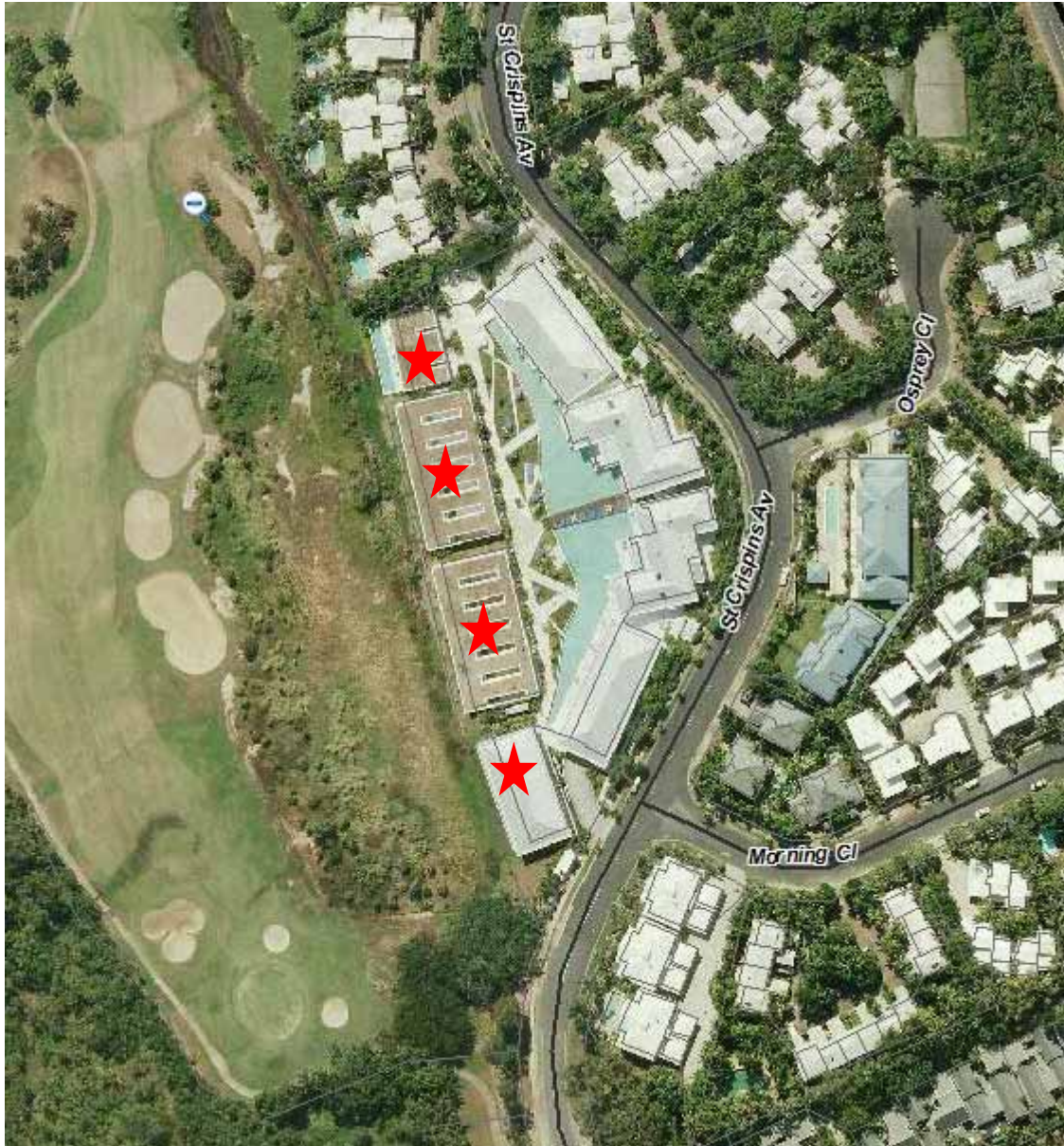


ORDINARY MEETING	5.3
7 JULY 2015	

REQUEST FOR PERMISSIBLE CHANGE TO DEVELOPMENT APPROVAL
(MULTIPLE DWELLINGS) – 19-37 ST CRISPINS AVENUE, PORT DOUGLAS
Jenny Elphinstone: Senior Planning Officer MCUI 901/2015 (DSC TPC1137): (458212)

<u>PROPOSAL:</u>	REQUEST FOR PERMISSIBLE CHANGE TO DEVELOPMENT APPROVAL (MULTIPLE DWELLINGS)
<u>APPLICANT:</u>	BODY CORPORATE FOR POOL COMMUNITY TITLE SCHEME 37139 PO BOX 1 PORT DOUGLAS QLD 4877
<u>LOCATION OF SITE:</u>	19-37 ST CRISPINS AVENUE, PORT DOUGLAS
<u>PROPERTY:</u>	LOTS 0 AND 1-10 ON SP174881 & LOTS 0 AND 11-27 ON SP204456
<u>LOCALITY:</u>	PORT DOUGLAS AND ENVIRONS
<u>PLANNING AREA:</u>	RESIDENTIAL 2 (CURENT SCHEME)
<u>ZONE:</u>	SPECIAL FACILITIES (UP TO 6 MULTIPLE DWELLING UNITS); SPECIAL FACILITIES (UP TO 9 MULTIPLE DWELLING UNITS); SPECIAL FACILITIES (UP TO 11 MULTIPLE DWELLING UNITS) AND SPECIAL FACILITIES (MULTIPLE DWELLING RESIDENTIAL)
<u>PLANNING SCHEME:</u>	DOUGLAS SHIRE PLANNING SCHEME 1996
<u>REFERRAL AGENCIES:</u>	NONE APPLICABLE
<u>NUMBER OF SUBMITTERS:</u>	3 SUBMISSIONS TO THE ORIGINAL DEVELOPMENT APPLICATION
<u>STATUTORY ASSESSMENT DEADLINE:</u>	31 JULY 2015
<u>APPLICATION DATE:</u>	19 JUNE 2015
<u>APPENDIX:</u>	1. ADDITIONAL APPROVED PLAN(S) & DOCUMENT(S) 2. EXISTING APPROVAL 3. SUPPORTING INFORMATION

LOCALITY PLAN**RECOMMENDATION:**

That Council approves the request for a Permissible Change to a Development Approval for the Negotiated Decision Notice for a Material Change of Use for 72 Multiple Dwelling Units consisting of 66 one (1) bedroom and 8 two (2) bedroom units for a variation of roof design and landscaping of the Multiple Dwelling Units over land described as Lots 0, 1-10 on SP174881 and Lot 0, 11-27 on SP204456, located at 19-37 St Crispins Avenue, Port Douglas, where by:

1. Condition 4.1 is amended as follows:

Plan of Development

- 4.1 The approved development and the carrying out of any works on the premises associated with the development must be in accordance with Plan of Development No's. A-TP-04 Rev 04, A-TP-05 Rev 04 and A-TP-06 Rev 03 and as varied by the use of a roof design for units 1-10 on SP 174881 and Lot 11-27 on SP204456 on which there is no landscaping developed and in accordance with the Landscape Plan Drawing LP 01 Issue D dated 29 May 2015 prepared by Hortulus Landscape Design and Management, attached to this approval, subject to:

- (i) Modifications required by any condition of this approval and any minor alterations found necessary by Council at the time of examination of engineering plans.

2. Condition 4.8 is amended as follows:

Landscaping

- 4.8 The landscape concept plan has been approved in principle subject to more detailed landscape plans being submitted at Operational Work stage indicating:

- (a) proposed numbers of each species;
- (b) composition of each species on the layout;
- (c) concept drawings of the view from the street level showing screening effect 0, 2 and 5 years from completion;
- (d) details on planting bed size , preparation and related hardscape etc.;
- (e) details of depth and size of planting beds for those landscaped areas in the pool and courtyard areas which will be located above the underground carpark.;
- (f) Additional screen planting provided between the pool areas and the adjacent side boundaries; and
- (g) as amended by the redesign of units 1 to 27:

- (i) with no roof top landscaping to these units;
- (ii) the inclusion of landscaping as described on the Landscape Plan Drawing LP 01 Issue D dated 29 May 2015 prepared by Hortulus Landscape Design and Management; and
- (iii) the external painting of the western face of the swimming pools accompanying these units a darker colour; and
- (iv) the external painting of these units in a colour scheme that compliments the landscaping and reduces the visual impact of these units when viewed from outside the site to the satisfaction of the Chief Executive Officer.

3. Condition 4.9 is amended as follows

4.9 Landscaping shown on the approved plan shall be completed before the development is occupied and maintained thereafter. except for those works identified under condition 4.8(g) above. All works identified in Condition 4.8 (g) above must be completed prior to 7 July 2020.

5. That all other conditions of the Negotiated Decision Notice dated 5 November 2007 (D#375820)

EXECUTIVE SUMMARY:

Council is in receipt of a request for a Permissible Change to a Development Approval relating to the Pool Resort at 17-37 St Crispins Avenue, Port Douglas. The original design approved by the former Douglas Shire Council included roof top landscaping to the units facing the western boundary. The construction varied the design incorporating flat roofs to these units which subsequently resulted in failure from water damage. Request has been made to rectify the damage by removing the roof top landscaping and installing new membranes. Given the original design intended to achieve a landscaped elevation the owners have proposed new landscaping and building finishes to meet this original design intent. The request is recommended for approval subject to conditions including a timing provision for the completion of new landscaping and building finishes.

PLANNING CONSIDERATIONS:

Background

The development was approved by the former Douglass Shire Council in November 2007 and constructed soon thereafter. The original design for the units that faced the western boundary included sloping roofs and roof top landscaping. This design responded to the minimal setback, a need to have minimal visual impact and the use of neighbouring land as a recreational area. During construction the design varied and the units were finished with flat roofs and no accessibility to the roof tops, other than by ladder, for maintenance. Since construction the roof membrane has failed resulting in significant damage to the units that has made them unable to be occupied. A copy of the existing approval is included in Appendix 2. A sketch of the original roof top landscaping design is included in Appendix 3.

Proposal

The Body Corporate has applied for a Permissible Change to rectify the design failure by removing soil and landscaping from the roof tops, incorporating new membranes and improving the landscaping and building finishes to achieve an aesthetic finish appropriate to the development and the surrounding environment. The landscaping design has been developed in consultation with Council officers to have regard to the original need for an appropriate visual aesthetic from the neighbouring land. Works are expected to commence on approval from Council with the final phase of refinishing the building, painting schedules within the next five years. A copy of the proposed plans is attached at Appendix 1. The request was accompanied by a landscape report that is included in Appendix 2. Detail of the proposed roof top membrane is included in Appendix 2.

Sustainable Planning Act 2009

Section 367 of the *Sustainable Planning Act (SPA)* 2009 outlines what constitutes a Permissible Change for a development approval.

A Permissible Change for a development approval is a change to the approval that would not:

- (a) result in a substantially different development; or
- (b) if the application for the approval were remade including the change-
 - (i) require referral to additional concurrence agencies; or
 - (ii) for an approval for assessable development that previously did not require impact assessment – require impact assessment; or
- (c) for an approval for assessable development that previously required impact assessment – be likely, in the responsible entity's opinion, to cause a person to make a properly made submission objecting to the proposed change, if the circumstances allowed; or
- (d) cause development to which the approval relates to include any prohibited development.

Having regard to the above considerations, the proposed redesign of the western facing units, landscaping and building finishes constitute a Permissible Change.

The original application as for impact assessable development. Since the issue of the approval the current 2008 Douglas Shire Planning Scheme has come into effect. The current Scheme includes the land in a Residential 2 Planning Area of the Port Douglas and Environs Locality. Under the current Scheme the use is code assessable development.

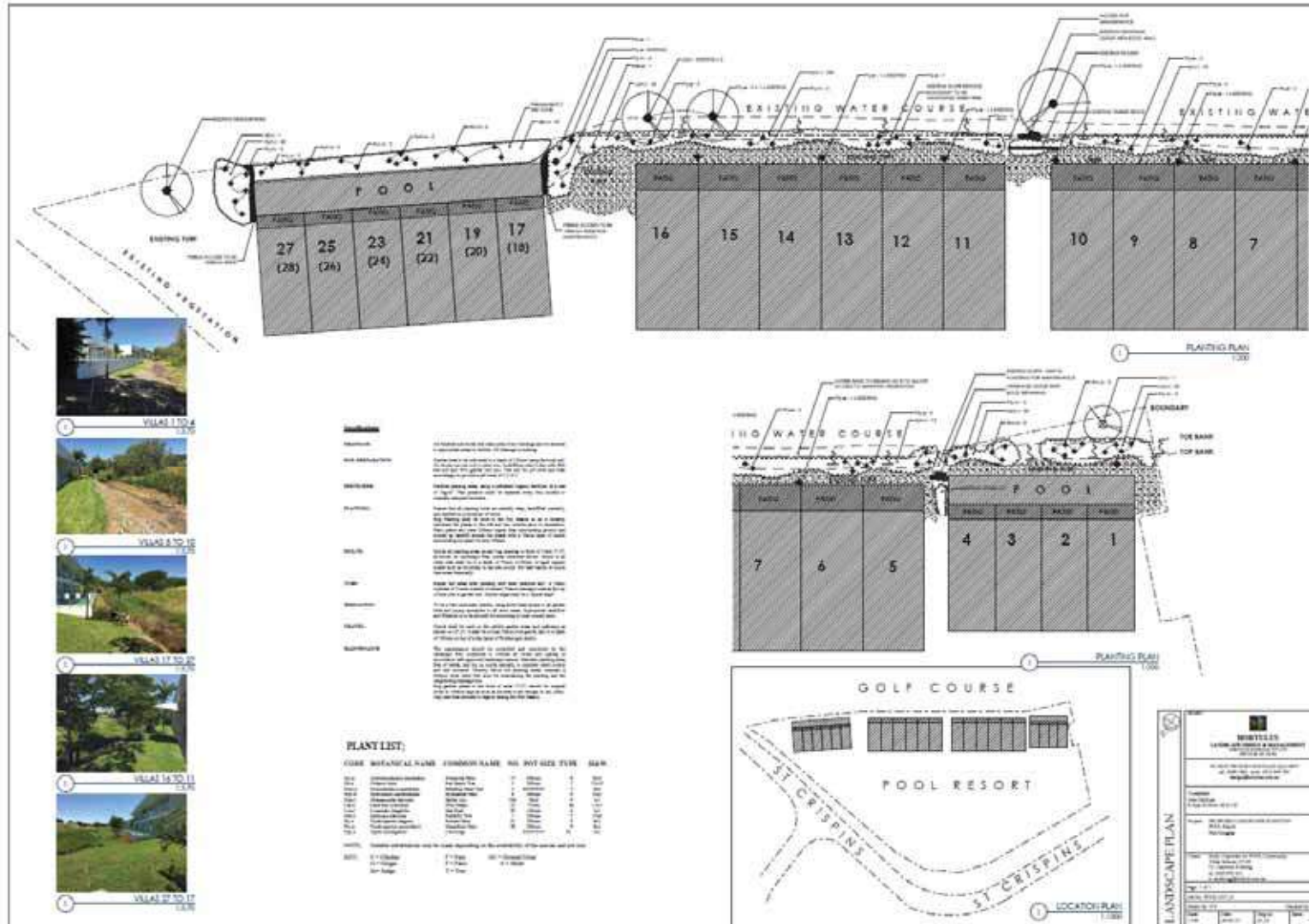
ADOPTED INFRASTRUCTURE CHARGES

Infrastructure charges were paid in association with the original development. No further charges are triggered by the requested permissible change.

COUNCIL'S ROLE

Under the *Sustainable Planning Act* 2009 and the *Sustainable Planning Regulation* 2009, Council is the assessment manager for the application.

APPENDIX 1: ADDITIONAL APPROVED PLAN(S) & DOCUMENT(S)



APPENDIX 2: EXISTING APPROVAL



8/3/12-12

4/3/16/12

ENQUIRIES: Mrs Natalie Clark – Planning Officer
 DEPARTMENT: Planning Services Section - ☎ (07) 4099 9456
 EMAIL: planning@dsc.qld.gov.au

OUR REF: TPC 1137
 YOUR REF:

Buildcorp Australia
 Attn: Mr Andrew Corbin
 4/10 Mallett Street
 CAMPERDOWN NSW 2050

5 November 2007

**INTEGRATED PLANNING ACT
 AMENDED
 NEGOTIATED DECISION NOTICE**

CHANGE OF CONDITIONS

Applicant's Name : Buildcorp Australia
Owner's Name : St Crispins Property Pty Ltd TTE
Proposal : Material Change of Use Development Permit to construct 72 Multiple Dwelling Units consisting of 52 one (1) bedroom and 20 two (2) bedroom units.
Application Number : TPC 1137
Site Address : 19-37 St Crispins Avenue, Port Douglas
Property Description : Lot 33-38 on RP747345, Parish of Salisbury, County of Solander

This Amended Negotiated Decision Notice replaces the Decision Notice dated 12th July 2004. Condition 4.18 has been amended. All other conditions remain unchanged

A. Decision: **Decision Date:** 6 July 2004

Approved subject to Conditions

B. Type of Development Approval:

Material Change of Use

Negotiated Development Permit

.../2.

ADMINISTRATION CENTRE
 (ALL DEPARTMENTS)
 64-66 FRONT STREET, MOSSMAN

PHONE (07) 4099 9444 FACSIMILE (07) 4099 2902
 INTERNET www.dsc.qld.gov.au

ALL COMMUNICATIONS TO BE
 ADDRESSED TO:
 THE CHIEF EXECUTIVE OFFICER
 P.O. BOX 357
 MOSSMAN, QLD 4873

LIBRARY 14 MILL ST., MOSSMAN

PHONE (07) 4099 9496 FACSIMILE (07) 4099 3296

-2-

C. Referral Agency:

Nil

D. Conditions**Plan of Development**

- 4.1 The approved development and the carrying out of any works on the premises associated with the development must be in accordance with Plan of Development No's. A-TP-04 Rev 04, A-TP-05 Rev 04 and A-TP-06 Rev 03 attached to this approval, subject to:
- (i) Modifications required by any condition of this approval and any minor alterations found necessary by Council at the time of examination of engineering plans.

Water Supply

- 4.2 The applicant shall provide a new connection branch off the existing main in St Crispins Drive to service the development including provision of a compound water meter.

Sewerage

- 4.3 The applicant is to maintain the existing sewerage main that transects the site along the northern boundary of Lot 37 and along the rear of lots 33-37 to the existing pump station to the north of the site. The applicant will be required to amend their designs by removing all building structures including pools from above and within load areas of this main. The architectural drawings will need to take into consideration the depth and location of the sewer so as not to increase load. Piering of footings below the depth of the sewer may be required.

Alternatively,

- 4.4 The applicant is to provide an engineering solution to be ratified at Operational Works stage by Council. All works are to be undertaken by the applicant at their expense.

Water Supply & Sewerage Headworks

- 4.5 The Applicant shall pay to the Council headworks contributions for water supply and sewerage in accordance with Council's Local Planning Policy: *"Determination of Contributions for Water Supply and Sewerage Headworks and External Works"* ("the Policy").
- a. The contribution shall be calculated at the rate per Equivalent Domestic Connection ("EDC") applicable at the time of payment in accordance with the Policy.
- b. For information purposes only :
- (i) The current rates per EDC at the time of this approval are:

Water Supply	\$ 5,330.00	
Sewerage	\$ 2,269.00	.../3.

-3-

c. For information purposes only:

(i) The current number of EDCs for the approved use are:

Water Supply	10.5
Sewerage	11.7

Electrical & Telephone Services

4.6 Prior to approval of any development application for Building Work, the Applicant must submit to Council a copy of a letter from Ergon Energy stating that satisfactory arrangements have been made for the provision of:

- (a) an underground electrical supply to the development; and
- (b) street lighting in accordance with Council's adopted standards.
- (c) locating of all above ground transformer cubicles clear of footpath areas.

4.7 Prior to approval of any development application for Building Work, the Applicant must submit to Council a copy of a letter from Telstra stating that satisfactory arrangements have been made for the provision of:

- (a) an underground telephone service to the development; and
- (b) locating of all above ground switching station cubicles clear of footpath areas.

Landscaping

4.8 The landscape concept plan has been approved in principle subject to more detailed landscape plans being submitted at Operational Works stage indicating:

- (a) proposed numbers of each species;
- (b) composition of each species on the layout;
- (c) concept drawings of the view from street level showing the screening effect at 0,2 and 5 years from implementation;
- (d) details on planting bed size, preparation and related hardscape etc.
- (e) details of depth and size of planting beds for those landscaped areas in the pool and courtyard areas which will be located above the underground carpark.
- (f) Additional screen planting provided between the pool areas and the adjacent side boundaries.

4.9 The landscaping shown on the approved plan shall be completed before the development is occupied and maintained thereafter.

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Earthworks

- 4.10 Details of the proposed filling and excavation for the development including a detailed acid sulfate soils assessment including management program must be submitted for Operational Works approval.

Stormwater Drainage

- 4.11 The applicant's designs indicate buildings and pool areas over the existing drainage easement (Easement J on RP747345). The applicant will be required to amend their designs by removing all building structures including pools from this easement.

Alternatively,

- 4.12 The applicant will need to provide a detailed engineering solution to be ratified at Operational Works stage by Council. All works are to be undertaken by the applicant at their expense

Environmental Management Plans

- 4.13 The applicant is to have prepared with the submission for approval of the engineering plans, an Environmental Management Plan (EMP) detailing the controls to be utilised to ensure that no environmental harm or nuisance is caused from the proposed use of the land and construction of the works. In particular, this plan should address such issues as dust suppression, waste disposal, acid sulfate soil management, noise management and stormwater management (to minimise discharges of sediment, wastes and other substances).

Carparking & Access

- 4.14 The applicant shall provide bollard lighting at the property boundary to indicate access to the car parking area. This lighting is to be shown on the plans for Operational Works approval and installed prior to commencement of the use.
- 4.15 The applicant shall submit a report prepared by a qualified engineer on the basement carparking. The report shall be submitted to and approved by the Council prior to the issue of a Building Permit. The report shall address the following matters:-
- (a) Construction techniques.
 - (b) Dewatering and pumping equipment to be installed.
 - (c) Details of the satisfactory disposal of water.
 - (d) That the basement is impervious to water.
 - (e) Any effects the basement may have on adjoining properties.
 - (f) The method of ventilation.

.../5.

-5-

- 4.16 The ingress and egress of the basement car park shall be designed to prevent floodwaters entering the car park.
- 4.17 A car parking area shall be constructed, sealed, drained and line marked for a minimum of 92 unallocated spaces in accordance with the approved plan of development and maintained thereafter.

Waste Storage & Discharge

- 4.18 The waste storage area must be located in the location shown on the approved plan for this development and the front of each waste storage area must:
- (a) Have at least 4x45 litre Native Gardenias and 8x140mm Spider Lillies planted along the frontage;
 - (b) Contain an impervious surface space for the storage of waste containers suitably screened so as not to be visible from adjoining properties or the road reserve;
 - (c) Include a stop cock and stormwater diversion valve at the drainage point; and
 - (d) Contain sufficient storage space for the storage of a 240 litre refuse bin for each unit in the development.

- 4.19 Refuse storage, removal and collection methods shall be in accordance with the "*Environment Protection (Interim Waste) Regulations 1996*"

Air Conditioning & Service Equipment

- 4.20 All service equipment, outdoor lighting and air conditioning equipment must be located so as not to cause a nuisance to the occupants of adjoining units or neighbouring premises. The noise levels shall be maintained in accordance with the requirements of the Environmental Protection Policy - Noise.

Amalgamation

- 4.21 Lots 33-38 on RP747345 must be amalgamated into one allotment. The Plan of Survey must be registered with the Department of Natural Resources and Mines prior to final inspection and issuing of the Certificate of Classification.

Footpath Damage Liability

- 4.22 All damage occasioned to footpaths and roadways adjacent to the site and on designated transport routes for the construction, as a result of or in connection with this development must be repaired by the applicant, at their expense, prior to completion of works associated with the development.

.../6.

Maintenance

- 4.23 The Applicant shall maintain in accordance with the requirements of the Operational Works Development Permit and the Far North Queensland Regional Organisation of Councils Development Manual, all works of any nature whatsoever works carried out under the provisions of the subdivision of the land by-laws for a period of twenty-four (24) months. The Applicant shall make good within such period any defects arising from faulty workmanship or materials in respect to such works carried out as part of the works associated with the development.

Operational Works Development Permit

- 4.24 Full engineering drawings, prepared and/or checked by a Registered Professional Engineer, shall be submitted for all road works, stormwater drainage and lot improvement at Operational Works Application stage. Drawings should, in general, include the following:
- (a) locality plan;
 - (b) layout and staging plan, where applicable;
 - (c) earthworks plan;
 - (d) layout plan for each driveway;
 - (e) longitudinal section of each driveway;
 - (f) cross sections for each driveway, including standard cross sections;
 - (g) layout plan for each stormwater drainage;
 - (h) longitudinal sections for each stormwater drain line;
 - (i) details for non-standard drainage structures;
 - (j) Sewerage Reticulation Plan;
 - (k) Water Reticulation Plan;
 - (l) Erosion and Sediment Control Strategy;
 - (m) Service providers conduit plan, including street lighting; and
 - (n) Such other details for the proper construction of the works i.e. retaining walls etc.

Security

- 4.25 To guarantee the satisfactory completion of the building, site works, landscaping, drainage works and any required works external to the land and to ensure payment of the headworks charges, the applicant shall lodge with the Council a Cash Bond or Guarantee to the value of \$150,000.00, such Guarantee to be in a format considered satisfactory by the Manager Planning Services. The Bond or Guarantee shall be lodged prior to the issue of any Building Permit on the land in relation to this Consent Permit and the Council may call up the Guarantee to complete all or any part of the works mentioned herein to its satisfaction, should the applicant fail to do so.

Currency Period

- 4.26 This development approval lapses 4 years after the day that the development approval takes effect, unless works have substantially commenced or this period is extended under Section 3.5.22 of the *Integrated Planning Act 1997*.

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Compliance with Conditions

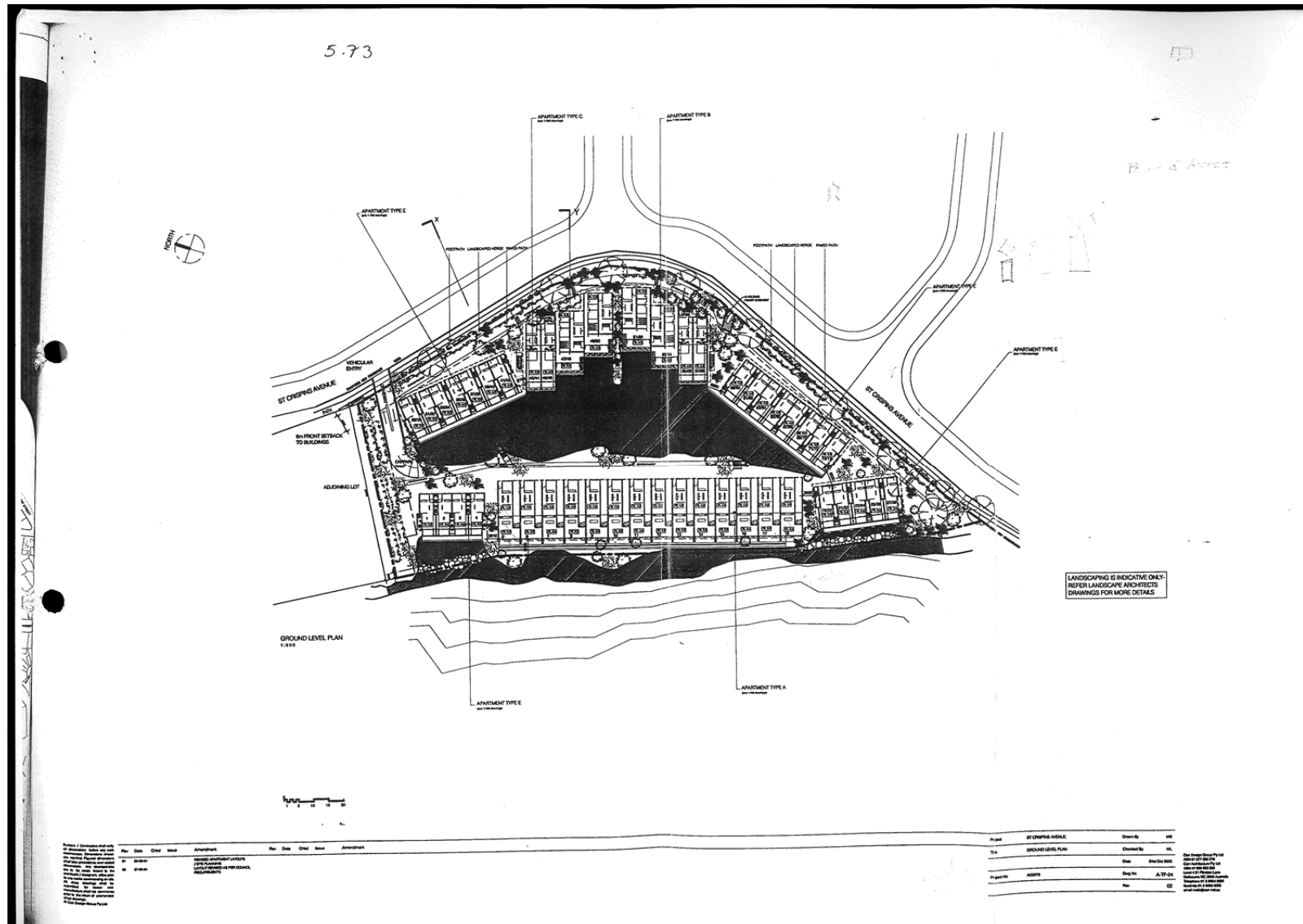
- 4.27 All works required pursuant to the above conditions shall be undertaken and completed in accordance with Council's requirements contained in the Planning Scheme Provisions/Codes and Engineering Standards.
- 4.28 Unless otherwise specified in this development permit, the conditions of this permit must be complied with prior to the occupancy of the building for the approved use or commencement of the approved use on the land.
- 4.29 The proposed Multiple Dwelling Units are to be used for residential purposes only in accordance with the intent and implementation criteria under Section 3.3.5 of the DCP2.

E. Further Development Approvals Required:

Operational Work	Development Permit
Building Permit	Development Permit
Plumbing & Drainage Permit	Development Permit

Paul Trotman

General Manager – Development & Environment





Subsidiary / Contractors and staff of designers: before any work commences, designers should ensure required figures/dimensions and their procedures have needed dimensions. Any discrepancies are to be made known to the architect/designer's office prior to any work commencing on site. All shop drawings shall be submitted for review and manufacture shall not commence prior to the return of unannotated shop drawings.

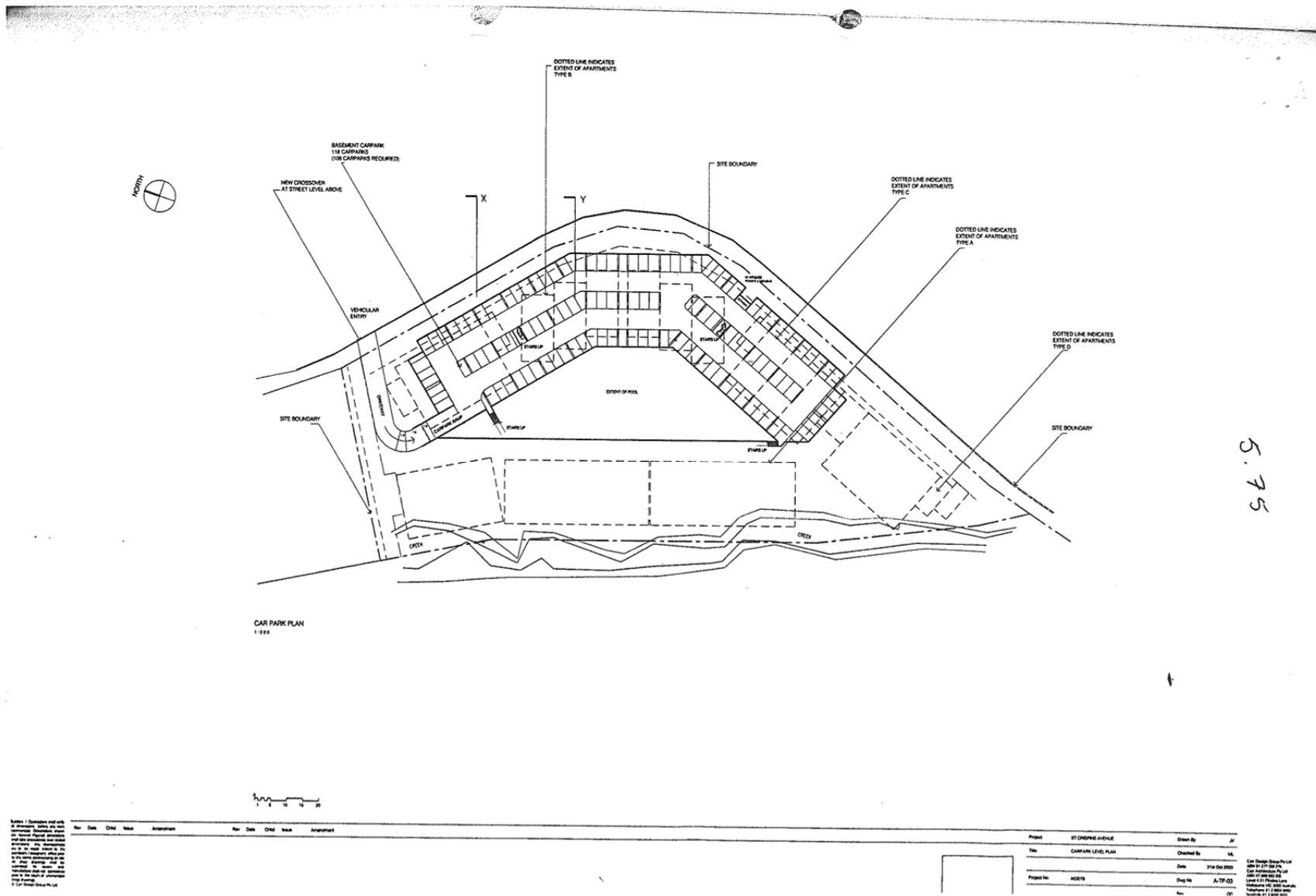
© Civil Design Group Pty Ltd.

Rev	Date	Chgd	Issue	Amendment
01	28-05-01			REVISED ATTACHMENT LAYOUTS / SITE PLANNING
02	27-05-01			LAYOUT REVISED AS PER COUNCIL REQUIREMENTS

Rev	Date	Chg'd	Issued	Amendment
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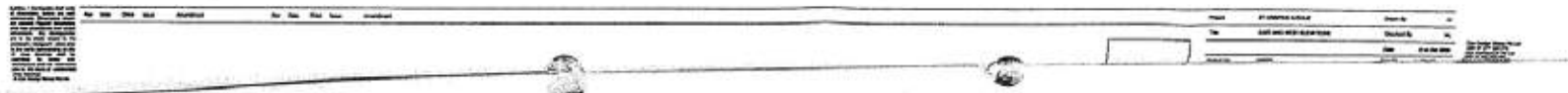
Project	21 CROSBY AVENUE	Drawn By	ML
Title	UPPER LEVEL PLAN	Checked By	ML
		Date	31st Oct 2003
Project No	AG207	Drawn	A-TP-05
		Rev	02

Cor Design Group Pty Ltd
 14/15 2nd Floor
 Cor Infrastructure Pty Ltd
 14/15 2nd Floor
 Level 4 11 Flinders Lane
 Melbourne VIC 3000 Australia
 Telephone 03 9240 1000
 Fax 03 9240 1001
 email info@cor.com.au





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APPENDIX 3: SUPPORTING INFORMATION

Original Design Sketch



Landscape Report



**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 articulata*) 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.

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

Proposed Scope of Works

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 50mm over 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 final site clean up will be carried out and inspected by client to agreed satisfaction.

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QBSA 1215801



WATERPROOFING

IMPERDAN FP 50 GP (10X1)

IMPERDAN FP 50 GP (10x1) is a waterproofing bituminous sheet with self-protected surface of 5.0 kg/m²; LBM-50/G-FP (APP -5 °C).

Composed of a reinforced polyester felt reinforcement, covered on both sides with polymer modified bitumen (pliability -5°C) mastic. On the upper side of the sheet, mineral protection in light grey colour is used as protective material. The anti-adhesive material used on the lower side is polyethylene film.

Tested according to standard EN test methods.



CE MARKING



Identification number of the Certification Body: 1035

DERIVADOS ASFALTICOS NORMALIZADOS S.A.
Calle La Granja 3 (28108 - Alcobendas, MADRID)

Year in which the CE marking was affixed: 2009

Certificate number CPF: 1035-CPD-ES044104

European standard UNE-EN 13707.

Produced at: Poligono Industrial Sector 9 (19290 - FONTANAR, Guadalajara)

Membrane of 1 m x 10 m x 5.0 kg/m² composed of polymer modified bitumen (pliability -5°C) with reinforced polyester felt. Membrane with an upper surface finish of mineral granules and a lower surface finish of polyethylene film. Torch-on application.

TECHNICAL DATA	VALUE	UNIT	STANDARD
External fire performance	Broof(t1)	-	UNE-EN 1187; UNE-EN 13501-5
Reaction to fire	E	-	UNE-EN 11925-2; UNE-EN 13501-1
Watertightness	Pasa	-	UNE-EN 1928
Longitudinal tensile strength	700 ± 200	N/Scm	UNE-EN 12311-1
Transversal tensile strength	450 ± 150	N/Scm	UNE-EN 12311-1
Longitudinal elongation at break	25 ± 15	%	UNE-EN 12311-1
Transversal elongation at break	25 ± 15	%	UNE-EN 12311-1
Resistance to root penetration	No Pasa	-	EN 13984
Resistance to static loading	>15	kg	UNE-EN 12730
Resistance to impact	>1000	mm	UNE-EN 12691
Longitudinal resistance to tearing (nail shank)	NPD	N	UNE-EN 12310-1
Transversal resistance to tearing (nail shank)	NPD	N	UNE-EN 12310-1
Joint strength: peel resistance	NPD	-	UNE-EN 12316-1
Joint strength: shear resistance	200 ± 100	-	UNE-EN 12317-1
Flexibility at low temperature	< -5	°C	UNE-EN 1109
Humidity resistance factor	20.000	-	UNE-EN 1931
Dangerous substances	NPD	-	-
Flexibility at low temperature (pliability) after aging	+5 ± 5	°C	UNE-EN 1109
Flow resistance at elevated temperature after aging	120 ± 10	°C	UNE-EN 1110

Pasa = Positive or correct No pasa = Negative PND = No performance determined - = Not necessary


IMPERDAN FP 50 GP (10X1)
ADDITIONAL TECHNICAL DATA

ADDITIONAL DATA	VALUE	UNIT	STANDARD
Mass per unit area (nominal)	5.0	kg/m ²	-
Mass per unit area (minimum)	4.77	kg/m ²	-
Nominal thickness	3.5 (SOLAPO)	mm	-
Flow resistance at elevated temperature	> 130	°C	UN-EN 1110
Dimensional stability at elevated temperature (longitudinal)	< 0.6	%	UNE-EN 1107-1
Dimensional stability at elevated temperature (transversal)	< 0.6	%	UNE-EN 1107-1
Adhesion of granules	< 30	%	UNE-EN 12039

Membranes thickness tolerance: = -0,3 mm, apart from membranes with thickness 2 and 2,4 mm whose tolerance is = -0,2 mm.
 Membranes mass per unit area tolerance: -5% (mini) and +10% (maxi) from nominal value.

DECLARATION OF CONFORMITY


DERIVADOS ASFÁLTICOS NORMALIZADOS S.A.
 Calle La Granja 3 (28108 - Alcobendas, MADRID)

Membrane of 1 m x 10 m x 5.0 kg/m² composed of polymer modified bitumen (pliability -5°C) with reinforced polyester felt.
 Membrane with an upper surface finish of mineral granules and a lower surface finish of polyethylene film, Torch-on application.

This product is according to the Z.A. Annex of the UNE-EN 13707.
 The roll must be stored upright and protected against atmospheric conditions and dampness. The Application cannot be done under temperatures lower than 0 °C.

Certificate number CPF: 1035-CPD-ES044104

Jose Antonio Manzarbeitia Valle
 Manager Quality and R&D Manager,
 Fontanar, September 01st 2009

STANDARDS AND CERTIFICATION

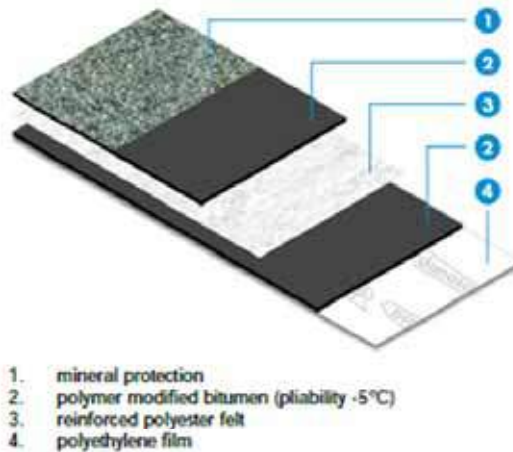
UNE EN 13707 standard.
 CE marking.



IMPERDAN FP 50 GP (10X1)

PRESENTATION

PRESENTATION	VALUE	UNIT
Length	10	m
Width	1	m
Roll surface	10	m ²
Rolls per pallet	20	rolls
Product Code	141842	-



WARNING

The information that appears in the following document makes reference to the uses and utilities of danosa's products and systems, and it is based on the knowledge that have been learnt until present, by Danosa. This is only possible if products have been stored and used in an appropriate way.

Nevertheless, Danosa is not responsible for unsuitable uses of the products neither any other facts, such as meteorological facts. So Danosa is just responsible for the quality related to the provided products.

Danosa reserves the right to carry out modifications without previous notice.

The values that appear in the technical sheet are the results of the tests that have been performed in our laboratory. April 2012.

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