



SHUTE HARBOUR
MARINA

Visual Amenity and Landscape Character Assessment Report

to accompany the

SHUTE HARBOUR MARINA RESORT Environmental Impact Statement

for property at

Shute Harbour, Airlie, Queensland
(Lot 2 on SP117389 and adjacent seabed)

for and on behalf of

Shute Harbour Marina Development Pty Limited



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0.0 EXECUTIVE SUMMARY

The subject site comprises part of a transitional landscape between the natural areas of Conway National Park to the north and west and the more developed residential and tourism-oriented areas of Coral Point and Shute Harbour to the east and south. Visibility of the subject site, by day and night, is highest from the open waters of Shute Bay, areas of Shute Harbour Road adjacent the site and the immediately adjacent residence and motel.

It is important to note that the open water views currently obtained from sections of Shute Harbour Road are made possible by apparent ongoing slashing activities along the road verge. On the basis of visible native seedlings within the verge and nearby coastal forest, it is reasonable to suggest that, were such activities ceased or reduced, these open water views may be screened or filtered by regrowth within a few years. Notwithstanding vegetation, such views could be screened or obscured at any time by vehicles parked along the verge.

The site specific recommendations which have emerged from these findings include:

- Protection and enhancement of important view corridors from adjacent residence and motel and from section of Shute Harbour Road adjacent site;
- Limiting the height of buildings in the commercial precinct to 22.2m AHD or as required to maintain view corridors;
- Limiting the height of buildings in the managed resort accommodation precinct to 3 storeys or maximum 12m height and utilising the screening benefits afforded by street tree planting and amenity trees where possible;
- Retention of existing vegetation to the north of Shute Harbour Road;
- Screening fence/mound and early planting works to southern side of Shute Harbour Road;
- Early planting of reclaimed isthmus as areas of spoil are dewatered, and;
- The use of locally indigenous plantings in streetscapes and other open space areas affected by the development or requiring active rehabilitation. Species will be selected in consultation with Traditional Owners as indicated in the Cultural Heritage Management Plan for the project. An indicative plant species selection for the site has been provided in **Appendix I** and is subject to refinement during design development and in consultation with Traditional Owners. Ultimate plant stock may also include translocated plant specimens from the site and nearby areas.

The proposal, as described within **Figure 5** and in consideration of the above recommendations, is expected to maintain the existing local transitional character. The proposal is also expected to maintain or enhance the amenity of adjacent land uses via provision of view corridors through the proposal and by screening existing incompatible uses.

The proposal also provides an opportunity to enhance the site's environmental and visual values through monitoring and rehabilitation programs. The visual amenity of the local area would be likewise enhanced through such activities.

Based on the above discussion and recommendations, the proposal as described in **Figure 5** is supported for the subject site.

1.0 INTRODUCTION

This report was commissioned by Shute Harbour Marina Development Pty Limited for the purpose of establishing the visual and landscape values of the subject land and the Proposal. The Queensland Coordinator General has declared the Proposal a significant project which requires an Environmental Impact Statement (EIS) in accordance with Part 4 of the *State Development and Public Works Organisation Act 1971*. The following report, as read in conjunction with the EIS by Cardno Pty Limited, will form the basis of Local, State and Federal approvals for the project.

1.1 The Subject Site

The subject site of the proposed development is located at Shute Harbour, Airlie, North Queensland on leasehold land, being Lot 2 on SP117389 and adjacent seabed, and occupies a total area of approximately 45.2 hectares (including road reserve and land north of Shute Harbour Road that will not be developed); of which about 15% is a mix of eucalypt woodland and coastal forest (which is dominated by brush box, bloodwood, banksia, wattle and grass tree) and, to a lesser degree, mangrove shrubland, 5% is road or road reserve, less than 5% is mangrove and associated marine vegetation, and at least 75% is existing seabed.

The site lies adjacent the Great Barrier Reef World Heritage area and is bordered by Shute Harbour Road to the north, Conway National Park further to the north and west, the existing Shute Harbour Quay Transit Terminal (Comprising Ferry Terminal, Barge Jetty and associated buildings) and existing Motel to the east, and an existing house and marina salvage operation to the west (Refer to **Figure 1** for Locality Plan and **Digital Image** locations).

Two major ridgelines, extending south and south-west from Mount Rooper lookout, embrace the northern, or landward, part of the site, which lies at the base of the steep vegetated slopes. The remainder of the site to the south is nestled within the waters of Shute Bay (Refer to **Digital Image 1**).

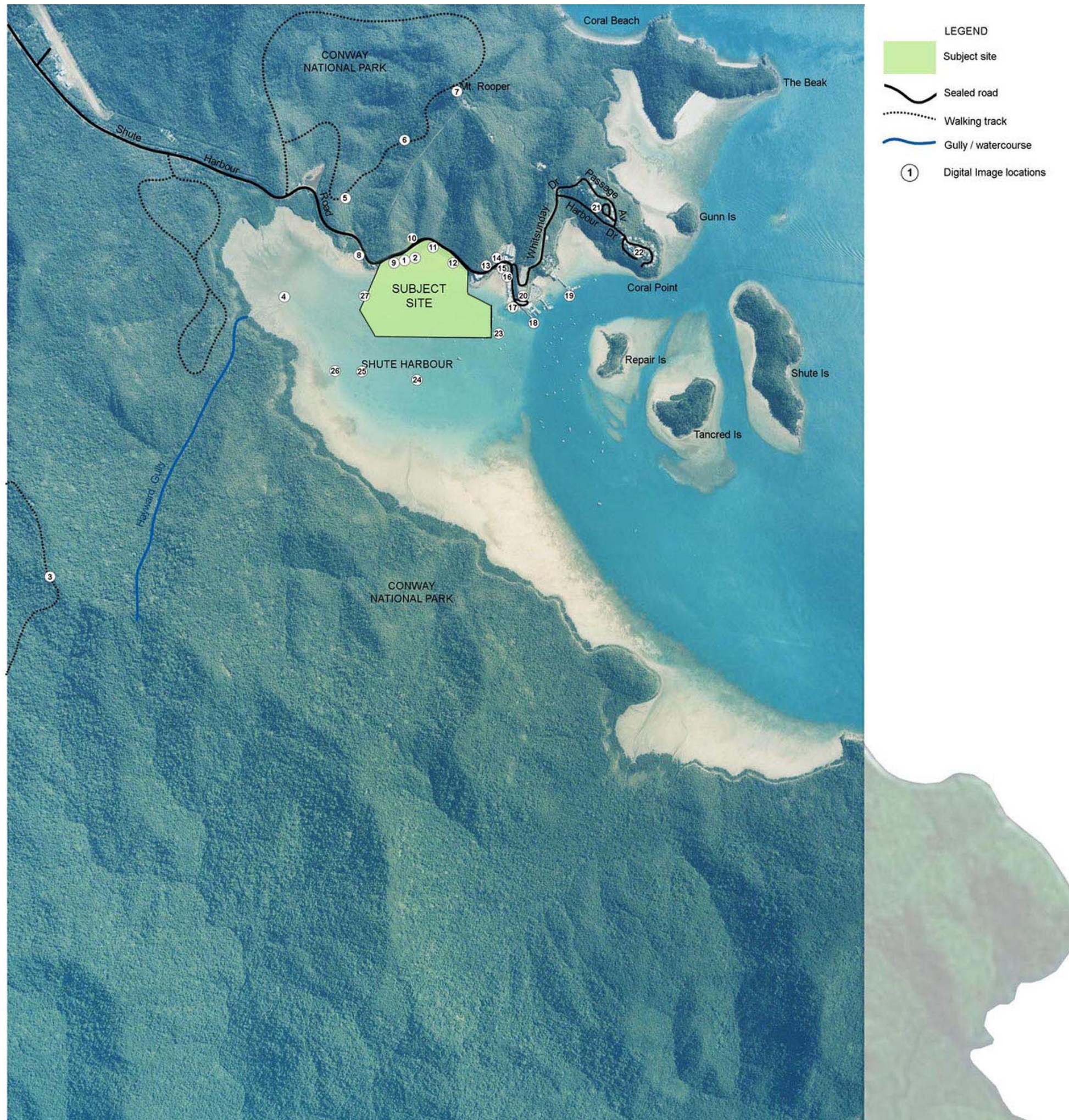
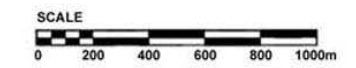


FIGURE 1

Aerial photography supplied by the State of QLD, Department of Natural Resources, 2004.



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Shute Harbour Marina		
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Port Binnli Shute Harbour P/L		
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Shute Harbour Road Shutehaven		
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Digital Image 1 Panoramic view east across, and from within, the subject site towards existing Shute Harbour Ferry Terminal and Barge Jetty. Refer to **Figure 1** for Digital Image locations.

1.2 The Proposal

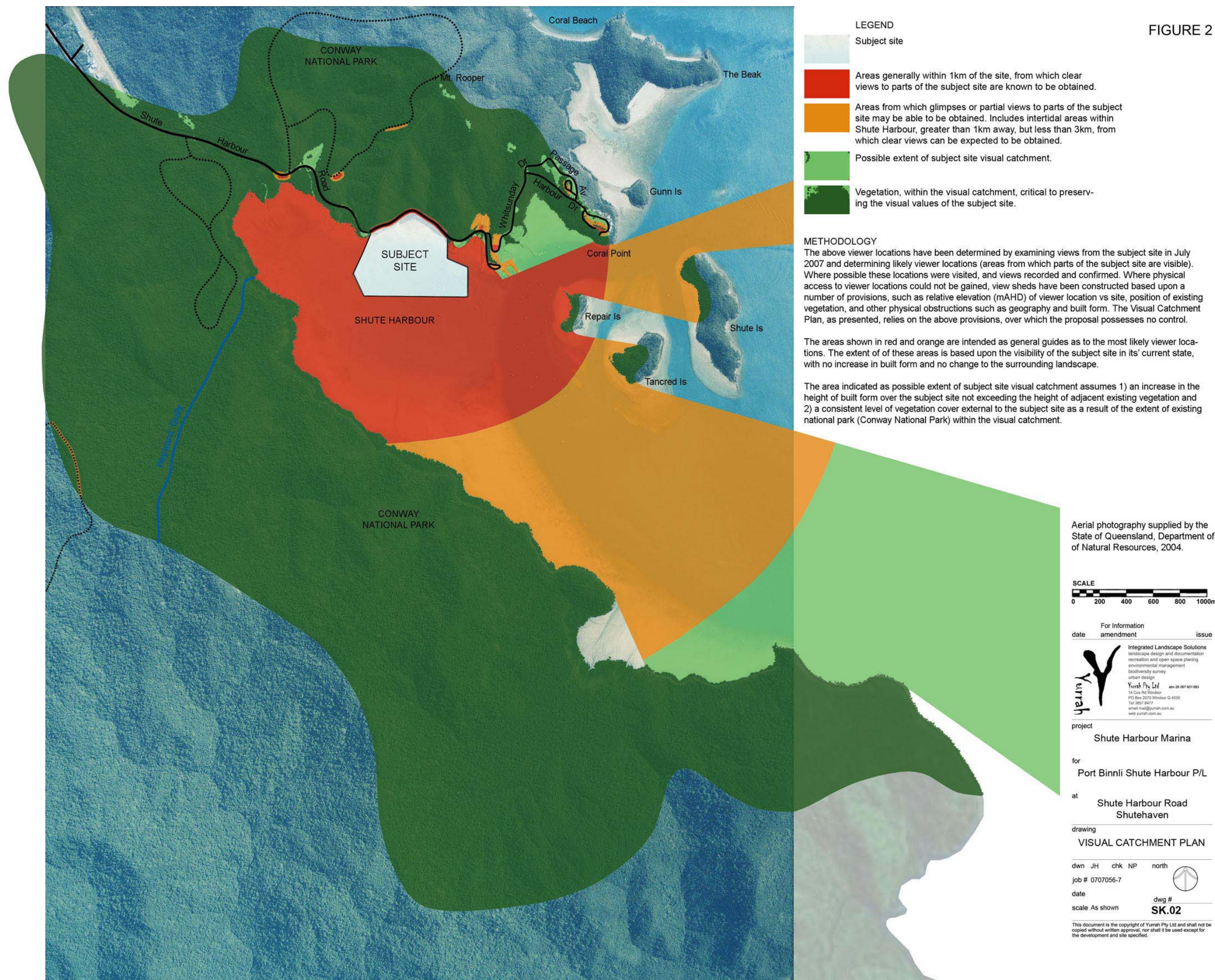
The proposal has been described in detail within the EIS prepared by Cardno Pty Limited, and can be summarised as development of a marina incorporating managed resort accommodation, tourism and commercial land uses which will include: Clearing of mangrove vegetation; Dredging of the marina basin to -5 and -6m AHD for a 669 berth marina with fuel dock, sewerage pump-out facility and floating pontoons; Dredging of the access channel into the proposed marina; Construction of a stormwater diversion channel; Reclaiming tidal land, via a number of methods, for construction of a commercial, tourism, managed resort accommodation and associated carpark facilities; Construction of a solid breakwater; Roadworks for new and upgraded roads; Construction of the four star tourism resort, retail, marina amenities, carpark and substantial landscaped open space; Ongoing building construction associated with mixed land uses, and; Ongoing maintenance dredging and the marina and access channel as required;

In addition to the areas of substantial landscaping and open space proposed throughout the development, existing forested areas within the site, approximately 4 hectares to the north of Shute Harbour Road, are to be retained in their current vegetated state and returned to public ownership.

1.3 Investigation Methodology

In preparing this Visual Amenity and Landscape Character Assessment, the subject site and surrounding areas were traversed in July and August 2007. An aerial photograph (underlaid in **Figure 1**) was obtained of the subject site and surrounds. A visual survey has been undertaken in the vicinity of the subject site by traversing nearby roads, trails and seaways, and seeking views into the subject site from any prominent local and district sites. The latter were identified by examining the views from the open areas of the subject site. Viewer Locations are indicated in **Figure 1**. The estimated extent of subject site visual catchment, as determined from the above investigations, is described in **Figure 2**.

The terms of reference for the EIS are articulated in the next section and addressed in further detail throughout the report.



1.4 Terms of reference

1.4.1 Existing Landscape Character and Visual Values are addressed within **Section 2.0** of this report and refer to the following terms of reference:

Existing Landscape Character Values of the site and surrounds, as referred to within the EIS Terms of Reference section 4.1.1.7: Landscape Character, are evaluated within SECTION 2.1 of this report as follows:

‘...describe in general terms the existing character of the landscape that will be affected by the Proposal. It should comment on any changes that have already been made to the natural landscape since European settlement. It should ‘set the scene’ for the description of particular scenic values in the following section on visual amenity. The difference being that this section describes the general impression of the landscape that would be obtained while travelling through and around it, while the visual amenity section addresses particular panoramas and views (e.g. from constructed lookouts, boats, designated scenic routes, etc.) that have amenity value.’ *(Co-ordinator General, Environmental Impact Statement Terms of Reference)*.

The existing Visual Amenity Values of the site and surrounding areas, as referred to within the EIS Terms of Reference section 4.1.1.8: Visual Amenity, are assessed within SECTION 2.2 of this report as follows:

‘...describe existing landscape features, panoramas and views that have, or could be expected to have, value to the community whether of local, regional, State-wide, national or international significance...’

Any values relating directly to the proposal are addressed in SECTIONS 3 and 4 as per:

‘...and address or show the short and long term visual impacts of the proposal (including the likely effect of signage, hoardings and commercial lighting in terms of the natural context of the area) and the proposed methods of ameliorating adverse impacts. Information in the form of maps, sections, elevations and photographs is to be used, particularly where addressing the following issues:

- Identification of elements within the Proposal and surrounding area that contribute to their image of the town/city as discussed in any local government strategic plan – city image and townscape objectives and associated maps;
- Identification of elements within the proposal that may have an adverse impact on the image of the surrounding area as discussed in council’s local government strategic plan, with specific regard to proposed heights of buildings;

- Scale and bulk of the proposal in terms of its representation as distinct dwelling house based and apartment style development relative to other similar development in the shire;
- Identify any recognised scenic protection or scenic management areas within or adjacent to the subject area that are included in council's town planning scheme and the likely impact of the Proposal upon those areas;
- Major views, view sheds, existing land and sea based outlooks, ridgelines (including the Whitsunday Great Walk) and other features contributing to the amenity of the area, including assessment from the water and private residences in the affected area;
- Focal points, landmarks (built form or topography), gateways associated with project site and immediate surrounding areas, waterways, and other features contributing to the visual quality of the area and the Proposal site;
- Character of the local and surrounding areas including character of built form (scale, form, materials and colours) and vegetation (natural and cultural vegetation) directional signage and land use;
- Identification of the areas of the Proposal that have the capacity to absorb land use changes without detriment to the existing visual quality and landscape character; and
- The value of existing vegetation as a visual screen.'

(Co-ordinator General,

Environmental Impact Statement Terms of Reference).

1.4.2 Potential Landscape and Visual Impacts during Construction are addressed within **Section 3.0** of this report and refer to the following terms of reference:

Potential Landscape and Visual Impacts of the Proposal during Construction (day and night), as referred to within the EIS Terms of Reference section 3.4: Construction, are evaluated within SECTIONS 3.1 and 3.2 of this report as follows:

Describe ‘...the extent and nature of the Proposal’s construction phase... The description should include...impacts on the... amenity (and character) of nearby localities likely to be affected by such an activity.’ (*Co-ordinator General, Environmental Impact Statement Terms of Reference*).

1.4.3 Potential Landscape and Visual Impacts during Operation are addressed within **Section 4.0** of this report and refer to the following terms of reference:

Potential Landscape Character Impacts of the Proposal during Operation, as referred to within the EIS Terms of Reference section 4.1.2.5: Landscape Character, are evaluated within SECTION 4.1 of this report as follows:

‘Describe the potential impacts of the Proposal on the landscape character of the site and the surrounding area. Particular mention should be made of any changes to the broad-scale topography and vegetation character of the area, due to dredge spoil rehandling areas, and vegetation clearing. Details should be provided of measures to be undertaken to mitigate or avoid the identified impacts.’ (*Co-ordinator General, Environmental Impact Statement Terms of Reference*).

Potential Visual Amenity Impacts of the Proposal during Operation, as referred to within the EIS Terms of Reference section 4.1.2.6: Visual Amenity, are evaluated within SECTION 4.2 of this report as follows:

‘...analyse and discuss the visual impact of the Proposal on particular panoramas and outlooks, including but not limited to the Whitsunday Great Walk, Conway National Park, Great Barrier Reef Marine Park and World Heritage areas. It should be written in terms of the extent and significance of the changed skyline as viewed from places of residence, work and recreation, from road, cycle and walkways, from the air, water and other known vantage points day and night, during all stages of the Proposal as it relates to

the surrounding landscape. The assessment is to address the visual impacts of the Proposal structures and associated infrastructure, using appropriate simulation. Sketches, diagrams, computer imaging and photos are to be used where possible to portray the near views and far views of the completed structures and their surroundings from visually sensitive locations. Special consideration is to be given to public roads, public thoroughfares, and places of residence and work, which are within the line-of-site of the Proposal. Detail should be provided of all management options to be implemented and how these will mitigate or avoid the identified impacts.’ *(Co-ordinator General, Environmental Impact Statement Terms of Reference).*

Potential Visual Impacts from lighting of the Proposal during Operation, as referred to within the EIS Terms of Reference section 4.1.2.7: Lighting, are evaluated within SECTION 4.3 of this report as follows:

‘Management of the lighting of the Proposal, during all stages, is to be provided, with particular reference to objectives to be achieved and management methods to be implemented to mitigate or avoid:

- The visual impact at night...’

*(Co-ordinator General,
Environmental Impact Statement Terms of Reference).*

As previously noted, the above Terms of Reference are addressed in further detail within the following sections of this report.

2.0 EXISTING LANDSCAPE CHARACTER AND VISUAL VALUES

2.1 Scenic Attributes - Existing Landscape Character and Context

The existing landscape character of the subject site is largely influenced by the previous treatments of the site (notably the construction of Shute Harbour Road, which was commenced by Theiss Brothers in May 1960) and the adjacent land uses which are visible from locations on site.

The adjacent land uses display a varied landscape character which is described herein as a heterogeneous mix of natural, semi-natural, tourism-oriented and port-industrial landscape character values. These adjacent uses appear to contribute significantly to the perceived landscape character of the subject site.

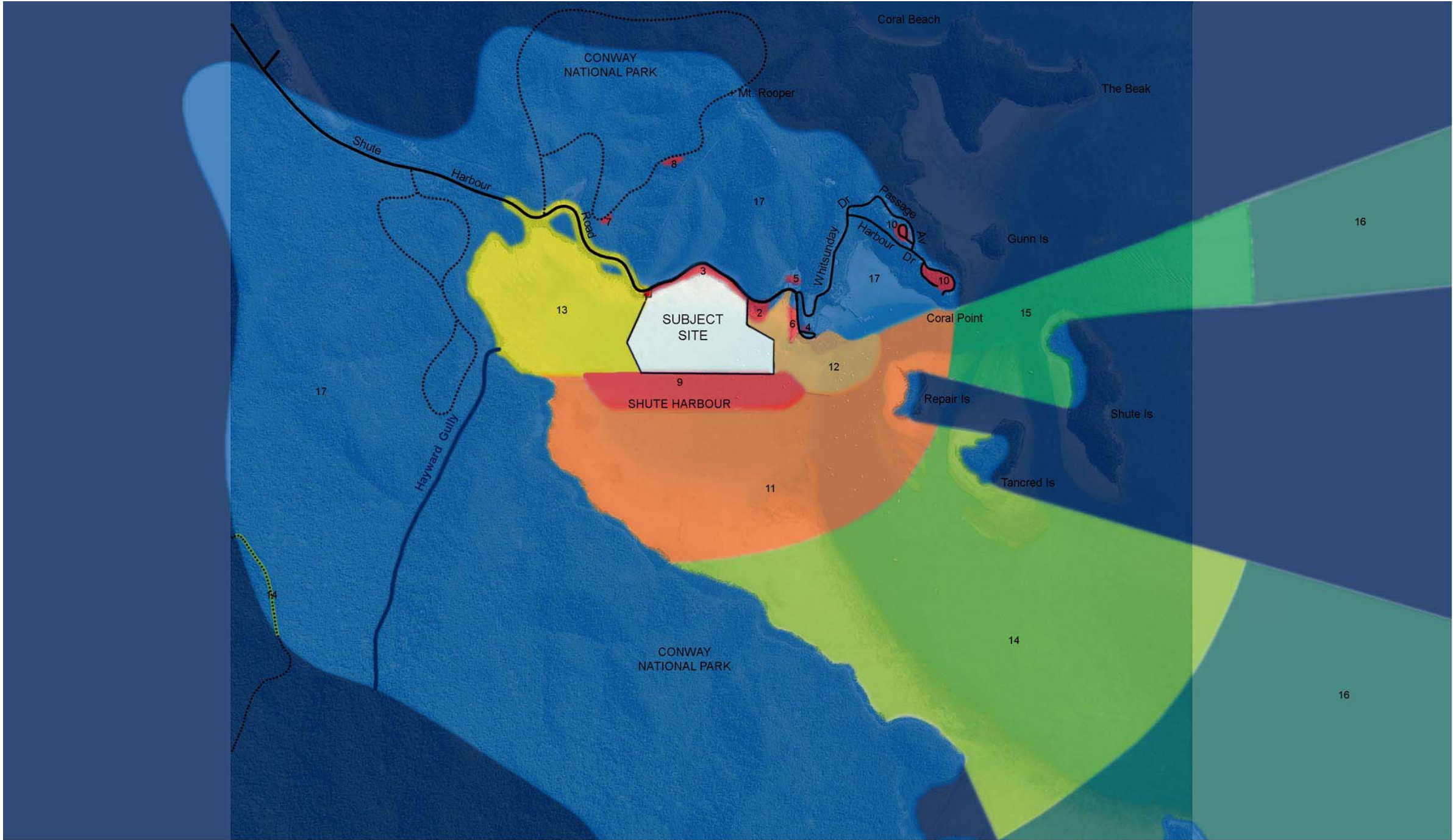
Natural and semi-natural values may refer to areas of mature or remnant vegetation and dense stands of native regrowth, but may also refer to areas that only appear to be natural or densely vegetated, such as forestry applications or introduced vegetation and weed regrowth beside roadways.

Tourism-oriented and port industrial landscape values are difficult to define and this descriptor may be applied to a range of heterogeneous landscapes. These areas are understood by the author to include components of tourism - such as small-scale specialty outlets, ticket sales, advertising, sealed carparks, landscaping, private jetties and pontoons and some commercial boating applications - as well as some degree of industrial or shipping components, such as large machinery, storage facilities, unsealed or concrete surfaces and commercial jetties / wharves and barges. At one end of the scale, there may perhaps be a dominance of the tourism-oriented character, although this tends to apply more to marina-style developments, as opposed to large storage areas, machinery and unsealed surfaces that appear to be more industrial in character.

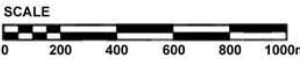
The subject site and surrounds have been divided into four broad landscape character zones for ease of reference: west, north, east and south, which are discussed in greater detail below.

The landscape character of the subject site and surrounds (particularly the local character as it relates to the subject site) is also described in **Figures 3 and 4.**

FIGURE 3



Aerial photography supplied by the State of Queensland, Department of Natural Resources, 2004.



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project
Shute Harbour Marina

for
Port Binnli Shute Harbour P/L

at
**Shute Harbour Road
Shutehaven**

drawing
**Landscape Character Plan
Local Landscape Character Impacts**

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- 18

Areas which are understood to lie outside the visual catchment. The proposal is not expected to have any discernable visual impact on these areas.
- 17

Areas which appear to lie within the extrapolated visual catchment but are visually separated from the proposal by vegetation or built form. The proposal is expected to have little to no visual impact on these areas.
- 16

Areas from which the proposal is likely to be visible from greater than 3km away. From these distances, the proposal is expected to maintain the existing character of the harbour, that being a high use port and harbour with a large number of passenger vessels and smaller pleasure-craft. The increase in land-based built form may not be readily perceived from this distance due to the interceding marine vessels.
- 15

Areas from which glimpses or views of the proposed marina can be obtained across the existing Ferry Terminal and jetties (between 1 and 3km away). Visual impact of the proposal as viewed from these locations is expected to be limited due to views being dominated by the existing Ferry and Barge Terminals and associated buildings.
- 14

Areas from which clear or partial views of the proposed marina can be obtained from 1 to 3km away. From these areas, the proposal is expected to appear in context with the surrounding uses (ferry terminal, passenger vessels, and large quantities of smaller vessels). However, from certain vantage points (dependent on ultimate mooring locations and outer harbour use) the resulting increased density of vessels around the marina is expected to have some impact on the existing character of the harbour.
- 13

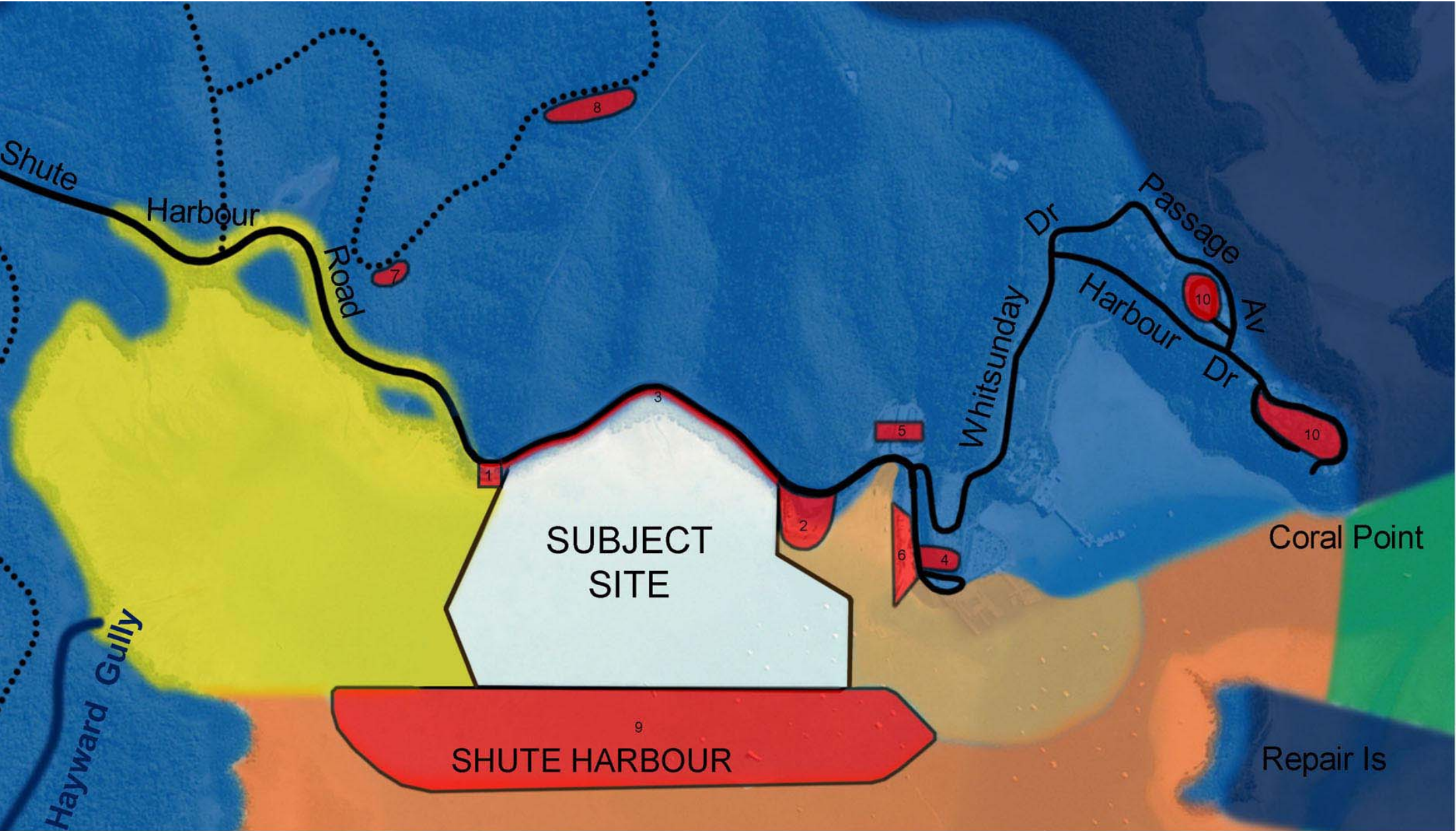
GATEWAY TO SHUTE HARBOUR: Areas within 1km west of the subject site from which clear views or glimpses of the proposal are expected to be obtained. Existing views across water towards salvage sheds, hotel and ferry terminal are expected to be replaced with views across water towards new beach, coastal forest vegetation, landscaped park, street trees and filtered views towards new residential dwellings. The extent of water views from these areas is expected to reduce; however, the visual impacts are to be minimised and easterly views enhanced, via the above landscaped buffer between viewer and marina.
- 12

Areas within 1km to the east of the subject site from which clear views or glimpses of the proposal are expected to be obtained. The existing character of the ferry and barge terminals, jetties and associated buildings is expected to be enhanced by the proposal as viewed from these locations.
- 11

Areas between 200m and 1km to the south of the subject site from which clear views of the proposal are expected to be obtained. From these areas, the proposal may appear in context with the surrounding uses. However, from certain vantage points, the resulting increased density of vessels around the marina, and the increase in land based built form, is expected to have some impact on the existing character of Shute Harbour.
- 1-10

Other areas: Refer to Figure 4.

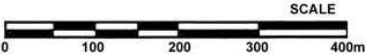
FIGURE 4



LEGEND

- 10 Areas of land generally within 1km of subject site, from which screened or filtered views of the proposal are expected to be obtained. The proposal, as viewed from these areas, is expected to be screened, filtered or partially obscured by existing vegetation and by the existing ferry terminal and buildings. Accordingly, the proposal is not expected to significantly impact on the local character as viewed from the above areas.
- 9 Areas within 200m south of the subject site, from which clear views of the proposal are expected to be obtained. Existing views across water to the ferry terminal, hotel, and marine vegetation are expected to be replaced with views towards larger numbers and concentrations of marine vessels and filtered or partially obscured views towards new built form. The proposal, as viewed from these areas, is expected to have some impact on existing landscape character. However, from the majority of these vantage points, the proposal is expected to enhance the existing character of the harbour.
- 8 Areas of forest to the north of the subject site from which glimpses to parts of the marina (or increased boat traffic) may be possible. However, the views are expected to be glimpses to a small portion of the proposal (if any), filtered through foreground vegetation, and significantly screened by local and distant vegetation.
- 7 Areas of forest to the north-west of the subject site from which clear views to parts of the marina may be possible. However, the views towards land-based built form are expected to be significantly screened by existing vegetation and a substantial landscape buffer, comprising coastal forest planting, part and amenity trees, and street trees.
- 6 Entry Road to Shute Harbour Ferry Terminal: The existing landscape character of views towards the subject site is expected to be significantly altered by the proposal. However the current views towards large cargo and semi-trailers are expected to be enhanced by the proposal.
- 5 Multi-level Carpark: Views towards parts of the proposed marina development from upper levels of carpark. It is possible that less than 30% of the marina will be visible from this location and the views obtained are not expected to be dramatically different to existing views, with the most substantial differences being an increase in density and number of marine vessels closer to the harbour and the appearance of the walkways between the berths.
- 4 Lions' Lookout: Views towards parts of the proposed marina development from existing lookout. It is possible that less than 50% of the marina will be visible from this location due to the location of existing vegetation. The views obtained of the proposal from this location are expected to be different to existing views, in that there is expected to be an increase in the density of marine vessels closer to shore.
- 3 Shute Harbour Road (adjacent and through site): Existing character comprises views into bushland to the north and filtered views across water to the south. The proposal will preserve bushland views to the north; however, existing water views and glimpses to the south (through existing vegetation), will be replaced by glimpses to new built form (through proposed shrub and amenity tree planting).
- 2 Existing Hotel: Existing water views from the hotel are expected to be reduced and supplemented with increased views to moored vessels. However, views to open water (greater than 300m away from the hotel) and local forested hills are expected to be only partially obscured by marine vessels and proposed moorings (masts, rigging and pylons).
- 1 Existing House: Existing water views (180°+) are expected to be reduced by the proposal (~100°). However, substantial rehabilitation to be carried out on the constructed peninsula and to the north and west of proposed built form should ensure the views to new built form are limited to filtered views through proposed plantings.

Aerial photography supplied by the State of Queensland, Department of Natural Resources, 2004.



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2.1.1 Landscape Character to the West

To the west of the site extends Shute Harbour Road, the only road access into Shute Harbour.

Travelling east towards the subject site along this road, the surrounding character is, at times, natural to semi-natural; a winding mountain road flanked by emergent vine forest.

Nearing the subject site, glimpses of Whitsunday Passage and parts of Rooper Inlet, become available about 3 km to the west of the site, but due to roadside vegetation, Shute Bay and Shute Harbour are relatively concealed from view until the subject site is reached (Refer to **Digital Image 2**, below).

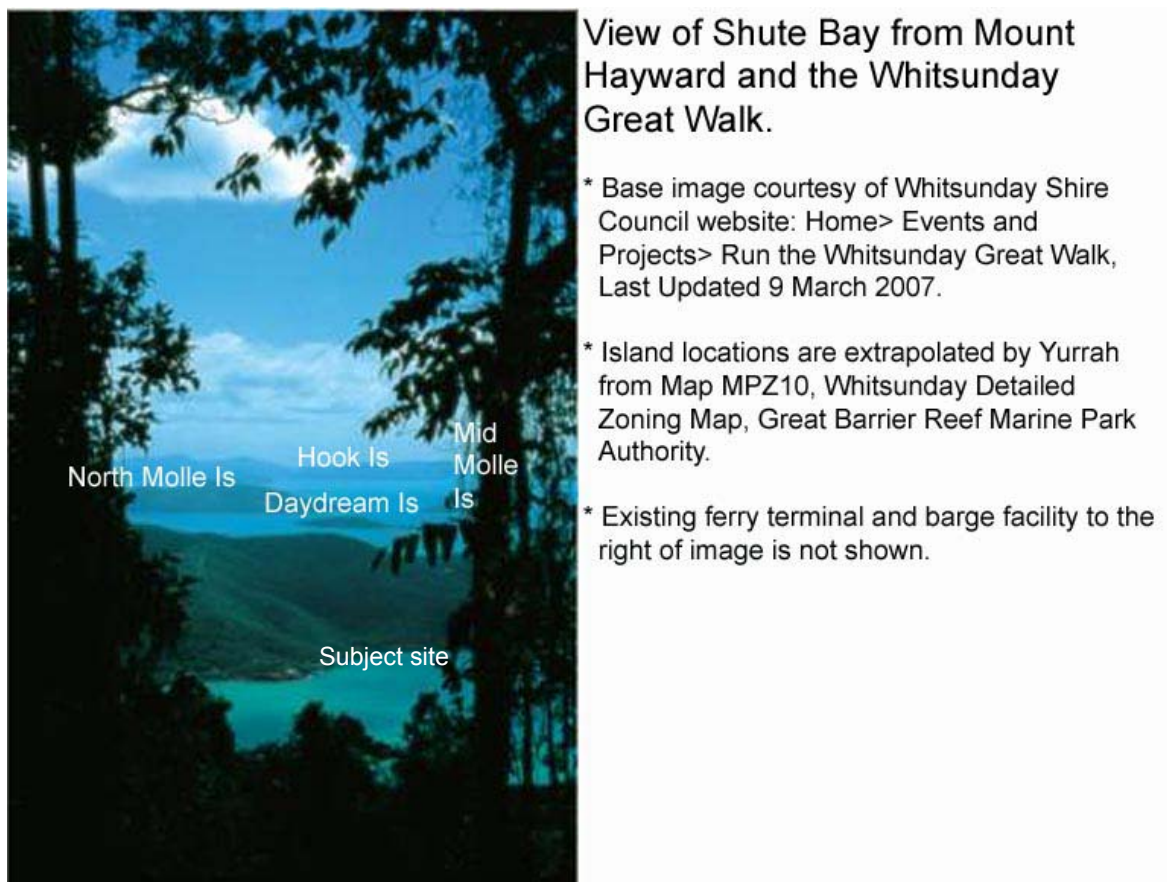


Digital Image 2 First unobstructed open water view of Shute Bay from Shute Harbour Road, also looking east across the subject site towards existing Shute Harbour Ferry Terminal and Barge Jetty (Refer also **Digital Image 9**).

Traversing nearby walks and trails, such as Hayward Gully Circuit, the natural character values of the area are evident; however, the subject site is not visible from any part of the Hayward Gully Circuit or adjoining walks due to dense stands of mangrove and other coastal vegetation. The Whitsunday Great Walk, a 28km walking trail from Brandy Creek to Airlie Beach, is generally characterised by a mix of natural and semi-natural values.

The start of the main track at Brandy Creek is essentially an old gravel logging road, exhibiting an open and semi-natural character, until it descends into the more enclosed and natural character of emergent vine forest and rainforest.

About half way through the walk, the track narrows as it begins the climb to the top of Mount Hayward. From the summit, clear north-easterly views can be obtained of the subject site, existing Shute Harbour Ferry Terminal (including carpark and barge jetty) and beyond. The character of views towards the site may vary from natural and semi-natural to a mix of semi natural and tourism-oriented values depending on the precise viewer location and whether the existing terminals and associated uses are visible (refer **Digital Image 3**, below for a typically ‘natural’ character view wherein the existing Shute Harbour Ferry Terminal and Barge Jetty are concealed by foreground vegetation. Refer **Figure 1** for viewer location and **Figure 3** for character analysis).



Digital Image 3 View of Shute Bay and subject site from Mount Hayward. Existing Ferry Terminal and Barge Jetty are not visible to left of image.

Other nearby walks, such as the Mount Rooper and Swamp Bay Circuits, are discussed in *Section 2.1.2: Landscape Character to the North*.

As viewed from the waters of Shute Bay, the natural to semi natural landscape character of the subject site is derived from the open waters of Rooper Inlet and the vegetated slopes of Conway National Park and nearby islands. However, the naturalness is diminished, to some degree, by the existing salvage operations, residence, motel, ferry terminal, barge jetty, and the daily contingent of barges and large passenger vessels (Refer **Digital Image 4**).



Digital Image 4 View looking east from Shute Bay towards subject site. Visible built form includes (from left to right): existing salvage operations, residence, motel, barge jetty, and ferry terminal. Two barges and two relatively large passenger vessels are on the right of image. Approximately 30 to 40 smaller motorised and sailing vessels are scattered throughout the centre and right of the image.

Some semi-natural and tourism-oriented character views towards the site may also be obtained from small aircraft as they take off from nearby Whitsunday Airport; however such views are expected to be brief, beneath the observer, and in the local context of the existing ferry terminal and barge jetty.

2.1.2 Landscape Character to the North

Travelling along the Mount Rooper Walk within Conway National Park, views are generally enclosed and the forested landscape exhibits strong natural character values, except at a few locations (Refer **Digital Images 5, 6** and **7**, below) where the views are relatively open and the values range from natural to semi-natural with minor elements of public infrastructure and port industrial.

Public infrastructure may include power stations, public buildings, transmission towers and pylons, treatment plants, sealed public roads, and works vehicle storage. In the instance of **Digital Image 7**, public infrastructure refers specifically to communications towers.



Digital Image 5 View looking south-east from Mount Rooper Walk towards subject site. Subject site extends beyond and to the left of the white building (salvage operations) in centre of image. The visible section of Shute Harbour Road and the existing salvage operations contribute minor elements of port industrial and public infrastructure (road) to the surrounding natural character.



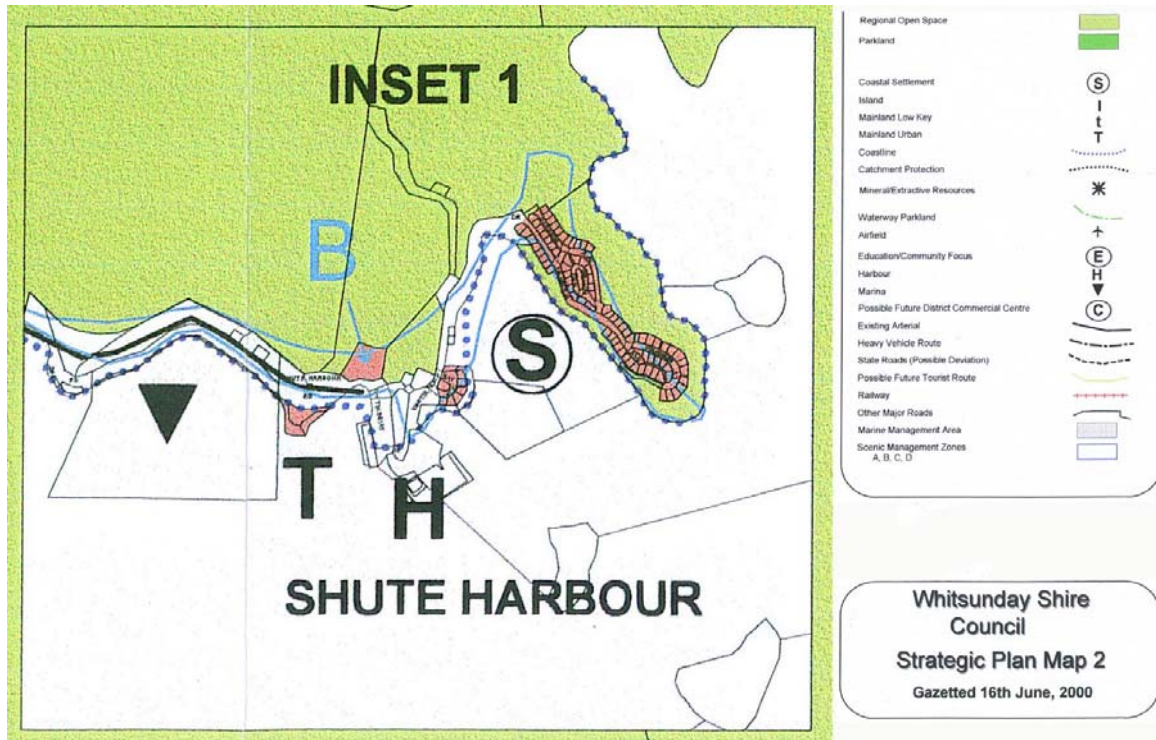
Digital Image 6 View looking south from Mount Rooper Walk towards subject site (centre of image). Subject site is screened from view by the combination of foreground and midground vegetation. Power supply pylons are barely visible on the lower ridge before the subject site and contribute very minor elements of public infrastructure to the surrounding natural character.



Digital Image 7 View looking south-west from Mount Rooper Lookout towards the subject site. Site is not visible due to vegetation and topography. Character values are typically natural with elements of public infrastructure (transmission tower). Image is obtained using 3x optical zoom to clearly compare and contrast the tower's form and character with that of nearby vegetation.

Completing the Mount Rooper walk and travelling south east towards the site by car, a clear view of the subject site is obtained upon rounding a bend in Shute Harbour Road (refer back to **Digital Image 2**, page 16).

Shute Harbour Road then traverses the northern quarter of the site, bisecting an area known within the Whitsunday Strategic Plan as Scenic Management Zone B (Refer to **Extract 1**, below).



Extract 1 Extract from Whitsunday Shire Council Strategic Plan Map 2 (16th June 2000) – Inset 1 only. The subject site is marked by a black triangle (which represents ‘Marina’ within Council’s mapping). Scenic Management Zone B is represented by the light blue outline. This is addressed in relation to the proposal in Section 4 of this report.

The ultimate extent of Scenic Management Zone B, as it occurs within and adjacent the subject site, has been determined by Whitsunday Shire Council and is as indicated above within **Extract 1**. The existing landscape character and visual values of Scenic Management Zone B within the subject site have been determined by *Brouwer, C and Chenoweth, A* within the *Whitsunday Region Trial, Volume 2*. The scenic quality of these areas, as determined by the acknowledged investigation, ranges from Moderate to Very High. Scenic Management Objectives and Strategies for these areas are detailed within **Extract 2**, particularly Scenic Management Objective 3.4.1.2 and Strategy 3.4.2.2.

3.4.1 SCENIC MANAGEMENT OBJECTIVES	3.4.2 STRATEGY	3.4.3 PLANNING & MANAGEMENT																		
<p>3.4.1.1 Ridgelines</p> <ul style="list-style-type: none">• To protect the natural character of all ridgelines in Management Zone B and ensure the exclusion of any development impact	<p>3.4.2.1 Ridgelines</p> <ul style="list-style-type: none">• Exclude all development from ridgelines that:-<ul style="list-style-type: none">- is visible from further than 100m from the development, in either the day or night,- disturbs the visual integrity of the tree canopy.	<p>The following recommendations are particularly applicable to Zone B (see 3.8)</p> <table><tr><td>Identification</td><td>3.8.1.1</td></tr><tr><td>Coastal Management Plan</td><td>3.8.2.1</td></tr><tr><td>Planning Instruments</td><td>3.8.3.2</td></tr><tr><td>Protective Measures</td><td>3.8.4.2</td></tr><tr><td>Protected Area Management</td><td>3.8.5.2</td></tr><tr><td>Development Applications</td><td>3.8.6.1</td></tr><tr><td>Information with Applications</td><td>3.8.7.1 & 3.8.7.2</td></tr><tr><td>Existing Use Rights</td><td>3.8.8.2</td></tr><tr><td>Guidelines</td><td>3.8.9.1 & 3.8.9.2 & 3.8.9.3</td></tr></table>	Identification	3.8.1.1	Coastal Management Plan	3.8.2.1	Planning Instruments	3.8.3.2	Protective Measures	3.8.4.2	Protected Area Management	3.8.5.2	Development Applications	3.8.6.1	Information with Applications	3.8.7.1 & 3.8.7.2	Existing Use Rights	3.8.8.2	Guidelines	3.8.9.1 & 3.8.9.2 & 3.8.9.3
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Existing Use Rights	3.8.8.2																			
Guidelines	3.8.9.1 & 3.8.9.2 & 3.8.9.3																			
<p>3.4.1.2 Shorelines</p> <ul style="list-style-type: none">• To protect the dominance of the natural character of shorelines in Management Zone B by ensuring visual impacts of development are minimal.	<p>3.4.2.2 Shorelines</p> <ul style="list-style-type: none">• Designate a minimum 50 m buffer zone, measured from high water mark, to cover the foreshore and adjacent shoreline vegetation. Development in the buffer zone will be restricted to predominantly pedestrian access.• Protect, in its existing state, 90% of the vegetation behind the foreshore buffer zone.• All developments in the shoreline area of zone B are to be individually assessed in terms of their visual impact. The developments must achieve the visual management objective.																			
<p>3.4.1.3 Hillsides</p> <ul style="list-style-type: none">• To protect the dominance of natural character in hillside areas in Management Zone B by ensuring visual impacts of development are minimal.	<p>3.4.2.3 Hillsides</p> <ul style="list-style-type: none">• Restrict development in the shoreline and hillside areas of Zone B to the following criteria:-<ul style="list-style-type: none">- small scale, one storey buildings,- heights to be restricted below the canopy line,- the view of the elevational width of a building is not to exceed twice its height- small jetties.• Protect in its existing state, 90% of the hillside vegetation.• A comprehensive landscape plan showing existing vegetation, areas of clearing and proposed planting should be submitted with development applications.																			

3.4 MANAGEMENT STRATEGY	ZONE B
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Extract 2 Extract from The Whitsunday Region Trial Visual Landscape Evaluation (*Brouwer, C; Chenoweth, A; 1994: p25*) showing Scenic Management Objective 3.4.1.2 and Strategy 3.4.2.2. Whitsunday Shire Council has dedicated the minimum 50m buffer zone as required under Strategy 3.4.2.2. The buffer is represented as Scenic Management Zone B in **Extract 1**.

Taking a closer look at Scenic Management Zone B, the existing character, as experienced from within, is typically a mix of natural to semi-natural (natural bushland and cultivated / regenerating roadside vegetation), with components of public infrastructure (road, associated signage and power supply) and tourism-oriented (motel) character values.

Refer to **Digital Images 8 to 15** inclusive, for a more detailed discussion on the specific character of Scenic Management Zone B as it relates to the site.



Digital Image 8 View looking south-east towards subject site from Shute Harbour Road. Existing residence contributes a component of residential character to the existing semi-natural character values. The subject site is not readily visible from this location due to topography and vegetation.



Digital Image 9 View east across, and from within, the subject site. Existing Shute Harbour Ferry Terminal and Barge Jetty are not shown, to the right of image. Refer Digital Images 1 and 2 for context. Character is a mix of natural, semi-natural, public infrastructure (road), port industrial (barge jetty) and tourism-oriented (ferry terminal and vessels). Open water views are available* for 100 to 150m (6 to 9 seconds at 60km per hour) along this section of Shute Harbour Road.

It is important to note that the open water views obtained from the above vantage point are made possible by apparent ongoing slashing activities along the road verge. On the basis of visible native seedlings within the verge and nearby coastal forest, it is reasonable to suggest that, were such activities ceased or reduced, the above open water views may be partially screened or filtered by regrowth within a few years. Notwithstanding vegetation, such views could be screened or obscured at any time by vehicles parked on the verge (Refer **Digital Image 14).*



Digital Image 10 View north-east across Shute Harbour Road towards northern vegetated strip of subject site: A clear boundary exists along the northern side of Shute Harbour Road between natural character values and public infrastructure.



Digital Image 11 View looking north-west into regrowth and introduced vegetation within subject site along Shute Harbour Road. Boundary between semi-natural values and public infrastructure is not as clearly defined along the southern side of Shute Harbour Road as it is to the north. An electricity supply pylon can be seen in the top right of image.



Digital Image 12 View looking west from Shute Harbour Road within subject site. Gap in vegetation is approximately 10-20m wide at this location (0.6 to 1.2 seconds by car). The character of views to the south is generally one of semi-natural values (vegetation with fleeting glimpses of open water / small boats).



Digital Image 13 View looking west from Shute Harbour Road towards the existing motel and subject site beyond. When viewed in the context of the bushland to the right of the image, the character is a mix of natural, semi-natural and tourism-oriented values with components of public infrastructure.



Digital Image 14 View looking south-west along Shute Harbour Road towards existing motel and subject site beyond. Existing character is a mix of semi-natural and tourism-oriented values.



Digital Image 15 View looking south towards eastern extent of subject site. Character is a mix of Natural (Mangroves and open water), semi-natural (open stormwater channel and roadside vegetation) and tourism-oriented values (generally small private vessels and fewer large vessels / barges). The multi-level car park, situated behind the observer, is not shown.

2.1.3 Landscape Character to the East

Travelling further to the east towards the existing ferry terminal at the eastern end of Shute Harbour Road, the port industrial character of the barge jetty and associated storage areas / dock become clear (Refer to **Digital Images 16** and **17**, below).



Digital Image 16 View looking west across barge jetty towards existing motel (right) and subject site (centre to left of image). The port industrial character values in the foreground tend to dominate the view, with tourism-oriented values (motel and boats) in the midground, and a backdrop comprising natural values.



Digital Image 17 View looking north-west from public boat ramp and across barge jetty towards subject site (centre to left of image). As with Digital Image 16, the port industrial character values in the foreground are dominant, with tourism-oriented values less visible, and a backdrop comprising natural values.

Upon arrival at the existing ferry terminal, the port-industrial character is less obvious and the tourism-oriented character values begin to dominate views. Natural values are almost always present in the background (Refer to **Digital Images 18** and **19** below).



Digital Image 18 View looking north-west towards subject site from southern-most point of ferry terminal jetties. With the exception of the barge (right), the port-industrial character is limited, whereas the tourism-oriented values are strong and recreational fishing and boating activities become more obvious from this location.



Digital Image 19 View looking west towards subject site from eastern-most point of ferry terminal and private jetties. Tourism-oriented character dominates due to the large passenger vessels, and large number of smaller private vessels using the area. Recreational fishing activities, and the terminal with associated facilities also contribute to the strong tourism-oriented character. Natural values are present in the background but tend to be less obvious from this location.

Exiting the ferry terminal and continuing a short way east along Whitsunday Drive, the next available opportunity for reviewing the character of the local area at a glance is Lion's Lookout (Refer **Digital Image 20**, below). The view from this vantage point takes in the existing ferry terminal and barge jetty in addition to a portion of the subject site where it extends into the bay.



Digital Image 20 View looking west towards subject site from Lion's Lookout, off Whitsunday Drive. A portion of the subject site is visible in the left of image (encompassing the small group of vessels). The balance of the site to the right of the boats is not visible due to foreground vegetation (centre to right of image). The existing ferry terminal and expansive car park, to the left of image, are not shown, but contribute a strong tourism-oriented character to the surrounding natural and semi-natural values.

Further to the east, along Harbour Avenue, travelling towards Passage Avenue and Neerim Crescent, the character returns to natural: a narrow winding road bounded by eucalypt woodland and coastal forest. The first views back towards the subject site, above the woodland and forest, are available from the elevated areas of Neerim Crescent (Refer **Digital Image 21**).

The character of views from this area varies from almost semi-natural (where the foreground vegetation screens nearby dwellings and obscures the ferry terminal, such that the views comprise predominantly natural or natural-looking elements – includes views obtained from the roadway and verge of Neerim Crescent), to a unique mix of bushland residential character, complemented by tourism-oriented character (ferry terminal and many small vessels), against a natural backdrop (Shute Bay and Conway National Park), such as views expected to be obtained from some private residences.



Digital Image 21 View looking south-west towards subject site from verge of Neerim Crescent, across vacant allotment. Subject site is screened from view by foreground vegetation (centre and right). Image illustrates the almost semi-natural character of views from this location, whereby the ferry terminal (centre of image) and existing dwellings (right) are predominantly screened from view by foreground vegetation. It would be reasonable to expect that, were a dwelling erected on the above vacant land, views may be available to a larger portion of the subject site; however, the views would also tend to encompass the existing ferry terminal, barge jetty and large number of vessels, and thus be more tourism-oriented in character (Refer to **Digital Image 22**, below).

South-east of Neerim Crescent, the areas of Coral Point offer sweeping views of Shute Bay, Conway National Park and nearby islands (Refer **Digital Image 22**, below). Tourism-oriented values (existing ferry terminal and large numbers of vessels) are strong and tend to mix with the semi-natural and natural values in the fore, mid and background. It is expected that similar character views may be afforded residents of Neerim Crescent as indicated in **Digital Image 21**, above.



Digital Image 22 View looking west towards the subject site from the highest balcony of Coral Point Lodge, Harbour Avenue. Existing ferry terminal is visible (centre-right of image). The subject site is behind and to the right of the ferry terminal and vegetated ridge. The actual extent of the subject site is not clearly discernable from this location.

2.1.4 Landscape Character to the South

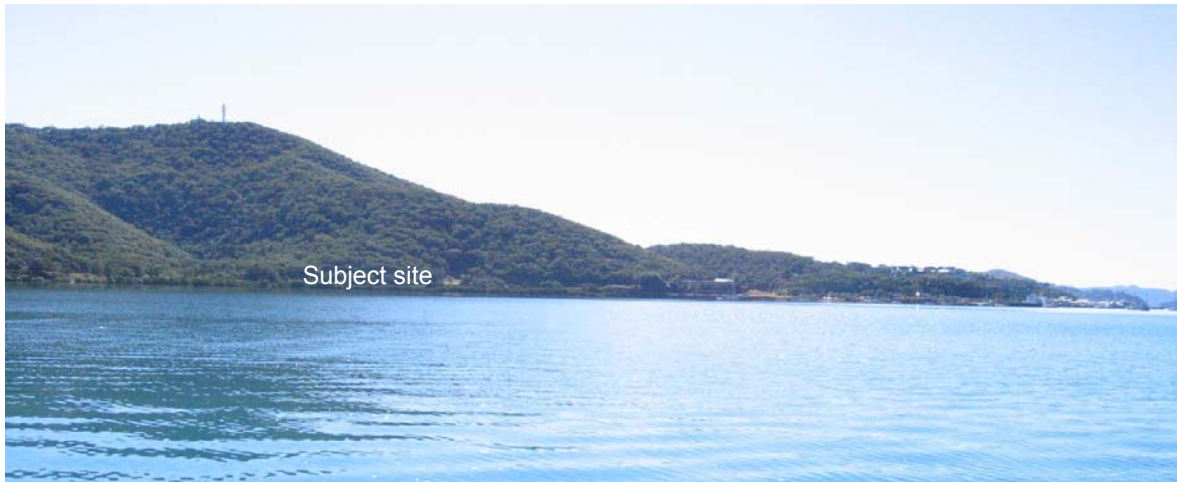
Returning to the ferry terminal and departing for Shute Bay via a small charter vessel, it becomes obvious that the landscape elements which contribute tourism-oriented character values generally sit low within the landscape, as compared with the more semi-natural and natural elements, which occur at a greater elevation and tend to dominate the skyline (with the exception of a small number of power supply pylons and a communications tower on Mount Rooper, which penetrate the skyline to the north of the site). Refer **Digital Images 23 to 27**.



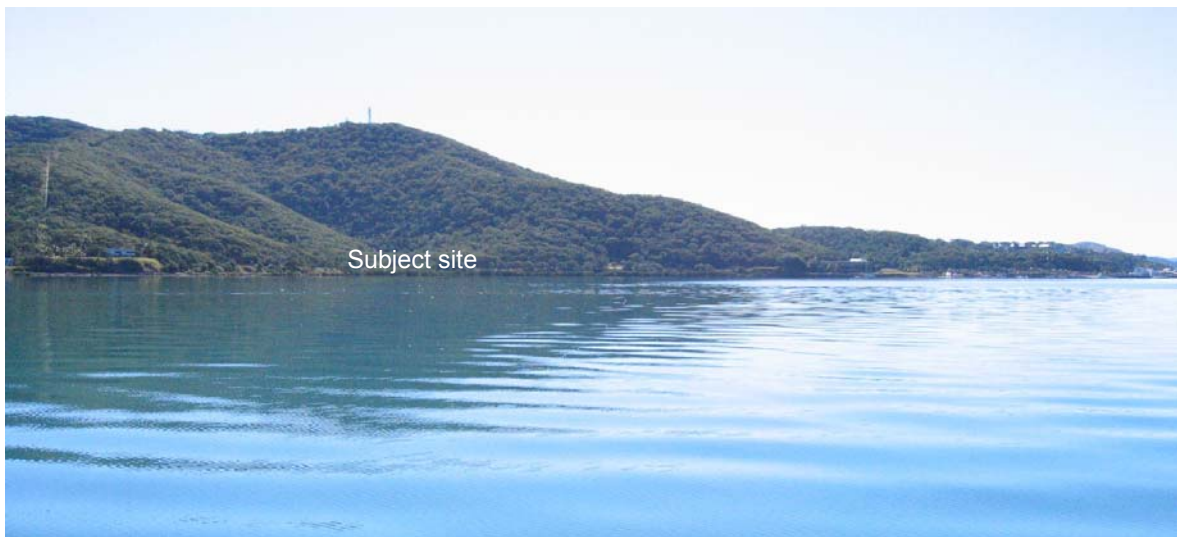
Digital Image 23 View looking north-west towards existing motel (centre) and subject site (left) from Shute Bay. Tourism-oriented values (motel and private vessels) remain low within the landscape and allow the natural values to dominate the skyline.



Digital Image 24 View looking north-east towards existing ferry terminal and barge jetty (centre), and existing motel, residence and salvage operations (left) from Shute Bay. The subject site extends from the centre of the image to the left. The skyline is generally dominated by natural values, with the exception of Coral Point ridge (above the barge jetty in the centre left of image), where the rooflines of at least four houses dominate the ridge.



Digital Image 25 View looking north-east from Shute Bay towards subject site (from centre to left of image). Tourism-oriented values are generally low-lying and natural values generally dominate the skyline. Communications tower on Mount Rooper is visible on the left of image and the houses along Coral Point ridge can be seen on the right of image.



Digital Image 26 Similar view to Digital Image 25, above, taking in the entire subject site and clearly indicating the location of the existing residence (left), power easement, pylons and communications tower along the ridgelines of Mount Rooper.



Digital Image 27 View looking north towards existing residence from within subject site. Note the cultivated landscape surrounding the existing residence and the power supply pylons along the ridgeline, which contribute more rural and semi-natural values to the natural character of Mount Rooper.

From the above discussion, it is clear that the subject site lies in a transition zone between the natural areas of Conway National Park to the west and the more developed areas of Coral Point to the east (Refer to **Extract 1**, page 21).

A similar transition exists from North to south, with the natural areas of Conway National Park and Mount Rooper giving way to more tourism and transport-based land use within the bay.

This character, as it relates to the proposal for the subject site, is discussed in greater detail within **Section 4.1**.

2.2 Existing Visual Values

As discussed in **Section 1.1**, the topography of the subject site comprises two major components: an area of coastline which is framed by two ridgelines to the north-east and north-west, and steep vegetated slopes directly to the north, plus; an adjoining area of sea bed which is located within the waters of Shute Bay (Refer to **Digital Image 1**, page 6).

The ridgelines to the north of the site, coupled with minor ridges further to the east and west (refer **Figure 1**, page 5, for aerial photography), create a number of catchments within the broader subject site visual catchment (refer **Figure 2**, page 8 for visual catchment extents), whereby only parts of the site are visible from most land-based viewer locations. The site is relatively low-lying but is expected to be visible from the open waters of Rooper Inlet and parts of Whitsunday Passage.

Prominent areas surrounding the site, from which views into the site may be obtained, include nearby roads and transport corridors (Shute Harbour Road), residential allotments along Coral Point ridge, individual residential dwellings adjoining Shute Bay, public and private facilities within Shute Bay (including ferry terminal, boat ramps and jetties), the open waters of Shute Bay and Rooper Inlet, and public tracks and trails such as those within Conway National Park and Conway State Forest. The subject site, therefore, has the potential to be visually prominent from a number of locations.

Searches were made along local and regional transport corridors, tracks and trails, and areas of open water, and a number of regional vantage points were obtained, some of which offered clear views to the subject site. Refer to **Figure 1**, page 5, for viewer locations. **Figure 2**, on page 8, illustrates the possible extent of subject site visual catchment.

The following views of the subject site range from clear, or filtered (through vegetation or between built form), to limited or no views.

2.2.1 Views from the West

The following views of the subject site are available from transport corridors, walking tracks and trails and areas of open water to the west of the subject site.

- Clear views across the open waters of the subject site from section of Shute Harbour Road within the site (Refer **Digital Image 1** on page 6).
- Clear to filtered views to most of the subject site (land and water) from Mount Hayward and the Whitsunday Great Walk, approximately 3km to the south-west of the site (Refer **Digital Image 3**, page 17).
- Clear views across open water to the southern (marine) parts of the site from Shute Bay, within 1km of the site. Existing topography, built form and vegetation limit views into the northern (terrestrial) parts of the site. Refer **Digital Image 4**, page 18.

2.2.2 Views from the North

The following views of the subject site are available from transport corridors, walking tracks and trails to the north of the subject site.

- Clear to filtered views to part of the southern (marine) area of site from Mount Rooper Walk, less than 1km away within Conway National Park (Refer **Digital Image 5**, page 19).
- Significantly filtered views to parts of the site from 50 to 100m west of the site on Shute Harbour Road (Refer **Digital Image 8**, page 23).
- Clear views to site vegetation and clear to filtered views to open water from Shute Harbour Road within the site (Refer **Digital Images 9 to 12** inclusive, pages 23 to 25).
- Limited to no views of the site due to built form and topography, or partially obscured views of the site, due to vegetation, from parts of Shute Harbour Road to the north-east (Refer **Digital Images 13 to 15** inclusive, pages 25 and 26).
- Clear views of the subject site are also expected to be available from the existing residence to the north-west and existing motel to the north-east, but no photographs have been obtained from either of these private properties.

2.2.3 Views from the East

The following views of the subject site are available from transport corridors, public and private jetties and boat ramps, lookouts, local roads and private properties to the east of the subject site.

- Clear to filtered views of southern (marine) part of site and limited views of northern part of site from barge jetty and western jetty of ferry terminal (Refer **Digital Images 16 to 18** inclusive, pages 27 to 28).
- Limited to no views of the site, due to interceding vessels and terminal buildings, from the eastern side of the existing ferry terminal (Refer **Digital Image 19**, page 28).
- Clear to filtered views of southern (marine) part of site and limited to no views of northern part of site from Lion's Lookout to the east (Refer **Digital Image 20**, page 29).
- Significantly filtered views of southern parts of the site and limited to no views of northern parts of site from local roads (Neerim Crescent) and accommodation / residential areas (Coral Point). Refer **Digital Images 21 and 22**, page 30).

2.2.4 Views from the South

The following views of the subject site are available from areas of open water to the south of the subject site.

- Clear views of the subject site from most areas of open water to the south of the site (Refer **Digital Images 23 to 27** inclusive, pages 31 to 33).

In summary, visibility of the subject site from the above viewer locations ranges from high (as viewed from the open waters of Shute Bay, adjacent areas of Shute Harbour Road and the nearby residence and motel) to moderate (as viewed from local and regional walking tracks and the existing ferry terminal), and low (areas north-east of the ferry terminal, including Coral Point). Visibility of subject site during construction is addressed in **Section 3.2**, and visibility of proposed built form is addressed in **Section 4.2**.

3.0 POTENTIAL IMPACTS DURING CONSTRUCTION

Construction of the proposal will involve clearing of mangrove vegetation, dredging of the marina basin to a depth of -5.2m AHD using a cutter suction dredge, dredging of the access channel into the proposed marina, construction of a stormwater diversion channel, reclaiming tidal land, installation of a solid breakwater, roadworks for new and upgraded roads, carpark and building construction and substantial landscaped open space. There is also expected to be ongoing building construction associated with mixed land uses, and ongoing maintenance dredging and the marina and access channel as required. In this sense, construction activities are likely to impact upon the local landscape character and visual amenity.

3.1 Scenic Attributes - The Landscape Character of Construction

As discussed in Section 2.1, natural and semi-natural landscape character values are dominant to the north and west of the site. It is important that views of the site from these areas maintain some of those natural and semi-natural values, particularly during construction. One way of achieving this may involve early planting works to parts of the reclaimed isthmus in the west of the site and installation of earth mounds during early construction works along the southern side of Shute Harbour Road (within the subject site and in areas set aside for future landscaping). These mounds need not be particularly broad or high and can be planted out with fast-growing local plant species. Temporary or permanent screen fences may be erected along the mounds where necessary to ensure efficient visual screening during plant establishment.

Such screening works are expected to limit open water views (such as are available in **Digital Image 9**, page 23), but such views are not guaranteed and may be screened in future by regrowth vegetation or, indeed, at any time by vehicles parked within the verge.

An indication of what character values might be experienced from Shute Harbour Road and similar areas to the north and west, if no visual screening is employed, is included below as **Digital Image E1**. Please note that all digital images beginning with the reference letter ‘E’ have been obtained from areas external to the subject site visual catchment and are therefore not represented in **Figure 1**.



Digital Image E1 View from Shute Harbour Road looking north across the Port of Airlie Marina development at nearby Muddy Bay (during construction, late July 2007). Note that construction elements generally sit relatively low within the landscape (Refer **Digital Image E3**). For the subject site, early installation of a landscaped screening mound between the road and construction areas should ensure that views from Shute Harbour Road towards elements of construction within the site are limited and that views to a green buffer with possible glimpses of vegetated hill slopes of Conway National Park to the south of the site (similar to the view shown above) are available.

Forested areas within the site to the north of Shute Harbour Road are expected to be retained by the proposal, protecting the natural character values of the site as perceived from walking trails further to the north.

Construction within the site, as viewed from the Whitsunday Great Walk to the south west (Refer **Digital Image 3**, page 17) would not be easily concealed; however the character of construction and general appearance of construction machinery (including cutter suction dredge) is expected to take on some of the existing character of the barge jetty and associated facilities (Refer **Digital Image 16**, page 27). Notwithstanding this, the Whitsunday Great Walk is approximately 3km from the subject site and the skyline and distant views obtained from this vantage point are not likely to be reduced by the proposal.

From areas of Shute Bay to the south of the site, natural values appear to dominate the skyline above the site, whereas values closely related to development tend to sit lower within the landscape (Refer **Digital Image 23**, page 31). Accordingly, any temporary or permanent breakwater structures, sitting at and above the waterline, are expected to maintain the dominant natural character values along the skyline (Refer **Digital Image E2** for example).



Digital Image E2 View from Shute Harbour Road looking north-east across the Port of Airlie Marina development. Note that the temporary breakwater sits relatively low within the landscape and allows the natural character of the forested hill slopes to dominate. A similar outcome is expected for the subject site during construction, as viewed from the south.

Construction activities on the subject site, as viewed from the ferry terminal immediately to the east, are expected to be generally in-keeping with the existing port-industrial values of the barge jetty and loading dock (Refer **Digital Image 16**, page 27).

Elements of construction may be perceived from areas of Coral Point, further to the east, but clear views of these elements are expected to be a limited commodity and only obtained in the context of the existing car park, ferry terminal and barge jetty (Refer **Digital Image 22**, page 30).

Further to the above discussion, it is possible, from time to time, that some construction elements will project above the skyline. In the case of cranes and other lifting devices (Refer **Digital Image E3**), these are expected to be consistent with the character of existing transmission towers and power supply pylons as seen within **Digital Images 7, 26 and 27**.



Digital Image E3 View from Shute Harbour Road looking north-west across the Port of Airlie Marina development. Note that some construction elements (cranes and other lifting devices) may project above the skyline at times. Further to the cranes' likely association with construction (that is, visual impacts of a temporary nature), these devices are also expected to be generally consistent with the character of existing transmission towers and power supply pylons adjacent the. Such construction devices are therefore expected to complement the existing port-industrial character of the barge jetty as evident in **Digital Image 16**, page 27.

3.2 Visual Values relating to Construction

As discussed in Section 2.2 and 3.1, the site (and therefore construction of the proposal) is expected to be visible from a number of locations.

Due to typical large-scale construction methods, it is possible that tall temporary structures such as cranes will, at one time or another, be visible from viewer locations not identified herein (or become visible from viewer locations which otherwise yield only limited views of the site, such as Coral Point).

Such temporary structures are unlikely to be visible from outside of the subject site visual catchment as illustrated in **Figure 2**, page 8.

3.3 Temporary Lighting of Construction Site

Further to the above discussions regarding diurnal visual values of construction, it is important to evaluate visual impacts of the proposed construction by night.

Works carried out at night, if any, are likely to involve road upgrade works along Shute Harbour Road (in order to limit traffic impacts during peak times) and require temporary lighting for the purpose of construction. The most significantly impacted areas from these works are expected to be the existing motel and existing residence, adjoining the north-eastern and north-western boundaries of the site.

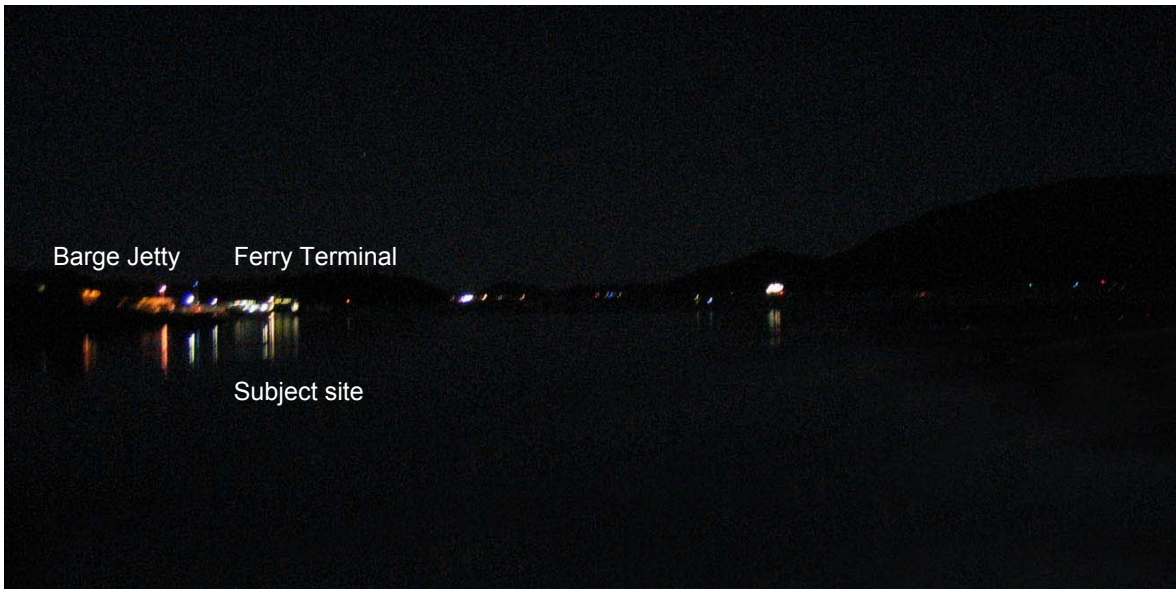
Other lighting may include security lighting for site offices (where required), construction sheds and plant (machine) storage. The nature of this lighting may be similar to that of the existing barge jetty (Refer **Digital Images N1** and **N2**), and comprise pole lighting and / or flood lights attached to buildings. However, it is possible that there will be no lighting at all, or that some or all of this lighting will be sensor-activated and therefore, not be casting light throughout the entire evening.

The existing construction at nearby Port of Airlie Marina, did not appear to have operating security lighting during the above investigations; however, it is possible that sensor-lighting and/or security systems and private security consultants are employed during site works.

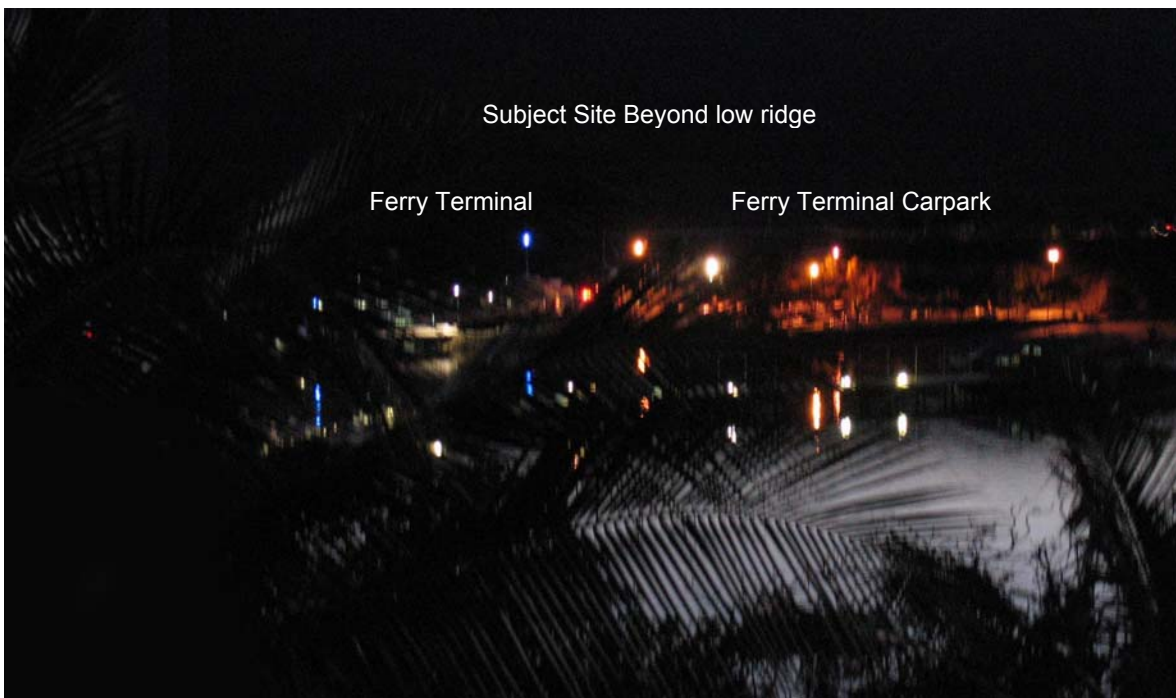
Vegetative screening and temporary fencing, as detailed in section 3.1 should assist in reducing the visual impact of most types of site construction lighting as viewed from areas to the west and immediate north (along Shute Harbour Road)

From areas of Coral Point to the east, the site is not expected to be readily visible; however, light from site or road construction may be visible at times, as it reflects off nearby forested areas or built structures.

Please note that all digital images beginning with the reference letter 'N' have been obtained at night. Some images are obtained within the subject site visual catchment (The corresponding digital image locations are listed). Other images are obtained from areas external to the subject site visual catchment and are therefore not represented in **Figure 1**.



Digital Image N1 View from Digital Image Location 1 at night with 3-second shutter delay. Barge Jetty and Ferry Terminal security lighting is clearly visible. Lighting of subject site may be screened from this location by the screening measures discussed in section 3.1.



Digital Image N2 View from Digital Image Location 22 at night with 3-second shutter delay. Ferry Terminal and car park security lighting is clearly visible. Subject site lies beyond the low ridge above Lion's Lookout.

The site specific requirements for construction as discussed in this section include:

- Retention of existing vegetation to the north of Shute Harbour Road;
- Screening fence/mound and early planting works to southern side of Shute Harbour Road;
- Early planting of reclaimed isthmus as areas of spoil are dewatered.

4.0 POTENTIAL IMPACTS DURING OPERATIONS

As discussed in section 1.2, the proposal can be summarised as development of a 669 berth marina, incorporating managed resort accommodation, tourism and commercial land uses. As such, it is likely to have some impact on the existing character and visual amenity of the site as viewed from nearby locations.

The investigations outlined in Sections 2 and 3 have revealed that the natural and semi-natural landscape character values are dominant to the north and west of the site and tourism-oriented values tend to strengthen to the south and east. It is therefore important that the proposal maintains these transitional values.

In response to these concerns, the proposal for the subject site, included herein as **Figure 5**, clearly shows extensive landscaping to the south of Shute Harbour Road (between road and proposed managed resort accommodation), substantial landscaping of the reclaimed isthmus in the west of the site (shown as area 2 on Figure 5) and the retention of existing vegetation to the north of Shute Harbour Road (within Scenic Management Zone B, as referred to within Extracts 1 and 2, pages 21 and 22), which should assist in preserving the natural and semi-natural values to the north and west.

As viewed from the south and east, the proposal is expected to contribute tourism-oriented values to the existing heterogeneous mix of tourism-oriented, port-industrial and semi-natural character values.

The character and visual amenity of the proposal is discussed in greater detail within Sections 4.1 to 4.3 inclusive.

FIGURE 5

 Boundaries of Scenic Management Zone B as per Whitsunday Shire Council Strategic Plan Map 2 (16th June 2000)

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date	amendment	

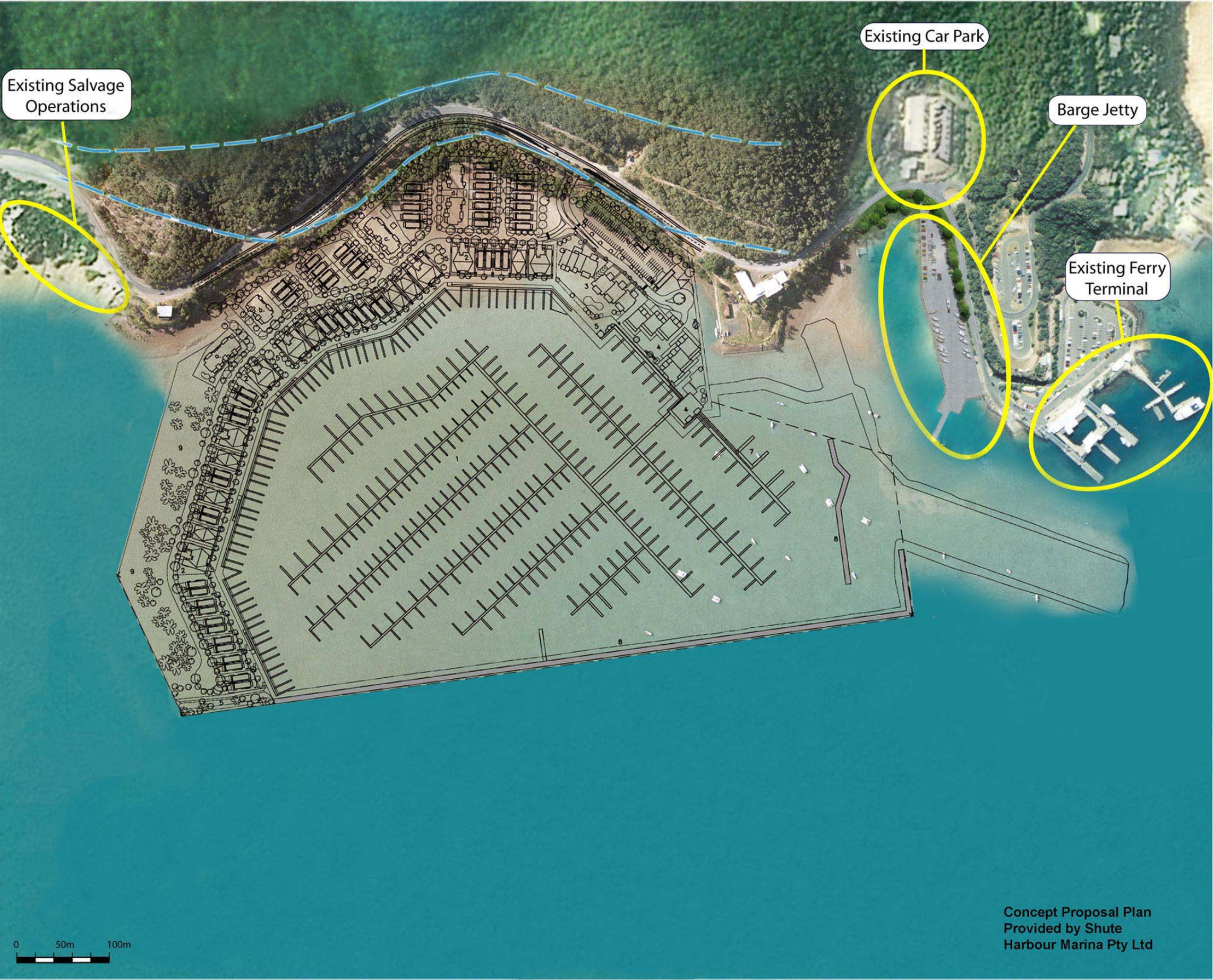


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project		
Shute Harbour Marina		
for		
Port Binnli Shute Harbour P/L		
at		
Shute Harbour Road		
drawing		
Proposed Development		
dwn CG	chk NP	north
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4.1 Scenic Attributes - Landscape Character of the Proposal

A summary of the proposal's impacts on local landscape character is illustrated at **Figures 3** and **4** on pages 14 and 15. Some of these impacts are discussed in greater detail below.

4.1.1 Landscape Character Impacts to the West

- The proposal, as viewed from open water to the west (Area 13 on Figure 3 and Digital Image Location 4 on Figure 1), is expected to be similar in character to existing views, those being views dominated by water and vegetation and containing smaller elements of built form. It will be important to establish the vegetation on the isthmus as early as possible in order to screen the majority of built form within 3 to 5 years.
- Viewed from Area 14 on Figure 3 (Digital Image Location 3 on Figure 1), the proposal is expected to maintain the existing transitional character of the area and maintain distant views and natural skyline. Refer **Plate 1**.



PLATE 1: Distant view (3km) from Digital Image Location 3 showing the subject site with and without development. The increase in developed area is clear; however the increase in vegetation to the west, as it relates to the increase in built form / boat traffic to the east (towards the ferry terminal) is consistent with the transitional character of the site as discussed in Section 2.1. Image of proposal generated by V2i and matched to site by Yurrah.

4.1.2 Landscape Character Impacts to the North

- The proposal, as viewed from walking tracks to the north-west (Area 7 on Figure 3 and Digital Image Location 5 on Figure 1), is expected to be similar in character to existing views, those being natural to semi-natural character views dominated by vegetation and water, with smaller elements of residential and tourism-oriented values (houses and boats). It will be important to establish the vegetation on the isthmus as early as possible in order to screen the majority of built form within 3 to 5 years. Refer **Plates 2a** and **2b**.



PLATE 2A: Subject Site as captured from Digital Image Location 5.



PLATE 2B: Above digital image with proposal extents estimated and superimposed (Impression only).

- Within the site (along Shute Harbour Road – from Digital Image Location 2 and Area 3), the proposal is likely to impact on existing open water, island, and ferry terminal character views (Refer **Plate 3** and **Section 4.2**).
 - This view appears to be the first open water view of Shute Bay from vehicles travelling to Shute Harbour.
 - From this location, views to the motel, barge jetty and ferry terminal are currently obtained at approximately 35 to 45 degrees to the direction of travel (the expected visual range for a driver travelling at 60km/h).
 - More natural character views towards the islands and Conway National Park at 60 to 90 degrees to the direction of travel are obtained initially as peripheral views, prompting the driver to slow.
 - Open water views are available for 100 to 150m (6 to 9 seconds at 60km per hour) along this section of Shute Harbour Road.
 - Such views are made possible by apparent ongoing slashing activities along the road verge and regrowth here could limit these views in future.
 - Vehicle parking on the verge has the potential to limit these views at any time.
 - Regardless of this, the proposal will retain some of the open water views from this section of Shute Harbour Road to Conway National Park and nearby islands.



PLATE 3: View of site Digital Image Location 2. Some open water views will be retained by the proposal.

- From other areas along Shute Harbour Road (such as Digital Image Location 11), the proposal is expected to either retain and enhance existing stands of native vegetation or replace them with similar vegetation, such that views to proposed buildings are screened or filtered by vegetation.

4.1.2 Landscape Character Impacts to the East

The proposal, as viewed from the barge jetty and ferry terminal to the east (Areas 6 and 12, respectively, on Figure 3 and Digital Image Locations 16 and 18 on Figure 1), is expected to be consistent with the existing port-industrial and tourism-oriented character (Refer **Plates 4 and 5**).



PLATE 4: View of subject site from Digital Image Location 16 (above), and with proposal extents estimated and superimposed (below) - Artist's impression shown.





PLATE 5: Panoramic (100 degree) view of subject site from Digital Image Location 18 (above), and with proposal extents estimated and superimposed (below) as artist's impression.



4.1.2 Landscape Character Impacts to the South

- The proposal, as viewed from open water to the south (Areas 9 and 11 on Figure 3 and Digital Image Locations 23 to 26 on Figure 1), is expected to be similar in character to existing views, with an increase in tourism-oriented character due to a proportionate increase in boat use. The natural character of the foreground (open water) and background (vegetated hillsides) will be maintained by the proposed, whereas the masts from increased boat traffic in the mid-ground are expected to screen or soften the lines created by proposed buildings (Refer **Digital Image H1**).



Digital Image H1: Image of existing built form on Hamilton Island. A similar character will be reflected in the proposed dwellings on site as viewed from within the marina. From the south, the visible sides of proposed buildings are expected to be in shadow during most of the day (if not the entire day). The buildings will therefore tend to possess a low reflective value from this location, particularly if utilising neutral or natural and earthy tones as above, and blend with the darker tones of the forested backdrop. The proposal may utilise shallow skillion or arched rooves similar to the above which are typically east, north, and west facing. Gabled rooves or south-facing skillion rooves, if used, are not expected to be a dominant component of the proposal. There is also opportunity to reflect the vertical mast elements of sail boats within the architecture and / or landscape of the proposal.

From the above discussion, it is clear that the existing local character transition from north-west (natural / semi-natural values) to south-east (residential, port-industrial and tourism-oriented) will be maintained by the proposal.

4.2 Visual Values relating to the Proposal

The following views (ranging from clear, to filtered, to limited or no views) are expected to be maintained or enhanced by the proposal for the subject site.

4.2.1 Views from the West

The following views of the proposal will be available from walking tracks and trails and areas of open water to the west of the subject site.

- Clear to filtered views to most of the proposal from Mount Hayward and the Whitsunday Great Walk, approximately 3km to the south-west of the site (Refer **Plate 1**, page 45) will be retained and the local transitional character enhanced.
- Clear views across open water to the proposal and ferry terminal beyond (Refer **Digital Image 4**, page 18) will be enhanced by extensive planting and parklands on the proposed isthmus. Existing topography, built form and vegetation will continue to limit views into the northern parts of the site.

4.2.2 Views from the North

The following views of the proposal will be available from transport corridors, walking tracks and trails to the north of the subject site.

- Clear to filtered views to proposed moorings from Mount Rooper Walk, less than 1km away within Conway National Park (Refer **Plate 2B**, page 46).
- A view across the proposed moorings (open water beyond) from section of Shute Harbour Road within the site will replace existing views to open water and small vessels (Refer **Plate 3** on page 47, and **Sketch 2**, following page).
- Clear views to roadside vegetation from Shute Harbour Road will be retained and enhanced by the proposal: vegetation to the north of the road will be transferred to public ownership; vegetation to the south of the road will be retained and/or enhanced in order to screen built form and enhance local amenity.
- Clear views of the proposal are also expected to be available from the existing residence to the north-west and existing motel to the north-east of the site. These views are explained in greater detail within **Sketch 2**.



Sketch 2: Sketch showing existing and possible future views from those areas likely to be most affected by the proposal (Character areas 1, 2 and 3 as shown on **Figure 4**, page 15). From the existing residence to the north-west of the site (1), the existing open water views to the south-west and west are preserved. Open water views to the south are modified to views of vegetation and a forested backdrop, and views to the existing barge jetty and hotel are to be screened with foreground vegetation, enhancing the natural character of the bay. Distant island views to the south-east are expected to be retained within a broad view corridor. From the existing Motel to the north-east of site (2), existing open water views to the south and south-east are retained. Open water views to the south-west are retained as a view corridor. From Shute Harbour Road to the north (3), some open water views will be retained by the proposal in the form of a broad view corridor.

4.2.3 Views from the East

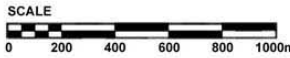
The following views of the proposal will be available from transport corridors, public and private jetties and boat ramps, lookouts, local roads and private properties to the east of the subject site.

- Clear to filtered views of proposed breakwater and moorings and limited tourism-oriented character views of proposed buildings from barge jetty and western jetty of ferry terminal (Refer **Plates 4 and 5**, pages 48 and 49).
- Clear to filtered views of proposed breakwater and moorings and limited to no views of proposed buildings from Lion's Lookout to the east (Refer **Digital Image 20**, page 29).
- Limited views of proposal from further to the east (Neerim Crescent and Coral Point) Refer **Digital Images 21 and 22**, page 30 and **Figures 6, 7 and 8** for detailed analysis.



FIGURE 6

Aerial photography supplied by the
State of Queensland, Department of
of Natural Resources, 2004.



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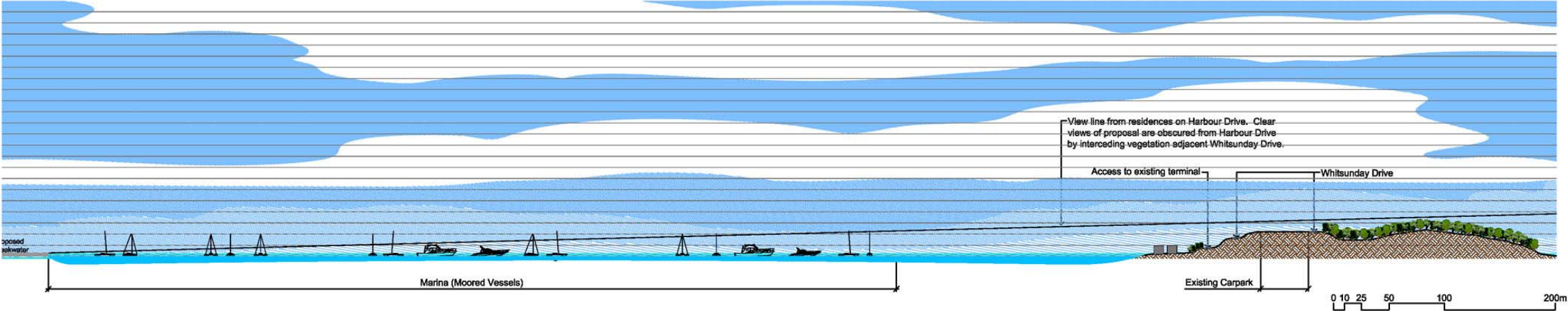
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Shutehaven

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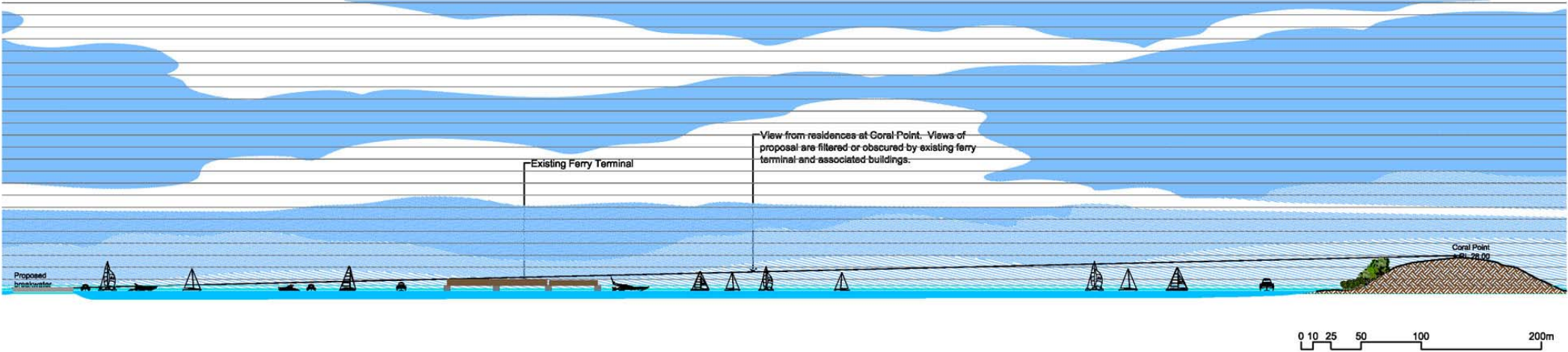
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date dwg #
scale As shown **SK.06**

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FIGURE 7



Section B - Proposal to Harbour Drive
1:2000



Section A - Proposal to Sothern End of Coral Point
1:2000

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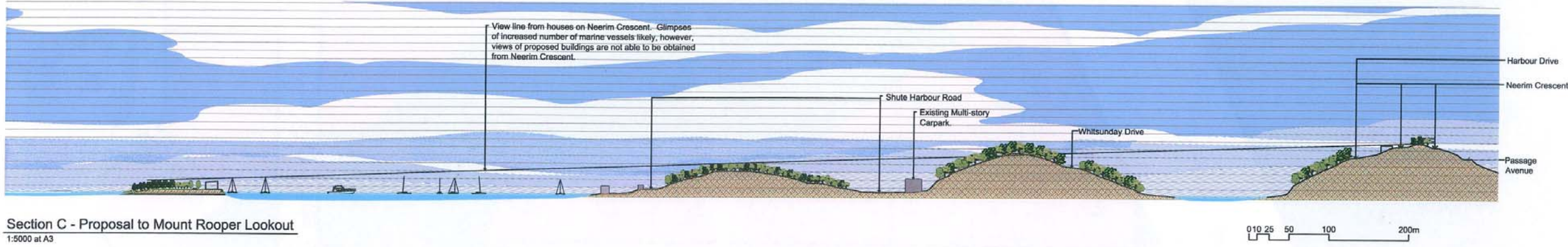
at
Shute Harbour Road
Shutehaven

drawing
Typical Sections

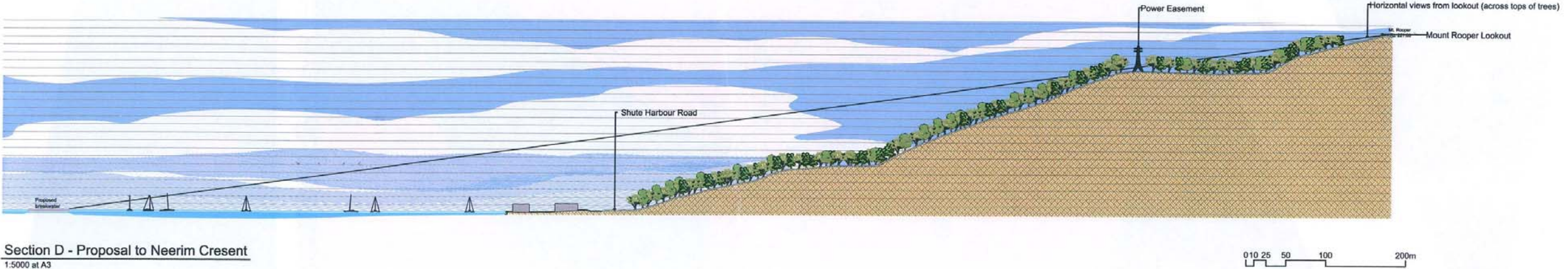
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FIGURE 8



Section C - Proposal to Mount Rooper Lookout
1:5000 at A3



Section D - Proposal to Neerim Crescent
1:5000 at A3

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4.2.4 Views from the South

The following views of the proposal will be available from areas of open water to the south of the subject site.

- Filtered views to shaded facades of proposed buildings, as filtered through masts of sailing vessels, and as seen from most areas of open water to the south of the site (Refer **Sketch 1**, page 50).

Further to the southern building facades being shaded and therefore, of a low reflective value, the highest point of proposed buildings along the waterfront (Areas 3, 6, 7, 8, and 11 on **Figure 5**, page 44) is expected to be either below, at or around that of existing adjacent buildings.

Buildings and car parks set behind waterfront dwellings (Areas 4 and 5 on **Figure 5**) may exceed the heights of existing buildings, but will be partially screened by waterfront dwellings and boat masts and further softened by interceding streetscape and amenity vegetation.

The highest ridge of the existing motel has been surveyed at 17.12m AHD, whereas the proposed 3-storey buildings along the waterfront are not expected to exceed this, and the two proposed 5-storey buildings south-west of the existing motel are expected to be approximately 17.62m tall, and not exceeding 22.125m AHD. These proposed 5 storey buildings will be at least 60m from the existing motel, therefore the height difference will be 0.5 to 5m vertically over a distance of 60m, or less than 5 degrees incline between existing motel and proposed roofline. Such a difference is not expected to be perceived by the naked eye. A gap of some 15-20m width will exist between the two 5-storey buildings in order to ensure a view corridor is maintained to the open waters of Shute Bay and the forested hillsides of Conway National Park as viewed from the existing Motel (**Sketch 2**).

Some buildings will be much lower in elevation than existing buildings, particularly those immediately south-east of the existing adjacent residence and extending along the water's edge of the marina, which will afford views of the marina and islands beyond from east-facing windows of the existing residence.

In summary, visibility of the proposal from most of the above viewer locations by day is generally limited to views which tend to maintain the existing local character and the identified character transitions. Areas 1, 2 and 3, as identified on **Figure 4**, page 15, appear to be the areas whose amenity and character is most likely to be affected by the proposal, and **Sketch 2**, on page 52 attempts to address these. However, it is also important to review the impacts of the proposal by night.

4.3 Lighting and Nocturnal Use

Further to the scenic attributes discussed above, parts of the proposal are also expected to be visible at night. The three major components to be lit are: new and existing roads; proposed buildings, and; the proposed moorings within the marina.

New roads and parts of Shute Harbour Road will be lit for safety and it is understood that lighting will comply with the relevant standards in order to minimise glare and spillover lighting in sensitive areas.

New buildings will include residential dwellings, resort style accommodation, retail uses, and a three-storey carpark. The carpark and resort common areas will require security lighting; however, the carpark lighting is expected to be overhead lighting (including that described above for use on roads), whereas the common areas may be lit with low-impact lighting such as bollard or wall-mounted lighting.

Moorings are also expected to be lit with low-impact lighting in order to minimise the nocturnal impacts on marine and nearby terrestrial ecosystems. The nature and location of such lighting is discussed in greater detail below.

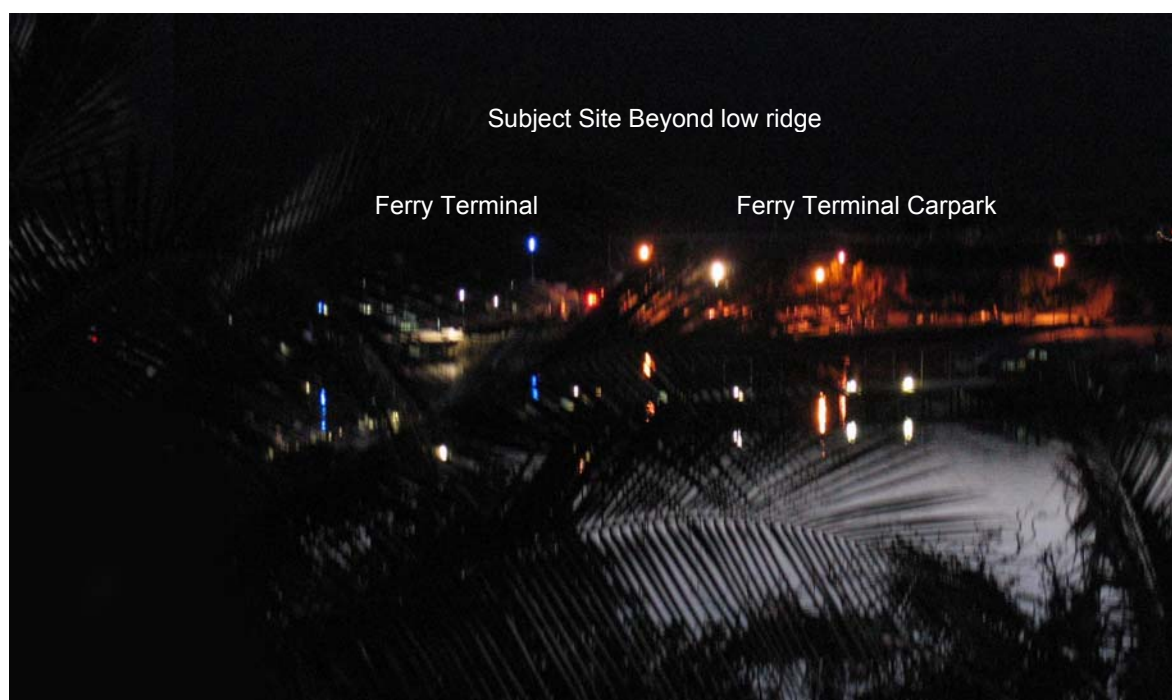
4.3.1 Nocturnal Views from the West and North

As discussed in Section 2.0, land use within the visual catchment to the west and north of the subject site is typically dominated by passive recreation, such as walking trails and lookouts within forest areas. Accordingly, such areas are not expected to be frequented at night. However, if the proposal were to be viewed from any of these areas at night, it would be in the context of the existing barge jetty, carpark and ferry terminal and would, therefore, be expected to maintain and enhance the existing local transitional character. Views from Shute Harbour Road within the site are expected to be predominantly screened by existing and reinstated vegetation but include an open view through to the moorings and buildings on nearby islands.

4.3.2 Nocturnal Views from the East

As viewed from the ferry terminal and barge jetty to the east, parts of the proposal will be clearly visible, but are expected to be in-keeping with the character of the existing ferry terminal buildings and existing motel. Similarly, from passenger vessels returning in the early evening, the proposal is expected to be viewed in the context of the existing ferry terminal, carpark and barge jetty.

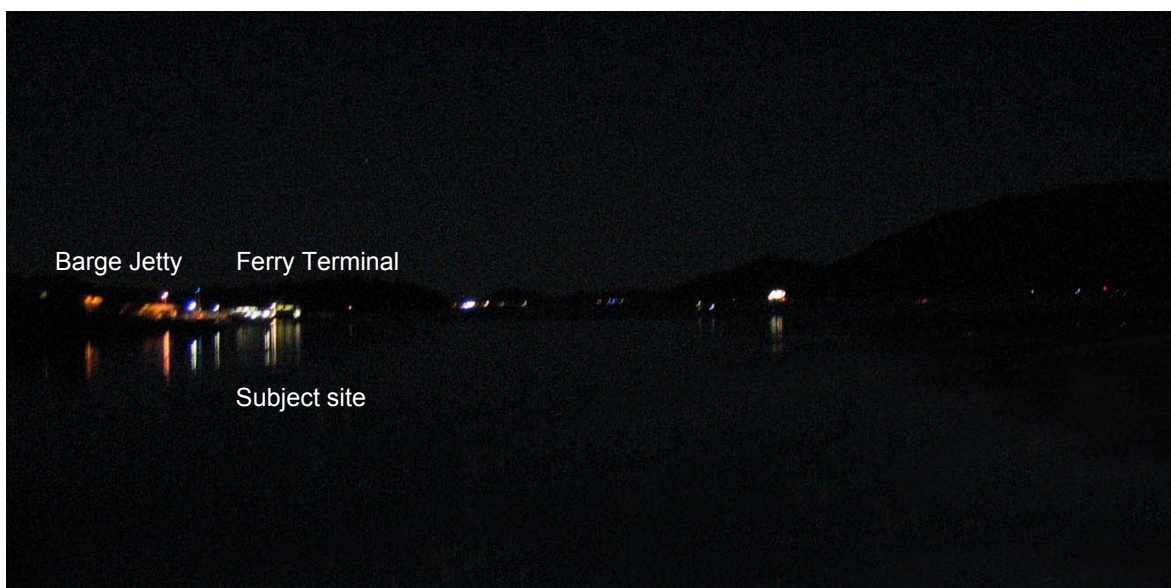
From residences on Coral Point, further to the east, the proposal is not expected to be clearly discernable. Some boats, moorings and residences constructed on the isthmus may be within the line of sight, but these will be viewed across the existing ferry terminal and carpark (Refer **Digital Image N3**) and are expected to maintain the existing local character.



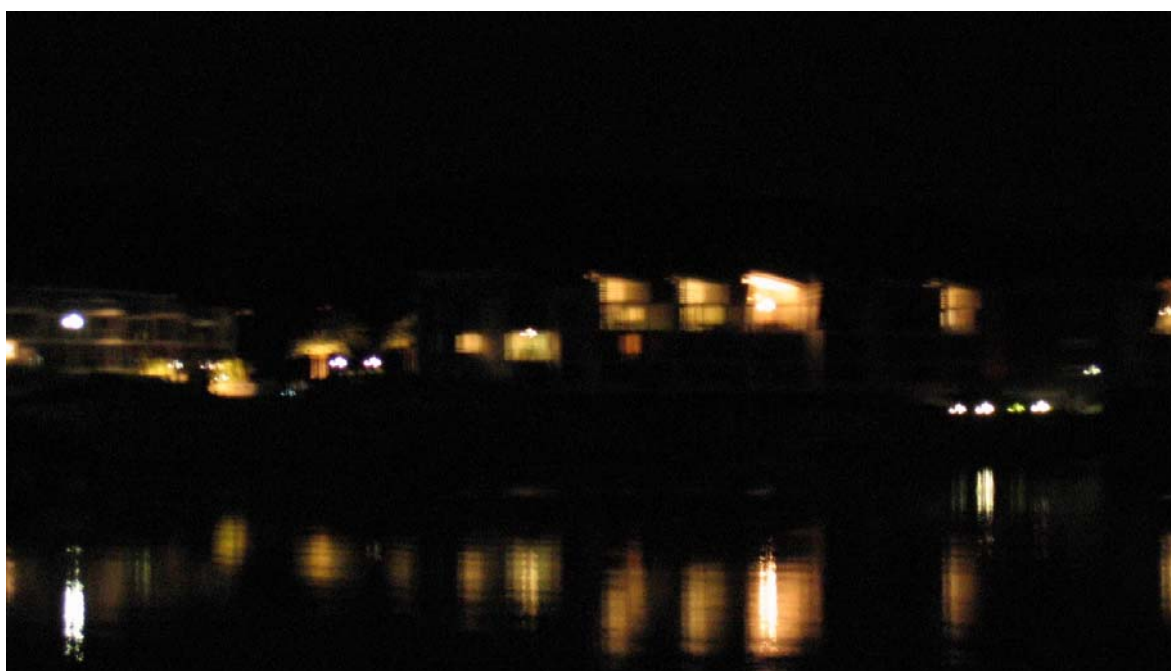
Digital Image N3 View from Digital Image Location 22 at night with 3-second shutter delay. Ferry Terminal and car park security lighting is clearly visible. Subject site lies beyond the low ridge above Lion's Lookout and the proposal is not expected to detract from current night-time views as obtained from the east.

4.3.3 Nocturnal Views from the South

As viewed from Shute Bay to the south, the existing barge jetty and ferry terminal areas are brightly lit (Refer **Digital Image N4**). Parts of the proposal are expected to be visible from this location: The dominant element being buildings as a backdrop to silhouetted boat masts (Refer **Digital Image N5**). Mooring illumination is expected to be low impact (Refer **Digital Image N6**) and, dependant on the ultimate design, may be concealed from open water areas to the south by the proposed breakwater.



Digital Image N4 View from Digital Image Location 1 (across Shute Bay) at night, in order to simulate view from Shute Bay to subject site). Barge Jetty and Ferry Terminal security lighting is clearly visible on the left of image.



Digital Image N5 View across water to illuminated residential balconies at Able Point Marina, Airlie Beach. Image obtained using 3 x optical zoom and 3 second shutter delay. From open water areas to the south of the subject site, such lighting will be in the context of the existing motel and residence, in addition to being partially obscured by boat masts from within the marina.



Digital Image N6 View across water to existing moorings and low-impact bollard lighting at Able Point Marina, Airlie Beach. Image obtained using 3 second shutter delay. From open water areas to the south of the subject site, such lighting will generally be screened from view by the proposed breakwater; however, where such lighting is visible, it is expected to be low-impact and complement the existing nocturnal landscape character.

5.0 SUMMARY OF VISUAL AND LANDSCAPE VALUES

The subject site comprises part of a transitional landscape between the natural areas of Conway National Park to the north and west and the more developed residential and tourism-oriented areas of Coral Point and Shute Harbour to the east and south. Visibility of the subject site, by day and night, is highest from the open waters of Shute Bay, areas of Shute Harbour Road adjacent the site and the immediately adjacent residence and motel.

It is important to note that the open water views currently obtained from sections of Shute Harbour Road are made possible by apparent ongoing slashing activities along the road verge. On the basis of visible native seedlings within the verge and nearby coastal forest, it is reasonable to suggest that, were such activities ceased or reduced, these open water views may be screened or filtered by regrowth within a few years. Notwithstanding vegetation, such views could be screened or obscured at any time by vehicles parked along the verge.

The site specific recommendations which have emerged from these findings include:

- Protection and enhancement of important view corridors from adjacent residence and motel and from section of Shute Harbour Road adjacent site;
- Limiting the height of buildings in the commercial precinct to 22.2m AHD or as required to maintain view corridors;
- Limiting the height of buildings in the managed resort accommodation precinct to 3 storeys or maximum 12m height and utilising the screening benefits afforded by street tree planting and amenity trees where possible;
- Retention of existing vegetation to the north of Shute Harbour Road;
- Screening fence/mound and early planting works to southern side of Shute Harbour Road;
- Early planting of reclaimed isthmus as areas of spoil are dewatered, and;
- The use of locally indigenous plantings in streetscapes and other open space areas affected by the development or requiring active rehabilitation. Species will be selected in consultation with Traditional Owners as indicated in the Cultural Heritage Management Plan for the project. An indicative plant species selection for the site has been provided in **Appendix I** and is subject to refinement during design development and in consultation with Traditional Owners. Ultimate plant stock may also include translocated plant specimens from the site and nearby areas.

The proposal, as described within **Figure 5** and in consideration of the above recommendations, is expected to maintain the existing local transitional character. The proposal is also expected to maintain or enhance the amenity of adjacent land uses via provision of view corridors through the proposal and by screening existing incompatible uses.

The proposal also provides an opportunity to enhance the site's environmental and visual values through monitoring and rehabilitation programs. The visual amenity of the local area would be likewise enhanced through such activities.

Based on the above discussion and recommendations, the proposal as described in **Figure 5** is supported for the subject site.

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<http://www.whitsunday.qld.gov.au/>

7.0 APPENDICES

APPENDIX 1: INDICATIVE PLANTING LISTS

An indicative plant species selection for the site is provided below. Ultimate species selection is subject to detail design and Operational Works Approval and may incorporate a more expansive range of local native and suitable indigenous species:

INDICATIVE SPECIES LIST
LANDSCAPE INTENT
SHUTE HARBOUR MARINA
SHUTE HARBOUR, AIRLIE, QUEENSLAND

ENTRY STATEMENTS

TREES	
<i>Hibiscus tiliaceus</i>	Cottonwood
<i>Pandanus tectorius</i>	Screw pine
SHRUBS	
<i>Crinum pedunculatum</i>	Spider lily
<i>Xanthorrhoea fulva</i>	Grass tree
GROUNDCOVERS	
<i>Myoporum ellipticum</i>	Boobialla

ROADSIDE BUFFERS

TREES	
<i>Elaeocarpus eumundii</i>	Eumundi ash
<i>Hibiscus tiliaceus</i>	Cottonwood
<i>Lophostemon confertus</i>	Brush box
<i>Syzygium australe</i>	Lilly pilly
GROUNDCOVERS	
<i>Dianella caerulea</i>	Flax lily
<i>Lomandra hystrix</i>	Mat rush

GALLERY FOREST ENTRY AVENUE

TREES	
<i>Cupaniopsis anacardioides</i>	Tuckeroo
<i>Elaeocarpus eumundii</i>	Eumundi ash
<i>Lophostemon confertus</i>	Brush box
<i>Melicope elleryana</i>	Pick euodia
PALMS	
<i>Archontophoenix cunninghamiana</i>	Feather palm
GROUNDCOVERS	
<i>Austromyrtus dulcis</i>	Midyim berry
<i>Dianella caerulea</i>	Flax lily
<i>Lomandra hystrix</i>	Mat rush
<i>Myoporum ellipticum</i>	Boobialla
<i>Pennisetum alopecuroides</i>	Foxtail grass
<i>Westringia fruticosa</i>	Coastal rosemary

GENERAL FEATURE PLANTING
TREES

<i>Araucaria cunninghamii</i>	Hoop pine
<i>Archontophoenix cunninghamiana</i>	Feather palm
<i>Callistemon viminalis</i>	Red bottlebrush
<i>Cupaniopsis anacardioides</i>	Tuckeroo
<i>Elaeocarpus eumundii</i>	Eumundi ash
<i>Hibiscus tiliaceus</i>	Cottonwood
<i>Lophostemon confertus</i>	Brush box
<i>Melaleuca quinquenervia</i>	Paperbark
<i>Melicope elleryana</i>	Pick euodia
<i>Pandanus tectorius</i>	Screw pine

SHRUBS

<i>Banksia robur</i>	Wallum banksia
<i>Baeckia frutescens</i>	Baeckia
<i>Crinum pedunculatum</i>	Spider lily
<i>Westringia fruiticosa</i>	Coastal rosemary
<i>Xanthorrhoea fulva</i>	Grass tree
<i>Xanthorrhoea johnsonii</i>	Grass tree

GROUNDCOVERS

<i>Austromyrtus dulcis</i>	Midyim berry
<i>Dianella caerulea</i>	Flax lily
<i>Lomandra hystrix</i>	Mat rush
<i>Lomandra longifolia</i>	Mat rush
<i>Myoporum acuminatum</i>	Boobialla
<i>Myoporum ellipticum</i>	Boobialla
<i>Pennisetum alopecuroides</i>	Foxtail grass

RECLAIMED ISTHMUS
PARK FEATURE PLANTING

<i>Cupaniopsis anacardioides</i>	Tuckeroo
<i>Hibiscus tiliaceus</i>	Cottonwood
<i>Pandanus tectorius</i>	Screw pine

CONSTRUCTED FOREDUNE
TREES

<i>Above Highest Astronomical Tide (HAT)</i>	
<i>Banksia integrifolia</i>	Coastal Banksia
<i>Casuarina equisetifolia</i>	Horsetail she-oak

SHRUBS

<i>Clerodendrum inerme</i>	Native clerodendrum
<i>Vitex trifolia</i>	Vitex

GROUNDCOVERS

<i>Ipomea pes-caprae</i>	Goat’s foot convolvulus
<i>Spinifex sericeus</i>	Spinifex

REINSTATED SALTPAN

<i>Above High Water Springs / below HAT</i>	
<i>Crinum pedunculatum</i>	Spider lily
<i>Sporobolus virginicus</i>	Salt couch

MANGROVE SHRUBLAND
Below Mean High Water Springs
Avicennia marina
Bruguiera gymnorhiza
Excoecaria agallocha
Seaward Edge
Rhizophora stylosa

Grey mangrove
Red-fruited mangrove
Mangrove

Stilted mangrove