

Regional Office
56 Recreation Street
Tweed Heads
NSW 2485

PO BOX 494
Coolangatta QLD 4225

P: 07 5536 5869
F: 07 5536 6711

Email: admin@bbes.net.au
Web: www.bbes.net.au

Landscape Statement of Intent Plan

PROJECT

*BAY GRAND - Stages 1-3
Lot 2 / DP 224382 - 2 Bay Street,
TWEED HEADS NSW 2485*

CLIENT

Heran Building Group

DATE

04.06.2015

JOB NUMBER

1224.2015



LOCATION PLAN



DESIGN
CREATE
INSPIRE



OPEN SPACE PLANNING
STREETSCAPES DESIGN
LANDSCAPE ANALYSIS & INTENT
DIGITAL IMAGE CONCEPT DESIGN
DETAILED LANDSCAPE PLANNING
MAINTENANCE MANAGEMENT
AS CONSTRUCTED PLANS

TABLE OF CONTENTS

1	INTRODUCTION.....	1
1.1	OBJECTIVES	1
1.2	PROPOSED DEVELOPMENT	1
1.3	SITE LOCATION	1
1.4	PLANNING POLICY	2
2	LANDSCAPE SITE ANALYSIS.....	2
2.1	EXISTING VEGETATION.....	2
2.2	SURROUNDING LANDSCAPE CONTEXT.....	2
2.3	GEOLOGY.....	3
2.4	MICROCLIMATE	3
2.5	ECOLOGICAL FEATURES.....	4
2.6	BUILT STRUCTURES.....	5
2.7	CHANGES IN LEVEL	5
2.8	AERIAL & VISUAL ANALYSIS	6
2.9	SURROUNDING LAND USE	7
2.10	MATERIAL RE-USE.....	7
2.11	NOISE SOURCES.....	7
3	LANDSCAPE INTENT & DESIGN SUMMARY.....	7
4	LANDSCAPE CONCEPT PLAN – PODIUM LEVEL	8
5	LANDSCAPE CONCEPT PLAN – LEVEL 1.....	9
6	LANDSCAPE CONCEPT PLAN – GROUND LEVEL.....	10
7	LANDSCAPE CONCEPTS.....	11
7.1	CONCEPT 1 - FRONT (MAIN ENTRY) AND STREETSCAPES	11
7.2	CONCEPT 2 – TURF AND SEATING	11
7.3	CONCEPT 3 – PEDESTRIAN CONNECTIVITY AND GARDENS	11
7.4	CONCEPT 4 – POOL DECKING.....	12
7.5	CONCEPT 5 – BUFFER PLANTING.....	12
7.6	CONCEPT 6 – WATER FEATURE	12
7.7	PLANTING PALETTE	13
8	CONCLUSION.....	14
9	REFERENCES	14

LANDSCAPE STATEMENT OF INTENT

Lot 2 / DP 224382 - 2 Bay Street,
TWEED HEADS NSW 2485

1 INTRODUCTION

This Landscape Statement of Intent has been produced by Boyd's Bay Environmental Services Pty Ltd. and was commissioned by Heran Building Group. This landscape statement of intent has been provided as supporting documentation for the Development Application approval for the new residential development 'Bay Grand' – stage 1-3 (figure 1).

1.1 Objectives

The landscape site analysis will collect information from the subject site (figure 2) and analyse it in conjunction with relevant planning scheme codes, policies and the surrounding environment. The outcomes of the analysis will provide the guiding principles of the landscape design of the proposed development. Key objectives will be;

- Providing a cost effective and environmentally suitable landscape design appropriate to the existing site features, constraints and wider urban context.
- Preservation and enhancement of natural and cultural assets
- Providing compatible interfaces with the surrounding landscape and land use functions
- Providing a compatible landscape plan to suit the context of the site while providing a modern design.
- Ensure garden areas are practical and functional along pathways and car park (incorporating CPTED¹ principles).
- Provide a visually stimulating yet low maintenance landscape.

¹ Crime Prevention Through Environmental Design

1.2 Proposed Development



Figure 1: New residential development 'Bay Grand'

1.3 Site Location

The subject site located at 2 Bay Street – Tweed Heads NSW 2485 (figure 2).



Figure 2: Location of the subject site [Source: Google Earth 2014]

1.4 Planning Policy

The subject site is located within the Tweed Shire Council (TSC) government area. This landscape statement of intent has been developed in accordance with the TSC Development Control Plan for the Tweed City Centre Core Precinct and the NSW State Government State planning policies. This will provide landscape function and visual amenity and ensure alignment and code compliance with the Tweed Shire Development Control Plan and associated planning policies.

The landscape intent plan will consider the following;

- Utilise local native species wherever possible
- Enhance the visual amenity of the local/surrounding

2 LANDSCAPE SITE ANALYSIS

2.1 Existing Vegetation

Existing vegetation on the subject site is comprised of maintained grass (figure 3). No remnant or regrowth native vegetation is present. A small pocket of non-indigenous vegetation from previous site landscaping is present on the inner corner of the site.



Figure 3: Overview of the site vegetation

2.2 Surrounding Landscape Context

The subject site is zoned as City Centre Core (B2 – Commercial Core) Precinct under Section B2 – Tweed City Centre of the Tweed Development Control Plan 2008 (figure 4).

The significant landscape features surrounding the subject site consist of; a continuous strip of landscape trees and Coolangatta's Goodwin Park to the west of the site; isolated active open space areas to the south; commercial and residential development with isolated mature landscape species and Coolangatta beach to the north; and the recently upgraded Bay Street streetscape planting and Jack Evans Boat Harbor to the east (figure 5).

This surrounding landscape context provides a distinctive landscape character backdrop for the proposed development. The landscape intent will reference the surrounding landscape context to provide compatible and complimentary landscape character that enhances the visual amenity of the local and surrounding area.

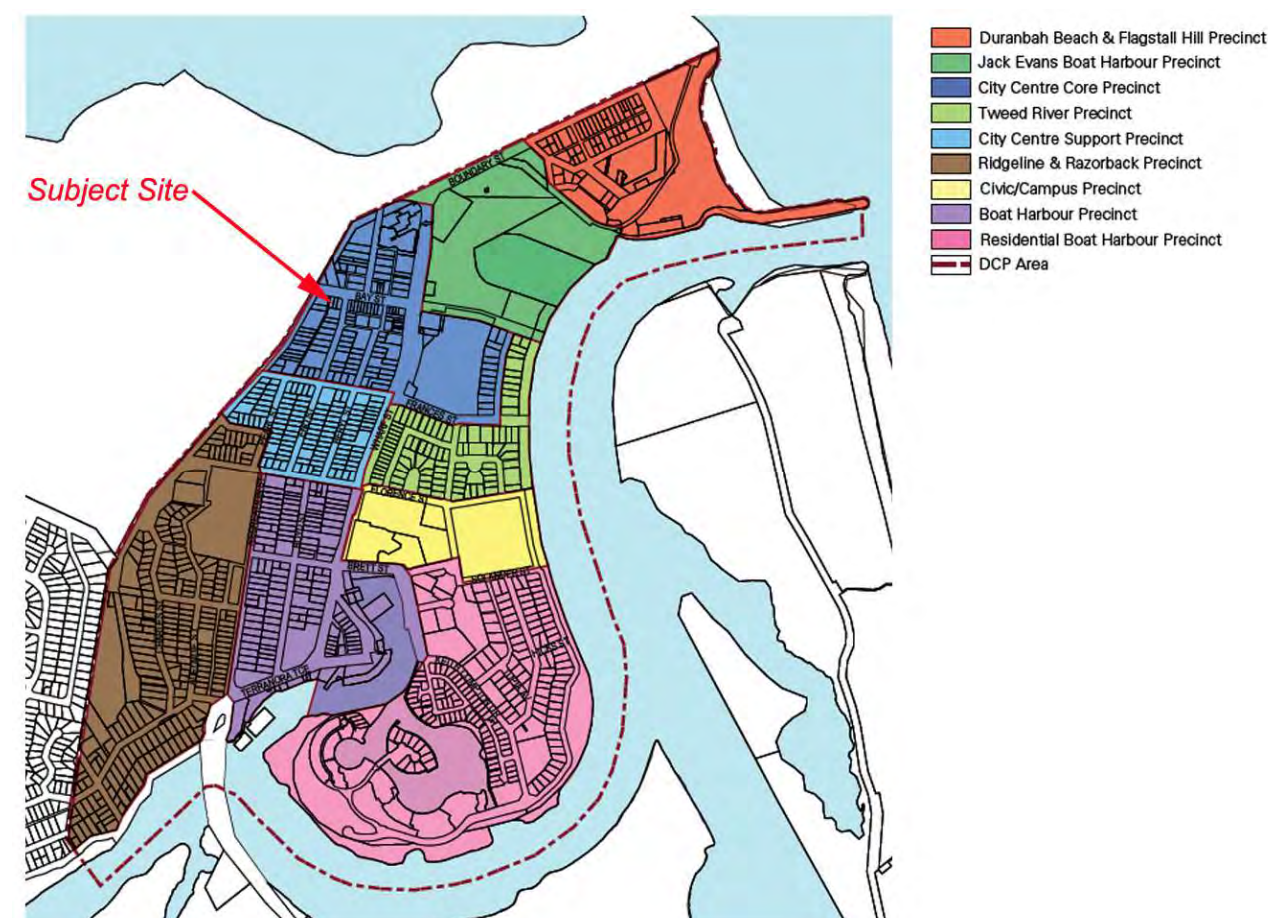


Figure 4: Character Precincts – North [Source Tweed City Centre – Section B2 2008]



Figure 5: Overview of the surrounding landscape context

2.3 Geology

The topsoil of the subject site is highly modified with levelled areas and an access road from previous site development.

The site is described as Class 5 Works within 500 metres of adjacent class 1, 2, 3 or 4 land which are likely to lower the watertable below 1 metre AHD in class 1, 2, 3 or 4 land (figure 6).

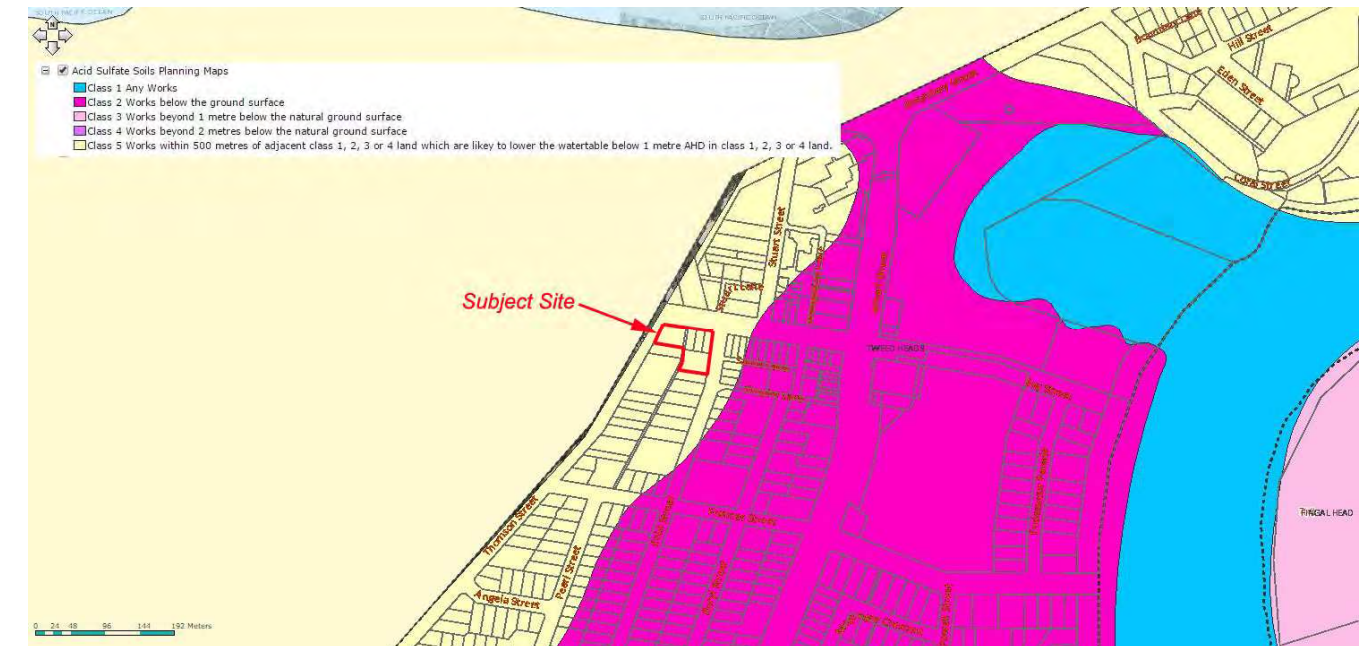


Figure 6: Acid Sulphate Planning Map (TSC Mapping)

2.4 Microclimate

The long-term mean annual temperature for the area is calculated at approximately 18-21°C (Figure 7) and rainfall to between 1500-2000mm (Figure 8).

The subject site is located on low lying land and has an easterly aspect. The influencing landscape features that may increase heat to microclimate of the site include school buildings and associated infrastructure (including bitumen carparks); and surrounding Tweed and Coolangatta residential high rises.

The subject site is situated approximately 430m from the Pacific Ocean (north) and 600m from the Tweed River (east) which may provide minor maritime buffering to summer heat. The prevailing sea breezes (summer northerlies) are recognised as being an influencing factor on the site microclimate.

The low lying nature and surrounding buildings and infrastructure has the potential to reduce airflows to the subject site. The low lying location has the potential to influence the seasonal temperatures of the site by potentially maintaining heat and cold longer than the surrounding slopes due to reduced airflow. The dominant airflow is most likely from the north east direction.

The site topography and surrounding urban development creates open conditions to solar input.

Based on the influencing factors the site micro-climate is suitable for the establishment of a wide variety of landscape plant species.

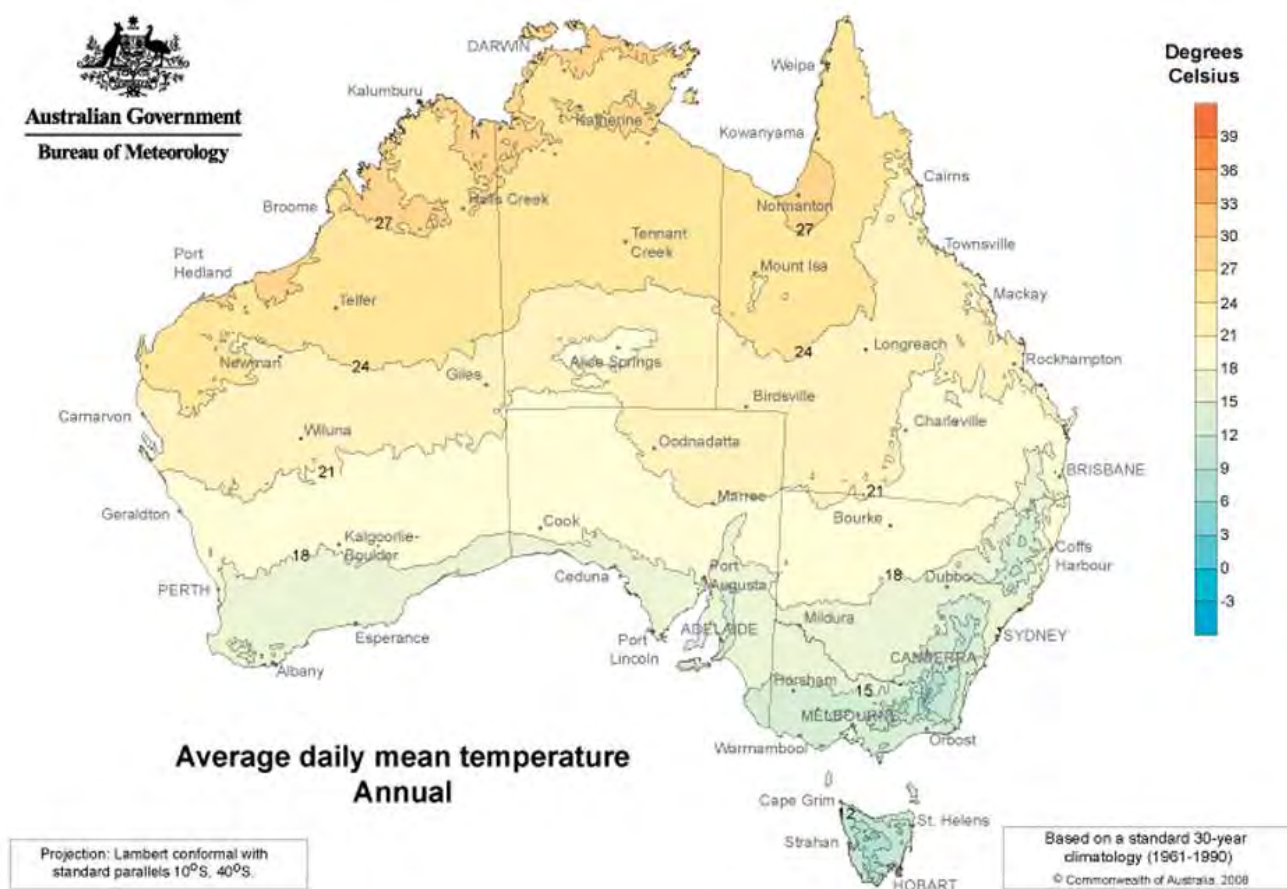


Figure 7: Mean temperature totals 1961-1990 [Source: 2015 BOM Climate Data – Map Queensland]

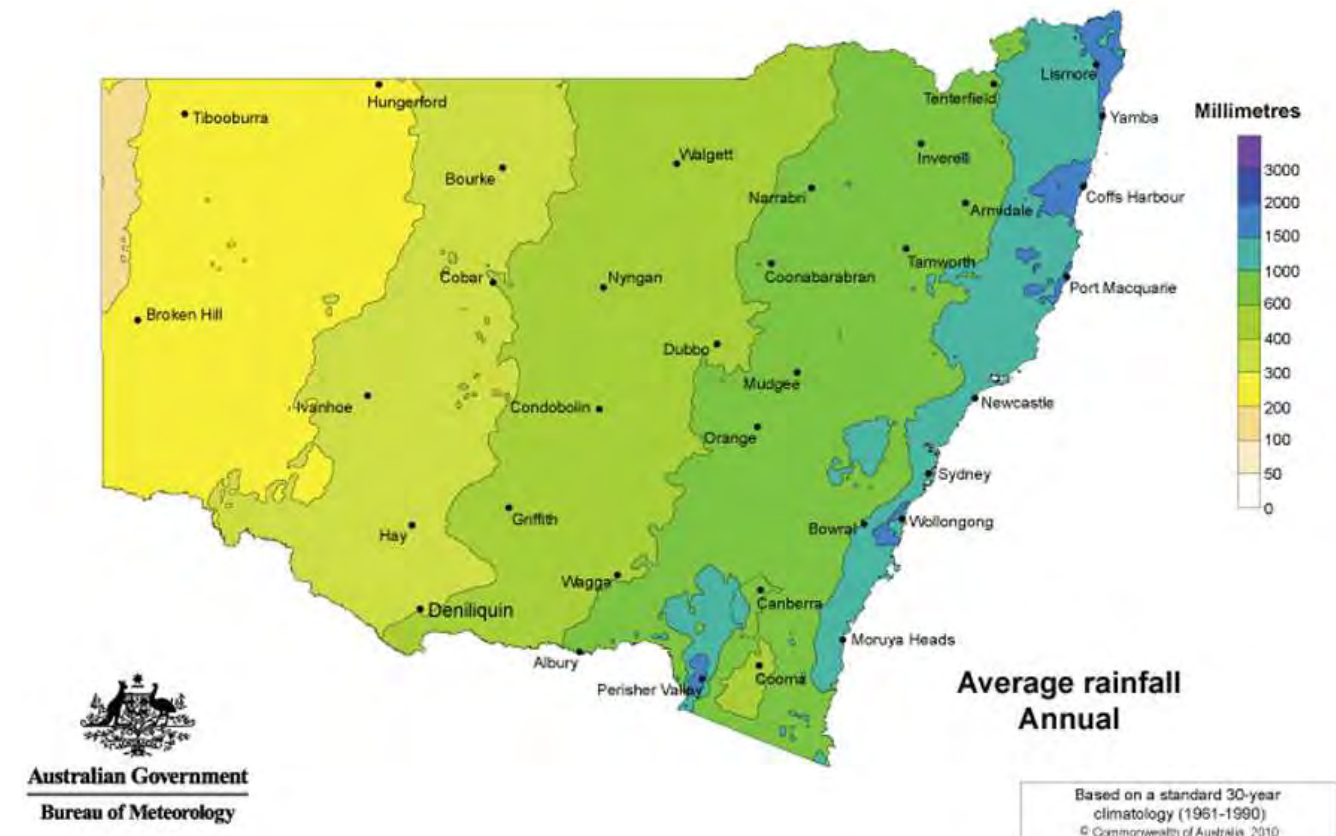


Figure 8: Rainfall totals 1961-1990 [Source: 2015 BOM Climate Data – Map Queensland]

2.5 Ecological Features

The subject site is devoid of any remnant or regrowth vegetation. Current vegetation consists of maintained grass and one small pocket of non-indigenous species. These features therefore provide negligible habitat opportunities for flora and fauna.

The most significant ecological feature of the surrounding area is isolated mature landscape tree species including Hoop pine (*Araucaria cunninghamii*), Cadagi (*Corymbia torelliana*), Poiciana (*Delonix regia*) and Weeping fig (*Ficus benjamina*). These trees provide minor habitat opportunities for birds, reptiles and small arboreal mammals. These features will be unaffected by the development proposal. The native trees and other vegetation that are proposed for landscaping will provide a supporting habitat role to these existing ecological features.

The subject site is not located in an area of bushfire prone land.

2.6 Built Structures

Current built structures consist of a temporary site office and access road from previous development existing on the site.

2.7 Changes in level

The subject site has an easterly aspect and includes a number of levelled pads with slopes between the pads (figure 9). Levels on the subject site range from approximately 5 – 10m AHD.

Existing drainage flows from the site are directed into the existing stormwater pit located in the south-east of the site (figure 10).



Figure 9: Existing levelled pads and batter slopes



Figure 10: Existing stormwater pit

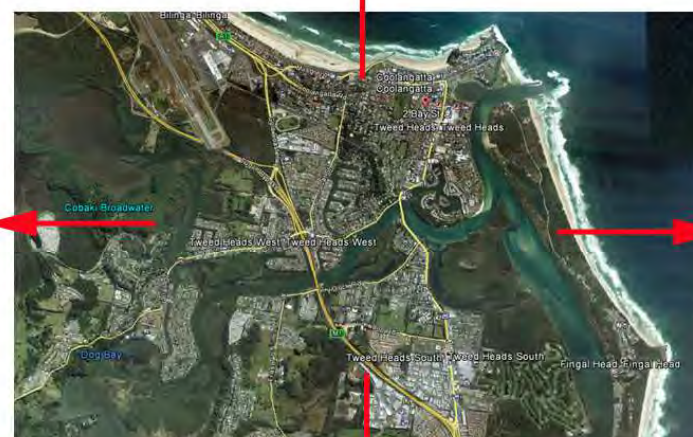
2.8 Aerial & Visual Analysis



To the north of the subject site are scattered isolated trees and the Tweed Heads Public School. Further north are mixed, mid level residential high rise developments; which occupy much of the northern region of the site. Finally the Coolangatta Beach located approximately 430mm from the subject site.



The Queensland border is located directly to the west of the site extending along Dixon Street (defined by a continuous strip of mature landscape tree species within a median strip that extends to the southern end of Dixon Street). Just over the border is: Goodwyn Park - offering large openspace areas for kick and play; a walking path; designer garden planters and a skate park. These areas are surrounded by urban residential developments.



Scattered isolated trees and ground layers of the recent Bay Street up grade planting are located to the east of the subject site. These eastern side of the subject site is dominated by an established commercial precinct. The subject site sits approximately 300m from the beautiful Jack Evans Boat Harbor.



To the south of the site is Jack Chard park, surrounded by urban residential development. The Recreation Street PCYC park is located slightly further south. The PCYC park offers a large kick and play area and a playground for young children. Located in a south west is the ridge of Razorback look out.



2.9 Surrounding Land Use

The area surrounding the subject site provides for a variety of different land uses including the existing established commercial core, residential housing, open space parks and beach frontages of Tweed Heads and Coolangatta.

The landscape character of the surrounding area is generally dominated by Coastal urban development.

The landscape intent of the proposed development will be in keeping with the adjoining land use and will be designed to maintain and define the character of the surrounding area incorporating the use of local native plant species in the landscape design.

2.10 Material Re-use

Due to the existing land-use (maintained grass devoid of vegetation and material), there is minimal opportunity for the re-use of materials. Any fill to be excavated will be re-used on the site where possible.

2.11 Noise Sources

Medium levels of traffic noise were observed from the local traffic utilising the commercial precinct, therefore it is anticipated to occur predominantly throughout the day. This is not expected to be detrimental to the high rise users or to require any special treatment.



Figure 11: View of Bay Street adjacent to the site

3 LANDSCAPE INTENT & DESIGN SUMMARY

The landscape intent for the proposed development will utilise the landscape features of the subject site and scenic surrounds to provide a landscape design which is complimentary to the environmental and urban context which it is located.

The landscaped entrance features and gardens within the main entrance will utilise varieties of native and exotic species featuring striking foliage and architectural form to provide a modern theme in character with the surrounding landscape.

These landscape features within the Bay Grand will incorporate CPTED principals. With care taken to ensure that landscape design for the development and surrounds do not screen entrance and exit lines or lines of sight along pathways and pedestrian linkages.

Staff and visitor safety will be a priority when formulating the plant schedule for the project.



The landscape entry will consist of native and exotic species featuring striking foliage and architectural form to provide a modern / semi formal theme in character

The landscape theme will consist of native and exotic plant species to ensure an aesthetically pleasing landscape character

Gardens will ensure that entry and exit lines of sight and path ways are not obscured to ensure visual lines of site are kept open providing passive visual surveillance in accordance with CPTED principles

Buffer planting planting will consist of fire retardant species and will be aesthetically pleasing for the adjoining existing residences

The landscape theme for the pool decking areas will consist of native and exotic plant species. The continuation of a formal modern theme will ensure an aesthetically pleasing flow of landscape features in these areas.

Artificial turf areas will present opportunities for sitting and reading activities. These areas will open up the podium green space and will exhibit a natural softer finish

Seating will be modern in style and stationed throughout

Legend

1

Concept Item Number

Regional Office
35 Richmond Street
Tweed Heads
NSW 2485

Boys Bay
Planning

DESIGN

CREATE

INSPIRE

PO BOX 494
Coppinagatta, QLD 4225

Telephone (07) 5536 5869

Facsimile (07) 5546 6711

www.boysbaygroup.com.au

CLIENT	PROJECT	TITLE	REGISTER				ASSOCIATED CONSULTANTS			
HERAN BUILDING GROUP	BAY GRAND	CONCEPT PLAN - PODIUM	Issue	Amendment	Date	Checked				
SHEET DETAILS	LOT 2 / DP 224382 2 BAY STREET, TWEED HEADS NSW 2485	DRAWING INFORMATION					NOTES		COPYRIGHT © The information contained herein is for the sole use of the client as listed and must not be disclosed, altered or reproduced without the express permission of Boys Bay Environmental Services. Reproduction of this document in any part or whole constitutes an infringement of the copyright act.	
DESIGN		DH	DRAWN	DH	DATE	04.06.15	SCALE			N/A
PROJECT NO.		1224.2015	DRAWING NO.	1	ISSUE	A				

Gardens will ensure that entry and exit lines of sight and path ways are not obscured to ensure visual lines of site are kept open providing passive visual surveillance in accordance with CPTED principles

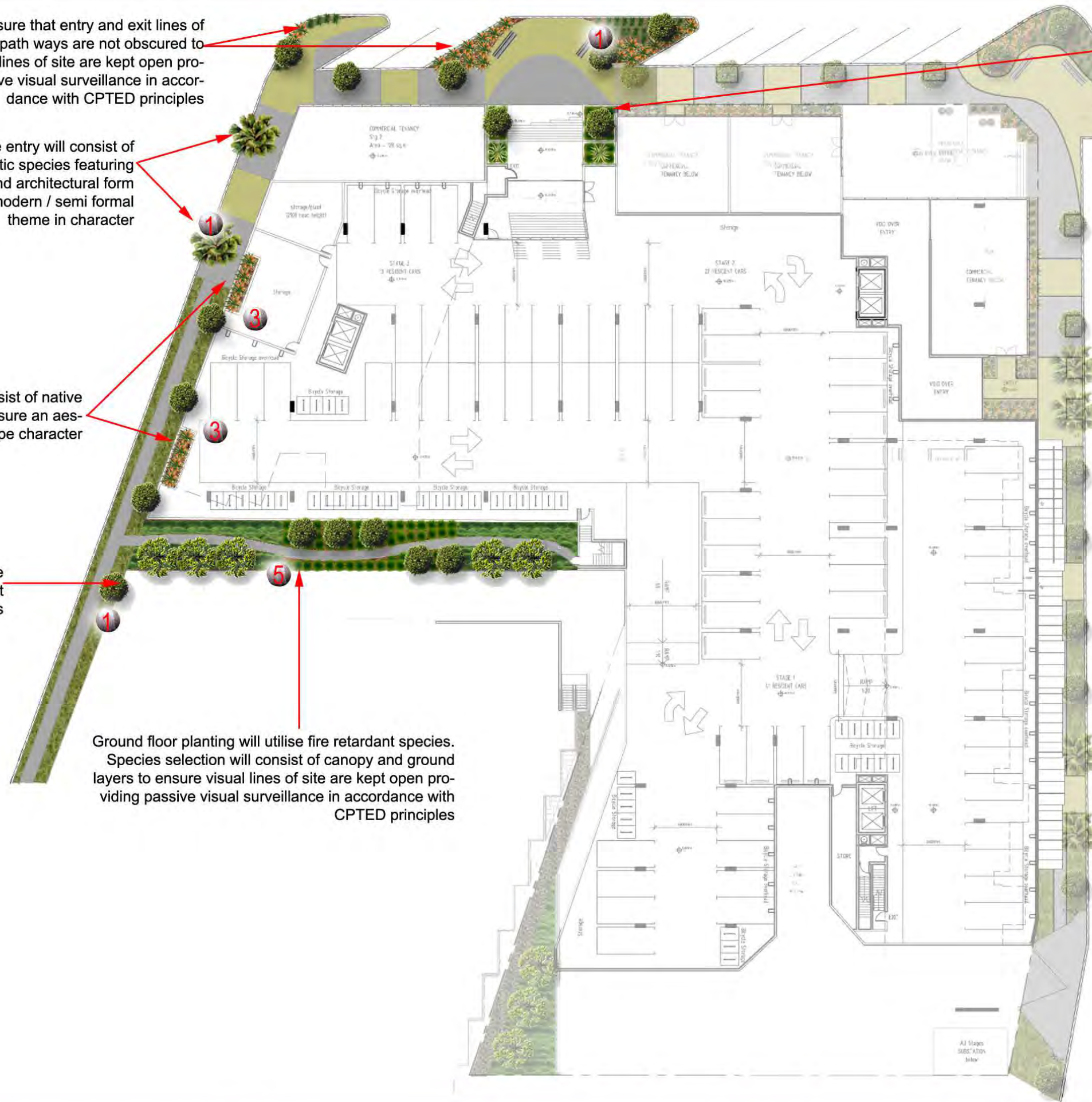
The landscape entry will consist of native and exotic species featuring striking foliage and architectural form to provide a modern / semi formal theme in character

The landscape theme will consist of native and exotic plant species to ensure an aesthetically pleasing landscape character

The Streetscape plantings will provide softening to the proposed development and shade for pedestrians

Ground floor planting will utilise fire retardant species. Species selection will consist of canopy and ground layers to ensure visual lines of site are kept open providing passive visual surveillance in accordance with CPTED principles

The landscape entry will consist of native and exotic species featuring striking foliage and architectural form to provide a modern / semi formal theme in character



Legend

1 Concept Item Number

Boyd's Bay Planning

Regional Office
35 Richmond Street
Tweed Heads NSW 2485
Phone: (07) 5536 5869
Facsimile: (07) 5546 6711
www.boydsbaygroup.com.au

DESIGN
CREATE
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CLIENT	PROJECT	TITLE	REGISTER	ASSOCIATED CONSULTANTS
HERAN BUILDING GROUP	BAY GRAND	CONCEPT PLAN - LEVEL 1	Issue Amendment Date Checked	
SHEET DETAILS		DRAWING INFORMATION		NOTES
Do not scale from this drawing. Verify location of services and all dimensions on the site prior to construction. All dimensions in millimetres unless otherwise noted. All construction works are to comply with local regulatory authorities and building codes.		DESIGN DH DRAWN DH DATE 04.06.15 SCALE N/A PROJECT NO. 1224.2015 DRAWING NO. 2 ISSUE A		
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The Streetscape plantings will provide softening to the proposed development and shade for pedestrians

The landscape entry will consist of native and exotic species featuring striking foliage and architectural form to provide a modern / semi formal theme in character

The Bay Street entry ponds will consist of fish and water submersable plant species to provide and aesthetically pleasing vista for the Bay Street entry users

The landscape entry will consist of native and exotic species featuring striking foliage and architectural form to provide a modern / semi formal theme in character

Gardens will ensure that entry and exit lines of sight and path ways are not obscured to ensure visual lines of site are kept open providing passive visual surveillance in accordance with CPTED principles

The landscape theme will consist of native and exotic plant species to ensure an aesthetically pleasing landscape character

The landscape entry will consist of native and exotic species featuring striking foliage and architectural form to provide a modern / semi formal theme in character

The Streetscape plantings will provide softening to the proposed development and shade for pedestrians

Deep soil planting zone ground floor planting will utilise fire retardant species. Species selection will consist of canopy and ground layers to ensure visual lines of site are kept open providing passive visual surveillance in accordance with CPTED principles

Legend

1 Concept Item Number

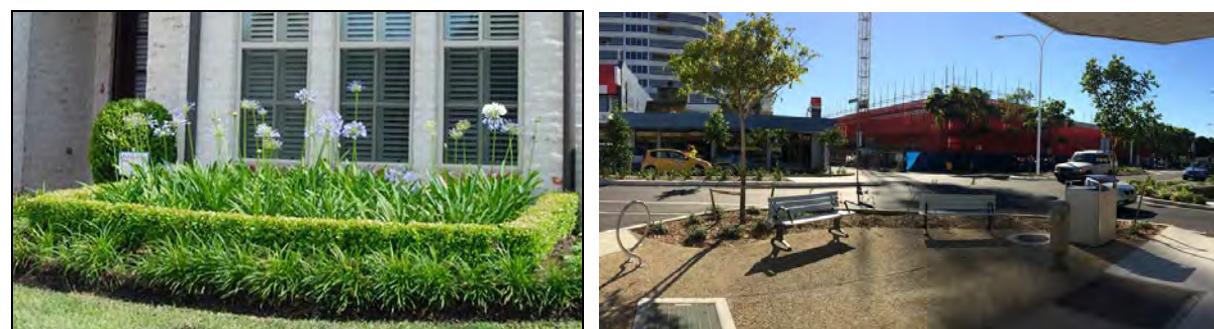
7 LANDSCAPE CONCEPTS

The following information outlines the landscape planning direction for the proposed Bay Grand development.

The landscape planning for the proposed development has been guided by information from the site analysis and architectural drawings. The final detail will be provided in the detailed landscape construction plans and will integrate the detailed engineering drawings.

7.1 Concept 1 - Front (main entry) and Streetscapes

The front entrance and streetscapes garden beds will consist of statement plantings with complimentary ground layer plantings to frame the entry for a grand entrance feel providing maximum appeal. The landscape plantings will provide and strengthen existing natural elements and enhance the high rise's character by utilising attractive native tree species (figure 12a, b & c). This style of planting will also enhance the grand entrance feel for the Bay Grand, whilst softening the built form. The streetscapes plantings and trees will be consistent with the new TSC Bay Street upgrade plantings for continuity for mass appeal (figure 12d)



Figures 12a, b, c & d: Example formal entry statement plantings for visual impact

7.2 Concept 2 – Turf and Seating

Artificial turf areas will provided an additional green space for sitting or reading. Seating that is modern in style will be stationed throughout. (Figures 13 a & b)



Figures 13a & b: Example of artificial turf & modern style seating

7.3 Concept 3 – Pedestrian connectivity and Gardens

Pedestrian paths will allow the future users to appreciate the views of attractive landscape design by creating pockets of defined interest. They will be constructed of broom finished concrete, paving and other surface treatment to provide a point of difference (Figures 14a & b). Trees are to be set back from the pathway to provide passive visual surveillance in accordance with CPTED principals.



Figures 14a & b: Example pedestrian footpath

The landscape theme will consist of native and exotic plant species. The continuation of a formal modern theme will ensure an aesthetically pleasing flow of landscape character throughout the high rise development (figures 15a & b).



Figures 15a & b: Example formal modern theme throughout

7.4 Concept 4 – Pool Decking

The landscape theme for around the pool decking areas will consist of native and exotic plant species. The continuation of a formal modern theme will ensure an aesthetically pleasing flow of landscape around the pool decking areas (figures 16a & b).



Figures 16a & b: Example formal modern theme throughout

7.5 Concept 5 – Buffer Planting

The buffer planting will consist of fire retardant species and will provided and aesthetically pleasing vista for the adjoining existing residences (figures 17a, b & c).



Figures 17a, b & c: Buffer planting consisting of fire retardant species

7.6 Concept 6 – Water Feature

The indoor ponds at the Bay Street entry will consist of water submersible plant species and will provided and aesthetically pleasing vista for the users of the Bay Street entry (figures 18a & b).



Figures 18a & b: Indoor pond with fish and plants

7.7 Planting Palette

Landscape planting for the site will predominantly utilise native species mixed with exotic species to encompass the context of the surrounding local area of the site. This will aim for a majority of native species to enhance and compliment surrounding landscape features.

Indicative planting palette for the landscape gardens:

TSC LANDSCAPE PLANT SCHEDULE				
CODE	SCIENTIFIC NAME	COMMON NAME	MATURE HEIGHT (m)	MATURE SPREAD (m)
Trees				
ATR ben	<i>Atractocarpus benthamianus</i>	Native Gardenia	5-8	5
BAN int	<i>Banksia integrifolia</i>	Coast Banksia	6	3
CUP ana	<i>Cupaniopsis anacardioides</i>	Tuckeroo	6-8	5
ELA eum	<i>Elaeocarpus eumundi</i>	Eumundi Quondong	12	4
ELA pri	<i>Elaeocarpus reticulatus</i> 'Prima Donna'	Blueberry Ash 'Prima Donna'	8	4
Shrubs				
BAE dio	<i>Baeckea diosmifolia</i>	Fringed Baeckea	1-2	1.5
CAL pal	<i>Callistemon pallidus</i>	Lemon Bottle Brush	2-4	1.5
DOR pal	<i>Doryanthes palmeri</i>	Spear Lily	2	2
FUR foe V	<i>Furcraea foetida</i> variegata	Mauritius Hemp	2	2.5
HEL gla	<i>Helmholtzia glaberrima</i>	Flax Lilly	1.5	1.5
LEP pet	<i>Leptospermum petersonii</i>	Lemon-scented Teatree	2-4	2
LOM hys	<i>Lomandra hystrix</i>	Mat Rush	1	1
LOM lon V	<i>Lomandra longifolia</i> 'Lucky stripe'	Variegated Mat Rush	1	1
MEL thy	<i>Melaleuca thymifolia</i>	Thyme Honey-myrtle	1.5	1
MET col T	<i>Metrosideros collina</i> 'tahiti'	Dwarf New Zealand bush	1	1
WES bla	<i>Westringia blakeana</i>	Blake's Mint Bush	1	1
Ground covers				
ACM all	<i>Acmena smithii</i> minor 'Allyn Magic'	Acmena Allyn Magic	.6	0.6
BAE lin	<i>Baeckea linifolia</i>	Weeping Baeckea	.5-1	2
CAR fla	<i>Carex flacca</i> 'Glauc	Blue Sedge	0.3	0.3
CRI ped	<i>Crinum pedunculatum</i>	River Lily	1	1
EUP som	<i>Euphorbia somona</i>	Euphorbia	0.5	0.5
HYM lit	<i>Hymenocallis littoralis</i>	Spider Lily	0.6	0.6
ISO cer	<i>Isolepis cernua</i>	Nodding Club-rush	0.5	0.5
LIR mus	<i>Liriope muscari</i>	Evergreen Giant	0.6	0.6
LOM con	<i>Lomandra confertifolia</i>	Matrush	0.5	0.5
LOM lon	<i>Lomandra longifolia</i> (local form)	Mat Rush (Dwarf coastal form)	0.5	0.5
LOM tan	<i>Lomandra longifolia</i>	Tanika	0.6	0.6
RHO dis	<i>Rhoeo discolor</i>	Rhoeo	0.3	0.3
TRA tri	<i>Trachelospermum tricolour</i>	Variegated Jasmine	0.5	cover
ZOY ten	<i>Zoysia tenuifolia</i>	No Mow Grass	0.2-0.4	1

The landscape design of the proposed Bay Grand will enhance the natural views of the building by softening and screening hard structural lines and framing natural scenic features and vistas.

The landscaping for the proposed development will provide native shade trees and shrubs to provide an underlying theme through the development which links to the surrounding natural and urban setting. This will provide vegetation which will soften and frame the surrounding landscape.



8 CONCLUSION

The landscape intent for the subject site has related relevant planning scheme policies and the surrounding environment associated with the design and construction of the landscaping for the proposed development.

The landscape statement of intent plan provides for:

- Providing a cost effective and environmentally suitable landscape design appropriate to the existing site features, constraints and wider urban context.
- Preservation and enhancement of natural and cultural assets
- Providing compatible interfaces with the surrounding landscape and land use functions
- Providing a compatible landscape plan to suit the context of the site while providing a modern design.
- Ensure garden areas are practical and functional along pathways and car park (incorporating CPTED principles).
- Provide a visually stimulating yet low maintenance landscape.

This landscape statement of intent has been developed in accordance with the concepts and the conclusions of the associated plans for the proposed Bay Grand high rise development. This includes provision for ecological enhancement, functionality, aesthetics and local amenity.

9 REFERENCES

Development Control Plan, '*Tweed City Centre Plan*', Tweed Shire Council (TSC), 2008
 Tweed Shire Council, '*Tweed Local Environmental Plan*', 2014
 Tweed Shire Council, '*Community Strategic Plan*, 2011/2021
 Tweed Shire Council, '*Planning & Development Guidelines – Part A – Dwellings Houses, Dual Occupancy, Secondary Dwellings, Alterations and Additions and Ancillary Development*'