;** Due to the position and construction of the dwellings it is clear that to plant too close to the building will pose a habitability issue. The idea of allowing single trunked plants such as palms to provide shade/shadow along the boundary with an understory planting (1m) high to boarder the existing drainage line embankments allows for breeze, shadows from the western sun, provides visual disruption from the neighboring property to the double story dwellings behind, and increases habitat opportunity. Trees were discussed, however, as we are only allowed to plant to the boundary, these trees would canopy over the roof areas and leaf litter collection could compound drainage issues on the essentially flat roofs.

**Figure 3 Apartments 16 looking back to apartment 11. Showing existing Bleeding heart trees on the neighbouring property and clumps of Spider Lily to the boundary.**

Species selection was restricted to native palms along this area to prevent the spread of exotic seed along the watercourse. A couple of locally native trees are proposed where space allows so as to provide a break in the form of the planting. Some existing trees on the neighboring land are shown on the landscape plan and will help to provide visual amenity.

The growing conditions are generally good with the majority of planting on small embankments above the watercourse however on both the north and south apartment buildings there are swimming pools where the soil has been excavated away. These walls will be painted in a dark tone.

**Figure 4 Apartments 17 to 27 on the south western edge of site. Note boundary peg in foreground and the permanently wet planting zone to the front of the pool.**

The planting zones in front of the pools are at the soil water Table Level for a majority of the year and maybe inundated for extended periods during the Wet Season. For this reason there has been a species change to allow for the best chance of plant establishment. The selection of the understory planting in the southern "Bog" garden consist of native reeds that either exist naturally (*Typha domingensis*) or will cope in low oxygen soils (*Lepironia articulate*) but provide adequate screening height to the side of the pool. It is recommended that these plants be cut down annually in the Dry Season to prevent the area from "chocking" with debris in the Wet Season.

**WEED INFESTATION:**

Whilst there is weed infestation in the drainage line on the adjoining property, they are currently controlled on the Pool Resort site. Some areas of the drainage line is also dominated by the native Climbing Swamp Fern (*Stenochlaena palustris*) which provides good habitat opportunities, however, future management of the flow in this area will be of vital importance to properties sharing this boundary in relation to flooding and mosquito control.

**CONCLUSION:**

The Landscape Plan (LP01 Issue C 12/6/2015) for the western boundary provides for a measured outcome allowing for successful habitability and maintenance of the buildings, with improved visual outcome for neighboring properties.

**Avenue** *Industries Australia Pty. Ltd.*

**CONCRETE WATERPROOFING & PROTECTIVE COATINGS**
**ABN 94 147 749 933 / ACN 147 749 933**

**22nd August 2014**

**Attention: Sean Haydock – Property Services Manager / LM Australia**
**Quotation Number: # 0019682A**
**Purchase Order: #**

**POOL RESORT PORT DOUGLAS FNQ**

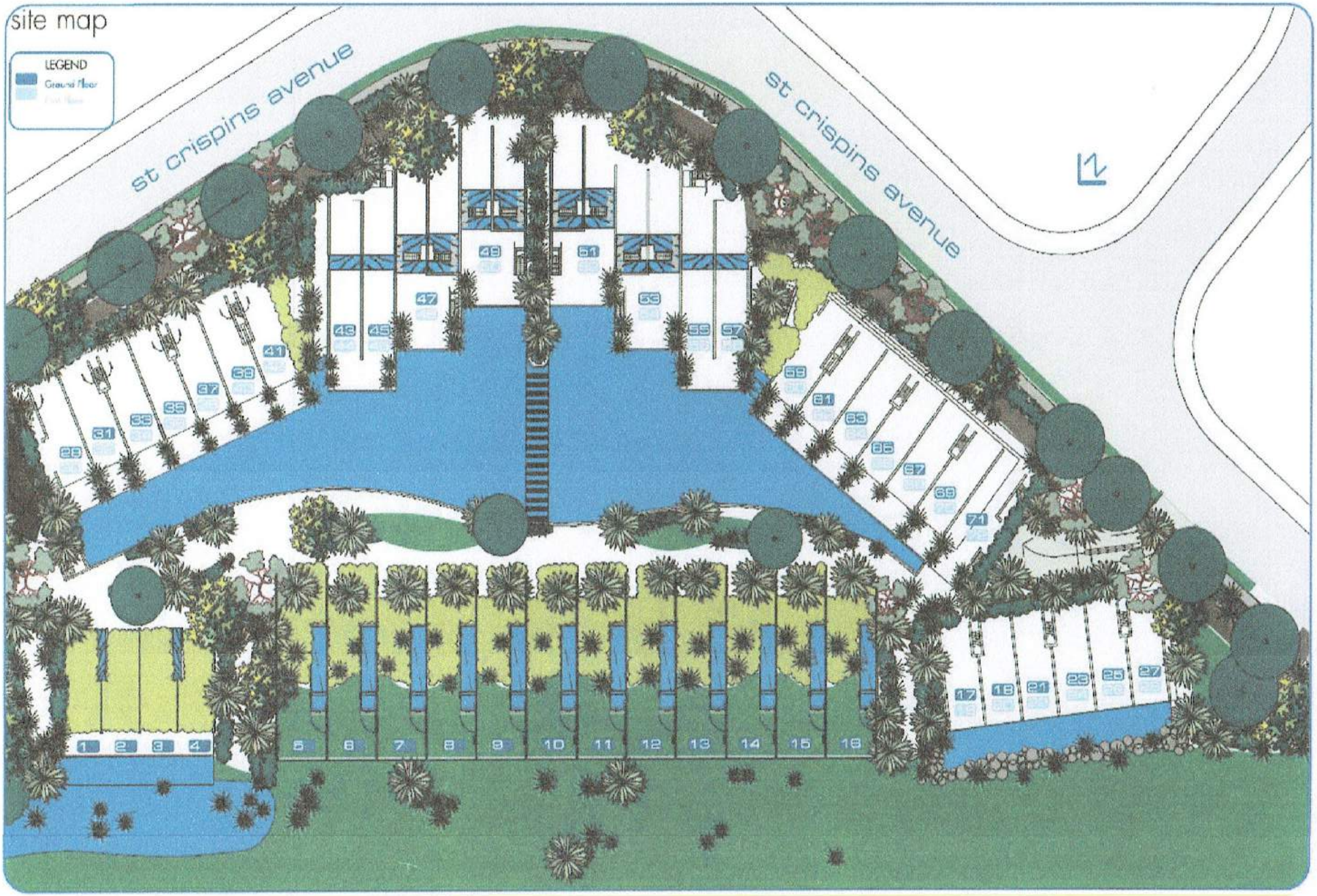
**Restoration of Resort Unit Rooftops**

**Recommended Solution:**

Further to our assessment of the Unit Rooftops, the following applications are Highly Recommended to be carried out, to successfully and permanently waterproof these assets.

To minimise interruption and inconvenience of in house tenants and holiday guests at the Pool Resort, Avenue Industries Australia will endeavour to provide the up most professional work ethics and safety standards for the duration of this project.

- Establishment and All Work Place Health and Safety Requirements will carried out and put in place prior to commencement of works.
- All Soils, Stone & Debris will be excavated from the roof top by use of mechanical means to which will include dingo and earthmoving equipment, hopper & conveyer system.
- All Soils, Stone & Debris will be removed from site and transported to predetermined location in Port Douglas.
- Capping will be removed from the parapets and stored on site in an out of the way location as not to interfere with every day running of the resort.
- Once the entire rooftop surfaces have been cleared all loose and remaining debris, including irrigation systems and sheet drainage. The existing membrane will be assessed in full to determine all area of previous water ingress.
- The existing membrane will then be repaired by heat welding all Overlaps, Seams, Punctures and Inadequate Welds.
- A water test will then be carried out to certify that all leaks have been eliminated.
- Following this, an application of a 4mm Mineral Back torch on Membrane ( Green ) will then be applied to the entire rooftop surface to Manufactures Specification.
- This will include Roof Tops / Parapets / Tops of Parapet &s to approximately 50mmover the Parapet on external wall.
- Another water test will then be carried out to confirm and certify that all applications have been carried out successfully for QA & QC.
- All capping will then be replaced to the parapets.
- A finial site clean up will be carried out and inspected by client to agreed satisfaction.


site map
LEGEND
Ground floor
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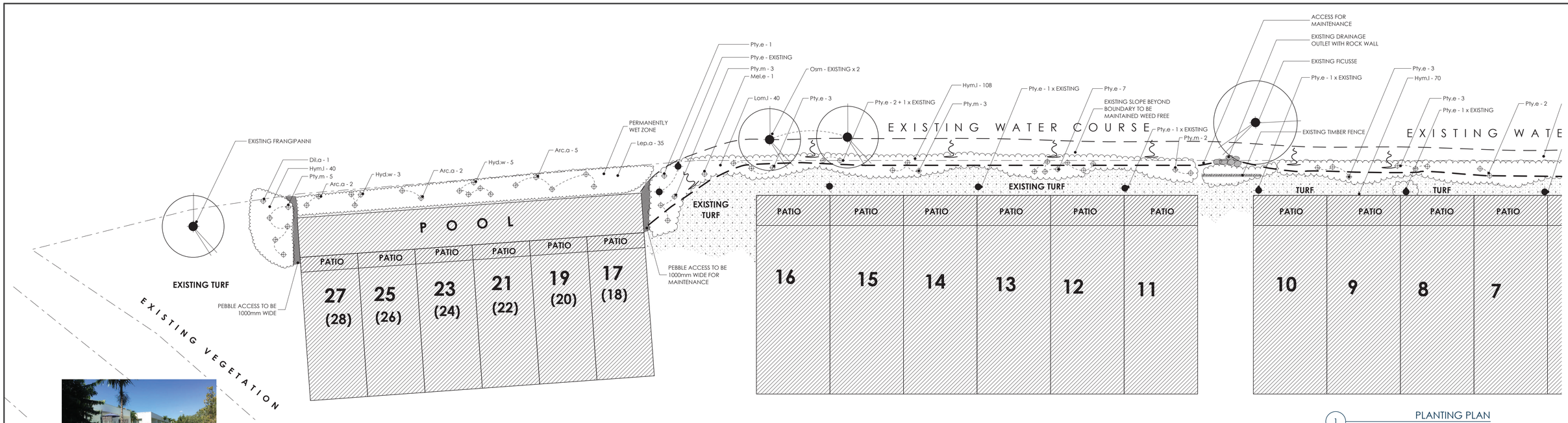


1 PLANTING PLAN
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1 VILLAS 1 TO 4
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1 VILLAS 5 TO 10
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1 VILLAS 17 TO 27
1:3.70

1 VILLAS 16 TO 11
1:3.70

1 VILLAS 27 TO 17
1:3.70

**Specifications:**

**DRAINAGE:** All finished soil levels will drain away from buildings and be directed to appropriate areas by builder. All drainage is existing.

**SOIL PREPARATION**: Garden beds to be cultivated to a depth of 150mm using the local soil. On slopes use site soil to plant into, backfilling plant holes with 50% site soil and 50% garden bed mix. Test soil for pH level and treat accordingly to provide a pH level of 5.5 -6.5.

**FERTILISER:** Fertilise planting areas, using a pelletised organic fertilizer, at a rate of 1kg/$m^2$. This practice could be repeated every four months to maintain adequate nutrients.

**PLANTING:** Ensure that all planting holes are suitably deep, backfilled correctly, and watered in a minimum of twice.
Bog Planting shall be done in the Dry Season so as to suitably introduce the plants to the wet soil two months prior to inundation. Plant palms and trees 200mm higher than surrounding ground and mound up backfill around the plants with a 50mm layer of mulch surrounding the plant for only 500mm.

**MULCH:** Mulch all planting areas except bog planting in front of Units 17-27, as shown on Landscape Plan, unless otherwise shown. Mulch in all other beds shall be to a depth of 75mm to100mm of aged organic matter such as woodchip or tea tree mulch. For best results re mulch bare areas biannually.

**TURF:** Repair turf areas after planting with lawn fertilizer and a 10mm topdress of Course washed riversand. Ensure drainage towards the top of kerb pits or garden bed. Garden edges shall be a "spade edge".

**IRRIGATION:** To be a fully automatic system, using shrub head sprays to all garden beds and popup sprinklers to all lawn areas. Appropriate backflow and filtration is to be allowed for according to local council laws.

**GRAVEL:** Gravel shall be used on the pebble garden areas and pathways as shown on LP_01. It shall be a local 50mm river gravel, laid to a depth of 100mm on top of a thin layer of Biddum geo textile.

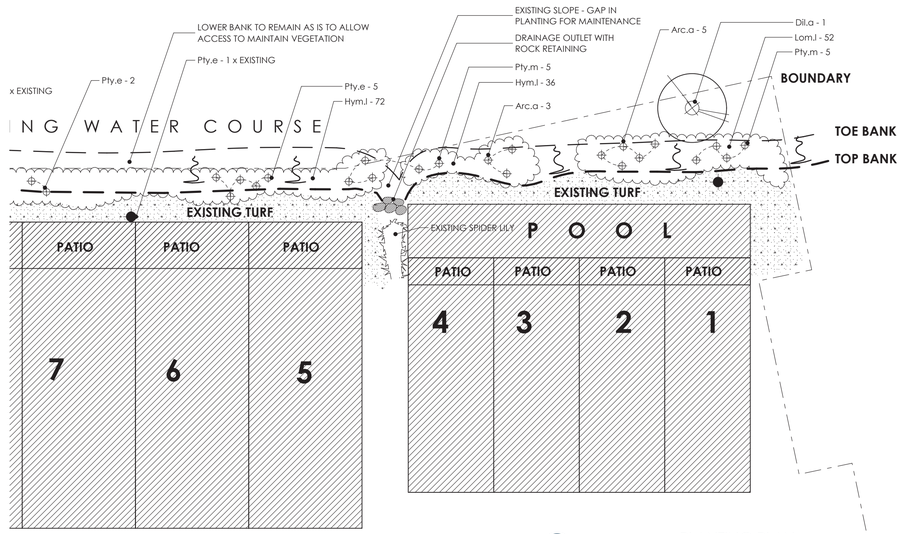
**MAINTENANCE** The maintenance should be controlled and monitored by the landscape firm contracted to oversee all works and upkeep in accordance with approved landscape manual. Maintain planting areas free of weeds, and top up mulch annually to maintain weed control and soil moisture. Directly below the planting areas, maintain a 600mm wide weed free zone for maintaining the planting and the neighboring drainage line.
Bog garden plants to the front of units 17-27, should be cropped down to 100mm high as soon as the area is dry enough to cut, (May-July) and then allowed to regrow during the Wet Season.

## PLANT LIST;

| CODE | BOTANICAL NAME | COMMON NAME | NO. | POT SIZE | TYPE | H&W. |
|---|---|---|---|---|---|---|
| Arc.a | *Archontopheonix alexandrea* | Alexander Palm | 17 | 300mm | P | 20x5 |
| Dil.a | *Dillenia alata* | Red Beach Tree | 2 | 200mm | T | 12x10 |
| Hom.p | *Homalanthus populifolius* | Bleeding Heart Tree | 2 | EXISTING | T | 8x6 |
| Hyd.w | *Hydriastele wendlandiana* | Hydriastele Palm | 8 | 300mm | P | 10x2 |
| Hym.l | *Hymenocallis littoralis* | Spider Lily | 326 | Bulb | S | 1x1 |
| Lep.a | *Lepironia articulata* | Grey Sedge | 35 | 75mm | Se | 1.5x1 |
| Lom.l | *Lomandra longifolia* | Mat Rush | 92 | 140mm | S | 1x1 |
| Mel.e | *Melicope elleryana* | Butterfly Tree | 1 | 200mm | T | 15x6 |
| Pty.e | *Ptychosperma elegans* | Solitare Palm | 21 | 200mm | P | 8x2 |
| Pty.m | *Ptychosperma macarthurii* | Macarthuri Palm | 28 | 200mm | P | 8x4 |
| Typ.a | *Typha domingensis* | Cumbungi | | EXISTING | Se | 2x2 |

NOTE; Suitable substitutions may be made depending on the availability of the species and pot size.

KEY; C = Climber, G = Ginger, Se= Sedge, F = Fern, P = Palm, T = Tree, GC = Ground Cover, S = Shrub




1 PLANTING PLAN
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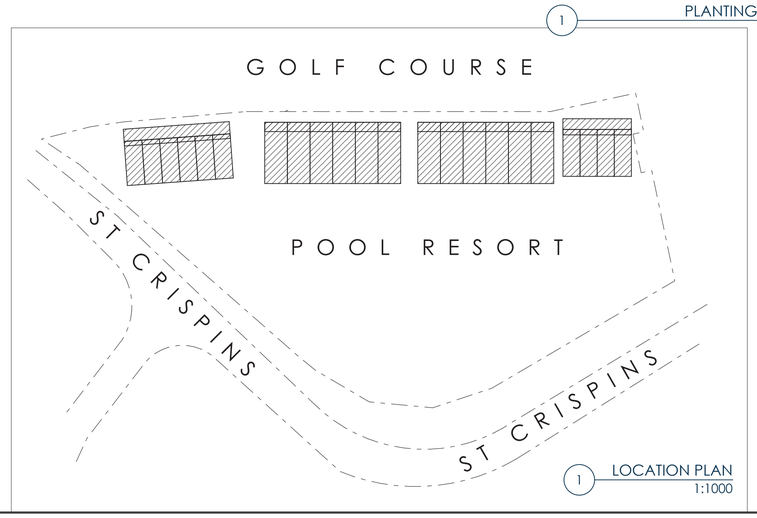


1 LOCATION PLAN
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LANDSCAPE PLAN

PROJECT

**HORTULUS**
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Consultant:
John Sullivan
B.App.Sc.Hort, M.A.I.H

Project: PROPOSED LANDSCAPE PLANTING
POOL Resort
Port Douglas

Client: Body Corporate for POOL Community
Titles Scheme 37139
C/- Cameron Kohring
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Page: 1 of 1

Job No: POOL-D15_D

Drawn by: DV Checked by: JAS

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