

# Central Coast Local Planning Panel

Central Coast  
LOCAL PLANNING PANEL MEETING  
Business Paper  
22 July 2021



# Meeting Notice

**The LOCAL PLANNING PANEL MEETING  
of Central Coast  
will be held Remotely - Online,  
Thursday 22 July 2021 at 2.00 pm,  
for the transaction of the business listed below:**

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<b>4</b>	<b>PLANNING REPORTS - OUTSIDE OF PUBLIC MEETING</b>	
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Donna Rygate  
**Chairperson**



**Item No:** 1.1  
**Title:** Disclosures of Interest  
**Department:** Governance

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22 July 2021 Local Planning Panel Meeting

Reference: F2020/02502 - D14205789

The NSW Local Planning Panel Code of Conduct states that all panel members must sign a declaration of interest in relation to each matter on the agenda before or at the beginning of each meeting.

### **Recommendation**

***That Panel Members now confirm that they have signed a declaration of interest in relation to each matter on the agenda for this meeting and will take any management measures identified.***

**Item No:** 2.1  
**Title:** Confirmation of Minutes of Previous Meeting  
**Department:** Corporate Affairs

22 July 2021 Local Planning Panel Meeting

Reference: F2020/02502 - D14741781

Author: Rachel Callachor, Meeting Support Officer

### **Summary**

*The Minutes of the following Meetings of the Local Planning Panel, which have been endorsed by the Chair of that meeting, are submitted for noting:*

- **Local Planning Panel Meeting held on 24 June 2021**
- **Electronic Determination regarding DA51538/2017 dated 28 June 2021**

### **Recommendation**

***That the minutes of the previous Local Planning Panel Meeting held on 24 June 2021 and the Electronic Determination regarding DA51538/2017 dated 28 June 2021, which had been endorsed by the Chair of those meetings, are submitted for noting.***

### **Attachments**

- |          |   |           |
|----------|---|-----------|
| <b>1</b> | MINUTES - Local Planning Panel - 24 June 2021                         | D14695334 |
| <b>2</b> | MINUTES - Local Planning Panel - Supplementary Meeting - 28 June 2021 | D14714326 |



## Local Planning Panel

### Minutes of the **LOCAL PLANNING PANEL MEETING**

Held remotely - online  
on 24 June 2021

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#### **Panel Members**

Chairperson	Donna Rygate
Panel Experts	Grant Christmas Linda McClure
Community Representative/s	David Kitson

#### **Central Coast Council Staff Attendance**

Andrew Roach	Unit Manager Development Assessment
Emily Goodworth	Section Manager Development Assessment North
Ailsa Prendergast	Section Manager Development Assessment South
Mark Dowdell	Principal Development Assessment Engineer
Robert Eyre	Principal Development Planner Development Assessment South
Janice Wheeler	Senior Development Planner Development Assessment North
Sarah Georgiou	Section Manger Civic Support
Rachel Callachor	Meeting Support Officer Civic Support

The Chairperson, Donna Rygate, declared the meeting open at 2:04pm and advised in accordance with the Code of Meeting Practice that the meeting was being recorded.

The Chair read an acknowledgement of country statement.

#### **Apologies**

***The Panel noted that no apologies had been received.***

#### **1.1 Disclosures of Interest**

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**The Panel noted that no disclosures had been identified and forms had been submitted by members.**

***Unanimous***

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## 2.1 Confirmation of Minutes of Previous Meeting

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***The Minutes of the following Meeting of the Local Planning Panel, which had been endorsed by the Chair of that meeting, were submitted for noting:***

- ***Local Planning Panel Meeting held on 10 June 2021.***

***Moved: Linda McClure  
Unanimous***

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## Public Forum

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The following people addressed the Panel:

### ***Agenda item 3.1***

- 1 Michael Leavey - on behalf of D & P Nicolas Investments Pty Ltd & S & L Nicolas Investments Pty Ltd – for the recommendation
- 2 Doug Sneddon - Doug Sneddon Planning, on behalf of the applicant - against the recommendation
- 3 David Sutton - Slater Architects, on behalf of the applicant – against the recommendation

### ***Agenda item 4.1***

- 1 Chris and Wendy Lewis - against the recommendation.
- 2 Claudio Minns, Development Manager, Blueview and Bill Ryder Director, Blueview - against the recommendation.
- 3 Adam Crampton - Planning Manager, ADW Johnson and Ben Myles, Civil Engineer, ADW Johnson – answered questions on behalf of the applicant

The Local Planning Panel public meeting closed at 3:12pm. The Panel moved into deliberation from 3:24pm, which concluded at 4:10pm.

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## 3.1 DA/52083/2017/4 - 5-7 Church Street, Terrigal - Modification of approved commercial premises and shop top housing

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<b>Site Inspected</b>	Yes
<b>Relevant Considerations</b>	As per Council assessment report
<b>Material Considered</b>	<ul style="list-style-type: none"><li>• Documentation with application</li><li>• Council assessment report</li><li>• Submissions</li></ul>

**Council Recommendation** Refusal

**Panel Decision** 1 ***That the Local Planning Panel refuse the application to modify DA52083/2017 Part 4 for commercial/shop top housing development on Lots 19 and 20 DP7861 No 5 and 7 Church Street, Terrigal, for the reasons below and having regard to the matters for consideration detailed in Sections 4.15 and 4.55(2) of the Environmental Planning and Assessment Act 1979.***

- i. **The proposed modification significantly increases the height and floor space of the approved development and exceeds the development standards of Clause 4.3 and 4.4 of the Gosford Local Environmental Plan 2014.**
- ii. **The proposed modification does not comply with the objectives and development standards of the B2 zone State Environmental Planning Policy 65, Gosford Local Environmental Plan 2014, or Gosford Development Control Plan 2013.**
- iii. **The proposed modification would have additional impacts on adjoining sites resulting in additional view loss and amenity impacts.**
- iv. **Approval is not in the public interest.**

2 ***That Council advise those who made written submissions of the Panel's decision.***

**Reasons**

1 The proposal is not satisfactory having regard to the relevant environmental planning instruments, plans and policies.

2 The proposal represents an unacceptable departure from the development standards under the Gosford Local Environmental Plan 2014 and Gosford Development Control Plan 2013.

3 Approval of the proposal would set a precedent and compromise the achievement of the strategic planning objectives for the Centre.

4 There are significant issues or impacts identified with the proposal under s.4.15 of the *Environmental Planning and Assessment Act 1979*.

**Votes**

The decision was unanimous

**4.1 DA/530/2019 - 2 and 11 Bryant Drive, Tuggerah - Mixed Use Development comprising Specialised Retail Premises, Signage and Food and Drink Premises**

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<b>Site Inspected</b>	Yes
<b>Relevant Considerations</b>	As per Council assessment report
<b>Material Considered</b>	<ul style="list-style-type: none"><li>• Documentation with application</li><li>• Council assessment report</li><li>• Submissions</li></ul>
<b>Council Recommendation</b>	Approval
<b>Panel Decision</b>	<ol style="list-style-type: none"><li><b>1 That the Local Planning Panel defer a decision regarding DA/530/2019 – 2 &amp; 11 Bryant Drive - Mixed Use Development comprising Specialised Retail Premises, Signage and Food and Drink Premises and request the Council to notify all adjoining owners who have not previously been notified and provide them the opportunity to make a submission on the proposal within 14 days of the notification.</b></li><li><b>2 The matter is to be reported back to the Panel for determination within 28 days of the closing date for submissions in accordance in 1. above.</b></li><li><b>3 This report should include information detailing the basis on which contributions are being levied, including the net developable area for contributions that have been paid and contributions that are proposed.</b></li></ol>
<b>Reasons</b>	<ol style="list-style-type: none"><li>1 The Panel considered that it was arguable that the proposed development may be a change of use triggering a requirement to notify all adjoining owners.</li><li>2 Clarification is required as regards contributions.</li></ol>
<b>Votes</b>	The decision was unanimous



## Local Planning Panel

### Minutes of the **LOCAL PLANNING PANEL**

Held remotely - online  
on 28 June 2021

#### Panel Members

Chairperson	Donna Rygate
Panel Experts	Grant Christmas Greg Flynn
Community Representative/s	Mark Elsley

A Supplementary Report was provided to the Local Planning Panel on 22 June 2021, as per request at the Panel meeting of 26 November 2020 where the matter was deferred.

The Local Planning Panel members considered the supplementary report and supporting documents for DA/51538/2017 - 1 Bowtells Drive, Avoca Beach - Integrated Development - Caravan park comprising 56 long term dwelling sites, 5 short term caravan sites and office/amenities building (as amended) via electronic determination.

#### **Supplementary Report - DA/51538/2017 - 1 Bowtells Drive, Avoca Beach - Integrated Development - Caravan park comprising 56 long term dwelling sites, 6 short term caravan sites and office/amenities building (as amended)**

<b>Relevant Considerations</b>	As per Council assessment report and Supplementary report
<b>Material Considered</b>	<ul style="list-style-type: none"> <li>• Documentation with application</li> <li>• Council assessment report, 26 November 2020</li> <li>• Submissions</li> <li>• Supplementary Report, 22 June 2021</li> </ul>
<b>Council Recommendation</b>	Approval subject to conditions

#### Panel Decision

- 1** *That the Local Planning Panel grant consent to DA/51538/2017 at 1 Bowtells Drive, Avoca Beach for the Integrated Caravan park comprising 56 long-term dwelling sites, five short term caravan sites, an office/amenities building and associated demolition works, subject to the conditions detailed in the schedule attached to the Supplementary report and having regard to the matters for consideration detailed in Section 4.15 of the Environmental Planning and Assessment Act 1979.*
- 2** *That Council advise those who made written submissions of the Panel's decision.*
- 3** *That the Council advise relevant external authorities of the Panel's decision.*

### **Reasons**

- 1 The Panel notes that the legal advice on permissibility referred to 56 long term sites and 6 short term sites, that "caravans" means "more than one", and that the current proposal is for 56 long term sites and 5 short term sites.
- 2 The issues raised by the Panel in its earlier consideration of the application have been addressed.
- 3 The proposal is satisfactory having regard to the relevant environmental planning instruments, plans and policies.
- 4 The proposal has been considered against the provisions of the *Gosford Local Environmental Plan 2014* and has been found to be satisfactory.
- 5 There are no significant issues or impacts identified with the proposal under s.4.15 of the *Environmental Planning and Assessment Act 1979* that can not be addressed by way of conditions of consent.

**Votes**      The decision was unanimous

**Date:**      28 June 2021



**Item No:** 3.1  
**Title:** DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole

**Department:** Environment and Planning

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22 July 2021 Local Planning Panel Meeting

Reference: 011.2020.00060262.001 - D14610115

Author: Daniel McNamara, Daniel McNamara Planning Services

**Given the potential for perceived conflict of interest, the assessment of the application, including drafting of this report, were undertaken by an independent planning consultant rather than Council officers.**

**Summary:**

An application has been received for installation of the Ex-HMAS Adelaide mast at Terrigal Haven. The mast is proposed to be situated on a sandstone block plinth footing, surrounded by a sandstone retaining wall, garden bed and an access pathway linked to the existing car park. The development application is required to be reported to the Central Coast Local Planning Panel (CCLP) for determination as, Central Coast Council (CCC) is the applicant.

The application has been examined having regard to the matters for consideration detailed in section 4.15 of the *Environmental Planning and Assessment Act* and other statutory requirements with the issues requiring attention and consideration being addressed in the report.

The development application was notified from 12 February 2021 until 22 March 2021. A total of six submissions were received.

The application is recommended for **Refusal**.

<b>Applicant</b>	Central Coast Council
<b>Owner</b>	Crown Land managed and operated by Central Coast Council
<b>Application No</b>	DA 60262/2020
<b>Description of Land</b>	2 Scenic Highway, Terrigal
<b>Proposed Development</b>	Community Facility-Installation of Mast
<b>Site Area</b>	50.7 sqm (8.450 metres x 6 metres)
<b>Zoning</b>	RE1 Public Recreation
<b>Existing Use</b>	Public Recreation
<b>Employment Generation</b>	No
<b>Estimated Value</b>	\$50,000.00

**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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**Recommendation**

- 1 That the Local Planning Panel refuse the application subject to the reasons for refusal detailed in the schedule attached to the report and having regard to the matters for consideration detailed in Section 4.15 of the Environmental Planning and Assessment Act.**
- 2 That Council advise those who made written submissions of its decision.**
- 3 That Council advise relevant external authorities of the Panel's decision.**

**Key Issues**

- Visual Impact
- Bulk and Scale
- Access
- Traffic
- Character
- Safety and Vandalism
- Inconsistent with the Terrigal Haven Plan of Management 2009
- Insufficient information

**Precis:**

<b>Proposed Development</b>	Installation of the Ex-HMAS Adelaide mast onto a sandstone block plinth footing, surrounded by a sandstone retaining wall, garden bed and an access pathway linked to the existing car park.
<b>Permissibility and Zoning</b>	<p>RE1 Public Recreation under the <i>Gosford Local Environmental Plan 2014</i>.</p> <p>The proposed development is considered a <i>community facility</i> and permissible with consent.</p> <p>A <i>community facility</i> means a building or place:</p> <p>(a) <i>owned or controlled by a public authority or non-profit community organisation, and</i></p> <p>(b) <i>used for the physical, social, cultural or intellectual development or welfare of the community, but does not include an educational establishment, hospital, retail premises, place of public worship or residential accommodation.</i></p>

**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

<b>Relevant Legislation</b>	<i>Environmental Planning &amp; Assessment Act 1979 – Section 4.15 Local Government Act 1993 - Section 89 Environmental Planning Policy (Infrastructure) 2007 State Environmental Planning Policy State Environmental Planning Policy (Coastal Management) 2018 Gosford Local Environmental Plan 2014 Gosford Development Control Plan 2013 Draft Central Coast Local Environmental Plan 2018</i>
<b>Current Use</b>	Public Recreation
<b>Integrated Development</b>	No
<b>Submissions</b>	Six (6)

**The Site**

The site known as No. 2 Scenic Highway, Terrigal is located within Terrigal Haven (the Haven), which is rocky headland east of the Terrigal central business district.

The Haven is Crown land managed by Council. It is noted that the Terrigal Haven Plan of Management 2009 (adopted 2010) permits the installation of the Ex-HMAS Adelaide mast but does not identify a specific site for the development.

The Haven is a distinctive landform in the shape of a bowl with four saddles that form the edges of the bowl. Saddles are depressions at the edges which provide view corridors to the ocean.

The four saddles include Terrigal Beach, the northern base of the Skillion (which is an iconic landform that rises towards the south and is a popular vantage lookout point), the southern base of the Skillion, and, Broken Head, which is a small protected bay, sandy beach and rock platforms.

The Broken Head saddle is the proposed site location of this development application (Site 1). The site is accessed from a number of existing paths from the north eastern and south eastern car park. Currently, a trail road allows vehicular access and limited wheelchair access from the slip rail located on the northern side of the Skillion car parking bays. There is also a footpath encompassing the whole Haven area which allows foot traffic to the site.

The landscape comprises rolling grass slopes with clustering of dense native vegetation and a large number of pine trees along the beach front and across the site.

The Haven is popular for picnics, sporting events, informal recreation, day and evening dining, and water- based activities such including scuba diving.

3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)

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*Figure 1 – Site Plan*



### 3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)

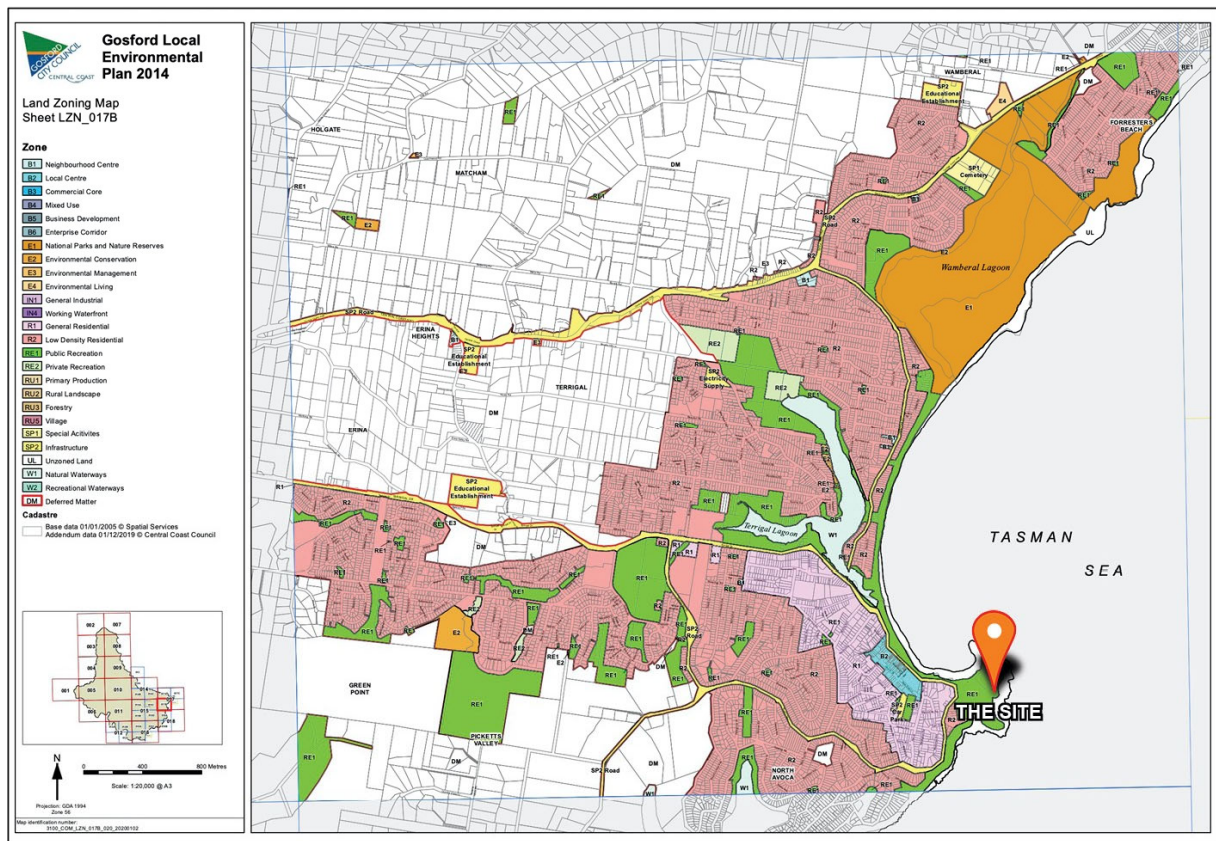


Figure 2 – Zoning Plan showing the site and locality

#### Surrounding Development

The site is located within the Terrigal Haven (the Haven) which is a zoned RE1 Public Recreation which provides a diverse range of public assets such as the newly upgraded boat ramp, a sporting field, a dog exercising area, whale watching platforms, with their associated activities as well as rock fishing and diving.

The area character is typical of a Hawksbury Sandstone Coastal Landscape, and heavily influenced by coastal processes. The site is surrounded by remnant vegetation and planted native species from the Coastal Headland Low Forest, Coastal Headland Grassland and Coastal Headland Shrubland plant communities.

To the west of the site is the seaside suburb of Terrigal and north west is Terrigal Beach with residential dwellings, apartment complexes, and, The Crown Hotel fronting the beach. The beach has a commercial main strip comprising of a variety of restaurant, café, retail and office uses.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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Immediately south west of the site is the Terrigal Haven rugby field and clubhouse. This area forms a natural amphitheater landscape with plenty of parking and picnic areas, access to the ocean with from a boat ramp, fish cleaning table, restaurants, and a sports field oval.

The visual catchment of the site extends north along the established walking track to the various viewing platforms on Broken Head, west to the sporting oval, Reef Restaurant, The Haven Beach, residential areas and the viewing platform between Terrigal and The Haven beaches and south to the Skillion.

There is a new boardwalk recently constructed linking Terrigal Beach to the Haven. Upgrades to the existing rockpool and boardwalk should be completed by April 2021, delivering many social, health and economic benefits for our community.

These projects are jointly funded by Central Coast Council and the NSW Government's Restart NSW Regional Growth Environment and Tourism Fund, and, Crown Reserves Improvement Fund. The delivery of these projects has been planned to minimise inconvenience, ensure safety and reduce the construction impact on residents, local businesses and tourists.

The boardwalk significantly improves pedestrian access between Terrigal Beach promenade and The Haven, providing a safe and more accessible route around the headland and new attraction for the Central Coast community and visitors to enjoy.

The 277-metre-long boardwalk has been designed to complement the natural environment and will be composed of materials that can withstand the elements to ensure longevity and ease of maintenance. The design includes a viewing platform, integrated seating, lighting and access to the rock platforms and smooth integration with the existing walkways either end, which creates a continuous link to the town centre.

Restoration works to the rockpool include the replacement of the rockpool foundations and walls, construction of an access ramp to replace the existing stairs and linking this area with the new boardwalk and existing pathways.

#### **The Proposed Development**

A development application has been lodged by Central Coast Council (CCC) on behalf of a community group and, as per Council's resolution, will project manage the installation if required.

The proposal seeks installation of the Ex-HMAS Adelaide mast onto a sandstone block plinth footing, surrounded by a sandstone retaining wall, garden bed and an access pathway linked to the existing car park.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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The total height of the memorial will be approximately 9.5 metres including the Ex-HMAS Adelaide mast which is 7.4 metres in length and 450 mm in diameter and new 2 metre footings.

The project is a memorial dedicated to the crew of Ex-HMAS Adelaide which was sunk/scuttled off the coast in April 2011 to provide an artificial reef and dive site. The memorial will create a formal lookout area which will replicate a ship's bow. The dive site is an important tourist attraction for the Central Coast. Prior to the scuttling of the Ex-HMAS Adelaide in 2011, the mast from the Ex-HMAS Adelaide was gifted to the former Gosford City Council by the NSW State Government.

The site which has been chosen for the memorial known as Site 1 is a small saddle between two elevated rock outcrops on Broken Head and forms a notable depression in the skyline, void of large trees and vegetation.

The rolling grass slope gives way to an eroding scree slope that then steps down suddenly in blocky sandstone terraces to the flat rock platform below. The grassed area provides one of the only natural viewing areas out to the ocean that has yet to be formalised with a viewing platform or path. Areas of dense vegetation have been established along the initial section of the proposed alignment that then gives way to open grass areas with groups of small trees.

The existing access path to the site begins at the car park overlooking the bolder field between the Skillion and Broken Head, heading in a north east direction towards the memorial site. The mast will have the ability to raise a flag on commemorative days and events. It is noted that after a military vessel or piece of infrastructure is decommissioned flags, illumination and the like are not permitted without consent from maritime forces or RSL, other than on commemoration days such as Anzac Day and between sunrise and sunset only.

The project is funded by the NSW Stronger Communities Fund, NSW Government Minister's Discretionary Fund, the community, in kind contributions from Thales and associates and CCC. Initial funding grants have now expired and require further grant applications to be endorsed.



3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)

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**Figure 3 – The Ex-HMAS Mast from the HMAS Adelaide, Source: CCC**

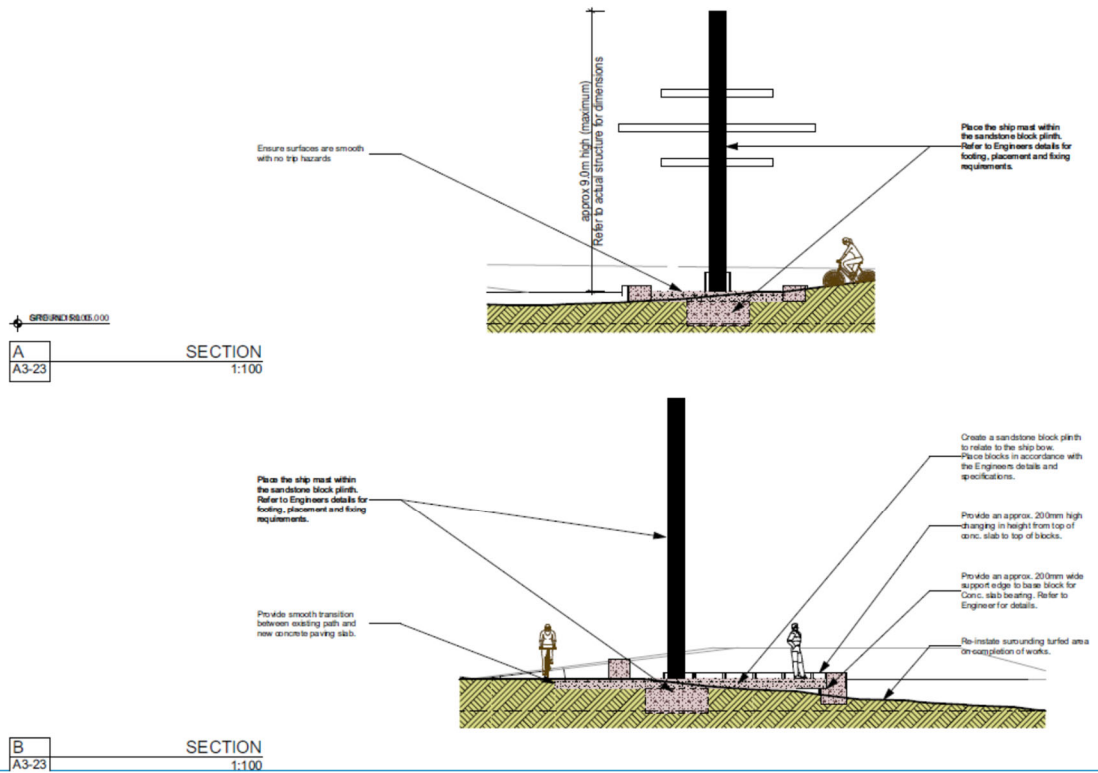


**Figure 4 – Photomontage of proposed development prepared by Leslie Howard Associates, dated 6 November 2020**

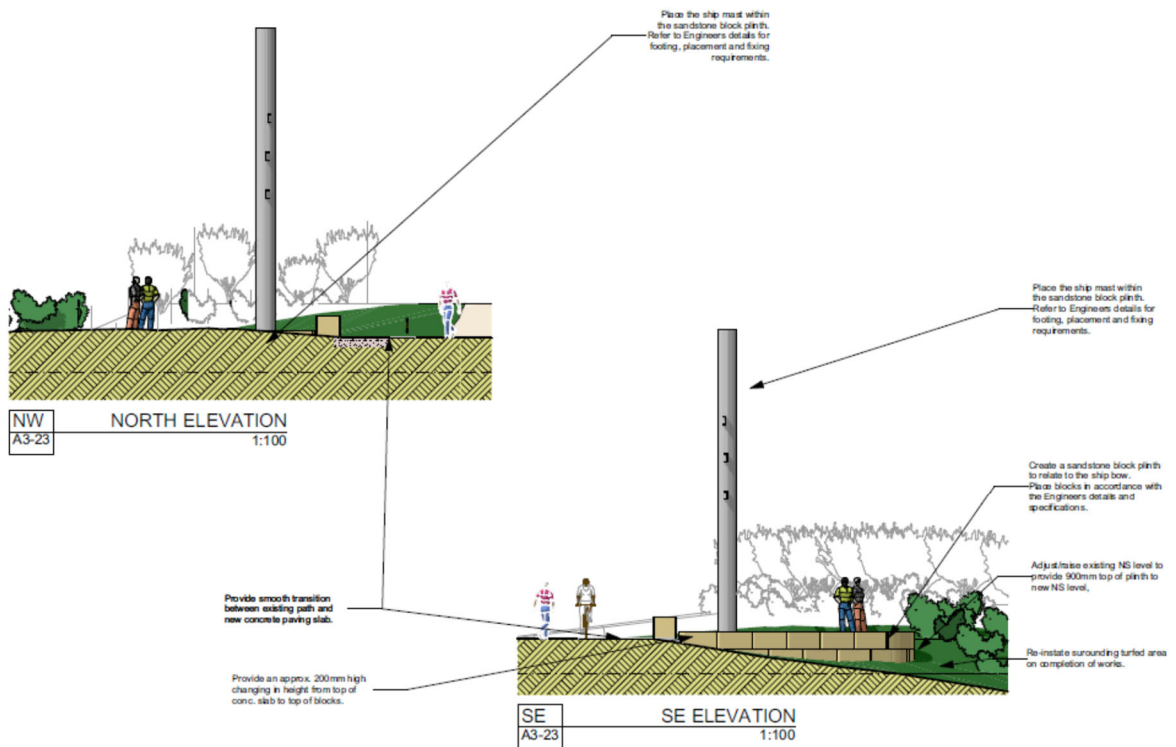




**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

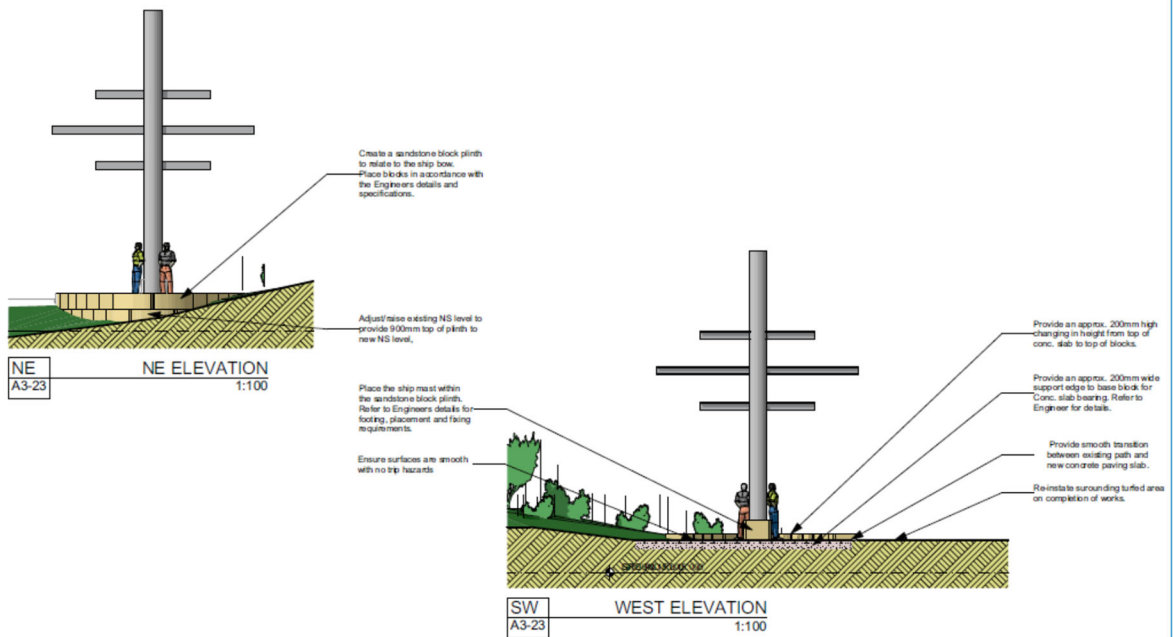


**Figure 7 – Sections prepared by Leslie Howard Associates, dated 6 November 2020**



**Figure 8 – North West and South East Elevations prepared by Leslie Howard Associates, dated 6 November 2020**

**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**



**Figure 9 – North East and Western Elevations prepared by Leslie Howard Associates, dated 6 November 2020**



**Figure 10 – External Views and Impression prepared by Leslie Howard Associates, dated 6 November 2020**

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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#### **History of the HMAS Adelaide**

In November 1980, the HMAS Adelaide was commissioned and built in the United States of America as one of the first of six Adelaide-class guided missile frigates delivered to the Royal Australian Navy. The naval vessel participated in the Gulf War between 1990 - 1991 Gulf War, peacekeeping operations in East Timor in 1999 and 2006, and, was deployed to the Arabian Gulf in 2001 and 2004.

In 2008, the vessel was decommissioned and HMAS Adelaide was demilitarised by the Department of Defence before being handed over to the NSW Government in 2009. A mast from the Ex-HMAS Adelaide was gifted to the former Gosford City Council by the NSW State Government and Council undertook formal consultation regarding a suitable pathway for its use as part of the Terrigal Haven Plan of Management 2009 (adopted 2010). The mast has been in Council storage since 2011.

On 13 April 2011, the Ex-HMAS Adelaide was scuttled to the ocean floor 1.8km off the coast between Terrigal Beach and Avoca Beach to establish an artificial reef and dive site, which has since attracted military historians and recreational divers to the area. The sunken wreck joined four other former naval vessels that have been transformed into dive sites in waters off Western Australia, South Australia, Queensland and Victoria since 1997.

Community interest in establishing a use for the mast as a memorial commenced in 2016. The mast was assessed by the Navy and deemed to be in poor condition. The Navy recommended specialist treatment, including a sandblast and painting to ensure the mast was structurally sound. The mast is now intended to be used as part of a memorial monument in honour of the many who have sailed on the HMAS Adelaide, in recognition of the Royal Australian Navy and as a visual marker for the ship's position on the ocean floor.

#### **Development Application History**

In 2012 Gosford Council resolved that:

- a. *Council consider the allocation of funding in future capital works programs for engineering investigations and the required assessments into a Memorial for the ex-HMAS Adelaide within the Terrigal Haven reserve.*
- b. *Subsequent to the confirmation of an appropriate site, Council Officers source grant opportunities and funding for the construction of a memorial for the ex-HMAS Adelaide.*

Council again undertook consultation to determine community sentiment on this project and will be responsible for project management and ongoing maintenance.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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In 2015, the former Gosford Council agreed to project manage the installation of the mast on behalf of a community group led by Matthew Wales which identified a site and submitted a Development Application (DA) which received nine (9) submissions. A key issue raised related to the identification of an alternate site to that proposed.

A visual impact assessment and access assessment accompanying this DA did not support the application and considered the development inconsistent with the Terrigal Haven Plan of Management 2009. The DA was subsequently withdrawn. However, various community groups continued to lobby for the development and raised \$4796.00. A request was made to Council to manage the project including installation of the mast, which was agreed to by the former Gosford Council.

On 14 May 2018, Council considered a report prepared by the Assets, Infrastructure and Business Department (Item 3.3) to determine a potential preference for a site within The Haven at Terrigal for placement of the mast. The report details site options for a bipartisan project with the community raising money for the restoration and support from the Australian Royal Navy, Returned Services League, and the State Government.

This project had support from the Returned Services League (RSL) Sub-Branches, the retired Navy services and the Australian Royal Navy and Crown Lands provided advice and consent for the project. Further private consultation was undertaken before Council was engaged to manage the construction of the development. Information provided to Council states that consultation was with the following groups:

- Local community groups;
- Terrigal Wamberal RSL Sub-Branch;
- Australian Royal Navy;
- Crown Lands;
- Council staff in relation to the impact of placement in the areas identified in Figure 10 below; and
- A letter of support was provided by Adam Crouch MP, Member for Terrigal.

Council had estimated the cost of installation of the mast to be \$35,000.00. Grant funding from the NSW State Government has been provided in the sum of \$3,000.00 and community funds totalled \$4,796.00. Substantial in-kind support was provided. The community group intended to raise the balance of funds required to complete the project through grants.

Council nominated a location for the proposed known as Site 1, the community proposed an alternative location known as Site 2 (see Council Item 3.3 - Attachment 1 at Figure 10 below). Visual impact and risk management remained major issues associated with the development, such as the risk of a person climbing the mast and falling. In response to this issue, stepping points up to 4 metres previously proposed been deleted from the design.



**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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Council Minutes state:

*Mayor Smith declared a significant non-pecuniary interest in the matter due to her involvement with the Marine Discovery Centre and a number of the dive clubs that have been involved in the matter. Mayor Smith advised that she would leave the Chamber during consideration of this item and not participate in discussion and voting. This item was resolved by the exception method.*

*Councillor Greenaway left the Chamber at 10.52pm, did not return and was absent for the vote.*

*Moved: Councillor Gale Collins*

*Seconded: Councillor Sundstrom*

At this meeting Council resolved:

*"That Council request the Acting Chief Executive Officer install the mast from the HMAS Adelaide II at Site 1 identified in the attached photograph."*

(See Figures 10 and 11 below).

*For: Unanimous*

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Attachment 1

Proposed Sites for Placement of the Mast from HMAS Adel

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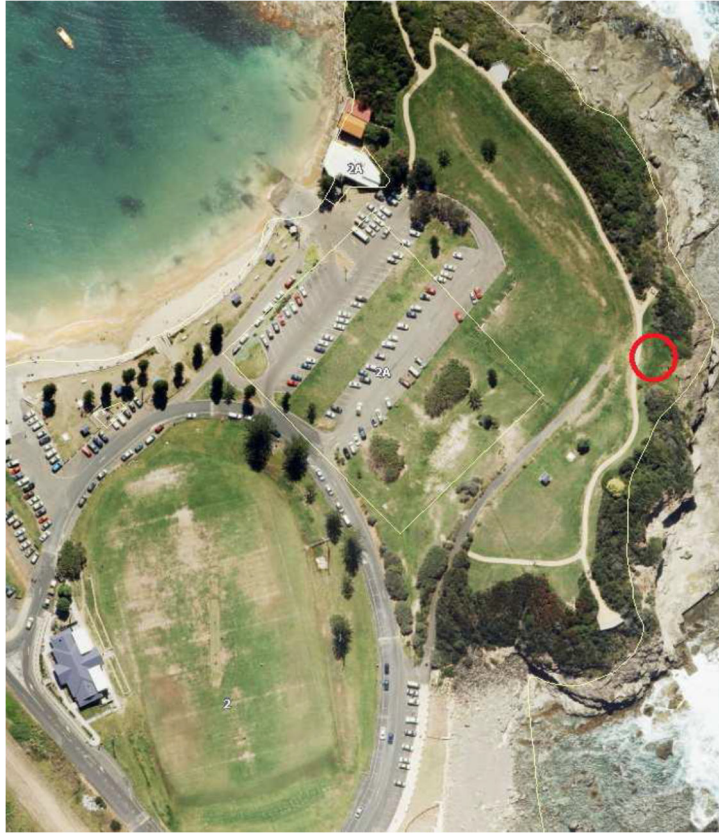
## Proposed Sites for Placement of the Mast from the HMAS Adelaide II



**Figure 10 – Council Meeting dated 14 May 2008 – Item 3.3 Attachment 1 - Proposed Sites for Placement of the Mast from HMAS Adelaide II**

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**Figure 11 – Aerial view of Site 1 shown circled in red**

**History (Current Development Application)**

This Development Application DA 60262/2020 has been lodged by Central Coast Council (CCC) on behalf of a community group.

The development application is presented to the Central Coast Local Planning Panel.

Prior to lodgement formal community engagement was held between 9 November 2020 and 7 December 2020 through Council’s web page. Hyperlink to community engagement: <https://www.yourvoiceourcoast.com/HMASadelaide>

Community Engagement Summary

Consultation was undertaken to determine community sentiment on the monument and its location to inform the application.

Positive and negative feedback received:

- *Support for this longstanding promise moving forward;*
- *Importance of leaving the headland in its natural state*
- *Concern about ongoing cost and Council’s financial position;*

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- *Concern about the identified location for the monument limiting access for people with impaired mobility;*
- *Concern about the obstruction of view and the need to keep the natural environment in mind when implementing anything at The Haven; and*
- *Ex-HMAS Adelaide Monument was the preferred name of the location should the installation of the Ex-HMAS Adelaide Monument move forward.*

The development application was exhibited between 12 February 2021 and 26 February 2021. Six (6) submissions were received including a letter from the Terrigal Area Residents Association Inc. (TARA)

On 17 February 2021, a request for further information was made to the applicant which has not been satisfied. It was recommended that either the development application be withdrawn to prepare the additional information, or alternatively, a recommendation will be made for refusal.

The requested additional information was required in order to undertake a more comprehensive assessment addressing the relevant provisions of the *Environmental Planning and Assessment 1979*.

#### **Assessment:**

Having regard for the matters for consideration detailed in Section 4.15 of the *Environmental Planning and Assessment Act 1979* and other statutory requirements, Council's policies and Section 10.7 Certificate details, the assessment has identified the following key issues, which are elaborated upon for the Panel's information. Any tables relating to plans or policies are provided as an attachment.

#### **Provisions of Relevant Instruments/Plans/Policies:**

##### **Gosford Local Environmental Plan 2014**

##### **Draft Environmental Planning Instruments**

The site is subject to the draft Central Coast Local Environmental Plan 2018.

##### *1.2 Aims of Plan*

- (1) *This Plan aims to make local environmental planning provisions for land in the Central Coast local government area in accordance with the relevant standard environmental planning instrument under section 33A of the Act.*
- (2) *The particular aims of this Plan are as follows:*



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- (a) to foster economic, environmental and social wellbeing so that the Central Coast continues to develop as a sustainable and prosperous place to live, work and visit,*
- (b) to encourage a range of housing, employment, recreation and services to meet the needs of existing and future residents of the Central Coast,*
- (c) to promote the efficient and equitable provision of public services, infrastructure and amenities,*
- (d) to provide for a range of local and regional community facilities for recreation, culture, health and education purposes,*
- (e) to conserve, protect and enhance the natural environment of the Central Coast, incorporating ecologically sustainable development,*
- (f) to conserve, protect and enhance the environmental and cultural heritage of the Central Coast,*
- (g) to minimise risk to the community in areas subject to environmental hazards, including flooding, climate change and bush fires,*
- (h) to promote a high standard of urban design that responds appropriately to the existing or desired future character of areas,*
- (i) to promote design principles in all development to improve the safety, accessibility, health and wellbeing of residents and visitors,*
- (j) to concentrate intensive land uses and trip-generating activities in locations that are most accessible to transport and centres,*
- (k) to encourage the development of sustainable tourism that is compatible with the surrounding environment.*

The proposal is inconsistent with the draft 2.1 (2) (c), (e), (f), (g), (h), (i) and (j) aims of the CCLEP 2018.

#### *Zoning and Permissibility*

The draft plan retains the RE1 Public Recreation zoning of the land.

#### *Zone Objectives*

- To enable land to be used for public open space or recreational purposes.*
- To provide a range of recreational settings and activities and compatible land uses.*
- To protect and enhance the natural environment for recreational purposes.*
- To identify areas suitable for development for recreational and cultural purposes.*
- To provide space for integrated stormwater treatment devices for flow and water quality management.*

*2 Permitted without consent Environmental facilities; Environmental protection works*

*3 Permitted with consent Boat launching ramps; Boat sheds; Building identification sign; Business identification sign; Camping grounds; Car parks; Caravan parks; Charter and tourism boating facilities; Centre based child care facilities; Community facilities; Eco-tourist facilities;*

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*Emergency services facilities; Entertainment facilities; Flood mitigation works; Food and drink premises; Function centres; Information and education facilities; Jetty; Kiosks; Marina; Market; Mooring pen; Mooring; Recreation areas; Recreation facility (indoor); Recreation facility (major); Recreation facility (outdoor); Registered clubs; Respite day care centres; Roads; Sewerage systems; Water recreation structures; Water supply system 4 Prohibited Any development not specified in item 2 or 3*

The proposed development is considered a *community facility* and permissible with consent.

In this instance, it is considered the proposed development is inconsistent with the stated draft objectives of the RE1 Public Recreation Zone and incompatible with the desired future character of the locality.

**State Environmental Planning Policies (SEPP)**

**State Environmental Planning Policy (Infrastructure) 2007**

The State Environmental Planning Policy (Infrastructure) 2007 (SEPP1) was gazetted on 21 December 2007, providing a consistent planning regime for infrastructure and the provision of services across NSW, along with providing for consultation with relevant public authorities during the assessment process.

Council did not refer the application to Transport for NSW (TfNSW) under Clause 101.

**State Environmental Planning Policy (Coastal management) 2018**

The provisions of State Environmental Planning Policy (Coastal Management) 2018 require Council consider the aims and objectives of the SEPP when determining an application within the Coastal Management Areas.

The Coastal Management Areas are areas defined on maps issued by the NSW Department of Planning, Industry and Environment and the site falls within the mapped coastal management areas.

**Division 3 Coastal environment area**

**13 Development on land within the coastal environment area**

*(1) Development consent must not be granted to development on land that is within the coastal environment area unless the consent authority has considered whether the proposed development is likely to cause an adverse impact on the following:*

- (a) the integrity and resilience of the biophysical, hydrological (surface and groundwater) and ecological environment,*
- (b) coastal environmental values and natural coastal processes,*
- (c) the water quality of the marine estate (within the meaning of the Marine Estate Management Act 2014), in particular, the cumulative impacts of the proposed development on any of the sensitive coastal lakes identified in Schedule 1,*

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- (d) *marine vegetation, native vegetation and fauna and their habitats, undeveloped headlands and rock platforms,*
  - (e) *existing public open space and safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,*
  - (f) *Aboriginal cultural heritage, practices and places,*
  - (g) *the use of the surf zone*
- (2) *Development consent must not be granted to development on land to which this clause applies unless the consent authority is satisfied that:*
- (a) *the development is designed, sited and will be managed to avoid an adverse impact referred to in subclause (1), or*
  - (b) *if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to minimise that impact, or*
  - (c) *if that impact cannot be minimised—the development will be managed to mitigate that impact.*
- (3) *This clause does not apply to land within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.'*

The relevant matters have been considered in the assessment of this development application.

Assessment: The application is inconsistent with the stated aims and objectives of the SEPP (Coastal Management) 2018.

The proposed development will cause an adverse impact on the matters required to be considered under Clause 13 (1) (a) – (g), Clause 13 (2) (a) – (c) of SEPP (Coastal Management) 2018.

- Without further specialist analysis, the proposed development may have adverse impact on the integrity or resilience of the biophysical, hydrological or ecological environment, coastal environmental values and natural coastal processes;
- It is unknown as to whether the proposed development will have no adverse impact on the water quality of the marine estate;
- Flora recorded at the Haven includes Coastal Headland Shrubland (E51b). There are no anticipated impacts on this vegetation as all construction works will be contained within the exposed grassed area of the site. The proposed development may have an adverse impact on marine vegetation; native vegetation/fauna and their habitats; undeveloped headlands; or rock platforms;
- The proposed development has adverse impact on the public amenity of the existing public open space and public access to the coastal foreshore with regards to the chosen location and limitations placed upon access;

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- The proposed development may have an adverse impact on any known Aboriginal cultural heritage, practices or places;
- The proposed development is far removed from the “surf zone” therefore will not adversely impact its use by the public; and
- Drainage, nutrient and erosion control measures would be required to be installed to protect the any reserve and water way.

**14 Development on land within the coastal use area**

*(1) Development consent must not be granted to development on land that is within the coastal use area unless the consent authority—*

*(a) has considered whether the proposed development is likely to cause an adverse impact on the following—*

- (i) existing, safe access to and along the foreshore, beach, headland or rock platform for members of the public, including persons with a disability,*
- (ii) overshadowing, wind funneling and the loss of views from public places to foreshores,*
- (iii) the visual amenity and scenic qualities of the coast, including coastal headlands,*
- (iv) Aboriginal cultural heritage, practices and places,*
- (v) cultural and built environment heritage, and*

*(b) is satisfied that—*

- (i) the development is designed, sited and will be managed to avoid an adverse impact referred to in paragraph (a),*
- (ii) or if that impact cannot be reasonably avoided—the development is designed, sited and will be managed to*
- (iii) minimise that impact, or if that impact cannot be minimised—the development will be managed to mitigate that impact, and*

*(c) has taken into account the surrounding coastal and built environment, and the bulk, scale and size of the proposed development.*

*(2) This clause does not apply to land within the Foreshores and Waterways Area within the meaning of Sydney Regional Environmental Plan (Sydney Harbour Catchment) 2005.'*

Assessment: The application is inconsistent with the stated aims and objectives of the SEPP (Coastal Management) 2018. The proposed development will cause an adverse impact on the matters required to be considered under Clause 14 (1) (a) – (b) and Clause 2 of SEPP (Coastal Management) 2018.

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- The proposed development will cause an adverse impact to access along the foreshore and public reserve;
- The proposed development will cause overshadowing, wind funnelling or loss of view from a public place as it will not have adverse impacts on the visual amenity and scenic qualities of the coast and headlands;
- The proposal has not been designed and located to minimize visual amenity and scenic qualities to the most maximum extent possible; and
- The proposal may cause an adverse impact to and known Aboriginal cultural heritage or cultural and built environment heritage.

**(ii) Division 5 – General.**

The following provisions of Division 5 of SEPP (Coastal Management) 2018 apply to the consent authority's consideration of a development application on the subject land:

***15 Development in coastal zone generally - development not to increase risk of coastal hazards***

*Development consent must not be granted to development on land within the coastal zone unless the consent authority is satisfied that the proposed development is not likely to cause increased risk of coastal hazards on that land or other land.*

***16 Development in coastal zone generally - coastal management programs to be considered***

*Development consent must not be granted to development on land within the coastal zone unless the consent authority has taken into consideration the relevant provisions of any certified coastal management program that applies to the land.'*

Assessment: Due to its location and proximity to the coastal foreshore, the subject land may be considered subject to increased risk of coastal hazards.

The Terrigal Haven Plan of Management 2009 has not addressed the proposed location for any likely impacts in terms of any certified coastal management program and will require revision to incorporate any future project location, construction, management and maintenance.

The proposed development could cause increased risk of coastal erosion.

Suitable long term safety has not been adequately addressed in the design i.e.. No fencing is proposed along the lookout to the Pacific Ocean, and, the geotechnical investigation / dilapidation report prepared by Douglas Partners, dated July 2010 states "the scope for work for this investigation/report did not include the assessment of surface or sub-surface materials, or ground water for contaminants within or adjacent to the site" is outdated.

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The relevant matters have been considered in the assessment of this application. The application is considered inconsistent with the stated aims and objectives.

**Gosford Local Environmental Plan 2014**

The site is subject to the *Gosford Local Environmental Plan 2014* (GLEP 2014).

*Clause 1.2 Aims of Plan*

- (1) *This Plan aims to make local environmental planning provisions for land in that part of the Central Coast local government area to which this Plan applies (in this Plan referred to as Gosford) in accordance with the relevant standard environmental planning instrument under section 3.20 of the Act.*
- (2) *The particular aims of this Plan are as follows—*
  - (aa) *to protect and promote the use and development of land for arts and cultural activity, including music and other performance arts,*
  - (a) *to encourage a range of housing, employment, recreation and services to meet the needs of existing and future residents of Gosford,*
  - (b) *to foster economic, environmental and social well being so that Gosford continues to develop as a sustainable and prosperous place to live, work and visit,*
  - (c) *to provide community and recreation facilities, maintain suitable amenities and offer a variety of quality lifestyle opportunities to a diverse population,*
  - (d) *(Repealed)*
  - (e) *to concentrate intensive land uses and trip-generating activities in locations that are most accessible to transport and centres,*
  - (f) *to promote the efficient and equitable provision of public services, infrastructure and amenities,*
  - (g) *to conserve, protect and enhance the environmental and cultural heritage of Gosford,*
  - (h) *to protect and enhance the natural environment in Gosford, incorporating ecologically sustainable development,*
  - (i) *to minimise risk to the community in areas subject to environmental hazards, particularly flooding and bush fires,*
  - (j) *to promote a high standard of urban design that responds appropriately to the existing or desired future character of areas,*
  - (k) *to promote design principles in all development to improve the safety, accessibility, health and well being of residents and visitors,*
  - (l) *to encourage the development of sustainable tourism that is compatible with the surrounding environment.*

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The current development application proposal is inconsistent with the Clause 2.1 (2)(c), (f), (g), (h), (i), (j) and (k) aims of the GLEP 2014.

#### *Zoning and Permissibility*

The site is zoned RE1 Public Recreation Zone.

#### *Zone Objectives*

- *To enable land to be used for public open space or recreational purposes.*
- *To provide a range of recreational settings and activities and compatible land uses.*
- *To protect and enhance the natural environment for recreational purposes.*
- *To identify areas suitable for development for recreation, leisure and cultural purposes.*
- *To ensure that development is compatible with the desired future character of the zone.*

#### *2 Permitted without consent*

*Environmental facilities; Environmental protection works*

#### *3 Permitted with consent*

*Aquaculture; Camping grounds; Car parks; Caravan parks; Centre-based child care facilities; Community facilities; Kiosks; Recreation areas; Recreation facilities (indoor); Recreation facilities (major); Recreation facilities (outdoor); Respite day care centres; Restaurants or cafes; Roads; Water recreation structures*

#### *4 Prohibited*

*Any development not specified in item 2 or 3*

The proposed development is considered a *community facility* and permissible with consent.

A *community facility* means a building or place:

- owned or controlled by a public authority or non-profit community organisation, and*
- used for the physical, social, cultural or intellectual development or welfare of the community, but does not include an educational establishment, hospital, retail premises, place of public worship or residential accommodation.*

In this instance, it is considered the proposed development is inconsistent with the stated objectives of the RE1 Zone being incompatible with the desired future character of the locality.

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#### *Clause 7.1 Acid Sulfate Soils*

Acid Sulphate Soils are not present within the construction footprint. The site comprises of very stiff grading to hard residual clay soils. An updated Geotechnical Investigation is recommended as the report provided as part of the development application is dated July 2010. Environmental conditions can change as discussed within this report.

The matters contained in Clause 7.1 of Gosford Local Environmental Plan 2014 have been considered.

#### *Clause 7.4 Flood Planning*

This land has not been classified as being under a "flood planning level".

#### **Gosford Development Control Plan 2013**

This plan is known as the Gosford Development Control Plan 2013 and supports the objectives identified by the *Gosford Local Environmental Plan 2014*, the Gosford Planning Scheme Ordinance or Interim Development Order No 122.

#### *Part 2 Scenic Quality and Character*

The proposal does not acknowledge the desire to maintain the Coastal Open Space System (COSS). Although the COSS does not cover all visually significant ridge lands and upper slopes such as the Haven, the broad controls relate to the proposed development which should have regard to the character of the area both built and natural nature of the landscape characteristics of it's surroundings.

The structure is deemed unsuitable for Site 1, reconsideration of an alternative location with consideration of the issues addressed in this report would be preferable in order to respect the scenic character of an area.

#### **Any Planning Agreement**

There are no planning agreements applicable to the application.

#### **Relevant Regulations**

There are no specific matters under the Regulation that require further discussion.

#### ***Likely Impacts of the Development (built environment, natural environment, economic and social impacts)***



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A thorough assessment of the aspects of the proposed development on the built, natural environments and social and economic impacts has been undertaken in terms of the relevant planning controls.

#### ***Built Environment***

The subject site is zoned RE1 Public Recreation under GLEP 2014 and is surrounded by public park and sports and recreation facilities with ocean front views.

The proposed development is considered to have adverse impact upon the amenity of adjoining public land, and private development by way of view obstruction, and inequitable accessibility.

A thorough assessment of the impacts of the proposed development on the built environment has been undertaken. The potential impacts are considered unreasonable.

#### ***Built Form – Height, Bulk and Scale***

The development of the Ex-HMAS mast and surrounding sandstone structure is articulated by virtues of it's maritime design and is proposed to be made of a subtle material which may appear as an unsuitable bulk and scale when viewed from a distance.

The development application did not include a survey, and amendments requested to architectural drawing package to show correct dimensions of the structure and surrounding area has not been provided. It is further noted that the Statement of Environmental Effects (SEE) states the structure is 7.4 metres, and that the base of the mast will be 2 metres above ground level.

The architectural drawings show the mast height at approximately 9 metres and the Independent Review of the Green Light Visual Impact Assessment states the proposal will be approximately 9.5 metres. Therefore, proper comprehension of the scale of the development is unable to be achieved,

From inspection of the site and surrounds, it is apparent there is no existing fencing along this part of the cliff coastline and none proposed. Given there may be interest in groups gathering at the memorial on commemorative days such as Anzac Day and Remembrance Day, Council should take into consideration establishing future safety fencing similar to the transparent lightweight fencing along the cliff line gap at the Skillion.

The architectural drawings show landscaping immediately to the north and east of the proposed development which does not appear to be consistent with that in situ. Inadequate information has been submitted regarding the protection of, or proposed removal and rectification of existing landscaping.

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The character of the area is typical of a Hawkesbury Sandstone Coastal Landscape, heavily influenced by coastal processes. The site chosen is a small saddle between two elevated rock outcrops on Broken Head and forms a notable depression in the skyline, void of large trees and vegetation.

The rolling grass slope gives way to an eroding scree slope that then steps down suddenly in blocky sandstone terraces to the flat rock platform below. The grass area provides one of the only natural viewing areas out to the Pacific Ocean that has yet to be formalised with a viewing platform or path.

The aesthetics are generally acceptable as the structure is articulated by virtues of its maritime design and is made of a subtle material, however from a distance its purpose may not be discernible and the structure may be confused for a pole with no meaning and therefore will appear as an inappropriate and bulky structure within the landscaped setting impacting upon views.

The proposal is not compatible with, and will adversely impact on, the character and amenity of the locality, public recreation area and streetscape. This is predominantly as a result of the visual impact applicable to the height of the development that would result in an outcome that is uncharacteristic and unplanned in this location. As a result, the proposed development is unsatisfactory in terms of impacts on the built environment.

A thorough assessment of the proposed development's impact on the built environment has been undertaken having regard for SEPP Coastal Management along with the provisions of GLEP 2014 and GDCP 2013 and it is considered the potential built environment impacts are unreasonable.

#### *Visual Impact*

Visual impacts are considered unreasonable. The development will cause adverse visual impact upon view corridors from private and public places. The Visual Impact Assessment (VIA) Independent Review prepared by The Design Partnership supports the recommendations identified in the Visual Impact Assessment prepared by Green Light Design Group dated 1 October 2019. In particular:

*"... it will have significant impact upon Terrigal Haven and neighbouring residential dwellings. We are also of the opinion that the memorial will have a greater impact on Terrigal CBD than identified in the Visual Impact Assessment report. This is due to the possibility it to be perceived as a functional element such as a ventilation shaft."*

The visual impact assessments do not support the project and consider the development inconsistent with the Terrigal Haven Plan of Management 2009.

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Concern is raised regarding obstruction of views and the need to keep the natural environment in mind when implementing anything at The Haven. Height poles would have assisted with understanding the accuracy of view loss.

The study area for the visual impact assessment has been selected to cover the main geographic extent of potential visual impacts of the development. The Design Partnership assessed the proposed development from the same view corridors as Green Light.

The independent review concludes that the development is unacceptable in terms of the impact of the proposed works when assessed against the scenic values identified in the Terrigal Haven Plan of Management 2009, in particular to determine if the changes in the landscape are consistent with the desired character of the reserve.

The following scenic values extract from the Terrigal Haven Plan of Management 2009 have formed the basis of Ms Ryan's (The Design Partnership) independent assessment:

- *Retain natural landscape quality;*
- *Preservation of Views to the Pacific Ocean;*
- *Embellish Natural Vantage Points; and*
- *Effective maintenance.*

The review found that the proposal will have a moderate to high visual impact overall in its proposed location, noting the natural setting and that the mast would introduce a built element in a prominent location which is visible from key locations.

Several key viewpoints were selected for further analysis representative only of the spread and type of receivers that may be affected by the proposed works, they are not exhaustive, nor do they reflect the exact view shared by all receivers in a similar area.

The impact rating for any given viewpoint within the study area was based on an evaluation of the sensitivity and magnitude, the methodology of the proposed change:

- *Sensitivity: Each viewpoint has an inherent sensitivity to change in the visual scene of the landscape based on the context of the viewer. This will have a direct influence on the perceived visual impact experienced by the receiver; and*
- *Magnitude: A series of factors are taken into account when assessing the magnitude of visual effect from any one viewpoint. These factors include the distance from the proposed works, extent of view, the amount of time the works are within view, and the scale of change to the landscape setting.*

Photo 1 – Photo 4 below shows a sample of the key viewpoint locations and the potential visual impact. The proposed development is shown in **red**:

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***Photo 1: View south in the Haven of the proposed development  
Source: Green Light VIA***



***Photo 2: View from the west in the public car park  
Source: Green Light VIA***



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***Photo 3: View south east from the Scenic Highway***  
***Source: Green Light VIA***



***Photo 4: View east from the Scenic Highway***  
***Source: Green Light VIA***

In summary, both Visual Impact Assessments accompany this development application do not support the project in the location chosen (Site 1).

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Views that pedestrians will have when approaching the memorial site along the concrete pathway on Broken Head will be affected. The existing view takes in the vegetated headlands and outlook over the rock platform and Pacific Ocean. The existing viewscape is scenic and dominated by soft landscape elements, in particular a rolling grass slope that drops down to the sandstone cliff edge. This viewpoint is considered of high sensitivity.

The proposed memorial will dominate the overall view and become the focal point of the natural depression in the landform. Access to the grass slope would also be impacted. The new structure would change the overall appearance of the landscape and change the way the space is used leading to a high magnitude of change.

The assessment states that for private residences on the high side of the Scenic Highway, the proposal will change the overall appearance of the skyline slightly as the existing trees and light poles from the sports oval already extend above this line. Subsequently, the development will impact upon the existing privacy and amenity of the Public Recreation area in terms of view loss, cause obstruction of views for local residences and visual impact is not considered negligible.

It is noted that the installation of temporary height poles to identify the exact location and height of the proposed development and structure was not undertaken in order to further understand the extent of visual impact.

The following extract from the Green Light assessment summarises the overall visual impact:

*The visual impact of the proposed works would be greatest for those viewers in close proximity to the site. Viewpoints 1, 2 and 3 are representative of the catchment of viewers who will perceive a high impact to the visual amenity of the reserve. In general, the memorial structure will change the overall appearance of the skyline and would become the dominant hard landscape element in the reserve. Viewers that will see the change from a greater distance will likely perceive a reduced visual impact from the proposed works however the change to the skyline may still impact the views to the Pacific Ocean.*

Assessment: The proposed site for the memorial has been considered from the same view corridors, and, with consideration of the above extract from the Green Light assessment.

The proposal is considered unacceptable in terms of the impact of the proposed works as assessed against the scenic values identified in the Terrigal Haven Plan of Management 2009 to determine if the changes in the landscape are consistent with the desired character of the reserve.

The following scenic values (extract from the Terrigal Haven Plan of Management) were used to form the basis of this assessment and reiterated within the VIA:

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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#### *Retain natural landscape quality*

Large sections of Broken Head and the Skillion are covered with native vegetation remnant of the plant communities that inhabited the headlands over a long period. These sections of vegetation contribute significantly to the natural landscape qualities that the community value.

The proposed memorial will not complement this part of the public recreation area and does not provide a visually interesting cultural, scenic and heritage element into an otherwise harsh windswept environment.

An improved landscape setting could be achieved by integrating a memorial garden with native species of flora to attract local fauna and soften the appearance of the gap at the focal point in the skyline between the vegetated headlands on Broken Head. The design of the proposed memorial will not provide an improvement to the natural landscape qualities of the area as viewed from a number of important viewpoints.

The proposed access pathway will require the removal of a section of native vegetation which will have an impact on the natural landscape qualities. Replacement landscaping has not been proposed.

#### *Preservation of Views to the Pacific Ocean*

The proposed memorial will impact on views to the ocean from a number of key viewpoints and it is expected that a number of residents in private dwellings as well as users of The Haven will be affected. The extent of the impact varies depending on the distance the viewer is from the proposed memorial. Typically the closer the viewer is located to the memorial the greater the magnitude of impact to their view of the ocean.

#### *Embellish Natural Vantage Points*

The proposed memorial is a new hard structure that will be placed in an otherwise informal grass slope overlooking the rock platform and ocean. The proposed development in its current form are not considered a visually interesting addition to the landscape and will not embellish an existing important historical naval viewing platform.

#### *Effective maintenance*

The review of the Green Light Visual Impact Assessment has found that the proposal will have a moderate to high visual impact overall in its proposed location, noting the natural setting and that the mast would introduce a built element in a prominent location which is visible from several key locations. The proposed development has not been included in the Terrigal Haven Plan of Management 2009 in terms of maintenance.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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In summary, the project has the ability to provide enormous cultural, social, educational, and community benefits that will result from the memorial however not at the expense of impacting upon scenic view corridors from private and public land. A key concern raised has been that the purpose of the structure will not be identifiable and from a distance will appear as a ventilation shaft. Consideration should be given to ameliorating this issue by raising and flying the appropriate flags with consent.

The proposal is not reasonable in this circumstance and inconsistent with the planning principle established in *Tenacity Consulting Pty Limited v Warringah Council* [2004] NSWLEC 140. The development does not respect the principle of view sharing.

#### *Access and Transport*

Equitable access is not addressed which may limit access to the memorial site for people with impaired mobility. Given the site is proposed as a commemorative place this is of paramount importance on national days of significance such as ANZAC Day and Remembrance Day.

The proposed access does not comply with AS 1428.1, 1428.4.1, NCC (BCA 2016 Volume 1), Disability (Access to Premises – Buildings) Standards, and Central Coast Council Disability Inclusion Plan.

The identified location for the monument limits access for people with impaired mobility.

Presently, the site is accessed from a number of existing paths from the north eastern and south eastern car park. Currently, a trail road allows vehicular access and limited wheelchair access from the slip rail located on the northern side of the Skillion car parking bays. There is also a footpath encompassing the whole Haven area which allows foot traffic to the site.

A new accessible pathway should provide compliant access for all abilities.

Recommendations made in an access report prepared by Access Solutions Consultants dated 7 March 2019 should be updated to assess the proposed situation and how the accessible pathway will be resolved and installed by Council to meet access requirements. Access Solutions do not support Site 1 due to cost, accessibility, lack of access to sanitary facilities and the steep slope.

It is further recommended that any future development application associated with a memorial include a resting place or bench type structure given the site location is atop a steep climb of The Haven.

A Traffic Impact Assessment is also recommended for any future application to address the potential impact management of traffic and parking overflow on national days of recognition and commemoration such as ANZAC Day and Remembrance Day.



### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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#### *Overall built environment impacts*

The proposal is not compatible with, and will adversely impact on, the character and amenity of the locality, public recreation area and streetscape. This is predominantly as a result of the visual impact applicable to the height of the development that would result in an outcome that is uncharacteristic and unplanned in this location. As a result, the proposed development is unsatisfactory in terms of impacts on the built environment.

A thorough assessment of the proposed development's impact on the built environment has been undertaken having regard for SEPP Coastal Management along with the provisions of GLEP 2014 and GDCP 2013 and it is considered the potential built environment impacts are unreasonable.

#### **Natural Environment**

There will be significant impact upon the natural environment as a result of the proposal. Although, the development of the site would result in a public structure and memorial consistent with the existing use of the Haven as a place of public recognition of the sunken Adelaide, insufficient information has been provided addressing the impact upon the existing landscaping and vegetation surrounding the site with regard to removal or protection.

#### *Context and Setting*

The site is located on the Haven. The memorial is proposed to be located within a gap (saddle) of the vegetation line which is situated within a landscaped setting and fronts the ocean.

The vegetation in this area is classified as Coastal Headland Shrubland (E51b) with species identified consistent with those found in surrounding coastal environments (e.g. She-oak, Coastal Banksia and Coastal Tea-tree). This site was selected as it has direct view of the buoys over the site of the Ex-HMAS Adelaide, is close to the Marine Rescue Centre, and is clear of vegetation.

The structure is 450mm in diameter and up to 9m in height. It is considered that the development will obstruct significant or iconic views or vistas from public and private land.

In this circumstance, the location chosen at Site 1 is not considered suitable given that the application was accompanied by insufficient information.

The intention of the development is to establish a mast above the sunken naval vessel to form part of a memorial at The Haven. Whilst this application is not considered acceptable, the project to establish a memorial does have value. The Haven is part of the RE1 Public Recreation area and an important area of significant scenic quality and a special place for

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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both locals and tourists. It is considered that a future memorial could enhance this experience.

The Terrigal Haven Plan of Management 2009 which was adopted by the former Gosford City Council in 2010 has not been updated to include the subject development application and 'Lifecycle Plan' has not been prepared.

In this circumstance, the development is considered unacceptable in terms of the impact of the proposed works as assessed against the scenic values identified in the Terrigal Haven Plan of Management 2009 to determine if the changes in the landscape are consistent with the desired character of the reserve.

Heritage interpretation has not addressed the actions of the Terrigal Haven Plan of Management. The concept plan must be consistent with appropriate management of any culturally significant sites within the vicinity.

#### *Geotechnical*

The proposed structure is on a small saddle between two elevated rock outcrops, on stable, slightly sloped land which is currently prone to erosion from storms and associated coastal processes. The site however is well protected from the south where severe storms can cause wider-spread erosion and damage.

Douglas Partners Pty Ltd (DP) carried out a geotechnical investigation. The work was carried out for Wales & Associates Pty Ltd. The geotechnical investigation was carried out to assess the subsurface conditions in order to provide geotechnical design parameters for a footing to support the mast.

The investigation comprised the drilling of a single borehole at the location of the proposed monument. The borehole was drilled using a 4WD-mounted push tube rig with 60 millimetre diameter sampling tubes and was taken to a depth of 3.2 metres. Conditions encountered in the borehole broadly comprised very stiff grading to hard residual clay soils, with drilling terminating at 3.2 metre depth due to refusal on weathered sandstone. No free groundwater was observed in the borehole which was backfilled shortly after drilling for health and safety reasons.

It is noted that groundwater levels are affected by factors including rainfall and will therefore vary over time.

The report dated July 2010 investigations found that:

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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- Based on the conditions encountered in the borehole, it is considered that the mast could be supported either by a pad footing or by concrete bored pier(s), depending on the applied loads.
- Pad footings being at least 0.5 m below ground level on at least very stiff residual clay could be proportioned for a maximum allowable bearing pressure of 200 kPa.
- Concrete bored piers could be designed based on a maximum allowable end bearing pressure of 600 kPa and maximum allowable shaft adhesion 50 kPa within the weathered rock profile. Shaft adhesion could also be included for the section of the piles within the residual clay and a maximum allowable adhesion of 15 kPa would be appropriate. Lateral loads (e.g, wind loading) could be resisted by the portion of the bored pile embedded into the ground and could be based on an ultimate passive earth pressure of 150 kPa within at least very stiff clay and 300 kPa within the weathered sandstone. The upper 1 m should be ignored in this loading case.
- Settlements associated with footings designed based on the aforementioned parameters would be expected to be less than about 1% of the footing width.
- Footing excavations or pier holes should be free of water and loose debris prior to pouring concrete. It is also recommended that all footing excavations be inspected by a geotechnical engineer to check that the founding conditions are consistent with the design requirements.

It is recommended that any future development application provide an updated geotechnical investigation / dilapidation report as the report dated July 2010 states that the "the scope for work for this investigation/report did not include the assessment of surface or sub-surface materials, or ground water for contaminants within or adjacent to the site".

There has been reported cliff dilapidation in 2020. Structural stability remains an issue for investigation.

#### *Flora and Fauna*

Flora recorded at the Haven includes Coastal Headland Shrubland (E51b). There are no anticipated impacts on this vegetation as all construction works would be required to be contained within the exposed grassed area of the site.

#### *Bushfire*

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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The site is not bushfire affected.

#### *Flooding*

The site is not flood affected.

#### *Acid Sulfate Soils*

The site does not affect acid sulfate soils.

#### **Economic Impacts**

An Economic Impact Assessment has not been submitted with this development application. The proposed development could have beneficial economic impacts bringing tourism to the memorial and local economy. It is noted that the proposal is not considered that the proposal is inconsistent with the aims of the Central Coast Structure Plan 2036 (CCSP 2036).

#### **Social Impacts**

A Social Impact Assessment has not been submitted with the development application outlining the net community benefits.

The proposed development could have beneficial social, cultural, historical and educational impacts as it will provide a memorial in the Terrigal Haven (as approved within the Terrigal Haven Plan of Management 2009) to the sunken naval vessel to which it relates and sits sunken and decommissioned off the coast providing a diving reef adjacent north of this part of the coastal headland.

The proposal for a memorial in principle is reasonable, however the built form will be incongruous within the location within The Haven (Site 1) and will adversely impact on the planned character and amenity of the locality.

#### *Safety and Vandalism*

Memorials and public artwork on the Central Coast have not been consistently maintained. The construction of this memorial would require a maintenance program, maintenance funding and a 'Lifecycle Plan'. A Lifecycle Plan determines the lifespan of the memorial, and determines ongoing maintenance costs and a program for inspection and maintenance.

The memorial is likely to experience vandalism, which will require removal as soon as possible as tags left in place become a reward to the vandal. Vandalised memorials also become more prominent in the landscape and send a signal that encourages anti social behaviour. How climbable the memorial should also be considered. Vandalised memorials also become more prominent in the landscape and send a signal that encourages anti social behaviour.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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Safety measures have not been sufficiently addressed. Safety, vandalism and maintenance regarding the construction and maintenance of the memorial requires a maintenance program, maintenance funding and a 'Lifecycle Plan' determining the lifespan of the memorial, ongoing maintenance costs and a program for inspections, and, how this part of the cliff coastline will be ensured for public safety with fencing and the like.

Suitable safety measures such as way finding signage have not been provided to ensure mourners and visitors to the site are aware of the structures close proximity to the cliff drop off. It is recommended future consideration be given to providing low lying safety fencing along the cliff line gap similar to that at the Skillion.

Where relevant The Terrigal Haven Plan of Management 2009 which was adopted by the former Gosford City Council in 2010 should be updated to include the development, safety and maintenance program.

#### *Heritage Interpretation – European and Aboriginal*

There is significant Aboriginal heritage known to be within the surrounding area specifically along the northern foreshore and adjacent to the Skillion on the eastern side. Indigenous and non-indigenous heritage Indigenous heritage sites have been identified within the Terrigal Haven area however due to the sensitive nature of the information, specific details cannot be provided.

It is recognised that the actions in this Terrigal Haven Plan of Management and the concept plan must be consistent with appropriate management of these culturally significant sites. Any future application should include a heritage interpretation strategy and plaque will provide public awareness of the mast ex-naval history and importance of service, identifying and respecting the memorial as it comprises the original mast from the Ex-HMAS Adelaide which will be placed within a sandstone block plinth.

#### **Suitability of the Site for the Development**

The site is considered to be unsuitable for the proposed development as follows:

- The site is zoned RE1 Public Recreation under GLEP 2014. The proposal is a permissible use under the RE1 Public Recreation zone, however the scale of the proposed development by virtue of it's chosen location is inconsistent with the objectives of the zone.
- There may be environmental hazards which would prevent development of the site.
- Utility services may be required which may not be available at the site.
- The site is not located on and near public transport facilities however, is located within a public recreation space providing community facilities.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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- The development application is in not accordance with desired character/scenic quality for the area.
- There is no character statement for this precinct that specifically addresses the land, however it is conserved in this circumstance the aesthetics are generally unacceptable and given the environmental impact, the application is not supported.
- The HMAS Adelaide monument could in future present as a visually interesting historical monument structure if it were of a suitable bulk and scale and sited within an equitable location.

#### **Any Submission made in Accordance with this Act or Regulations**

The development application was notified between 12 February 2021 to 22 March 2021 in accordance with DCP 2013 – Chapter 1.2 Notification of Development Proposals with 6 submissions received. The general issues raised in relation to the proposal are included below:

- *Concern about ongoing cost and Council's financial position.*

Comment: Funding is already established (although may require renewal) for the development. The NSW Government has committed funding of the installation with a \$66,000 grant from the Stronger Communities Fund (round 2), with an additional \$3,000 provided by the Minister's Discretionary fund (FY2015-16). Council is submitting the development application and will be responsible for project management and ongoing maintenance. Council will seek funding for the installation of the access path as part of future project work.

- *Concern about the identified location for the monument limiting access for people with impaired mobility.*

Comment: An Access Report prepared by Accessible Solutions dated 7 March 2019 accompanies this development application which does not support Site 1 due to cost, accessibility, lack of access to sanitary facilities and the steep slope. Equitable accessibility should be resolved and remains an ongoing issue at the Haven.

- *Concern about the obstruction of view and the need to keep the natural environment in mind when implementing anything at The Haven.*

Comment: Two Visual Impact Assessment (VIA) reports accompany this DA including a June 2020 Independent Review by The Design Partnership (TDP) of the Visual Impact Assessment (VIA) by the Green Light Design Group (GLDG). Neither VIA support the DA, however it is considered that the issues raised could be mitigated in order to achieve a more negligible outcome particularly given the enormous cultural, social, educational, and community benefits that will result from the Ex-HMAS Adelaide memorial.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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- *Access*

Comment: Equitable access is not addressed which may limit access to the memorial site for people with impaired mobility. Given the site is proposed as a commemorative place this is of paramount importance on national days of significance such as ANZAC Day and Remembrance Day.

The proposed access does not comply with AS 1428.1, 1428.4.1, NCC (BCA 2016 Volume 1), Disability (Access to Premises – Buildings) Standards, and Central Coast Council Disability Inclusion Plan.

Access Solutions do not support Site 1 identified by Council for the development due to cost, accessibility, lack of access to sanitary facilities and the steep slope.

It is recommended that any future development application associated with a memorial include a resting place or bench type structure given the site location is atop a steep climb of the Haven.

A Traffic Impact Assessment is also recommended for any future application to address the potential impact management of traffic and parking overflow on national days of recognition and commemoration such as ANZAC Day and Remembrance Day.

- *Consultation*

Comment: Prior to lodgement formal community engagement was held between 9 November 2020 and 7 December 2020 through Council's web page. Hyperlink to community engagement: <https://www.yourvoiceourcoast.com/HMASadelaide>

Consultation was undertaken to determine community sentiment on the monument and its location to inform the application.

The development application has been formerly exhibited between 12 February 2021 and 26 February 2021. Six (6) submissions were received including a letter from the Terrigal Area Residents Association Inc. (TARA). The issues raised have been considered in the assessment.

- *Would Staff and Councillors consider a Site inspection at which time two marker poles could be erected?*

Comments: Although recommended in correspondence to the applicant dated 17 February 2021, height poles were not placed on the site to determine the height and visual impact.

- *Maintenance*

### 3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)

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Comment: The installation of the mast was included in the Terrigal Haven Plan of Management 2009 which states 'Investigate appropriate location for a memorial in honour of the ex-HMAS Adelaide II and her crew. Construct environmentally sensitive viewing platform incorporating interpretive / educational signage and relevant relics from the vessel.'

Any future application will require the plan to be updated to include a maintenance program, maintenance funding and a 'Lifecycle Plan'. A Lifecycle Plan determines the lifespan of the memorial and determines ongoing maintenance costs and a program for inspection and maintenance.

- *The 'cluttering up' of one of nature's quiet, simple and open landscapes would be a disaster when viewed close up or from a distance.*

Comment: The proposed structure is not considered suitable for this location in this circumstance. Visual impact has been thoroughly considered in this assessment.

- *Support - In view of the long period of gestation, corresponding increases in cost over 9 years the option for site 2 proposal is strongly supported based on the current documentation supporting this Development Application. The caveat being that Central Coast Council rate payers are not requested to financially support this proposal particularly given the cost overrun of the Terrigal Boardwalk.*

Comment: Noted.

#### **Submissions from Public Authorities**

#### **Roads and Maritime Services (TfNSW)**

Council did not refer the development application to TfNSW for comments.

#### **Internal Consultation**

The application has been referred to and reviewed by the following experts in council:

Building Surveyor	Supported subject to conditions.
Development Engineer	Supported subject to conditions. Refer comments below.
Environmental Health	Supported without conditions.
Ecology	Supported without conditions.
Urban Design	See comments below

Development Engineer



### 3.1 **DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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#### Accessible footpath

The development will require the construction of accessible footpath from the Skillion car park to the perimeter footpath adjoining the proposed location of the memorial structure. The design and construction of this is to be in accordance with the Building Code of Australia and Council's Civil Works Specification.

#### Fencing

Planner to consider whether the provision of safety fencing between the memorial structure and the cliff is warranted.

#### Urban Design Comments

In terms of Urban Design, the proposed location appears to be satisfactory but the dimensions of the monument are problematic and some of the issues still need to be worked through.

A Landscape Plan from a suitably qualified professional is required to provide revised drawings with a more generous allocation to allow for circulation, and confirmation that the appearance of the mast does not include the 3 horizontal projections that are up to 4 metres long.

There is also opportunity to modify the design to remove trip hazards in both the walls and the plaque and incorporate interpretative signage in more appropriate locations.

The application is unable to be supported for the reasons outlined in the recommended reasons for **Refusal**.

#### **The Public Interest**

The development will have an adverse impact on the public amenity of the existing public open space and does not provide equitable access. Visual impact must be resolved in order to mitigate environmental impact by way of view obstruction from neighbouring properties and surrounding public land.

#### **Ecologically Sustainable Principles**

The proposal has been assessed having regard to ecologically sustainable development principles and is considered to be not inconsistent with the principles.

Further analysis is required to determine whether the proposed development is considered satisfactory in terms of stormwater, drainage and erosion control. A detailed landscape plan and arborist report has not been submitted outlining the protection, retention and replacement of vegetation where possible.

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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Suitable information has not been submitted with the application demonstrating that the development is unlikely to have any significant adverse impacts on the environment which could in turn decrease environmental quality for future generations.

Flora recorded at the Haven includes Coastal Headland Shrubland (E51b). There are no anticipated impacts on this vegetation as all construction works will be contained within the exposed grassed area of the site.

#### **Climate Change**

The potential impacts of climate change on the proposed development have been considered by Council as part of its assessment of the development application. This assessment has included consideration of such matters as potential rise in sea level; potential for more intense and/or frequent extreme weather conditions including storm events, bushfires, drought, flood and coastal erosion; as well as how the proposed development may cope, combat, withstand these potential impacts.

#### **Other Matters for Consideration**

##### *The Terrigal Haven Plan of Management 2009*

The installation of the mast was included in the Terrigal Haven Plan of Management 2009 adopted by the former Gosford City Council in 2010 which states 'Investigate appropriate location for a memorial in honour of the ex-HMAS Adelaide II and her crew. Construct environmentally sensitive viewing platform incorporating interpretive/educational signage and relevant relics from the vessel.'

Clauses 5.1 to 5.4 of the plan are relevant to the proposed development and were addressed in the Visual Impact Assessment prepared by Greenlight as independently reviewed by The Design Partnership.

Any future application will require the plan to be updated to include a maintenance program, maintenance funding and a 'Lifecycle Plan'. A Lifecycle Plan determines the lifespan of the memorial and determines ongoing maintenance costs and a program for inspection and maintenance.

##### *Illumination*

No illumination of the development of surrounding public land is proposed. This is not permissible without consent of Australian Navy or RSL.

##### *Waste Management*

### **3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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A Waste Management Plan (WMP) has been prepared in line with the requirements of the Gosford Development Control Plan.

#### *Construction Management Plan/Project Delivery*

The proposal would most likely not produce excessive dust or noise during the construction affecting neighbours as there are no nearby sensitive noise receivers such as residential dwellings, schools or hospitals. However, the use of the public recreation area would be restricted during construction.

The delivery of this project has been planned to minimise inconvenience, ensure safety and reduce the construction impact on residents, local businesses and tourists.

The proposed works are anticipated to last for approximately 2 weeks with the initial installation of the mast the priority. A plinth footing is required to a depth of a minimum 4.4 metres deep by a 750 millimetres width to ensure enough strength is obtained to secure the mast.

The base of the mast itself is 2 metres above ground and held by a pre-welded stainless steel cage that is concreted into the plinth and tightened with GR316 stainless steel bolts.

During the construction period, access to the area around the footprint of the structure and upgrade to access pathways would be restricted, plus a small section of the Terrigal Haven carpark may be closed to cater to construction vehicles etc.

Users of the Haven, Main Oval and Skillion as well as foreshore areas and car park areas are advised to adhere to onsite signage and not to enter the construction area. However, a Construction Management Plan (CMP) was not submitted.

#### *Planning Agreements*

The proposed development is not subject to a planning agreement / draft planning agreement.

#### *Development Contributions*

Development Contribution Plan under Section 7.12 may be applicable if the proposal was supported.

#### *Water and Sewer Contributions*

There are no water and sewer contributions applicable to the proposed development.

**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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**Conclusion**

This application has been assessed against the heads of consideration of Section 4.15 of the Environmental Planning & Assessment Act 1979 and all relevant instruments and policies. The potential constraints of the site have been assessed and it is considered that the site is unsuitable for the proposed development.

The proposed development is expected to have an adverse impact on the built and natural environment as well as visual impacts.

It is considered that the proposed development will not complement the locality and meet the desired future character of the area. Accordingly, the application is recommended for **Refusal** pursuant to Section 4.16 of the Environmental Planning and Assessment Act.

The development application is not supported, for the reasons below.

**Reasons for the Decision**

The reasons for the decision as recommended under the assessment of this application are as follows:

- 1 The proposal is unsatisfactory having regard for the relevant environmental planning instruments, plans and policies.
- 2 The proposal has been considered against the provisions of State Environmental Planning Policy (Coastal Management), Gosford Local Environmental Plan 2014 and Gosford Development Control Plan 2013 and has been found to be unsatisfactory.
- 3 There are significant issues or impacts identified with the proposal under s.4.15 of the Environmental Planning and Assessment Act 1979.
- 4 Additional information requested in order to undertake a more comprehensive assessment addressing the relevant provisions of the Environmental Planning and Assessment 1979 has not been provided:
  - a A survey has not been provided clearly identifying the location of the proposed structure and proximity of vegetation that may be affected.
  - b Amendments are required on the architectural drawings to show correct dimensions of the structure and surrounding area. It is noted that the SEE states the structure is 7.4m, and that the base of the mast will be 2m above ground level. The architectural drawings show the mast height at

**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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approximately 9m and the Independent Review of the Greenlight VIA states the proposal will be approximately 9.5m.

- 5 The application is inconsistent with the stated aims and objectives of the SEPP (Coastal Management) 2018. The proposed development will cause an adverse impact on the matters required to be considered under Clause 13 (1) (a) – (g), Clause 13 (2) (a) – (c), Clause 14 (1) (a) – (b) and Clause 2 of SEPP (Coastal Management) 2018.
- 6 Equitable access will not be achieved, and does not comply with AS 1428.1, 1428.4.1, NCC (BCA 2016 Volume 1), Disability (Access to Premises – Buildings) Standards, and Central Coast Council Disability Inclusion Plan.
- 7 The development will cause adverse visual impact upon view corridors from private and public places.
- 8 The development is considered unacceptable in terms of the impact of the proposed works as assessed against the scenic values identified in The Terrigal Haven Plan of Management 2009 to determine if the changes in the landscape are consistent with the desired character of the reserve.
- 9 Safety measures have not been sufficiently addressed.
- 10 A traffic impact assessment (TIA) has not assessed the additional traffic overflow may be managed on commemorative days of the year.
- 11 An ecology, biodiversity and landscape or arborist assessment has not been submitted to assess the impact of the development on the natural environment, fauna and flora.
- 12 A social impact assessment and economic impact assessment has not been submitted to assess the net community and economic benefits of the development.
- 13 The geotechnical investigation / dilapidation report dated July 2010 prepared by Douglas Partners is considered outdated and does not specifically address the proposed location of the mast and plinth footing.
- 14 A Construction Management Plan (CMP) has not been submitted.
- 15 The development is not presently considered in the public interest. The development will have an adverse impact on the public amenity of the existing public open space and does not provide equitable access. Visual impact must be

**3.1 DA/60262/2020 - 2 Scenic Highway, Terrigal - Ex-HMAS Adelaide Mast at the Terrigal Haven on to a plinth footing with landscaping and provision for a flagpole (contd)**

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resolved in order to mitigate environmental impact by way of view obstruction from neighbouring properties and surrounding public land.

**Attachments**

<b>1</b>	Architectural Plans 2 Scenic Highway TERRIGAL DA60262 Part 1	D14327718
<b>2</b>	Statement of Environmental Effects Revised Nov 2020 2 Scenic Highway TERRIGAL DA60262 Part 1	D14468432
<b>3</b>	Engineering Plan & Carpark & Pathway Plan 2 Scenic Highway TERRIGAL DA60262 Part 1	D14327723
<b>4</b>	Access Report 2 Scenic Highway TERRIGAL DA60262 Part 1	D14327733
<b>5</b>	Geotechnical Report 2 Scenic Highway TERRIGAL DA60262 Part 1	D14327735
<b>6</b>	Visual Impact Assessment 2 Scenic Highway TERRIGAL DA60262 Part 1	D14327729
<b>7</b>	Independent Review 2 Scenic Highway TERRIGAL DA60262 Part 1	D14327736

# HMAS Adelaide Monument

*Approximate  
site location*

*Approx. HMAS  
ADELAIDE location*



Project Locality



















**Landscape Management - Trees**

**Existing Vegetation to be Retained and Protected:**

- \* All existing trees shown to be retained are to be protected in accordance with "the act landscape guidelines" & The "basic specification for road, hydraulic Services and landscape vol. 1, edition no.1 July 1991" - unless noted otherwise. Refer to ACT Environment Tree Damaging Activity Approval.
- \* No storage of materials/waste or parking is permitted within the tree protection zone (2m outside the drip zone) of significant trees
- \* Existing crown and apex not to be altered unless noted otherwise.
- \* Ensure construction equipment can pass beneath lowest limb without damage to trees.
- \* Access requiring excavation is not permitted on two sides of trees.
- \* All work within the drip zone must be undertaken by hand.
- \* Do not sever large roots (greater than 30mm dia) closer than halfway from the drip line to the trunk.
- \* All roots must be cut cleanly with equipment specially designed to cut roots.
- \* Roots exposed during excavation must be protected from drying out.

**Waste Management:**

- \* No unauthorised use of public land for storage of waste/recyclables or parking is permitted. The method of disposal for all demolished structures and vegetation shall be as per the Waste Management Plan Parts 1, 2 & 3

**Temporary Fencing:**

- \* Temporary 1800H chain wire verge protection fence to be erected prior to commencement of the works.
- \* Temporary protection fences may be required around significant trees on site also, in accordance with ACT Environment recommendations. Refer to ACT Environment Tree Damaging Activity Approval.
- \* Remove fencing for landscape restoration only after the completion of construction works

**Temporary Access:**

- \* Temporary access across verge: where possible use existing driveways.

**Reinstatement:**

- \* The contractor is responsible for the reinstatement of all damages incurred to land, vegetation, services, paths, roads and other public property, as a result of this construction work.
- \* At the completion of construction, verges are to be restored to non irrigated grass. Top soil is not to be removed and the soil level must not be changed

**Work On Site Only:**

- \* All construction work is to be contained within the site except for work otherwise approved by all relevant authorities.

- \* Advertising, signage, and the like to be located within the property boundary



Site location



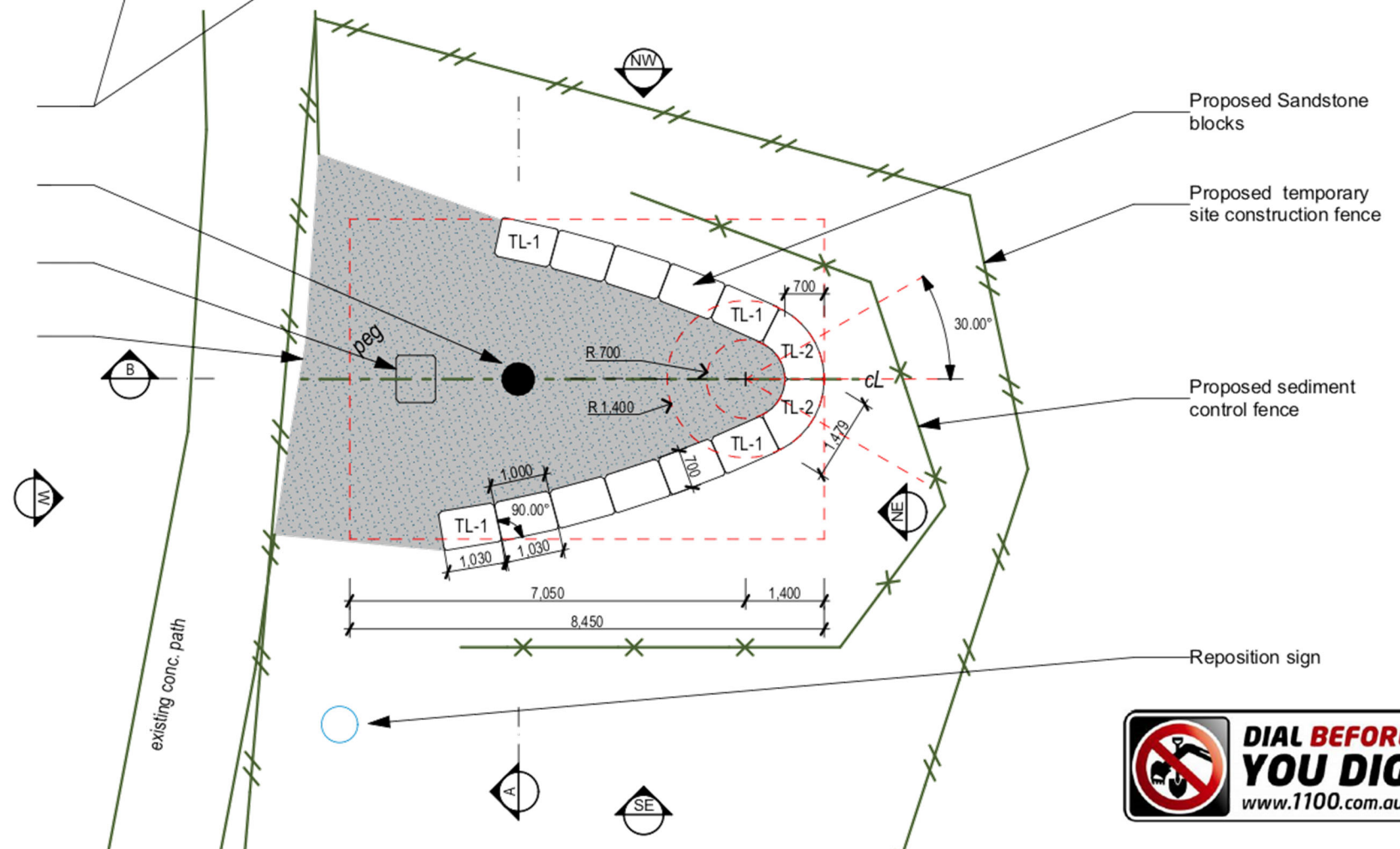
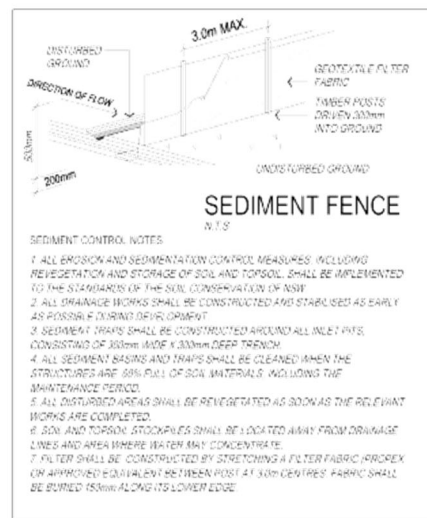
Site location

Approximate site location

Proposed Ship Mast

Proposed Monument Plaque

Provide smooth transition between existing and proposed concrete surfaces



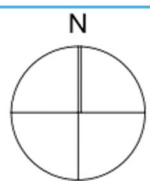
GFA:

Site Coverage

Reposition sign

Proposed sediment control fence

Reposition sign



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residential and commercial building design

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**Community Project**

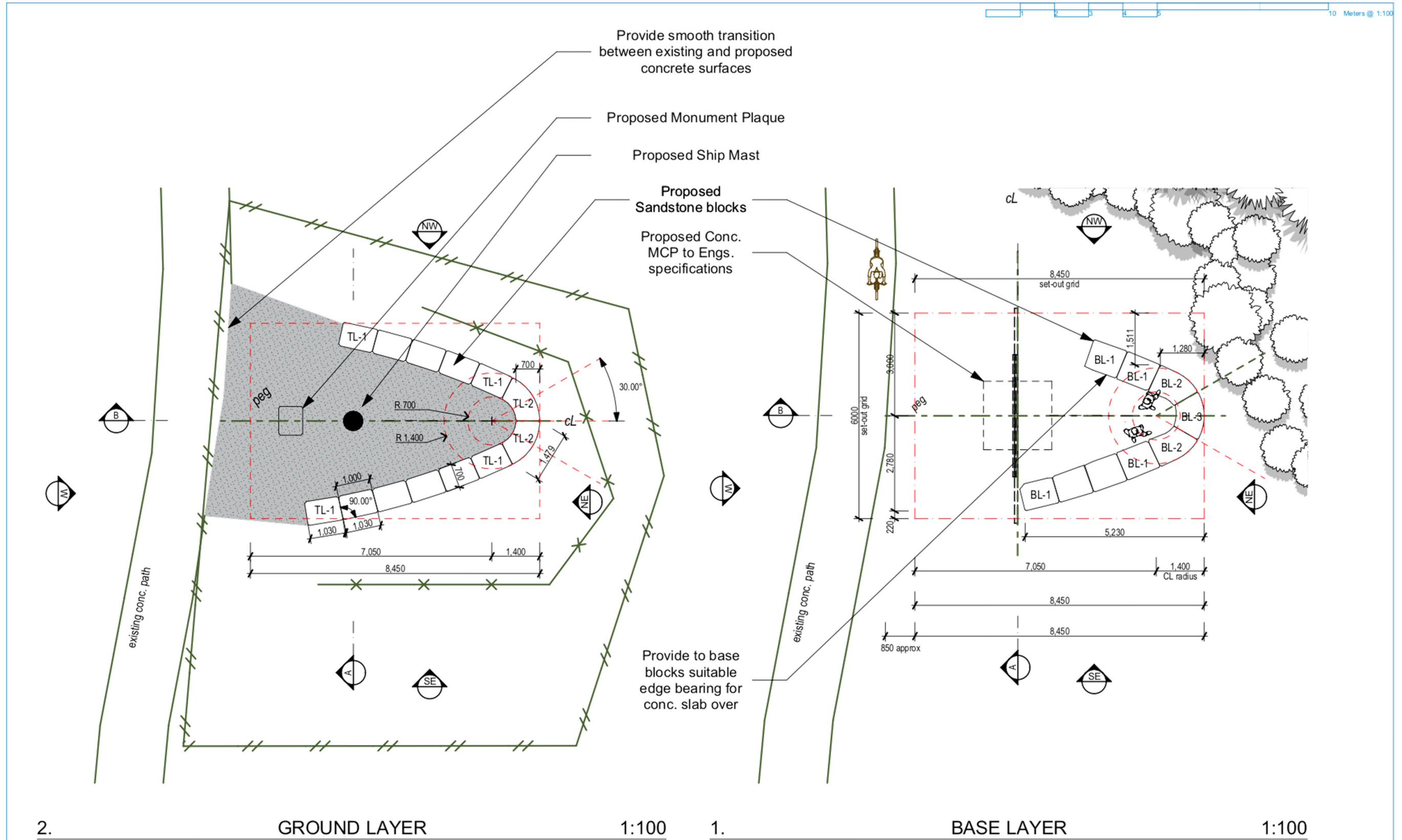
for: **HMAS Adelaide Monument**  
at: **The Haven. Scenic Hwy TERRIGAL NSW 2260**  
lot: 6 dp: 857477

REV	Issue	Date
01	Issue DA	5/03/2019
02	Re-Issue DA	31/08/2020
03	Re-Issue DA	14/09/2020
04	Re-Issue DA	6/11/2020

**SITE PLAN**

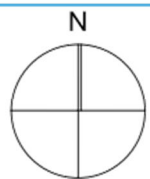
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drawn: DR		A3-10
checked: DR		
print date: 6/11/2020		
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2. GROUND LAYER 1:100

1. BASE LAYER 1:100



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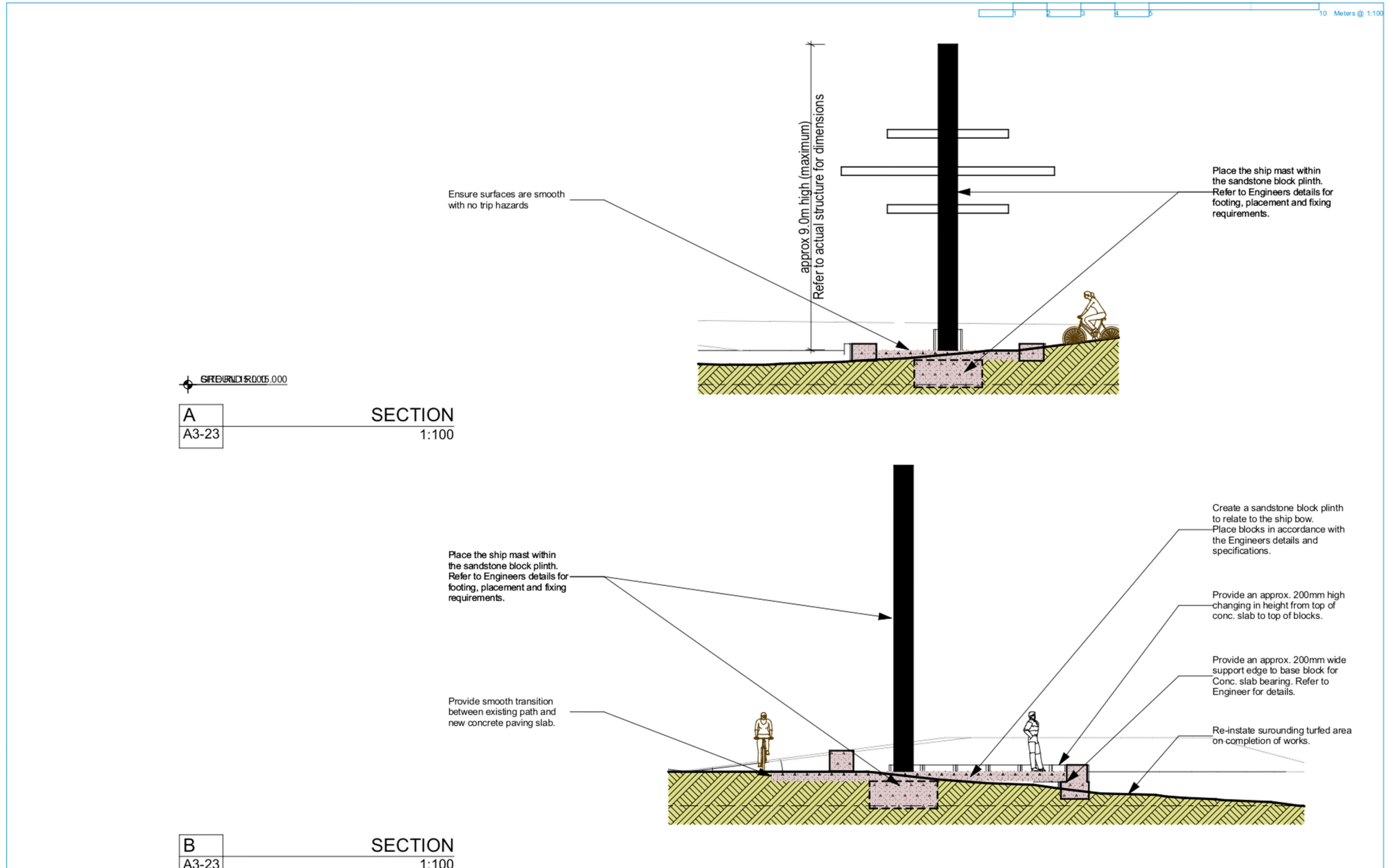
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01	Issue DA	5/03/2019
02	Re-Issue DA	31/08/2020
03	Re-Issue DA	14/09/2020
04	Re-Issue DA	6/11/2020

**BASE and GROUND**

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Issue:  
**04**

sheet #:  
**16595-A3-23**

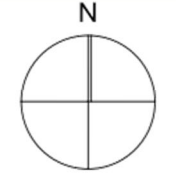


GRID/BLK/SD/005.000

**A**  
A3-23 SECTION  
1:100

**B**  
A3-23 SECTION  
1:100

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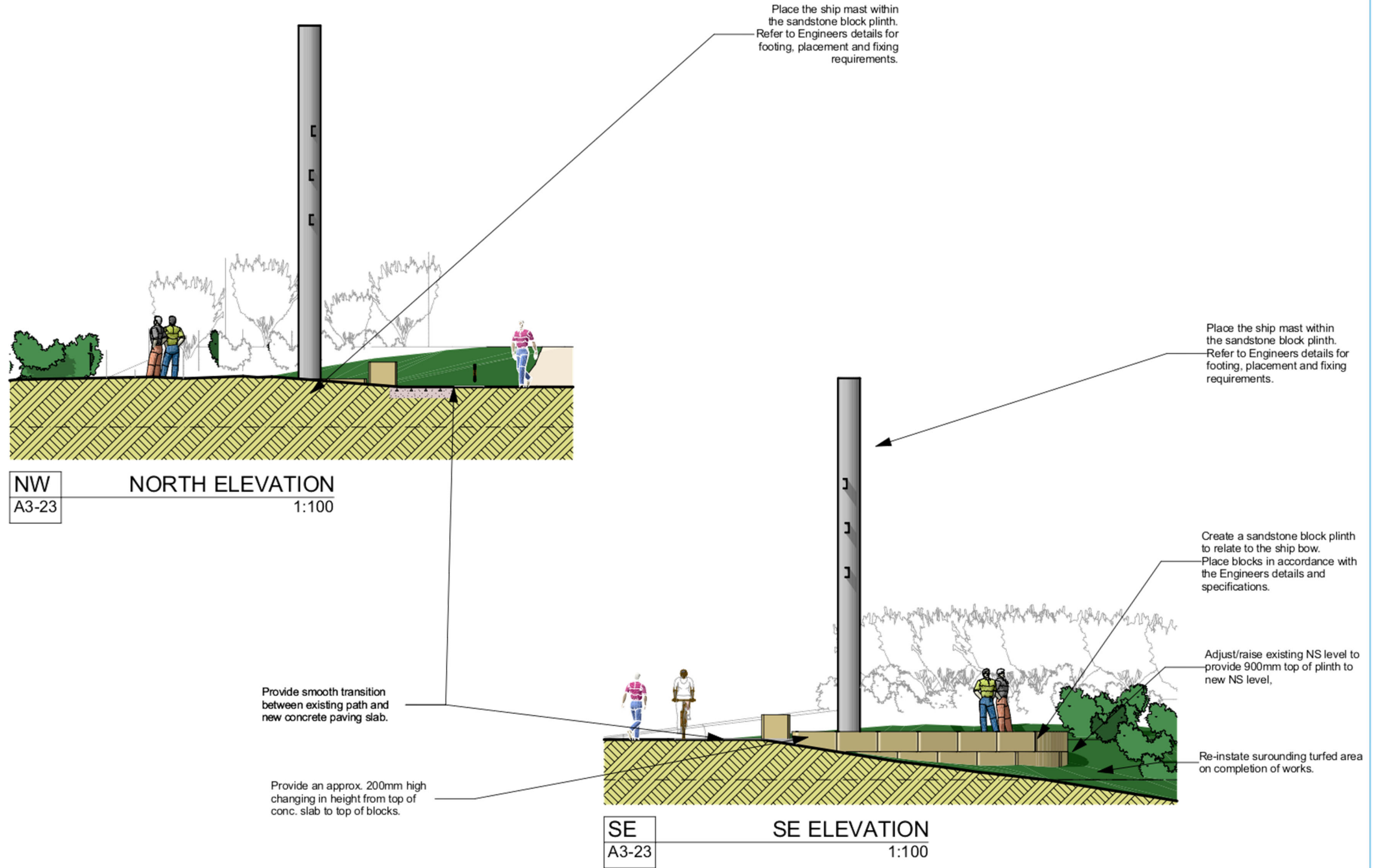
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lot: 6 dp: 857477

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03	Re-Issue DA	14/09/2020
04	Re-Issue DA	6/11/2020

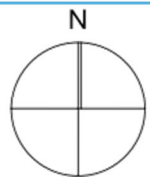
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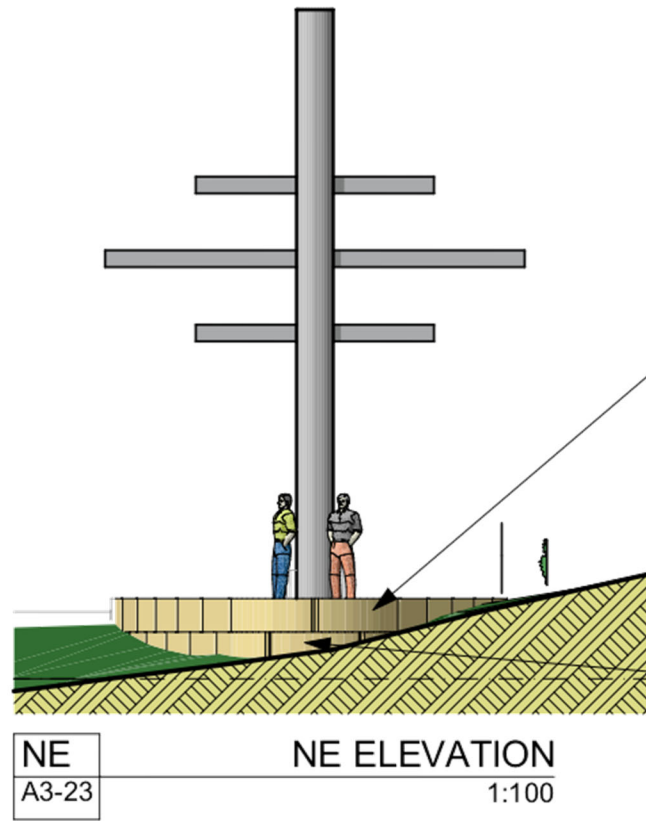
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REV	Issue	Date
01	Issue DA	5/03/2019
02	Re-Issue DA	31/08/2020
03	Re-Issue DA	14/09/2020
04	Re-Issue DA	6/11/2020

NW & SE ELEVATIONS		Issue:	sheet #:
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BAL Rating: #	BAL Rating		
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print date:	6/11/2020		
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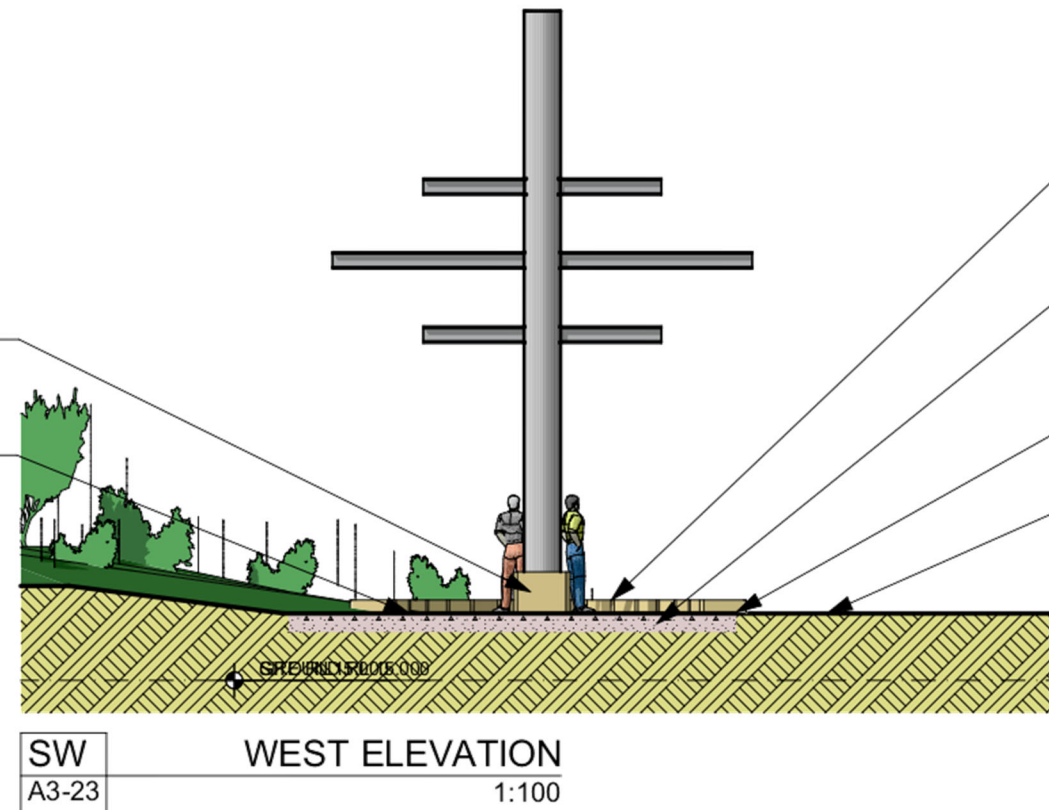


Create a sandstone block plinth to relate to the ship bow. Place blocks in accordance with the Engineers details and specifications.

Adjust/raise existing NS level to provide 900mm top of plinth to new NS level.

Place the ship mast within the sandstone block plinth. Refer to Engineers details for footing, placement and fixing requirements.

Ensure surfaces are smooth with no trip hazards

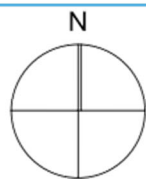


Provide an approx. 200mm high changing in height from top of conc. slab to top of blocks.

Provide an approx. 200mm wide support edge to base block for Conc. slab bearing. Refer to Engineer for details.

Provide smooth transition between existing path and new concrete paving slab.

Re-instate surrounding turfed area on completion of works.



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**Community Project**

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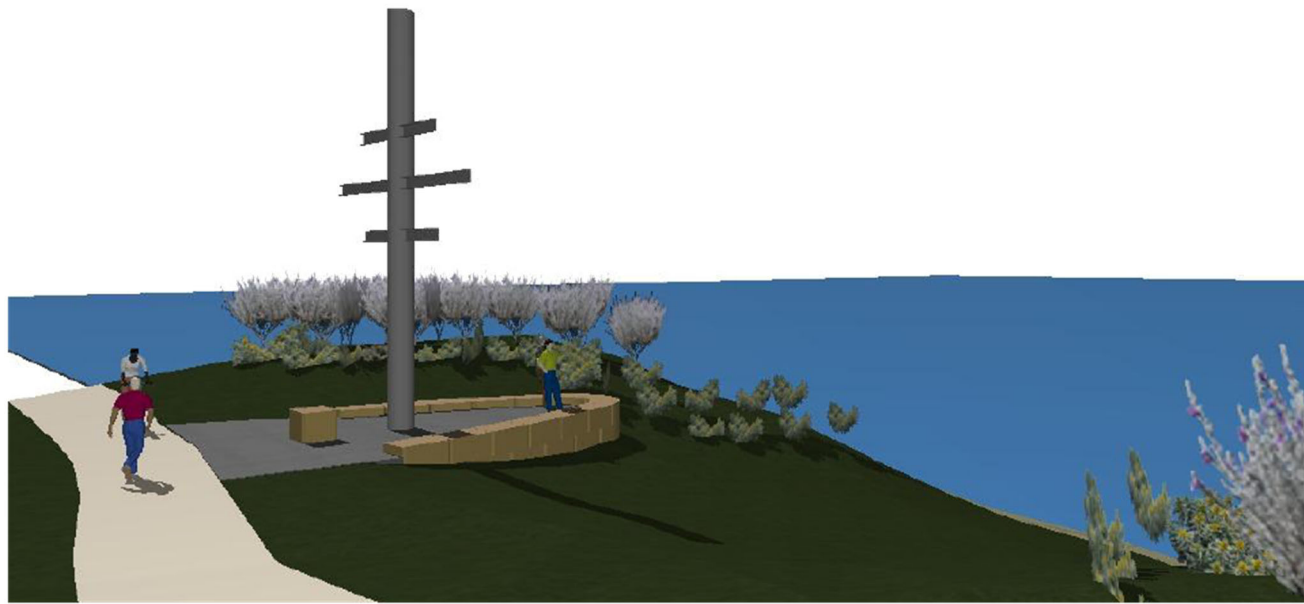
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02	Re-Issue DA	31/08/2020
03	Re-Issue DA	14/09/2020
04	Re-Issue DA	6/11/2020

**NE & SW ELEVATION**

BASIX Cert: #BASIX Cert #
BAL Rating: #BAL Rating
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checked: DR
print date: 6/11/2020
scale @ A3: 1:100

Issue:	sheet #:
<b>04</b>	<b>16595-A3-41</b>





Impression 2 1:200

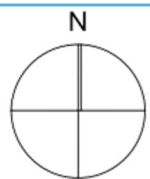


Site Location 1:5.56



Impression 1 1:200

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03	Re-Issue DA	14/09/2020
04	Re-Issue DA	6/11/2020

**EXTERNAL VIEWS**

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checked: DR		
print date: 6/11/2020		
scale @ A3:		



## Statement of Environmental Effects EX-HMAS

### Adelaide Mast Installation



Prepared By: Open Space and Recreation: Assets, Infrastructure and Business

Date: September 2018

Revised by Project Management Environment & Planning - November 2020



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### PROPOSED DEVELOPMENT

This application has been submitted by Central Coast Council (CCC) staff on behalf of the community group and, as per Council's resolution, will project managing the installation if required.

The proposal is to install the Ex-HMAS Adelaide mast onto a plinth footing, surrounded by a sandstone retaining wall, garden bed and an access path linked to the existing car park.

The project is funded by the NSW Stronger Communities Fund, NSW Govt. Minister's Discretionary Fund, the community, in kind contributions from Thales and associates and CCC.

Included in the application are the following attachments:

1. Design plan set 04- D14285420
2. Engineering Design Footing plan - ECMD24460577
3. Pathway Plan- D13713749
4. Access Report - D13714348
5. Geotechnical Survey D14304885
6. Photo Montage EX-HMAS Adelaide site - ECMD24431717
7. Visual Impact Assessment (VIA) - Ex-HMAS Adelaide -D14171156
8. Visual Impact Assessment Peer Review EX-HMAS Adelaide FINAL - D14171151
9. Waste Management Plan EX-HMAS Adelaide

### INTRODUCTION

Built in the United States, HMAS Adelaide was commissioned in November 1980 and was the first of six Adelaide-class guided missile frigates to be delivered to the Royal Australian Navy. The ship participated in the 1990/91 Gulf War, in peacekeeping operations in East Timor in 1999 and 2006 and was deployed to the Arabian Gulf in 2001 and 2004. Decommissioned in 2008, HMAS Adelaide was demilitarised by the Department of Defence before being handed over to the NSW Government in 2009.

On 13 April 2011, the Ex-HMAS Adelaide II was scuttled to the ocean floor 1.8km off the coast between Terrigal and Avoca to become an artificial reef and dive site, which has since attracted military historians and recreational divers to the area. The sunken wreck joined four other former naval vessels that have been transformed into dive sites in waters off Western Australia, South Australia, Queensland and Victoria since 1997.

The Ex-HMAS Adelaide mast is 7.4 metres in length and 450 mm in diameter and has been stored by Council since 2011. In re-establishing the project again in 2016 following community requests, the mast was assessed by the Navy and deemed to be in poor condition. The recommendation was to seek specialist treatment, including a sandblast and painting. The mast is now structurally sound, and all the preparation work was successfully implemented (refer attachment – design plans).

### BACKGROUND

Prior to the scuttling of the Ex-HMAS Adelaide in 2011, the former Gosford City Council, was gifted the mast with the intention that it would form part of a future memorial at Terrigal Haven.

In 2012 Gosford Council resolved that:



a. Council consider the allocation of funding in future capital works programs for engineering investigations and the required assessments into a Memorial for the ex-HMAS Adelaide within the Terrigal Haven reserve.

b. Subsequent to the confirmation of an appropriate site, Council Officers source grant opportunities and funding for the construction of a memorial for the ex-HMAS Adelaide.

In 2015 the former Gosford Council CEO agreed to project manage the installation of the mast on behalf of a community group led by Matthew Wales.

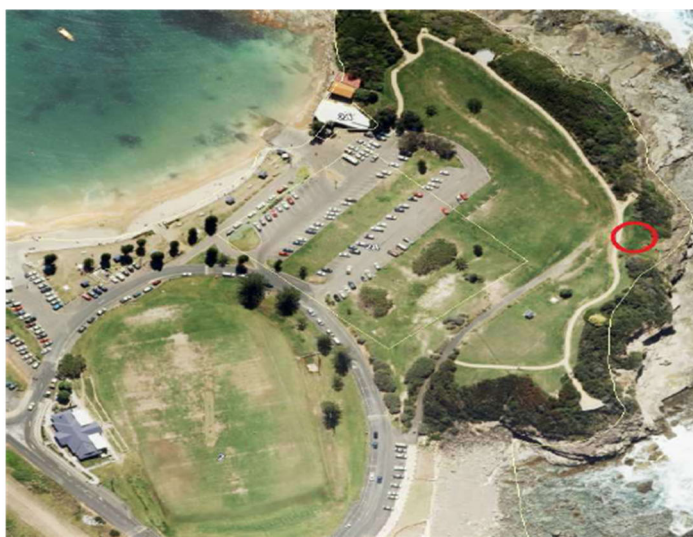
On 14 May 2018, Council considered a report detailing options for the site and installation of the mast. At this meeting Council resolved:

*"That Council request the Acting Chief Executive Officer install the mast from the HMAS Adelaide II at Site 1 identified in the attached photograph."* (refer site map)

#### LOCATION

Council is submitting a Development Application on behalf of a community group for the mast of the Ex-HMAS Adelaide II to be installed as a monument at Terrigal Haven. The proposed site of the monument is at the "Broken Head" headland southern cliff-top (above the dog leash area), close to the Marine Rescue Centre which has direct view of the buoys over the site of the Ex-HMAS Adelaide. (refer site map below).

Terrigal Haven ('the Haven') is in the seaside suburb of Terrigal on the Central Coast of NSW. The Haven itself is a very popular public area with a diverse range of public assets such as the newly upgraded boat ramp, a sporting field, a dog exercising area, whale watching platforms, with their associated activities as well as rock fishing and diving.



**SITE MAP**  
Proposed location



## PLANNING CONTEXT

### APPROVAL

CCC Projects and Planning Environment and Planning is submitting the Development Application on behalf of a community group led by Matthew Wales and as per the Council resolution of the 14 May 2018.

### ZONING

The area is zoned RE1 Public Recreation under the Gosford LEP 2014.

### DEVELOPMENT COMPLIANCE

The installation of the mast was included in the '*Terrigal Haven Plan of Management*' 2009 which was adopted by the former Gosford City Council in 2010. The Plan of Management states: '*Investigate appropriate location for a memorial in honour of the ex-HMAS Adelaide II and her crew. Construct environmentally sensitive viewing platform incorporating interpretive/educational signage and relevant relics from the vessel.*' Clause 5.1 to 5.4 of the POM are relevant to the proposed development. These sections of the POM were addressed in the Visual Impact Assessment. (refer attachments).

The proposal does not comply with State Environmental Planning Policy (Exempt or Complying Development Codes) 2008 or State Environmental Planning Policy (Infrastructure) 2007. State Environmental Planning Policy (Coastal management) 2018 will apply as will the Gosford LEP 2014.

### STAKEHOLDER CONSULTATION

Consultation was undertaken as part of the *Terrigal Haven Plan of Management 2009*. However, due to time that has lapsed since this early consultation and the very public location proposed for the Ex-HMAS Adelaide II mast installation, it is expected that there will be significant stakeholder interest in the project.

Council staff are currently undertaking independent community engagement on the proposal with the wider community to ensure stakeholders can provide feedback for this proposal. Submissions will be received until 7 December 2020 through Council's web page and the results will inform the DA process. A link to this is below

<https://www.yourvoiceourcoast.com/HMASadelaide>

## SITE CONTEXT

### SITE SUITABILITY

The vegetation is classified as Coastal Headland Shrubland (E51b) with species identified consistent with those found in surrounding coastal environments (e.g. She-oak, Coastal Banksia and Coastal Tea-tree). This site was selected as it has direct view of the buoys over the site of the Ex-HMAS Adelaide, is close to the Marine Rescue Centre, is clear of vegetation.

### ACCESS AND TRAFFIC

The site is accessed by a trail road from the bottom of the Skillion parking bays and is the only road access in. There is a footpath that surrounds the site which can also be used for foot traffic.

### BUSHFIRE PRONE LAND

The area is not classified as Bushfire Prone





#### FLOOD PRONE LAND

The site is not identified as flood prone.

#### ACCESSIBILITY

Currently a trail road allows vehicular access and limited wheelchair access from the slip rail located on the northern side of the Skillion car parking bays. There is also a footpath encompassing the whole Haven area which allows foot traffic to the site.

A new accessible pathway is proposed as part of future works which will provide compliant access for all abilities. Recommendations made in an access report prepared by Access Solutions Consultants will be included as part of the future proposed path construction. (refer attachments).

#### VISUAL IMPACT

A visual impact assessment (VIA) has been prepared for the proposal by Greenlight Design Group and this has also been peer reviewed by The Design Partnership. The impact of the proposal was assessed against the scenic values identified in the Terrigal Haven Plan of Management 2009 to determine if the changes in the landscape are consistent with the desired character of the reserve.

Clause 5.1 to 5.4 of the POM are relevant to the proposed development.

5.1 Retain Natural Landscape Quality

5.2 Preservation of Views to the Pacific Ocean

5.3 Embellish Natural Vantage Points

5.4 Effective Maintenance

As outlined in the VIA, the proposal will have a moderate to high visual impact overall in its proposed location, noting the natural setting and that the mast would introduce a built element in a prominent location which is visible from several key locations. (refer attachments)

### **ENVIRONMENTAL IMPACTS AND MANAGEMENT**

#### LANDFORM AND TOPOGRAPHY

The character of the area is typical of a Hawksbury Sandstone Coastal Landscape, heavily influenced by coastal processes. The site for the Ex-HMAS Adelaide memorial is a small saddle between two elevated rock outcrops on Broken Head and forms a notable depression in the skyline, void of large trees and vegetation. The rolling grass slope gives way to an eroding scree slope that then steps down suddenly in blocky sandstone terraces to the flat rock platform below. The grass area provides one of the only natural viewing areas out to the Pacific Ocean that has yet to be formalised with a viewing platform or path.

#### SOIL EROSION

The proposed structure is on a small saddle between two elevated rock outcrops, on stable, slightly sloped land which is currently prone to erosion from storms and associated coastal processes. The site however is well protected from the south where severe storms can cause wider-spread erosion and damage.

Council's standard erosion and protection methods will be implemented during construction including the installation of silt fencing to ensure there are no issues regarding erosion or run-off.

Turf will be placed on battered slopes around the sandstone retaining wall (1 in 5 grade), which will assist with reducing any erosion issues by controlling run-off in the short term as well as once established.

Erosion and sediment controls will be undertaken in accordance with the publication commonly known as



The Blue Book (Managing Urban Stormwater, 4th Edition, Landcom, 2004). The contractor engaged to undertake the construction will also be required to develop an erosion and sediment control plan relevant to the project.

### FLORA AND FAUNA

Fauna - There is no significant fauna on the existing site. No fauna will be impacted by the development.  
Flora – Coastal Headland Shrubland (E51b) - There are no anticipated impacts on this vegetation as all construction works will be contained within the exposed grassed area of the site.

### WASTE

A Waste Management Plan (WMP) has been prepared in line with the requirements of the Gosford Development Control Plan (refer attachments).

Waste will be generated from the construction of the plinth footing and to a lesser extent the construction of the surrounding infrastructure (sandstone retaining wall and garden bed).

All waste from construction will be recycled or reused where possible.

### DUST AND NOISE

The proposal will not produce excessive dust or noise during the construction, and dust mitigation measures, such as wetting down, will be implemented during construction. There are no nearby sensitive noise receivers such as residential dwellings, schools or hospitals

During construction, methods to minimise any excessive noise, consideration of adjoining land users and adherence to working hours will be implemented as stipulated by the Conditions of Consent.

### PRIVACY, VIEWS AND OVERSHADOWING

There will be no overshadowing, impact on privacy or obstruction of views for local residences as the proposed site is in a cleared area away from any residential areas. The VIA proposes that for private residences on the high side of the Scenic Highway, the proposal will only change the overall appearance of the skyline slightly as the existing trees and light poles from the sports oval already extend above this line. The proposed access path will largely be hidden behind existing vegetation and would not become the focal point of the view, leading to a low magnitude of change for these residences.

### HERITAGE

The development will have no adverse effect on the heritage of the area.

There is significant Aboriginal heritage known to be in the surrounding area specifically along the northern foreshore and adjacent to the Skillion on the eastern side. This development will have no impact on these sites as it is not in the proximity of these areas.

### GEOTECHNICAL INVESTIGATION

A geotechnical investigation has been undertaken for the site. (refer attachments). Investigations found that:

- Acid Sulphate Soils are not present within the construction footprint.
- Site was observed as comprising of very stiff grading to hard residual clay soils, with drilling terminated at 3.2 metres depth due to refusal on weathered sandstone.





- Concrete bore piers could be designed based on a maximum allowable end bearing pressure of 600kPa and maximum allowable shaft adhesion of 50kPa.
- Groundwater was not observed to the drilling depth of 3.2 metres within the construction footprint.

### **CONSTRUCTION METHOD DESCRIPTION**

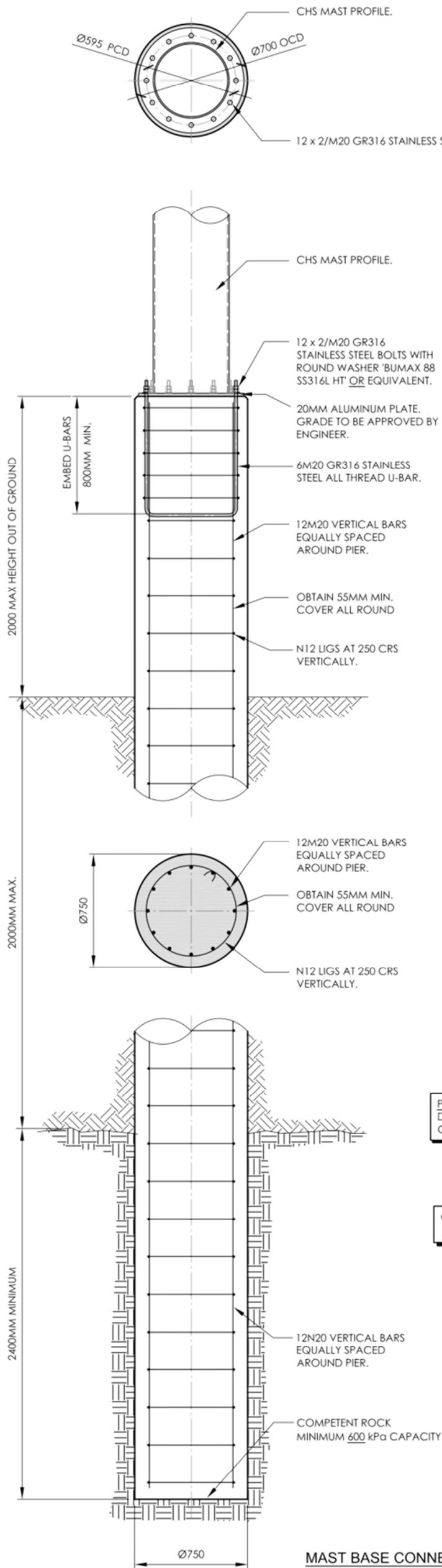
The proposed works are anticipated to last for approximately 2 weeks with the initial installation of the mast the priority. A plinth footing is required to a depth of a minimum 4.4 metres deep by a 750 millimetre width to ensure enough strength is obtained to secure the mast. The base of the mast itself is 2 metres above ground and held by a pre-welded stainless steel cage that is concreted into the plinth and tightened with GR316 stainless steel bolts (Refer Engineering Design Footing Detail in attachments).

### **CONCLUSION**

The proposed development will provide a land based memorial for the Ex- HMAS Adelaide. The environmental impacts of the proposal have been addressed and considered to be within range for this type of proposal.




**ATTACHMENTS 1-8**

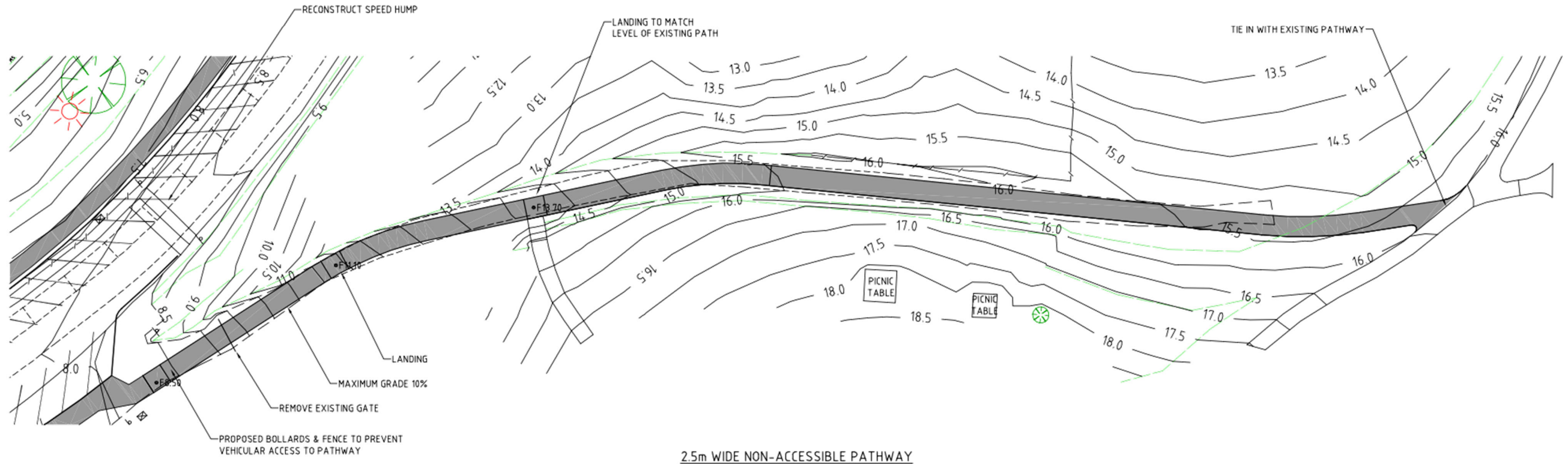


PLEASE NOTE: FOOTING DESIGN SUBJECT TO GEOTECHNICAL DESIGN.

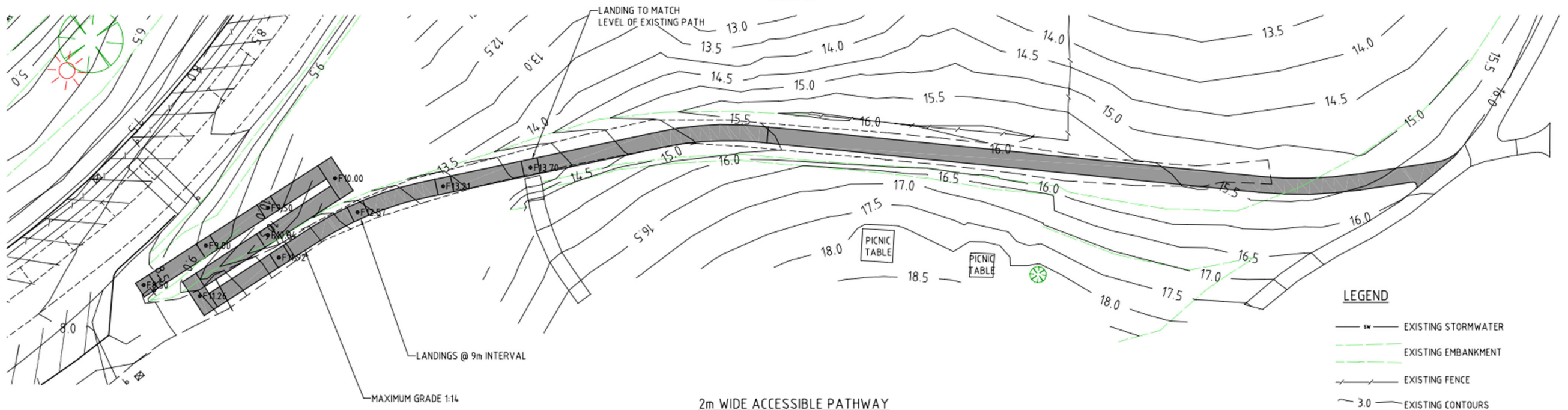
CONCRETE STRENGTH F'C=40 MPA

MAST BASE CONNECTION AND FOOTING DETAIL (1:20)

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DATE: 11.10.16	SCALE: 1:20	PROJECT: PROPOSED MAST STRUCTURE AT		DRG NO: 1 of 1	PAGE SIZE: A2
APPROVED: BEng MIEAust	SITE: THE HAVEN, TERRIGAL	TITLE: MAST AND FOOTING DETAIL	4 Chiltern Road, ERINA, P.O. Box 3095, ERINA, N.S.W. 2250.	Phone: (02) 4365 4949	Email: office@eddyconsulting.com.au



2.5m WIDE NON-ACCESSIBLE PATHWAY  
PLAN  
SCALE 1:250



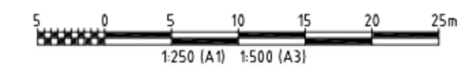
2m WIDE ACCESSIBLE PATHWAY  
(ALTERNATIVE OPTION)  
PLAN  
SCALE 1:250

NOTES

1. ACCESSIBLE WALKWAY/RAMP DESIGNED IN ACCORDANCE WITH AS1428.1

LEGEND

- sw — EXISTING STORMWATER
- EXISTING EMBANKMENT
- EXISTING FENCE
- 3.0 — EXISTING CONTOURS
- F10.00 PROPOSED FINISHED LEVEL



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 SAVE DATE & TIME: 10/12/2019 15:48:38 PM  
 CTD FILE: Wexley-Full.rvt  
 Plotter: hpc



ISSUE	DATE	ISSUE DESCRIPTION	DRAWN
A	10/12/19	ISSUED FOR COUNCIL REVIEW	PBC



TERRIGAL HAVEN CAR PARKING REDESIGN  
PEDESTRIAN PATH - SKILLION CAR PARK TO HEADLAND  
PATHWAY PLAN  
301015-03363-CI-DSK-0006





7<sup>th</sup> March 2019

Central Coast Council  
2 Hely Street  
Wyong  
NSW 2259

**Report: Access for people with disability and others to the proposed HMAS Adelaide Memorial Sites.**



## Benchmarks

The following benchmarks have been used in preparing this report:

- AS 1428.1 (2009) 'Design for access and mobility, General requirements for access', New building work',
- AS1428.4.1 (2009) Design for access and mobility Part 4.1: 'Means to assist the orientation of people with vision impairment—Tactile ground surface indicators'.
- National Construction Code (BCA 2016 volume 1)
- Disability (Access to Premises – Buildings) Standard
- Central Coast Council Disability Inclusion Plan

 **1300 328 002**

 Sydney – GPO Box 1353, Sydney, NSW 2001  Newcastle – PO Box 282 Hamilton, NSW 2300  
 admin@accesssolutions.com.au  accesssolutions.com.au

## Introduction

“Council aims to increase the inclusion of people with disabilities in all aspects of community life by providing accessible natural and built environments, inclusive events, activities and services and by continuing to provide meaningful engagement opportunities with all community members.” Central Coast Disability Inclusion Plan.

In April 2011 the HMAS Adelaide was scuttled off Terrigal. Prior to being scuttled the Adelaide’s mast was removed and, with the support of the Returned Services League (RSL) and the Royal Australian Navy, there has been a decision to install the mast as a memorial to the HMAS Adelaide at The Haven, Terrigal.

Two Sites that are adjacent to each other have been proposed for the Memorial. Council initially proposed Site 1 and Site 2 was later proposed by objectors to the Council Development Application (DA). Site 1 is located at the top of a slope with a steep gradient and provides ocean views with a line of sight to the location of the scuttled ship. Site two is located at the head of a rocky inlet, with relatively level access and also has line of sight to the location of the HMAS Adelaide.

Access Solutions has been requested to provide advice to Council regarding the location of the HMAS Adelaide Memorial and how physical access for people with disability and others could be achieved at each of the two proposed locations. The report includes recommendations for the provision of access to the two sites and the provision of accessible facilities for people with a disability.

The option of providing a site for the HMAS Adelaide memorial without providing compliant access would be inadvisable as to do this would be to propose to treat the person with the disability less favourably than others without the disability. By definition this is direct discrimination (Disability Discrimination Act Part 1 ‘Disability Discrimination 5. (1)) and is illegal under Federal Law. Given the Council’s promotion of community inclusion for people with disability, it could be expected that there would be strong repercussions within the community.

The report does not consider any impact of Aboriginal heritage items at the two locations as information about this is not publicly available.

### Car Parking



Car parking is located a short distance from both the proposed Sites. No compliant accessible parking is currently provided and we recommend the provision of accessible parking, designed in accordance with the design requirements of AS2890.6 'Off Street Parking for People With Disabilities', in the existing car park. Accessible parking should be spread between different locations in the parking area so there are choices as to where to park, depending on what areas individuals wish to access.

**Recommendation 1**

Provide accessible parking that is compliant with the design requirements of AS2890.6 'Off Street Parking for People With Disabilities'.

### Ramps and Pathways



### Existing pathways to Site 1

#### *Width of path of travel*

Australian Standard 1428.1 (2009) 'Design for Access and Mobility, Part 1 - General Requirements for Access - New Building Work' is referenced by the 'Disability (Access to Premises - Buildings) Standard, which is a Regulation of the Disability Discrimination Act (DDA). AS1428.1 requires an accessible path of travel, including pathways with a gradient of 1:20 or less and ramps with a gradient between 1:14 and 1:20, to have a minimum width of 1 meter and a cross fall on concrete of no more than 1:40. A 2 meters wide accessible pathway, as proposed by Worley and Parsons in their 2013 proposal, would exceed the requirements of AS1428.1 for the required width of a path of travel but would clearly provide a higher level of accessibility. AS1428.2 (1992) 'Design for Access and Mobility Part 2: Enhanced and Additional Standards' clause 6.4 suggests a pathway at least 1200mm wide, however an accessible path of travel less than 1800mm wide requires spaces for wheelchair users to maneuver past each other and passing spaces at least 1800mm wide and 2000mm long would be required at least every 20-meters on an accessible pathway.

#### **Recommendation 2**

Provide an accessible path of travel to the Memorial Site at least 1800mm wide in accordance with AS1428.2 (1992).

An accessible path of travel would not include a "step, stairway, turnstile ... or other impediment". (AS1428.1 (2009) clause 6). It would have a minimum overhead clearance of at least 2 meters and an unobstructed width of at least 1 meter. Street furniture would be located outside the width of the pathway.

#### **Recommendation 3**

If the path of travel is less than 1800mm wide provide passing spaces at least 1800mm wide and 2000mm long at least every 20 meters.

#### *Changes in ground surface levels*

Changes in surface levels, where surfaces abut, should not exceed 3mm unless the edges are beveled, in which case the difference in levels should not exceed 5mm.

#### *Rest Areas*

A ramp is, by definition, a gradient between two landings. In accordance with BCA a series of connected ramps must not have a combined vertical rise of more than 3.6 metres, which means that at least every 3.6 meters of vertical rise the ramp must be interrupted. A level rest point with a cross fall in any direction of 1:40 or less would satisfy the requirement if the area were clearly not a landing. From a Universal access point of view this might include a weather shelter, which would serve as a rest point and would be provided with



seating and drinking water. Rest points would be located as indicated in Figure 1.

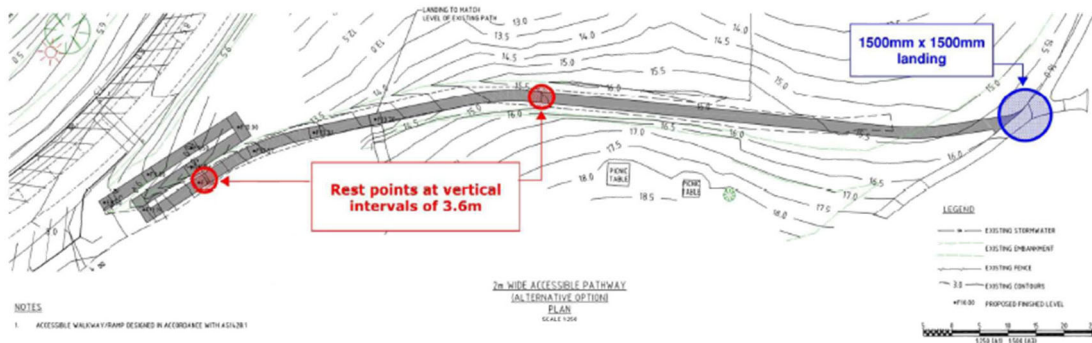


Figure 1 - Rest Points on the ramp proposed by Worley and Parsons

**Recommendation 4**  
Provide rest areas at least at each point that the vertical elevation of the path of travel has achieved 3.6 meters since the previous rest area.

*Tactile Ground Surface Indicators (TGSI)*

TGSI are required by National Construction Code (BCA 2016 volume 1) clause D.3.8 at an accessway meeting a vehicular way and to warn a person that they are approaching a ramp. They are not required at an enclosed landing. TGSI should be provided in accordance with sections 1 and 2 of AS1428.1.4

*Landings*

A ramp with a gradient between 1:14 and 1:20 must have a landing at least every 9-meters. A walkway with a gradient of 1:33 is required to have a landing at least every 25-meters and walkways with a gradient of 1:20 must have a landing every 15 meters. Walkways with a gradient between 1:20 as 1:333 should have landings at intervals obtained by linear interpolation.

On a ramp where there is no change in direction a landing should be at least 1200mm long and where there is a change in direction not exceeding 90 degrees the landing should be at least 1500mm long with the internal corner truncated for a minimum of 500mm in both directions.

**Recommendation 5**  
Provide an accessible path of travel to the Memorial Site that is in accordance with AS1428.2 (1992).

**Sanitary Facilities**

There are no accessible toilets near either Site with the closest facilities being located in the nearby restaurants on the other side of the sporting field. The

distance to facilities would make it difficult for many people, with or without disability, to use the Site.

**Recommendation 6**

Provide accessible sanitary facilities that are compliant with the design requirements of AS1428.1 clause 15.

**Signage**

Clearly visible directional signage, incorporating the international symbol for accessibility should be provided to indicate the accessible path of travel and the location of any other accessible facilities, including accessible parking and accessible sanitary facilities. Signage should be in accordance with BCA D3.6.

**Recommendation 7**

Provide signage indicating the location of accessible pathways and facilities, in accordance with BCA D3.6

**Equity**

It is important that once a person with a disability has reached the Memorial that they have the same opportunities as other people without their disability to enjoy it. There should be no steps, stairs or other impediment to accessing the memorial.

**Recommendation 8**

Provide access to the Memorial without steps, stairs or any other impediment

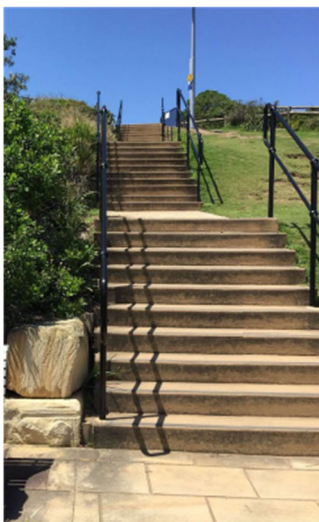
## Proposed Locations

**Site 1**



Site 1 has been proposed by Council as the preferred location for the installation of the HMAS Adelaide mast. The Site is atop a steep slope that overlooks the ocean and has line of sight to the approximate position of the

scuttled ship. The Site is currently accessed by a pathway with stairs and is not accessible for many people including wheelchair users, people with children in strollers and others who are unable to use stairs. To make the site accessible it is clearly necessary to provide an alternative to the current pathway.



Existing stairs

*Ramp Options*

Access Solutions has prepared two options for ramps to access the site from different points in the car parking area. Both ramp options are compliant with the requirements of AS1428.1 in regards to gradient and provision of rest areas. The width of the ramps, although required to be at least 1 meter wide, is not illustrated as this would preempt the decision of Council in this regard.

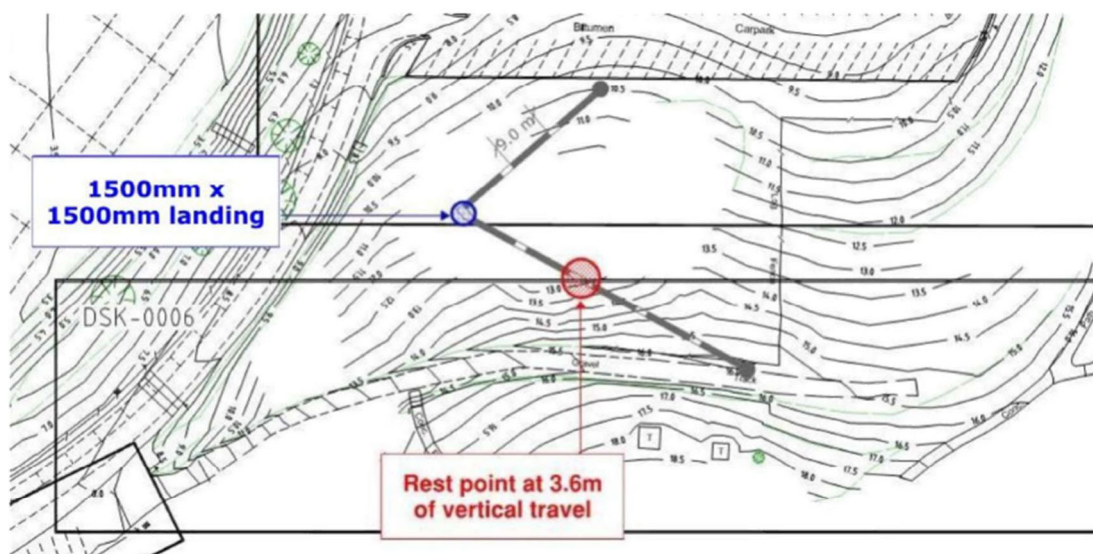


Figure 2 - Site 1 Ramp 1



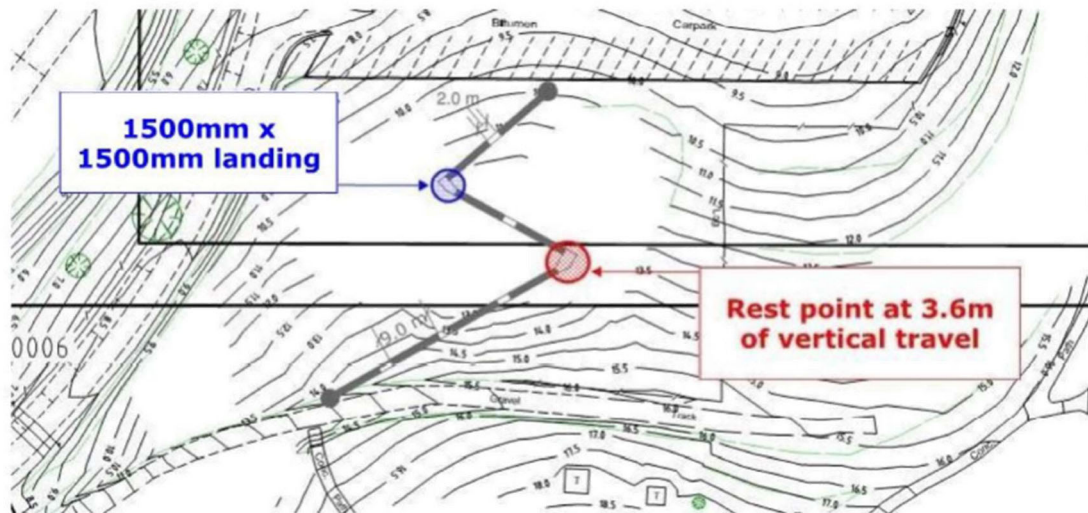


Figure 3 - Site 1 Ramp 2

A design with two options to access Site 1 was provided to Council by the company Worley Parsons in 2013. Although not proposed to meet the current need for people with a disability to access a site for the Memorial to HMAS Adelaide, they do provide a basis from which to proceed.

Two possible methods of accessing Site 1 were proposed by Worley Parsons in 2013. One of the routes proposes a 2.5-meter wide path of travel with gradients as steep as 1:10. This alternative would not be acceptable as a path of travel to the site as it is not accessible for people with disability and therefore does not meet the requirements of the scope of works.

The other proposed route to Site 1 includes a 2 meter wide path of travel with gradients and dimensions that are in accordance with AS1428.1 clause 10, 'Walkways Ramps and Landings' and is in accordance with the scope provided to Access Solutions by Council.

Access Solutions recommends a path of travel at least 1800mm wide as not only would this allow room for people with strollers or using a wheel chair to overtake each other but would also allow people in groups to pass each other on the path without having to make room for an approaching party. (See Recommendation 3.

#### **Recommendation 9**

Provide an accessible path of travel to the Memorial Site that is in accordance with AS1428.2 (1992).

Site 2

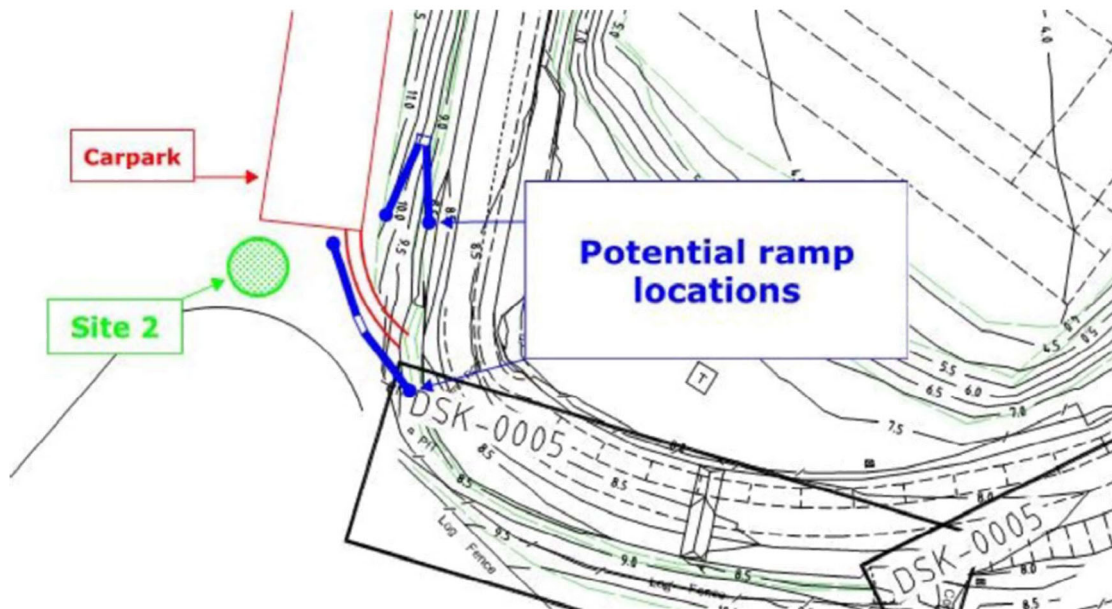


Figure 4 - Site 2 Proposed Ramp Locations

Site 2 has been proposed by objectors to the Development Application as an alternative to the Site proposed by Council. The Site is at the Southwestern corner of the park and directly overlooks the approximate location of the scuttled ship. The area immediately to the North of the proposed position of the lookout could be easily developed to provide accessible parking close to the monument.

The existing foot path adjacent to the road terminates before the entrance to the car park area. This Site is less than 3.6m of elevation above the current road, however the topography currently prevent footpath access to the Site and it would be necessary to provide ramped access to the Site in order to reach the required level.

Figure 4 details the proposed locations that a ramp could be installed for access from accessible parking to Site 2. Access to Site 2 would require considerably less expenditure than Site 1 as an access ramp would be shorter and would not require sheltered rest areas. The addition of accessible car parking adjacent to this Site would require the provision of additional access points, which would be designed in conjunction with the new ramp and footpaths.

## Summary

### Site 1

#### *Benefits*

- Superior visual outlook from the monument giving more of a connection between the Memorial and the location of the Adelaide as well a view of the ocean and surrounding area
- The visibility of the Memorial because of it's central location and the proximity to the rest of the precinct.
- As well as providing access to the Memorial this option would provide improved access to the existing lookout.
- The provision of the required rest points at least every 3.6 meters of vertical elevation would provide the park with added shade and rest areas for use by the public generally as well as users of the ramp.

#### *Detriments*

- The cost of this option would be substantially more than the cost of providing access to Site 2.
- Difficulty accessing the Site for people with mobility impairment considering the length and steepness of the slope.

- Because of the distance to the top of the slope, exposure to the weather may be an issue, including being cold and wet from rain and the potential for sunburn and dehydration during hot weather.
- Because sanitary facilities would most likely be located near car parking, there would be a lack of sanitary facilities within proximity to the Site.
- Difficulty accessing the Site for older ex service men and women.

## **Site 2**

### *Benefits*

- The cost of providing access to Site 2 would be far less than the cost of providing access to Site 1.
- The physical effort required to access the Memorial from car parking is far less than for Site 1, thereby making Site 2 more accessible for more people.
- Because the Site is more sheltered there would be less exposure to the elements and some safety issues would be mitigated.
- The area immediately to the North of the proposed position of the lookout is already roughly surveyed as a car park and could be easily developed to provide accessible parking close to the monument. The proximity of car parking to the Site would provide improved visibility of the Memorial.

### *Detriments*

- Significant infrastructure would be needed to give access to Site 2 from existing car parking.
- As for Site 1, the line of sight from Site 2 is directly towards the location of the scuttled ship and provides a direct link between the mast monument and its origin, however there is no improved outlook over the ocean and surrounding area.

## Conclusion

Access to Site 1 would cost more to build but would provide improved access to the hillside and lookout for the public generally. On the other hand it would be much more difficult for people with mobility impairment to access the site because of the steepness of the slope and the length of the pathway to the Memorial. Because of the nature of the Memorial it would have a strong attraction for ex service men and women many of whom are aged and have mobility issues, including breathlessness and use of walking aids. Positioning the Memorial at Site 1 may prevent many of these people accessing the Site

Situating the Memorial at Site 1 would provide many benefits to the public generally but would be considerably less accessible than Site 2 for people with mobility impairment.

Providing access to Site 2 would be far less than the cost of providing access to Site 1. Also, the physical effort required to access the Memorial from car parking would be much less than it would be for Site 1, thereby making Site 2 more accessible for more people.

### **Recommendation**

For the reasons outlined above, Access Solutions recommends the HMAS Adelaide Memorial be located at Site 2

## Summary of Recommendations

### **Recommendation 1**

Provide accessible parking that is compliant with the design requirements of AS2890.6 'Off Street Parking for People With Disabilities'.

### **Recommendation 2**

Provide an accessible path of travel to the Memorial Site at least 1800mm wide in accordance with AS1428.2 (1992).

### **Recommendation 3**

If the path of travel is less than 1800mm wide provide passing spaces at least 1800mm wide and 2000mm long at least every 20 meters.



**Recommendation 4**

Provide rest areas at least at each point that the vertical elevation of the path of travel has achieved 3.6 meters since the previous rest area.

**Recommendation 6**

Provide accessible sanitary facilities that are compliant with the design requirements of AS1428.1 clause 15.

**Recommendation 7**

Provide signage indicating the location of accessible pathways and facilities, in accordance with BCA D3.6

**Recommendation 8**

Provide access to the Memorial without steps, stairs or any other impediment

**Recommendation 9**

Provide an accessible path of travel to the Memorial Site that is in accordance with AS1428.2 (1992).

Kind regards



Bill Casey  
Disability Access Consultant  
Master Disability Studies (dist)





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## Memorandum

<b>To</b>	Wales & Associates	Attn: Matthew Wales	Email: matthew@walesassociates.com.au
<b>From</b>	Darryl Carson	<b>Date</b>	16 Nov 2016
<b>Subject</b>	Proposed Monument - Adelaide Mast	<b>Project No.</b>	83105.00

### Introduction

Douglas Partners Pty Ltd (DP) has carried out a geotechnical investigation in connection with a proposed monument at the crest of the headland at Terrigal Haven, Terrigal. The work was carried out for Wales & Associates Pty Ltd.

It is understood that the mast of the former navy ship HMAS Adelaide is to be erected on the headland. Geotechnical investigation was carried out to assess the subsurface conditions in order to provide geotechnical design parameters for a footing to support the mast.

### Field Work

The investigation comprised the drilling of a single borehole (Bore 1) at the location of the proposed monument, shown in Figure 1. The borehole was drilled using a 4WD-mounted push tube rig with 60 mm diameter sampling tubes and was taken to a depth of 3.2 m.



Figure 1: Location of Borehole at Terrigal.



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Conditions encountered in the borehole broadly comprised very stiff grading to hard residual clay soils, with drilling terminating at 3.2 m depth due to refusal on weathered sandstone. No free groundwater was observed in the borehole which was backfilled shortly after drilling for health and safety reasons. It is noted that groundwater levels are affected by factors including rainfall, and will therefore vary over time.

A log of the borehole is attached along with explanatory notes.

#### Comments

Based on the conditions encountered in the borehole, it is considered that the mast could be supported either by a pad footing or by concrete bored pier(s), depending on the applied loads.

Pad footings being at least 0.5 m below ground level on at least very stiff residual clay could be proportioned for a maximum allowable bearing pressure of 200 kPa.

Concrete bored piers could be designed based on a maximum allowable end bearing pressure of 600 kPa and maximum allowable shaft adhesion 50 kPa within the weathered rock profile. Shaft adhesion could also be included for the section of the piles within the residual clay and a maximum allowable adhesion of 15 kPa would be appropriate. Lateral loads (eg wind loading) could be resisted by the portion of the bored pile embedded into the ground, and could be based on an ultimate passive earth pressure of 150 kPa within at least very stiff clay and 300 kPa within the weathered sandstone. The upper 1 m should be ignored in this loading case.

Settlements associated with footings designed based on the aforementioned parameters would be expected to be less than about 1% of the footing width.

Footing excavations or pier holes should be free of water and loose debris prior to pouring concrete. It is also recommended that all footing excavations be inspected by a geotechnical engineer to check that the founding conditions are consistent with the design requirements.

#### Limitations

Douglas Partners (DP) has prepared this report for this project at Terrigal in accordance with phone and email correspondence between DP and Wales & Associates. The work was carried out under DP's standard Conditions of Engagement. This report is provided for the exclusive use of Wales & Associates for this project only and for the purposes as described in the report. It should not be used by or relied upon for other projects or purposes on the same or other site or by a third party. Any party so relying upon this report beyond its exclusive use and purpose as stated above, and without the express written consent of DP, does so entirely at its own risk and without recourse to DP for any loss or damage. In preparing this report DP has necessarily relied upon information provided by the client and/or their agents.



The results provided in the report are indicative of the subsurface conditions at the specific sampling location, and then only to the depths investigated and at the time the work was carried out. Subsurface conditions can change abruptly due to variable geological processes and also as a result of human influences. Such changes may occur after DP's field testing has been completed.

DP's advice is based upon the conditions encountered during this investigation. The accuracy of the advice provided by DP in this report may be affected by undetected variations in ground conditions across the site between and beyond the sampling and/or testing locations. The advice may also be limited by budget constraints imposed by others or by site accessibility.

This report must be read in conjunction with all of the attached and should be kept in its entirety without separation of individual pages or sections. DP cannot be held responsible for interpretations or conclusions made by others unless they are supported by an expressed statement, interpretation, outcome or conclusion stated in this report.

This report, or sections from this report, should not be used as part of a specification for a project, without review and agreement by DP. This is because this report has been written as advice and opinion rather than instructions for construction.

The scope for work for this investigation/report did not include the assessment of surface or subsurface materials or groundwater for contaminants, within or adjacent to the site.

We trust that this letter is sufficient for your present requirements. If you have any queries regarding this project, then feel free to contact the writer on 4351 1422.

Yours faithfully  
**Douglas Partners Pty Ltd**



**Darryl Carson**  
Senior Associate

Reviewed by

**John Harvey**  
Principal

Attachment: About this Report  
Borehole Log



## About this Report

# Douglas Partners



### Introduction

These notes have been provided to amplify DP's report in regard to classification methods, field procedures and the comments section. Not all are necessarily relevant to all reports.

DP's reports are based on information gained from limited subsurface excavations and sampling, supplemented by knowledge of local geology and experience. For this reason, they must be regarded as interpretive rather than factual documents, limited to some extent by the scope of information on which they rely.

### Copyright

This report is the property of Douglas Partners Pty Ltd. The report may only be used for the purpose for which it was commissioned and in accordance with the Conditions of Engagement for the commission supplied at the time of proposal. Unauthorised use of this report in any form whatsoever is prohibited.

### Borehole and Test Pit Logs

The borehole and test pit logs presented in this report are an engineering and/or geological interpretation of the subsurface conditions, and their reliability will depend to some extent on frequency of sampling and the method of drilling or excavation. Ideally, continuous undisturbed sampling or core drilling will provide the most reliable assessment, but this is not always practicable or possible to justify on economic grounds. In any case the boreholes and test pits represent only a very small sample of the total subsurface profile.

Interpretation of the information and its application to design and construction should therefore take into account the spacing of boreholes or pits, the frequency of sampling, and the possibility of other than 'straight line' variations between the test locations.

### Groundwater

Where groundwater levels are measured in boreholes there are several potential problems, namely:

- In low permeability soils groundwater may enter the hole very slowly or perhaps not at all during the time the hole is left open;

- A localised, perched water table may lead to an erroneous indication of the true water table;
- Water table levels will vary from time to time with seasons or recent weather changes. They may not be the same at the time of construction as are indicated in the report; and
- The use of water or mud as a drilling fluid will mask any groundwater inflow. Water has to be blown out of the hole and drilling mud must first be washed out of the hole if water measurements are to be made.

More reliable measurements can be made by installing standpipes which are read at intervals over several days, or perhaps weeks for low permeability soils. Piezometers, sealed in a particular stratum, may be advisable in low permeability soils or where there may be interference from a perched water table.

### Reports

The report has been prepared by qualified personnel, is based on the information obtained from field and laboratory testing, and has been undertaken to current engineering standards of interpretation and analysis. Where the report has been prepared for a specific design proposal, the information and interpretation may not be relevant if the design proposal is changed. If this happens, DP will be pleased to review the report and the sufficiency of the investigation work.

Every care is taken with the report as it relates to interpretation of subsurface conditions, discussion of geotechnical and environmental aspects, and recommendations or suggestions for design and construction. However, DP cannot always anticipate or assume responsibility for:

- Unexpected variations in ground conditions. The potential for this will depend partly on borehole or pit spacing and sampling frequency;
- Changes in policy or interpretations of policy by statutory authorities; or
- The actions of contractors responding to commercial pressures.

If these occur, DP will be pleased to assist with investigations or advice to resolve the matter.

## *About this Report*

### **Site Anomalies**

In the event that conditions encountered on site during construction appear to vary from those which were expected from the information contained in the report, DP requests that it be immediately notified. Most problems are much more readily resolved when conditions are exposed rather than at some later stage, well after the event.

### **Information for Contractual Purposes**

Where information obtained from this report is provided for tendering purposes, it is recommended that all information, including the written report and discussion, be made available. In circumstances where the discussion or comments section is not relevant to the contractual situation, it may be appropriate to prepare a specially edited document. DP would be pleased to assist in this regard and/or to make additional report copies available for contract purposes at a nominal charge.

### **Site Inspection**

The company will always be pleased to provide engineering inspection services for geotechnical and environmental aspects of work to which this report is related. This could range from a site visit to confirm that conditions exposed are as expected, to full time engineering presence on site.



# Sampling Methods

## Douglas Partners



### Sampling

Sampling is carried out during drilling or test pitting to allow engineering examination (and laboratory testing where required) of the soil or rock.

Disturbed samples taken during drilling provide information on colour, type, inclusions and, depending upon the degree of disturbance, some information on strength and structure.

Undisturbed samples are taken by pushing a thin-walled sample tube into the soil and withdrawing it to obtain a sample of the soil in a relatively undisturbed state. Such samples yield information on structure and strength, and are necessary for laboratory determination of shear strength and compressibility. Undisturbed sampling is generally effective only in cohesive soils.

### Test Pits

Test pits are usually excavated with a backhoe or an excavator, allowing close examination of the in-situ soil if it is safe to enter into the pit. The depth of excavation is limited to about 3 m for a backhoe and up to 6 m for a large excavator. A potential disadvantage of this investigation method is the larger area of disturbance to the site.

### Large Diameter Augers

Boreholes can be drilled using a rotating plate or short spiral auger, generally 300 mm or larger in diameter commonly mounted on a standard piling rig. The cuttings are returned to the surface at intervals (generally not more than 0.5 m) and are disturbed but usually unchanged in moisture content. Identification of soil strata is generally much more reliable than with continuous spiral flight augers, and is usually supplemented by occasional undisturbed tube samples.

### Continuous Spiral Flight Augers

The borehole is advanced using 90-115 mm diameter continuous spiral flight augers which are withdrawn at intervals to allow sampling or in-situ testing. This is a relatively economical means of drilling in clays and sands above the water table. Samples are returned to the surface, or may be collected after withdrawal of the auger flights, but they are disturbed and may be mixed with soils from the sides of the hole. Information from the drilling (as distinct from specific sampling by SPTs or undisturbed samples) is of relatively low

reliability, due to the remoulding, possible mixing or softening of samples by groundwater.

### Non-core Rotary Drilling

The borehole is advanced using a rotary bit, with water or drilling mud being pumped down the drill rods and returned up the annulus, carrying the drill cuttings. Only major changes in stratification can be determined from the cuttings, together with some information from the rate of penetration. Where drilling mud is used this can mask the cuttings and reliable identification is only possible from separate sampling such as SPTs.

### Continuous Core Drilling

A continuous core sample can be obtained using a diamond tipped core barrel, usually with a 50 mm internal diameter. Provided full core recovery is achieved (which is not always possible in weak rocks and granular soils), this technique provides a very reliable method of investigation.

### Standard Penetration Tests

Standard penetration tests (SPT) are used as a means of estimating the density or strength of soils and also of obtaining a relatively undisturbed sample. The test procedure is described in Australian Standard 1289, Methods of Testing Soils for Engineering Purposes - Test 6.3.1.

The test is carried out in a borehole by driving a 50 mm diameter split sample tube under the impact of a 63 kg hammer with a free fall of 760 mm. It is normal for the tube to be driven in three successive 150 mm increments and the 'N' value is taken as the number of blows for the last 300 mm. In dense sands, very hard clays or weak rock, the full 450 mm penetration may not be practicable and the test is discontinued.

The test results are reported in the following form.

- In the case where full penetration is obtained with successive blow counts for each 150 mm of, say, 4, 6 and 7 as:
 

4,6,7  
N=13
- In the case where the test is discontinued before the full penetration depth, say after 15 blows for the first 150 mm and 30 blows for the next 40 mm as:
 

15, 30/40 mm

## Sampling Methods

The results of the SPT tests can be related empirically to the engineering properties of the soils.

### Dynamic Cone Penetrometer Tests /

#### Perth Sand Penetrometer Tests

Dynamic penetrometer tests (DCP or PSP) are carried out by driving a steel rod into the ground using a standard weight of hammer falling a specified distance. As the rod penetrates the soil the number of blows required to penetrate each successive 150 mm depth are recorded. Normally there is a depth limitation of 1.2 m, but this may be extended in certain conditions by the use of extension rods. Two types of penetrometer are commonly used.

- Perth sand penetrometer - a 16 mm diameter flat ended rod is driven using a 9 kg hammer dropping 600 mm (AS 1289, Test 6.3.3). This test was developed for testing the density of sands and is mainly used in granular soils and filling.
- Cone penetrometer - a 16 mm diameter rod with a 20 mm diameter cone end is driven using a 9 kg hammer dropping 510 mm (AS 1289, Test 6.3.2). This test was developed initially for pavement subgrade investigations, and correlations of the test results with California Bearing Ratio have been published by various road authorities.

# Soil Descriptions

## Douglas Partners



### Description and Classification Methods

The methods of description and classification of soils and rocks used in this report are based on Australian Standard AS 1726, Geotechnical Site Investigations Code. In general, the descriptions include strength or density, colour, structure, soil or rock type and inclusions.

### Soil Types

Soil types are described according to the predominant particle size, qualified by the grading of other particles present:

Type	Particle size (mm)
Boulder	>200
Cobble	63 - 200
Gravel	2.36 - 63
Sand	0.075 - 2.36
Silt	0.002 - 0.075
Clay	<0.002

The sand and gravel sizes can be further subdivided as follows:

Type	Particle size (mm)
Coarse gravel	20 - 63
Medium gravel	6 - 20
Fine gravel	2.36 - 6
Coarse sand	0.6 - 2.36
Medium sand	0.2 - 0.6
Fine sand	0.075 - 0.2

The proportions of secondary constituents of soils are described as:

Term	Proportion	Example
And	Specify	Clay (60%) and Sand (40%)
Adjective	20 - 35%	Sandy Clay
Slightly	12 - 20%	Slightly Sandy Clay
With some	5 - 12%	Clay with some sand
With a trace of	0 - 5%	Clay with a trace of sand

Definitions of grading terms used are:

- Well graded - a good representation of all particle sizes
- Poorly graded - an excess or deficiency of particular sizes within the specified range
- Uniformly graded - an excess of a particular particle size
- Gap graded - a deficiency of a particular particle size with the range

### Cohesive Soils

Cohesive soils, such as clays, are classified on the basis of undrained shear strength. The strength may be measured by laboratory testing, or estimated by field tests or engineering examination. The strength terms are defined as follows:

Description	Abbreviation	Undrained shear strength (kPa)
Very soft	vs	<12
Soft	s	12 - 25
Firm	f	25 - 50
Stiff	st	50 - 100
Very stiff	vst	100 - 200
Hard	h	>200

### Cohesionless Soils

Cohesionless soils, such as clean sands, are classified on the basis of relative density, generally from the results of standard penetration tests (SPT), cone penetration tests (CPT) or dynamic penetrometers (PSP). The relative density terms are given below:

Relative Density	Abbreviation	SPT N value	CPT qc value (MPa)
Very loose	vl	<4	<2
Loose	l	4 - 10	2 - 5
Medium dense	md	10 - 30	5 - 15
Dense	d	30 - 50	15 - 25
Very dense	vd	>50	>25

## *Soil Descriptions*

### **Soil Origin**

It is often difficult to accurately determine the origin of a soil. Soils can generally be classified as:

- Residual soil - derived from in-situ weathering of the underlying rock;
- Transported soils - formed somewhere else and transported by nature to the site; or
- Filling - moved by man.

Transported soils may be further subdivided into:

- Alluvium - river deposits
- Lacustrine - lake deposits
- Aeolian - wind deposits
- Littoral - beach deposits
- Estuarine - tidal river deposits
- Talus - scree or coarse colluvium
- Slopewash or Colluvium - transported downslope by gravity assisted by water. Often includes angular rock fragments and boulders.

## Rock Descriptions

## Douglas Partners

**Rock Strength**

Rock strength is defined by the Point Load Strength Index ( $I_{s(50)}$ ) and refers to the strength of the rock substance and not the strength of the overall rock mass, which may be considerably weaker due to defects. The test procedure is described by Australian Standard 4133.4.1 - 1993. The terms used to describe rock strength are as follows:

Term	Abbreviation	Point Load Index $I_{s(50)}$ MPa	Approx Unconfined Compressive Strength MPa*
Extremely low	EL	<0.03	<0.6
Very low	VL	0.03 - 0.1	0.6 - 2
Low	L	0.1 - 0.3	2 - 6
Medium	M	0.3 - 1.0	6 - 20
High	H	1 - 3	20 - 60
Very high	VH	3 - 10	60 - 200
Extremely high	EH	>10	>200

\* Assumes a ratio of 20:1 for UCS to  $I_{s(50)}$

**Degree of Weathering**

The degree of weathering of rock is classified as follows:

Term	Abbreviation	Description
Extremely weathered	EW	Rock substance has soil properties, i.e. it can be remoulded and classified as a soil but the texture of the original rock is still evident.
Highly weathered	HW	Limonite staining or bleaching affects whole of rock substance and other signs of decomposition are evident. Porosity and strength may be altered as a result of iron leaching or deposition. Colour and strength of original fresh rock is not recognisable
Moderately weathered	MW	Staining and discolouration of rock substance has taken place
Slightly weathered	SW	Rock substance is slightly discoloured but shows little or no change of strength from fresh rock
Fresh stained	Fs	Rock substance unaffected by weathering but staining visible along defects
Fresh	Fr	No signs of decomposition or staining

**Degree of Fracturing**

The following classification applies to the spacing of natural fractures in diamond drill cores. It includes bedding plane partings, joints and other defects, but excludes drilling breaks.

Term	Description
Fragmented	Fragments of <20 mm
Highly Fractured	Core lengths of 20-40 mm with some fragments
Fractured	Core lengths of 40-200 mm with some shorter and longer sections
Slightly Fractured	Core lengths of 200-1000 mm with some shorter and longer sections
Unbroken	Core lengths mostly > 1000 mm

## Rock Descriptions

### Rock Quality Designation

The quality of the cored rock can be measured using the Rock Quality Designation (RQD) index, defined as:

$$\text{RQD \%} = \frac{\text{cumulative length of 'sound' core sections} \geq 100 \text{ mm long}}{\text{total drilled length of section being assessed}}$$

where 'sound' rock is assessed to be rock of low strength or better. The RQD applies only to natural fractures. If the core is broken by drilling or handling (i.e. drilling breaks) then the broken pieces are fitted back together and are not included in the calculation of RQD.

### Stratification Spacing

For sedimentary rocks the following terms may be used to describe the spacing of bedding partings:

Term	Separation of Stratification Planes
Thinly laminated	< 6 mm
Laminated	6 mm to 20 mm
Very thinly bedded	20 mm to 60 mm
Thinly bedded	60 mm to 0.2 m
Medium bedded	0.2 m to 0.6 m
Thickly bedded	0.6 m to 2 m
Very thickly bedded	> 2 m



# Symbols & Abbreviations

## Douglas Partners



### Introduction

These notes summarise abbreviations commonly used on borehole logs and test pit reports.

### Drilling or Excavation Methods

C	Core Drilling
R	Rotary drilling
SFA	Spiral flight augers
NMLC	Diamond core - 52 mm dia
NQ	Diamond core - 47 mm dia
HQ	Diamond core - 63 mm dia
PQ	Diamond core - 81 mm dia

### Water

▷	Water seep
▽	Water level

### Sampling and Testing

A	Auger sample
B	Bulk sample
D	Disturbed sample
E	Environmental sample
U <sub>50</sub>	Undisturbed tube sample (50mm)
W	Water sample
pp	pocket penetrometer (kPa)
PID	Photo ionisation detector
PL	Point load strength Is(50) MPa
S	Standard Penetration Test
V	Shear vane (kPa)

### Description of Defects in Rock

The abbreviated descriptions of the defects should be in the following order: Depth, Type, Orientation, Coating, Shape, Roughness and Other. Drilling and handling breaks are not usually included on the logs.

### Defect Type

B	Bedding plane
Cs	Clay seam
Cv	Cleavage
Cz	Crushed zone
Ds	Decomposed seam
F	Fault
J	Joint
Lam	lamination
Pt	Parting
Sz	Sheared Zone
V	Vein

### Orientation

The inclination of defects is always measured from the perpendicular to the core axis.

h	horizontal
v	vertical
sh	sub-horizontal
sv	sub-vertical

### Coating or Infilling Term

cln	clean
co	coating
he	healed
inf	infilled
stn	stained
ti	tight
vn	veneer

### Coating Descriptor

ca	calcite
cbs	carbonaceous
cly	clay
fe	iron oxide
mn	manganese
silt	silty

### Shape

cu	curved
ir	irregular
pl	planar
st	stepped
un	undulating

### Roughness

po	polished
ro	rough
sl	slickensided
sm	smooth
vr	very rough



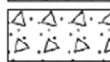

### Other

fg	fragmented
bnd	band
qtz	quartz


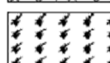

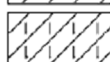
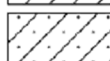
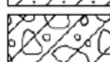
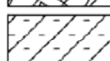



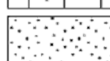
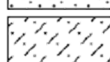
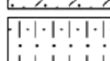

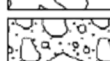


## Symbols & Abbreviations

### Graphic Symbols for Soil and Rock






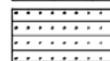



#### General

	Asphalt
	Road base
	Concrete
	Filling

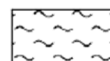

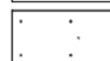
#### Soils

	Topsoil
	Peat
	Clay
	Silty clay
	Sandy clay
	Gravelly clay
	Shaly clay
	Silt
	Clayey silt
	Sandy silt
	Sand
	Clayey sand
	Silty sand
	Gravel
	Sandy gravel
	Cobbles, boulders
	Talus

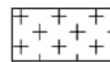


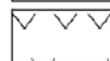

#### Sedimentary Rocks

	Boulder conglomerate
	Conglomerate
	Conglomeratic sandstone
	Sandstone
	Siltstone
	Laminite
	Mudstone, claystone, shale
	Coal
	Limestone

#### Metamorphic Rocks

	Slate, phyllite, schist
	Gneiss
	Quartzite

#### Igneous Rocks

	Granite
	Dolerite, basalt, andesite
	Dacite, epidote
	Tuff, breccia
	Porphyry

### BOREHOLE LOG

**CLIENT:** Wales & Associates Pty Ltd  
**PROJECT:** Proposed Monument - Adelaide Mast  
**LOCATION:** Terrigal Haven, Terrigal

**SURFACE LEVEL:** --  
**EASTING:**  
**NORTHING:**  
**DIP/AZIMUTH:** 90°/-

**BORE No:** 1  
**PROJECT No:** 83105.00  
**DATE:** 31/10/2016  
**SHEET** 1 OF 1

RL	Depth (m)	Description of Strata	Graphic Log	Sampling & In Situ Testing				Water	Dynamic Penetrometer Test (blows per 150mm)
				Type	Depth	Sample	Results & Comments		
	0.3	TOPSOIL: Brown silty sand topsoil with a trace of fine rootlets (grass covered), humid		D	0.1				
	0.8	SILTY SANDY CLAY: Very stiff, brown silty sandy clay, M<Wp		D	0.5				
	1.8	CLAY: Very stiff, brown mottled orange brown clay with a trace of sand, M=Wp		D	1.0				
	2.8	SILTY CLAY: Hard, light grey mottled red silty clay, M=Wp		D	2.0		pp >400		
	3.2	SANDY SILTY CLAY: Hard, light grey mottled brown sandy silty clay, M=Wp - from 3.0m, grading into a weathered rock with soil like properties		D	3.2		pp >400		
		Bore discontinued at 3.2m. Refusal on weathered rock		D	3.2		pp >400		

**RIG:** Toyota 4WD      **DRILLER:** M Hickman  
**TYPE OF BORING:** Dynamic Push Tube (continuous sample)  
**WATER OBSERVATIONS:** No Free Groundwater Observed  
**REMARKS:**

**LOGGED:** M Hickman      **CASING:**

Sand Penetrometer AS1289.6.3.3  
 Cone Penetrometer AS1289.6.3.2

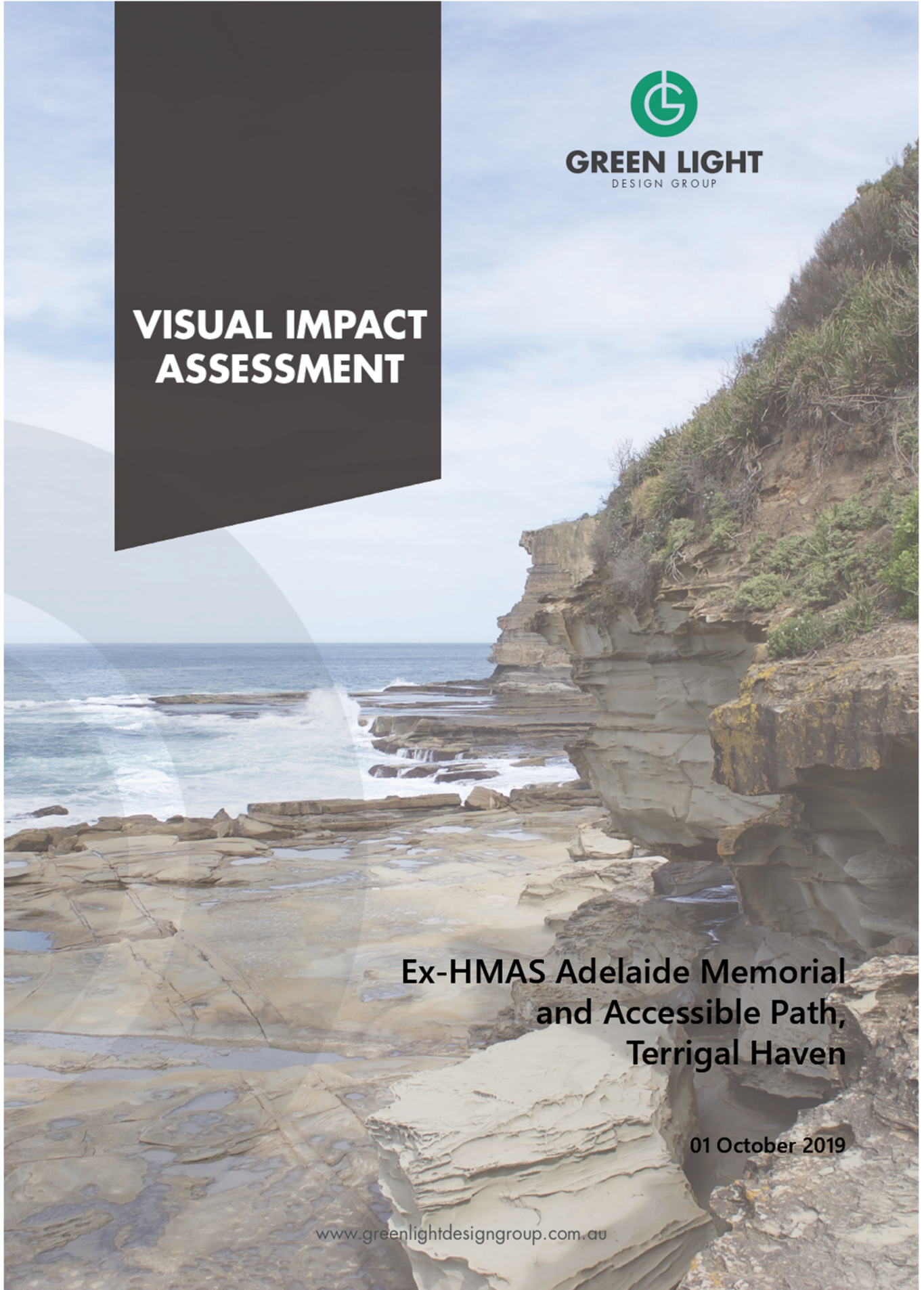
**SAMPLING & IN SITU TESTING LEGEND**

A Auger sample	G Gas sample	PID Photo ionisation detector (ppm)
B Bulk sample	P Piston sample	PL[A] Point load axial test Is(50) (MPa)
BLK Block sample	U, Tube sample (x mm dia.)	PL[D] Point load diametral test Is(50) (MPa)
C Core drilling	W Water sample	pp Pocket penetrometer (kPa)
D Disturbed sample	W Water seep	S Standard penetration test
E Environmental sample	W Water level	V Shear vane (kPa)









**GREEN LIGHT**  
DESIGN GROUP

# VISUAL IMPACT ASSESSMENT

**Ex-HMAS Adelaide Memorial  
and Accessible Path,  
Terrigal Haven**

01 October 2019

[www.greenlightdesigngroup.com.au](http://www.greenlightdesigngroup.com.au)





This report is prepared for:

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REVISION TABLE			
Revision	Date	Description	Approved By
P1	25/09/19	Draft Report	Derek Hill
A	01/10/19	Final Report	Derek Hill

This report is prepared by:

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**PO Box 4080**  
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**ACKNOWLEDGEMENTS**

Thank you to the following people who assisted in the preparation of this report.  
Shari Massey - Central Coast Council  
Karen Tucker - Central Coast Council  
Karen O'Mara - Central Coast Council  
Derek Hill - Green Light Design Group

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## 1.0 INTRODUCTION

This report has been prepared by Green Light Design Group Pty Ltd for Central Coast Council to identify the likely visual impact the proposed ex-HMAS Adelaide Memorial and access path will have on Terrigal Haven and the surrounding landscape and suburban areas. The proposed works are based on plans and details contained in the following documents:

### Howard Leslie & Associates

- *Elevations E & W*, HMAS Adelaide, The Haven, Sheet # 16595 SK06
- *External Views*, HMAS Adelaide, The Haven, Sheet # 16595 SK07

### Eddy Consulting

- *Mast and Footing Detail*, Proposed Mast Structure, The Haven, Terrigal Job No. 1603003, Drg No. 1of1, Date 11.10.16.

### Unnamed (Based on Design by Worley Parsons 13.12.2013)

- *Potential Accessible Pathway to Proposed Location*, HMAS Adelaide - Terrigal Haven

It should be noted that visual impacts during construction have not been included in this assessment. It is assumed that any visual impacts during construction will be temporary and do not warrant consideration or inclusion in this report.

## 2.0 METHODOLOGY

### 2.1 Study Area

The study area for this visual impact assessment has been selected to cover the main geographic extent of potential visual impacts of the proposed works.

### 2.2 Visual Impact Assessment

The assessment is used to determine the effects of the proposed works on the visual receivers both on public land and from private properties.

#### **Viewpoint Selection**

Following a thorough desktop study and site visit, representative viewpoints with the potential to be visually affected by some element of the proposal are identified and selected for further analysis. Viewpoints are selected to illustrate:

- A range of receiver types including public and private domain views;
- A range of view types including elevated, panoramic and filtered views;
- A range of viewing distances from the proposal;
- Any key or protected views identified within relevant planning literature.

#### **Limitations**

The viewpoints selected are representative only of the spread and type of receivers that may be affected by the proposed works, they are not exhaustive nor do they reflect the exact view shared by all receivers in a similar area.



**Impact Rating**

The impact rating for any given viewpoint within the study area is based on an evaluation of the sensitivity and magnitude of the proposed change. The overall score is calculated using the matrix shown in Figure 1.0.

Sensitivity

Each viewpoint has an inherent sensitivity to change in the visual scene of the landscape based on the context of the viewer. This will have a direct influence on the perceived visual impact experienced by the receiver. The assessment matrix qualifies these quantitative impacts into four broad categories including:

- Negligible - vacant land or building;
- Low - roads, car parks and industrial areas;
- Moderate - residential properties with filtered views, commercial properties and sporting clubs;
- High - Public reserves, viewing platforms, living areas and balconies of residential properties with direct views towards the proposed works.

Magnitude

A series of factors are taken into account when assessing the magnitude of visual effect from any one viewpoint . These factors include the distance from the proposed works, extent of view, the amount of time the works are within view, and the scale of change to the landscape setting. The value determined to represent each viewpoint falls into one of the four broad categories listed below:

- Negligible - no perceivable change to the landscape setting;
- Low - minor perceived change to the landscape setting;
- Moderate - substantial perceived change to the landscape setting from a distance of greater than 100m;
- High - substantial perceived change to the landscape setting from a distance of less than 100m;

		SENSITIVITY			
		High	Moderate	Low	Negligible
MAGNITUDE	High	High Impact	High-Moderate Impact	Moderate Impact	Negligible Impact
	Moderate	High-Moderate Impact	Moderate Impact	Moderate-Low Impact	Negligible Impact
	Low	Moderate Impact	Moderate-Low Impact	Low Impact	Negligible Impact
	Negligible	Negligible Impact	Negligible Impact	Negligible Impact	Negligible Impact

Figure 1. Impact Rating Matrix

### 2.3 Scenic Value Impact (Terrigal Haven Plan of Management 2009)

The impact of the proposed works will be assessed against the scenic values identified in the Terrigal Haven Plan of Management 2009 to determine if the changes in the landscape are consistent with the desired character of the reserve.

The following scenic values (extract from the POM) will form the basis of the assessment:

- retain natural landscape quality;
- preservation of views to the Pacific Ocean;
- embellish natural vantage points; and
- effective maintenance.

## 3.0 SITE CONTEXT

### 3.1 Landform and Topography

The character of the area in the vicinity of the proposed memorial and access path presents is typical of a Hawksbury Sandstone Coastal Landscape, heavily influenced by coastal processes.

The site for the memorial is a small saddle between two elevated rock outcrops on Broken Head and forms a notable depression in the skyline, void of large trees and vegetation. The rolling grass slope gives way to an eroding scree slope that then steps down suddenly in blocky sandstone terraces to the flat rock platform below. The grass area provides one of the only natural viewing areas out to the Pacific Ocean that has yet to be formalised with a viewing platform or path.

The access path begins at the formal car park overlooking the bolder field between the Skillion and Broken Head, heading in a north east direction towards the memorial site. Areas of dense vegetation have been established along the initial section of the proposed alignment that then gives way to open grass areas with groups of small trees.

### 3.2 Vegetation

The site is surrounded by remnant vegetation and planted native species from the Coastal Headland Low Forest, Coastal Headland Grassland and Coastal Headland Shrubland plant communities.

## 4.0 VISUAL IMPACT ASSESSMENT

### 4.1 Existing Visual Catchment

The approximate extent of visual catchment of the proposed works is indicated on the visual catchment plan, Figure 2. The visibility of the proposed works extends north along the established walking track to the various viewing platforms on Broken Head. West to the sporting oval, Reef Restaurant, The Haven Beach, residential areas and the viewing platform between Terrigal and The Haven beaches. South to the Skillion.





Figure 2. Visual Catchment Plan

#### 4.2 Selected Viewpoints

As a result of a detailed site visit, the following key viewpoints were selected for further analysis:

- VP1. Viewing platform north of proposed Memorial Site
- VP2. Northern extent of grass area on Broken Head
- VP3. Fish cleaning table adjacent boat ramp
- VP4. Grass area to east of Reef Restaurant
- VP5. Viewing platform between Terrigal and The Haven Beaches
- VP6. Grass area to south of Rugby/Cricket clubhouse
- VP7. High side of Scenic Highway
- VP8. The Skillion viewing platform
- VP9. Base of the Skillion grass area

The location of each viewpoint is illustrated on the Viewpoint Location Plan, Figure 3.





Figure 3. Viewpoint Location Plan

Viewpoint	Sensitivity Rating	Magnitude Rating	Impact Rating
VP1	High	High	High Impact
VP2	High	High	High Impact
VP3	High	High	High Impact
VP4	High	Negligible	Negligible Impact
VP5	High	Low	Moderate Impact
VP6	High	Low	Moderate Impact
VP7	High	Low	Moderate Impact
VP8	High	Negligible	Negligible Impact
VP9	High	Low	Moderate Impact

Table 1. Visual Impact Assessment Rating Summary Table

#### 4.2.1 Viewing platform north of proposed memorial site

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that pedestrians will have when approaching the memorial site along the concrete pathway on Broken Head. The existing view takes in the vegetated headlands and outlook over the rock platform and Pacific Ocean. The view is scenic and dominated by soft landscape elements, in particular a rolling grass slope that drops down to the sandstone cliff edge. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - High*

The proposed memorial will dominate the view and become the focal point of the natural depression in the landform. Access to the grass slope would be impacted. The new structure would change the overall appearance of the landscape and would change the way the space is used leading to a high magnitude of change.

##### *Impact Rating - High Impact*



Figure 4. Viewpoint 1 (Proposed location of Memorial and Access Path Shown in Red)



#### 4.2.2 Northern extent of grass area on Broken Head

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that pedestrians will have from the viewing platforms and open grass area to the north of the the proposed memorial site on Broken Head. The existing view takes in the vegetated headlands, open grass area, car park and some larger trees, with glimpses of the Pacific Ocean through the low point in the skyline. The view is scenic and dominated by soft landscape elements, in particular the rolling open grass slope that drops down to the car park. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - High*

The proposed memorial will change the shape of the skyline and interrupt the glimpse of the Pacific Ocean through the low point. The proposed access path will be a small visual addition to the landscape setting and will create another division in the open grass area. The new memorial structure would change the overall appearance of the skyline and would become the dominant hard landscape element, leading to a high magnitude of change.

##### *Impact Rating - High Impact*



Figure 5. Viewpoint 2 (Proposed location of Memorial and Access Path Shown in Red)

#### 4.2.3 Fish cleaning table adjacent boat ramp

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that pedestrians, motorists and patrons of the fish and chips shop will have when looking towards the open grass area on Broken Head. The existing view takes in the vegetated headlands, open grass area, car park, some larger trees, and power poles. The view is somewhat scenic with a mix of hard and soft landscape elements. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - High*

The proposed memorial will change the shape of the skyline and will add a further hard landscape element into the view cone. The new memorial structure would change the overall appearance of the skyline and would become the focal point of the view, leading to a high magnitude of change.

##### *Impact Rating - High Impact*



Figure 6. Viewpoint 3 (Proposed location of Memorial and Access Path Shown in Red)



#### 4.2.4 Grass area to east of Reef Restaurant

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that pedestrians, beach goers, patrons of the Reef Restaurant will have when looking towards Broken Head. The existing view takes in the row of mature Norfolk Island Pines, The Haven beach and open grass areas. The view is scenic with a mix of hard and soft landscape elements. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - Negligible*

The view towards the proposed memorial and access path is obscured by mature tree canopy and therefore the magnitude of change would be negligible.

##### *Impact Rating - Negligible Impact*



Figure 7. Viewpoint 4 (Proposed location of Memorial and Access Path Shown in Red)

#### 4.2.5 Viewing platform between Terrigal and The Haven beaches

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that pedestrians will have when looking towards Broken Head from the viewing platform and walkway between Terrigal and The Haven beaches. The existing view takes in The Haven beach, the vegetated headland of Broken Head, and distant views of the Pacific Ocean. The view is scenic with a mix of natural and constructed landscape elements. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - Low*

The proposed memorial will change the shape of the skyline in the distance. The new memorial structure will only change the overall appearance of the skyline slightly and would not become the focal point of the view, leading to a low magnitude of change.

##### *Impact Rating - Moderate Impact*



Figure 8. Viewpoint 5 (Proposed location of Memorial and Access Path Shown in Red)



#### 4.2.6 Grass area to south of rugby/cricket clubhouse

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that rugby and cricket spectators and patrons of the Rugby Union Cafe will have when looking towards Broken Head. The existing view takes in the sports oval, the vegetated headland of Broken Head, some large trees, and views of the Pacific Ocean. The view is somewhat scenic with a mix of natural and constructed landscape elements. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - Low*

The proposed memorial will add another built element to the landscape setting however it will only change the overall appearance of the skyline slightly as the existing trees and light poles from the sports oval already extend above this line. The proposed access path will be hidden behind existing vegetation and would not become the focal point of the view, leading to a low magnitude of change.

##### *Impact Rating - Moderate Impact*



Figure 9. Viewpoint 6 (Proposed location of Memorial and Access Path Shown in Red)

#### 4.2.7 High side of Scenic Highway

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that private residences and motorists on the Scenic Highway will have when looking towards Broken Head. The existing view takes in the steel walkway balustrade, sports oval, the vegetated headland of Broken Head, some large trees, and views of the Pacific Ocean. The view is somewhat scenic with a mix of natural and constructed landscape elements. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - Low*

The proposed memorial will add another built element to the landscape setting however it will only change the overall appearance of the skyline slightly as the existing trees and light poles from the sports oval already extend above this line. The proposed access path will largely be hidden behind existing vegetation and would not become the focal point of the view, leading to a low magnitude of change.

##### *Impact Rating - Moderate Impact*



Figure 10. Viewpoint 7 (Proposed location of Memorial and Access Path Shown in Red)



#### 4.2.8 The Skillion viewing platform

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that pedestrians will have when looking towards Broken Head from The Skillion viewing area. The existing view takes in the old timber balustrades, car park, rock and scree slope, rock platform, sports oval, vegetated headland of Broken Head, some large trees, and views of Terrigal and Wamberal Beaches. The view is scenic with a mix of natural and constructed landscape elements. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - Negligible*

The proposed memorial will be obscured from view by the vegetated headland of Broken Head and only a small section of the proposed access path will be visible, leading to a negligible magnitude of change.

##### *Impact Rating - Negligible Impact*



Figure 9. Viewpoint 8 (Proposed location of Memorial and Access Path Shown in Red)

#### 4.2.9 Base of Skillion grass area

##### *Sensitivity Rating - High*

This viewpoint is representative of the view that pedestrians will have when looking towards the car park and Broken Head from the base of The Skillion grass area. The existing view takes in the grassy slope at the base of the Skillion, car park, sports oval, vegetated headland of Broken Head, some large trees, and glimpses of Terrigal and Wamberal Beaches. The view is scenic with a mix of natural and constructed landscape elements. The viewpoint is considered of high sensitivity.

##### *Magnitude Rating - Low*

The proposed memorial will be obscured from view by the vegetated headland of Broken Head. The proposed access path will be visible and will require removal of a section of existing vegetation however the overall appearance will not change significantly, leading to a low magnitude of change.

##### *Impact Rating - Moderate Impact*



Figure 10. Viewpoint 9 (Proposed location of Memorial and Access Path Shown in Red)



#### 4.3 Overall Visual Impact

The visual impact of the proposed works would be greatest for those viewers in close proximity to the site. Viewpoints 1, 2 and 3 are representative of the catchment of viewers who will perceive a high impact to the visual amenity of the reserve. In general, the memorial structure will change the overall appearance of the skyline and would become the dominant hard landscape element in the reserve. Viewers that will see the change from a greater distance will likely perceive a reduced visual impact from the proposed works however the change to the skyline may still impact the views to the Pacific Ocean.

### 5.0 SCENIC VALUE ASSESSMENT

The impact of the proposed ex-HMAS Adelaide memorial and access path in relation to the scenic values listed in the Terrigal Haven Plan of Management 2009 are discussed below.

#### 5.1 Retain Natural Landscape Quality

Large sections of Broken Head and the Skillion are covered with native vegetation remnant of the plant communities that inhabited the headlands over a long period. These sections of vegetation contribute significantly to the natural landscape qualities that the community value.

The proposed memorial will add a constructed element into an otherwise soft landscape setting at the focal point in the skyline between the vegetated headlands on Broken Head. This would have a significant impact on the natural landscape qualities of the area as it is visible from a number of important viewpoints.

The proposed access path will require the removal of a section of native vegetation and will have an impact on the natural landscape qualities however this impact is minimal as there is only a small area at the base of the Skillion where the change would be apparent.

#### 5.2 Preservation of Views to the Pacific Ocean

The proposed memorial will have an impact on views to the Pacific Ocean from a number of key viewpoints and it is expected that a number of residents in private dwellings as well as users of The Haven will be affected. The extent of the impact varies depending on the distance the viewer is from the proposed memorial. Typically the closer the viewer is located to the memorial the greater the magnitude of impact to their view of the Pacific Ocean.

The proposed access path will not impact views to the Pacific Ocean.

#### 5.3 Embellish Natural Vantage Points

The proposed memorial is a new hard landscape structure that will be placed in an otherwise informal grass slope overlooking the rock platform and Pacific Ocean. The works will be a new visual intrusion in the landscape rather than an embellishment of an existing viewing platform. While the grass slope is a natural vantage point, the

## 6.0 APPENDIX

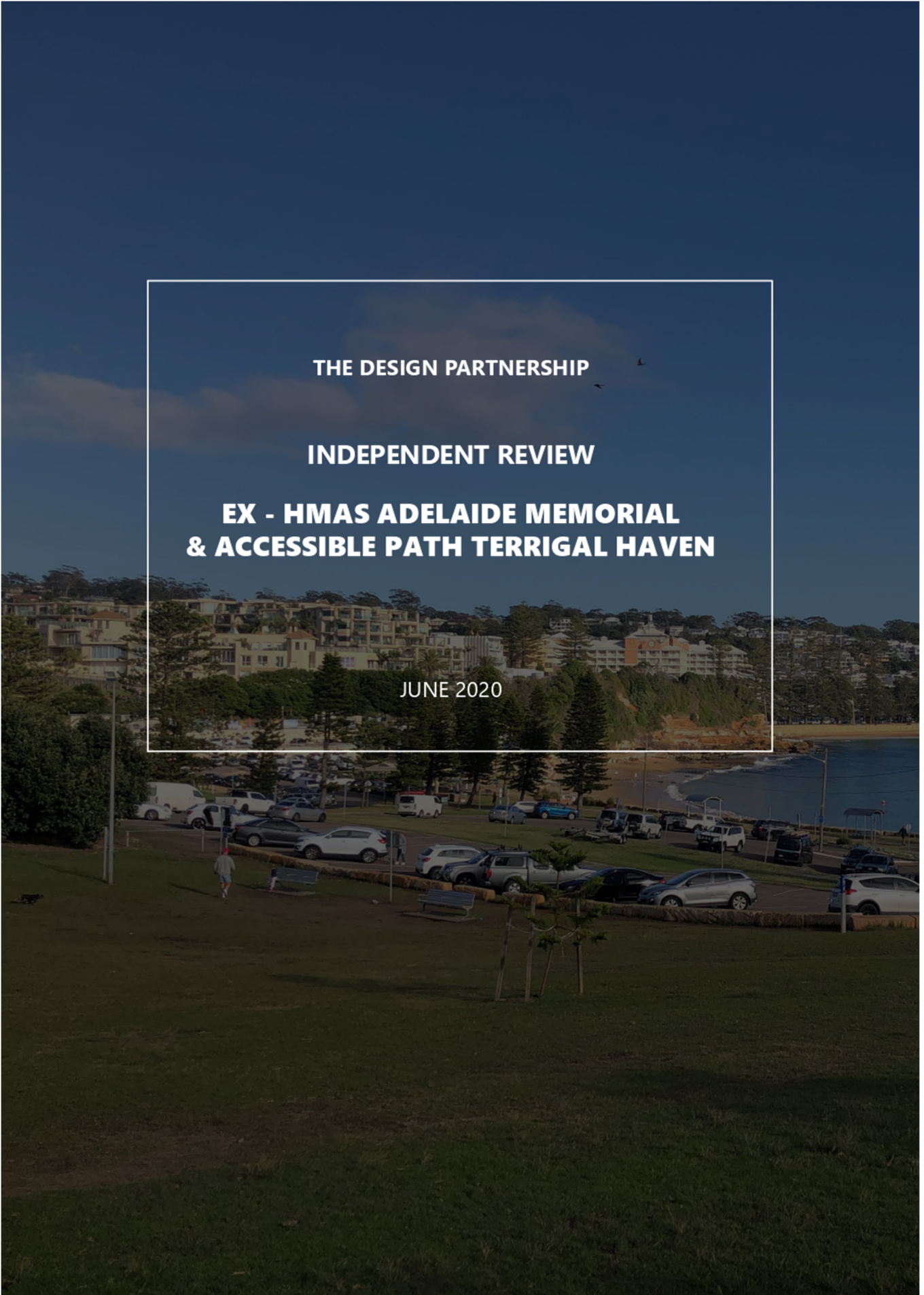
### 6.1 Artists Impression of Ex-HMAS Adelaide Memorial



*Photomontage of Proposed Ex-HMAS Adelaide Memorial based on Plans prepared by Howard Leslie & Associates.*



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CENTRAL COAST COUNCIL

**Ex - HMAS Adelaide Memorial and Accessible Path, Terrigal  
Independent Visual Impact Assessment Review**  
TERRIGAL HAVEN NSW 2260

PROJECT NUMBER: 20.016

PREPARED BY



Kristy Ryan | Managing Director, Urban Designer and Registered Architect.

### Quality Control Plan

ISSUE	DATE	DESCRIPTION	AUTHOR	CHECKED BY
A	19.06.20	DRAFT VIA Independent Review	KR	KR
B	26.06.20	FINAL VIA Independent Review	KR	KR

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## **1 INTRODUCTION**

The Design Partnership has been engaged by Central Coast Council to undertake an independent review of the Visual Impact Assessment (VIA) prepared by Green Light Design Group for the Ex-HMAS Adelaide Memorial and Accessible Path at Terrigal Haven.

### **1.1 PURPOSE OF A VISUAL IMPACT ASSESSMENT?**

The purpose of a Visual Impact Assessment (VIA) process is to ensure that the project is of a physical form which will have the lowest practicable visual impact on its landscape setting, when viewed from publicly accessible viewpoints. Visual management objectives provide the basis for determining the degree of intervention required to modify any identified adverse visual and landscape impacts.

### **1.2 SCOPE & METHODOLOGY**

The scope of this independent review is an of the VIA prepared by Green Light Design Group. To prepare the report, The Design Partnership's undertook the following Methodology:

1. Review of the VIA report prepared by Green Light Design Group.
2. Desktop review of the design prepared by Howard Leslie & Associates.
3. Site Visit by Kristine Ryan (Managing Director) on 18 June 2020.
4. Email correspondence with Central Coast Council's project manager Samantha Cummins.
5. Preparation of draft Report for review by Central Coast Council and
6. Preparation of final Report and issue to Central Coast Council.

### **1.3 AUTHOR OF THE REPORT**

The report has been prepared by Kristine (Kristy) Ryan, Managing Director of The Design Partnership. Kristy is an urban designer and a registered Architect (No. 9254 NSW) located on the Central Coast. Kristine sits on two urban design review panels (for Lake Macquarie and Port Stephens Council), which includes consideration of visual impact assessment criteria. Kristine has personally authored VIA's and specialises in projects of cultural significance.

### **1.4 STRUCTURE OF THE REPORT**

The report comprises four (4) parts. Part 1 introduces the project and identifies TDP's methodology in undertaking a review. Parts 2 and 3 reviews the assessment and recommendations from the VIA report prepared by Green Light Design Group (GLDG). Part 4 presents a conclusion to this review. Three appendices have been included which includes the VIA report prepared by Green Light Design Group, the design drawings by Howard Leslie & Associates and a photo the ship mast that will be used for the proposed memorial.

### **1.5 LIMITATIONS OF THE REPORT**

This report is limited to a review of the VIA prepared by Green Light Design Group. TDP's methodology does not include a Visual Impact Assessment or include photomontages to test and articulate the impact of the proposed memorial on its landscape setting.

## 2 LOCATION AND PROJECT

### 2.1 LOCATION

The subject site is located within Terrigal Haven which is rocky headland east of Terrigal CBD. The Haven is distinctive landform in the shape of a bowl. The precinct comprises Broken Head, a small protected bay, sandy beach and rock platforms.

The Haven is popular for picnics, sporting events, informal recreation, day and evening dining, and water based activities.

The Skillion is a iconic landform that rises towards the south and is a popular vantage point for the area. Terrigal Haven has a series of pedestrian paths and lookouts which are popular for walkers. The landscape comprises rolling grass slopes with clusterings of dense native vegetation. There are also a large number of pine trees along the beach front and across the site. There are four saddles that form the edges of the bowl. Saddles are depressions at the edges of the bowl which provides views over the Pacific Ocean. The four saddles include, the beach (1), the northern base of the Skillion (2) and the southern base of the Skillion (3) and the Broken Head (4). The Broken Head saddle (4) is the location of the proposed memorial which is the subject of this report.

### 2.2 THE PROJECT

The project is a memorial dedicated to the crew of Ex-HMAS Adelaide which was sunk/scuttled off the coast in April 2011 to provide an artificial reef and dive site. The dive site is an important tourist attraction for the Central Coast.

The memorial will comprise the original mast from the Ex-HMAS Adelaide which will be placed within a sandstone block plinth. The mast will have the ability to raise a flag on commemorative days and events. A sandstone block plinth will create a formal lookout area which will replicate the ships bow. The total height of the memorial will be will approximately 9.5 metres which will include the flag.

The documentation provided for the review does not identify any attribution or interpretive signage. There is also no fence shown on the plans.



Figure 1: Location of the memorial in the Haven (TDP 2020)

### 3 REVIEW OF VISUAL IMPACT ASSESSMENT

This assessment includes a desktop review of the Visual Impact Assessment (VIA) prepared by Green Light Design Group (GLDG) dated 01 October 2019 and the plans prepared by Howard Leslie & Associated dated 5 March 2019. The desktop assessment was accompanied by a site visit to review the viewpoints and scenic quality identified in the VIA. The weather was favourable during the site visit and there were no weather obstructions.

#### 3.1 REVIEW OF ASSESSMENT METHODOLOGY

The assessment methodology used by GLDG is different to that used by TDP however, there are no concerns regarding the approach, with the following exceptions:

1. The assessment uses two types of assessment criteria (Sensitivity and Magnitude) opposed to three measures that are used by TDP (Visibility, Visual Absorption Capacity and Visual Impact Rating). *The impact of the GLDG methodology is discussed in points 2 and 3 below.*
2. The Impact Rating - Magnitude criteria does not comment on the value and quality of each viewshed. *In another context this might be a problem, however for this project all viewsheds would be considered to be high.*
3. The report does not include a measure that identifies whether the landscape has the capacity to absorb the development. Visual Absorption Capacity (VAC) is the estimated capacity of the landscape to absorb the development without creating significant visual change, which results in a reduction in scenic quality. The capacity to absorb development is primarily dependent on vegetation cover, landform and the presence of other development. *Although not provided as a specific assessment criteria the VIA has partially addressed these considerations in some viewline assessments. Had this criteria been included it would have been clear that many key views do not have the ability to absorb the impact of the project in the landscape.*

In summary, although the report uses a different and simpler methodology, it is likely that a similar conclusion would have been reached by The Design Partnership.

#### 3.2 REVIEW OF VIEW POINTS

The Visual Impact Assessment identified nine (9) view points. Seven (7) view points are located within the Terrigal Haven 'bowl', while two are located outside the area on footpaths that lead to the Haven. During the site visit, two other sites were identified that are also relevant to the assessment. Council may consider requesting additional assessment of these Viewsheds from the author.

The additional viewsheds could include:

**View 10:** *(viewshed inside the Haven)*

View from the proposed accessible path looking towards the proposed memorial. It is assumed that the existing unformed road/trail is the location for the proposed accessible path.

*This view is likely to have similar rating to Viewpoint 1 and Viewpoint 2 which were nominated as High Impact.*

**View 11:** *(viewshed outside the Haven)*

View from Terrigal CBD. There could be numerous views taken from key points including, the promenade and footpath. However, the views are likely to be very similar.

*This view is likely to have similar rating to Viewpoint 5 which was nominated as Moderate Impact.*





Figure 2: Copy of the VIA Viewpoint Location Plan (GLDG VIA Figure 3). This diagram identifies the location of the recommended Viewpoint 10. (GLDG 2019 & TDP 2020)



Figure 3: Aerial showing the location of the recommended Viewpoint 11. (TDP 2020)



## 4 SCENIC VALUE & SUPPORTING CONSIDERATIONS

Section 5 of the Visual Impact Assessment prepared by GLDG provides a Scenic Value Assessment which takes into consideration the Terrigal Haven Plan of Management 2009. The following assessment provides comments on the GLDG's assessment and puts forward additional factors for consideration.

### 4.1 REVIEW OF SCENIC VALUE ASSESSMENT

There are four (4) considerations addressed in the report and are commented upon below:

#### 4.1.1 Retain Natural Landscape Quality

The report identifies that the Haven - comprising Broken Head and the Skillion comprises natural vegetation and this contributes to the scenic quality of the precinct. The addition of a 'constructed element', comprising the memorial and the concrete path will be visible from numerous viewpoints. The report states the memorial will have a **significant impact** on the natural landscape qualities and the accessible pathway will have **minimal impact**.

*This assessment is supported and we agree the memorial will have **significant impact** on the Haven precinct. There are no similar structures or elements and the memorial will disrupt the experience of the public space. The proposed memorial comprises an element (ship mast) sited 'out of context' - as an abstracted form. This further highlights the element which results in greater contrast in the landscape context.*

*The assessment of the accessible path as **minimal impact** is supported due to its low scale, the ability to restore native vegetation and its value to improve the existing functions of the precinct.*

#### 4.1.2 Preservation of Views to the Pacific Ocean

The report identifies that the memorial will impact views to the Pacific Ocean from key viewpoints. It also notes that private residents will also be impacted. It is also stated that the closer the viewer is to the memorial, the greater the impact. The accessible path is not considered an issue as it will not impact views to the Pacific Ocean.

*This assessment is supported and we agree the memorial will have an impact on views to the Pacific Ocean. The memorial is proposed within one of four key saddles in the Haven precinct. Each view line is unique however, the subject site is of particular importance. This is a pedestrian only view line and the only way to experience this view is on foot. While undertaking the site visit, the popularity of the space to meet and talk while watching the view was observed. The impact of this structure will be significant and will change the experience of the space.*

*Furthermore, the water as viewed through the saddle, will be blocked by the structure.*

#### 4.1.3 Embellish Natural Vantage Points

The report identifies that the memorial will be a new visual intrusion in the landscape rather than an embellishment of an existing viewing platform. The assessment identifies that the memorial will be focused on the mast of the Ex-HMAS Adelaide rather than the view to the Pacific Ocean.

*This assessment is supported as the memorial results in a new focal point and inhibitor of viewlines. The impact of standing beneath a significant structure will change the experience of connecting with the water in the distance. It could be argued that the mast will give the impression of looking out to see from a ship, however, the memorial is out of context and has been abstracted and this experience would require a strong imagination.*

**4.1.4 Effective Maintenance**

The report identifies that the accessible path will provide access for people of varying mobilities, reduce erosion from the informal path and highlights an existing desire line between the car park and viewing platforms. The report also states the memorial will require regular maintenance to ensure it remains safe. A balustrade has also been recommended to prevent falls.

*This assessment is supported as a formal access path would improve movement through the site. This path is a missing link in the pedestrian network. It is also agreed that regular maintenance will be required. Memorials and public artwork on the Central Coast has not been consistently maintained. The construction of this memorial would require a maintenance program, maintenance funding and a Lifecycle plan (A Lifecycle Plan determines the lifespan of the memorial which determines maintenance costings and programs). The memorial is likely to experience vandalism which will require removal as soon as possible - as tags left in place become a reward to the vandal. Vandalised memorials also become more prominent in the landscape and send a signal that encourage anti social behaviour.*

*The climbability of the memorial should also be considered. Any structures such as attribution or interpretive signage should ensure they do not facilitate the climbing of structures.*

In summary, the assessment and recommendations from the VIA are supported.

**4.2 OTHER CONSIDERATIONS**

In addition to the assessment and recommendations identified in the VIA, these further comments and recommendations are provided for consideration:

**4.2.1 Ridgeline Rule of Thumb**

There is a rule of thumb that when determining the scale of a new constructed element in a landscape context, the ridgeline of the area should form a 'ceiling' for new development. In this case the memorial is located within a gap (saddle) of the vegetation line. This gap further highlights the memorial making it more prominent and out of place. The memorial would be read differently had it been located in front vegetation. This would have enabled the memorial to become part of the landscape opposed to contrasting with it.

**4.2.2 Public Art Considerations**

Structures that are 'public art' are often intended to contrast with the natural environment. As this is a memorial and not a public art element, the argument for a bold statement that changes the landscape is not as strong.

**4.2.3 Form of the Memorial**

We have been advised the memorial structure is the actual mast from the Ex - HMAS Adelaide. This memorial will comprise an element that has been abstracted from its original context and placed in a new context. This will bring more attention to the element and results in a stronger impact. Furthermore, as the element has been abstracted, it can be perceived to have a different purpose, particularly from a distance. From the images provided of the mast, the structure could be misconstrued as a vent shaft or outlet. As this can be considered as an offensive object, even if this is not its true purpose, this increases its visual impact. In our opinion this could increase the impact rating from viewpoints 2 - 3, 5 - 10 to a high order of magnitude.

## 5 CONCLUSION

This independent review supports the assessment and recommendations identified in the Visual Impact Assessment prepared by Green Light Design Group. Although The Design Partnership uses a different methodology, it is our opinion that we would have arrived at a similar conclusion.

The proposed memorial project is an admirable endeavour however, it will have significant impact upon Terrigal Haven and neighbouring residential dwellings. We are also of the opinion that the memorial will have a greater impact on Terrigal CBD than identified in the Visual Impact Assessment report. This is due to the possibility it to be perceived as a functional element such as a ventilation shaft.

It is noted the design drawings do not identify attribution or interpretive signage. It is important that these elements form part of the proposed memorial to ensure it is not misinterpreted. Attribution and interpretive signage has not been implemented on the majority of Central Coast artworks and memorials and should not be overlooked for this project.

The Haven is an important area of significant scenic quality and a special place for both locals and tourists - and it is believed this memorial will impact that experience.

## **APPENDIX A**

### **VISUAL IMPACT ASSESSMENT BY GREEN LIGHT DESIGN GROUP**



## **APPENDIX B**

DESIGN DOCUMENTATION BY HOWARD LESLIE & ASSOCIATES

## **APPENDIX C**

IMAGE OF THE PROPOSED MAST FOR USE IN THE MEMORIAL



*Mast from Ex-HMAS Adelaide which will form the central element in the proposed memorial.*