

**Review and Assessment of Potential Visual Impacts
of Proposed Marina and Wave Attenuator
Cattle Bay Road, Eden NSW
Lots 1, 2 and 4 of DP 1138056 and Adjoining Waters**

24 June 2014

Contents

1. INTRODUCTION.....	3
1.1 Background	3
1.2 Description of Proposal	5
1.3 Study Author.....	6
2. THE SIGNIFICANCE OF THE PLACE.....	7
2.1 The Town of Eden	7
2.2 Maritime History	8
2.3 Social Value	9
2.4 The POEM Proposal.....	9
3. VIEW ANALYSIS	10
3.1 Overview	10
3.2 Key Vantage Points: Local	13
3.3 Key Vantage Points: Distant.....	16
4. LANDSCAPE VISUAL IMPACT ASSESSMENT	21
4.1 General Approach to Landscape Visual Assessment.....	21
4.2 The Base Line	21
4.3 Landscape and Visual Character and Quality	22
4.4 Landscape and Visual Sensitivity	23
4.5 Viewer Sensitivity	24
5. FINDINGS & CONCLUSIONS	25

Appendices

Appendix 1: Plans of Proposed Development Assessed in this Investigation.

1. INTRODUCTION

1.1 Background

Eden Resort Hotel Pty Ltd has long had a vision to develop a marina in association with its approved mixed use tourist and residential development within the site of the former Heinz Cannery at Cattle Bay, Eden.

The proposal by Eden Resort Hotel Pty Ltd comprises a 154 berth marina, a fixed wave attenuator, minor refurbishment of the existing wharf; temporary car park and a temporary building to house marina administration and toilets. The temporary facilities will be replaced by the resort and residential proposal when it is developed.

The site (land and water) proposed to be occupied by the marina comprises the foreshore land upon which the former cannery buildings were located and extends into part of Cattle Bay within Twofold Bay surrounding and encompassing the existing wharf previously used by the cannery.



Figure 1: Site and Context Plan

Cattle Bay is a small, intimately scaled inlet on the northern side of Twofold Bay. It forms part of Snug Cove. It is bounded on all land sides by dense foreshore vegetation and becomes part of the waters of Twofold Bay to the south. The site is situated in an attractive landscape that is part of the character of both the town of Eden and the northern part of Twofold Bay.



Figure 2: Site in Twofold Bay

The site has a long history of maritime industrial use. The previous industrial buildings and activity present within the site are associated with its former tuna cannery use. Today the fundamental issue is the proposed introduction of new marina facilities (boats, pontoons and wave attenuator) and transformation of the site to new maritime uses with the consequential juxtaposition of a natural landscape with a marina one.

In February 2013 the Director General of the Department of Planning and Infrastructure was consulted to obtain the Director General's Requirements (DGRs) for the redevelopment of the Marina pursuant to Part 4 of the Environmental Planning and Assessment Act. The Director General advised of these requirements by letter dated 21 March 2013. One of the DGRs states:

Visual Amenity - include an assessment of the visual impact of the proposal (height, scale, density and lighting) on the local and regional area, particularly:

- ***impacts on the amenity of the foreshore;***
- ***Water users of Snug Cove;***
- ***Loss of views from public places; and***
- ***Cumulative impacts.***

The purpose of this study is to determine, in relation to the development application, whether there is any potential for any visibility impact of the proposed marina to be perceived as encroaching into the Bay and Cove's landscape and whether that impact would be deemed to be undesirable and, if so, to what extent and whether mitigatory measures would be effective.

As such, the study responds to the DGRs as follows. It:

- Presents and analyses the results of a view analysis from key vantage points including those identified in the DGR; and
- Undertakes landscape character and landscape visual assessments of the site in relation to the proposed marina and its elements.

The report concludes by presenting its findings and recommendations that may assist in ameliorating any potential visual impact generated by the proposal.

1.2 Description of Proposal

The design and visual appearance of the proposed marina are presented in the drawings that form part of the application (refer to **Appendix 1** for copies).

The proposal comprises:

- i) a total of approximately 154 berths in three floating pontoon arms restrained by piles;
- ii) relocation of 24 swing moorings outside the marina area in locations to be confirmed with the RMS (Maritime) and the Eden Port Authority;
- iii) a fixed wave attenuator located parallel with, and along, the southern pontoon arm;
- iv) Minor refurbishment of the existing wharf;

- v) a mix of berth sizes from 12m to 28m to cater for a range of watercraft from small local recreational craft to larger international super yachts. The exact mix of berth sizes will be finalised in the preparation of final documentation for the project;
- vi) Provision of power, lighting, water and other infrastructure services. The proposed lighting is low-level bollard style lighting. In terms of the car parking area lighting will be provided for safety by a small number of floodlights located on the facilities building and directed to the car park area;
- vii) Temporary car park comprising 97 spaces plus 3 loading/unloading spaces. The car parking spaces will be located on, and use, the existing concrete apron that remains following the demolition of the cannery buildings. The car park will utilise the existing site access gate off Cattle Bay Road; and
- viii) Temporary (portable) building to house marina administration and toilets.

The marina is proposed to comprise conventional floating pontoons affixed to piles. Accordingly, its appearance is readily apparent by comparison with other marinas of a similar scale elsewhere.

1.3 Study Author

Stephen McMahon is a qualified town planner and urban designer and Fellow of the Planning Institute of Australia. He has gained experience from a diversity of work environments including the London Docklands Development Corporation, the former City of Wanneroo in Perth and for almost a decade, he was an Associate at Woods Bagot Architects in both Qld and NSW. Since 2005 Stephen has been the Director of his own consultancy business; Inspire Urban Design & Planning Pty Ltd.

Stephen obtained his Master of Arts in Urban Studies, focusing on urban design, following the awarding of a Curtin University scholarship in 1993 to study overseas at Oxford Polytechnic (now Oxford Brookes University) UK. For nine years he lectured urban design in the Faculty of the Built Environment at the University of NSW. This included a component of visual impact assessment. Today, he is retained by the Faculty for student thesis supervision.

He is fully conversant with urban design and visual impact issues. He has had significant experience in the preparation of sensitive and thoughtful urban design guidelines, development control plans and master plans for residential and commercial developments. He has acted as an Expert Witness on visual impact matters in the NSW Land and Environment Court and has been retained by a number of Councils to provide urban design advice.

2. THE SIGNIFICANCE OF THE PLACE

2.1 The Town of Eden

Twofold Bay is a distinctive landscape element in the south coastal subregion of Bega Valley Shire. The town of Eden is a peninsula that extends into the Bay, separating the Bay from the Tasman Sea.



Figure 3: The Site and the Peninsula of the Eden Town Centre

In many respects the town of Eden and Twofold Bay are intimately linked:

- The town, its port and the industries that established the town (fishing, whaling, forestry etc.) have depended on the safe anchorage offered by the Bay since foundation of European settlement; Similarly
- The presence of Twofold Bay, and its numerous inlets, beaches and coves, of which Snug Cove is but one, has given the town a distinctive landscape setting and character and a wonderful visual and recreation amenity for its residents.

Snug Cove is the centre of Eden's maritime activity and Cattle Bay adjoins the Cove, located 350 metres to the north west. Cattle Bay shares the Cove's comparatively sheltered character and there is a long history of maritime activity within the Bay.



Figure 4: North west Facing View of Port Facilities in Snug Cove with the Site in the background

2.2 Maritime History

In 1947 a cannery was constructed on the foreshore of the Bay operated by Greens. The business expanded and provided significant employment and income for the town. In 1961 the business was sold to Kraft Foods and in 1974 it was sold to Heinz. The facility was redeveloped and expanded. However in 1999 the facility was closed. (Blaxell, G., 2008, Afloat Magazine, November).



Figure 5: Historic View of Wharf (source, National Library of Australia)

Today the only activity and built elements that remain in the Bay are a remnant building on the foreshore, the original timber wharf that extends into the Bay, concrete hardstand and private swing moorings.

2.3 Social Value

The significance of Twofold Bay, in terms of the role it plays in the town's economy, character and amenity, is documented in many publications.

Bega Valley Shire Council, in its planning study "The Eden Structure Plan 2006" notes that *"The environment contributes to the area's unique and immense beauty and is a significant consideration when planning for the future development of the region. The natural constraints of the area act as boundaries that create a sense of place and contribute to the local character, distinct from any neighbouring settlement... Eden ...[has] an individual character that evolves from the natural setting of the settlements and the history of the development of the area... As a result, significant vistas are afforded from most parts of the settlement."* (p.7-8).

Sapphire Coast Tourism Limited, on its website www.visiteden.com.au describes it as follows: *"Perched on the edge of magnificent Twofold Bay – the third deepest natural harbour in the southern hemisphere – is it any wonder Eden was once considered as a site for Australia's national capital? It's a truly stunning location with a host of unique attractions. The heart and soul of Eden – and its history – is Twofold Bay. ... This still is a working port, so drive down in the early morning and watch 'those who go down to the sea in ships' bring home their catch."*

2.4 The POEM Proposal

The inherent qualities of the area and suitability of the area for marina activities do not go unrecognised. In addition to the proposed marina projected by Eden Resort Hotel Pty Ltd, The POEM (Port of Eden Marina) proposal adjoins the site to the east.

It has been proposed by a consortium of local business and community interests, Eden Chamber of Commerce, Government Agencies and other stakeholders within Eden in order to secure Government funding for additional marina facilities to serve visitors and residents of Eden and provide broader economic benefits to the region.

It is comprised of two stages:

- Stage 1: Reclamation of a portion of the northern foreshore of Snug Cove to establish a 98 berth marina incorporating a wave attenuator of 150 metres, floating structures, piling and services, marina amenities/administration block, pump-out facility and 85 car park spaces; and
- Stage 2: Additional 95 floating berths and the remaining onshore car park spaces.

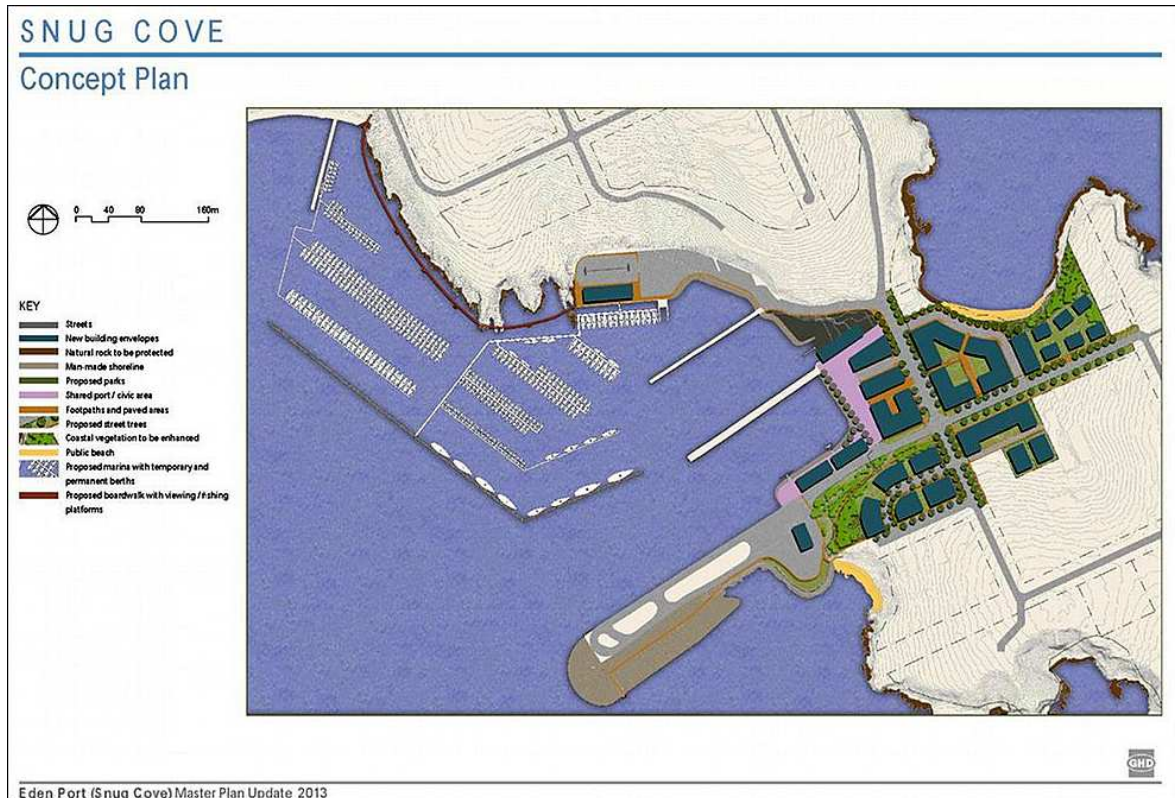


Figure 6: Updated Concept Plan Illustrating Proposed POEM Development with Proposed Cattle Bay Marina Adjoining to the West
(Source: Bega Valley Shire Council)

Government grants are funding environmental and economic feasibility investigations and recent funding announcements offer partial funding of the facility. Bega Valley Shire Council has appointed GHD to prepare a Snug Cove Master Plan and progress investigations. However it is understood that preparation of a development application has yet to commence.

3. VIEW ANALYSIS

3.1 Overview

In order to assess the likely visual impacts of the proposal, the principal distant and local vantage points with views into the subject area have been identified. From this, it is then important to understand the character and nature of the land and water area to be affected by the proposed development.

Views to Twofold Bay, Snug Cove and Cattle Bay are extensive and common. They are from public lands as well as from private property. The views are taken to be representative of many other similar views within these categories.

The shortlisted representative views are illustrated below.



Figure 7: Representative Views on Aerial Photo

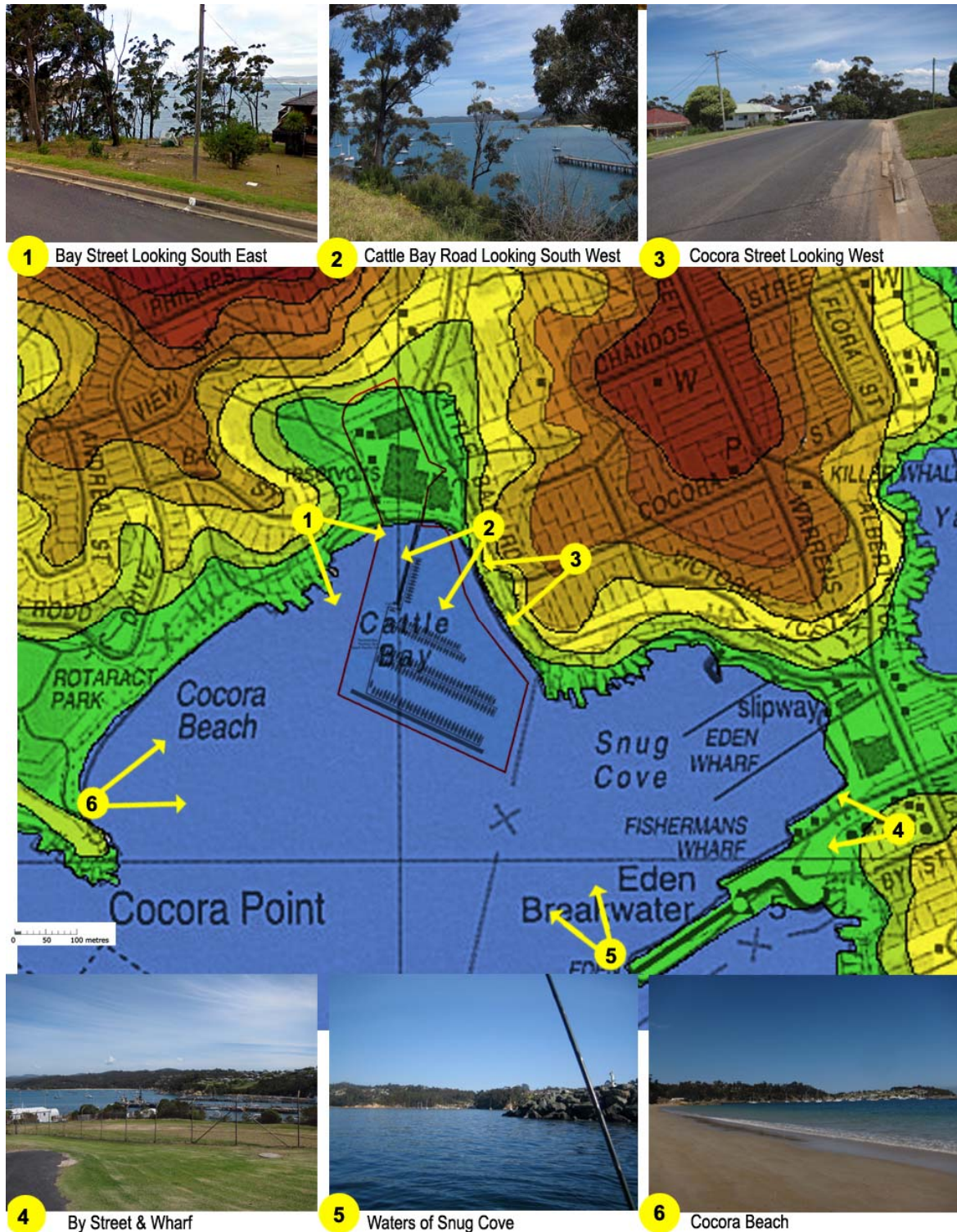


Figure 8: Representative Views on Topographic Map

They comprise:-

Local

1. Bay Street
2. Cattle Bay Road
3. Cocora Street

Distant

4. By Street and Fisherman's Wharf
5. The Waters of Snug Cove
6. Cocora Beach and Cocora Point

Each vantage point yields different information about the level of visibility of the site. Distant, broader views, have the potential to introduce issues of cumulative impact when viewed in concert with other neighbouring activities.

Each vantage point is briefly discussed below along with reference photography and photomontages for pertinent views. As requested by Bega Valley Shire Council, two representative views have been selected to illustrate the potential visual impact of the proposed wave attenuator; being views from Cocora Beach and the waters of Snug Cove, where north and east facing views to the wave attenuator have the potential to be most prominent.

3.2 Key Vantage Points: Local

Bay Street



Figure 9: View from Bay Street Looking South

Bay Street is an elevated cul-de-sac that terminates at the top of the cliff to the north west of Cattle Bay. Beyond the end of the road are informal densely treed parklands associated with the foreshore cliff edge. As an elevated position, it provides filtered views through trees to the Bay from the public domain and extensive views from south facing dwellings on the southern side of the road. Due to the elevation of the land, views extend over the subject area and proposed marina to the south to Twofold Bay to distant landscapes and natural features beyond.

The marina pontoons and wave attenuator will be visible within the foreground from this vantage point. However visual exposure is minor, generally confined to households in dwellings with vistas to Twofold Bay and casual users of the parklands from viewpoints amidst the trees. Extensive views of open water beyond the proposed marina into Twofold Bay will remain.

Cattle Bay Road

Cattle Bay Road extends along the top of the cliff to the east of Cattle Bay with connections to the Eden Town Centre. Although a well-connected road, use of the road by both vehicles and pedestrians is low, confined to predominantly local residents.

Similar to Bay Street, the road is in an elevated position. Filtered views through trees west to the Bay are available from the public domain and from west facing dwellings on the eastern side of the road. Due to the elevation of the land, views extend over the subject area to the west to Cocora Point and Beach, which are visually prominent features of the landscape.



Figure 10: Views West across Site from Cattle Bay Road

Views to the marina pontoon and foreshore facilities will be prominent within the foreground from this vantage point, albeit experienced primarily by pedestrians using the road. The impact of the proposed marina on those views will be to reduce the area of open waterway in the foreground of the view.

Notwithstanding this, a very extensive area of open water beyond the proposed marina into Twofold Bay will remain within the middle and long-distance views.

Relevantly, from this vantage point, the water area in Cattle Bay contains a cluster of existing swing moorings that already present a vista of moored boats and the existing wharf. The presence of various types of moored vessels are unexceptional and although visible, are not necessarily visually intrusive.

Furthermore, while the proposed marina will intensify the presence of boats, it is appropriate to note that the previous use of Cattle Bay as an industrial cannery complex involved significant boat traffic and intense use of the existing wharf. There are no known recorded negative visual impacts. Accordingly, the waters of Cattle Bay could not be described as historically being in a natural or unchanged state. Rather, they are located in an area that has a record of significant visual intrusions that have been accepted by the community.

The proposed car park and temporary building are setback from the foreshore edge as required by Council DCP controls. It will be partially visible from Cattle Bay Road and surrounding dwellings. However, visibility will be limited because of the absorptive opportunities presented by the presence of trees and the visual backdrop of the elevated vegetation and remaining buildings within and surrounding the site.

Importantly, no views are from locations in close proximity. Views from neighbouring dwellings and roads are predominantly elevated and extend over the site to distant landscapes and natural features beyond. With increasing relative elevation, properties enjoy views over the top of the car park, the marina and moored boats and the impact on views by the proposal is correspondingly minimised.

Cocora Street

Cocora Street extends in an east west direction along the top of the peninsula upon which sits the Eden Town Centre. It provides good connections across the town centre linking Cattle Bay to the centre.



Figure 11: View West Along Cocora Street

Despite being a well-connected road, use of the road by both vehicles and pedestrians is low, confined to predominantly local residents.

Similarly, the visual backdrop offered by the elevated treed vegetation of the shoreline at the western end of the road visually dominates the landscape and effectively obscures major views between the town centre and the Bay, limiting views to filtered opportunities amidst the trees. With increasing relative elevation to the east, prominent and memorable views over the top of the trees to Mt Imlay and the peaks of the mountains in the State Forest beyond become evident.

3.3 Key Vantage Points: Distant

By Street and Fisherman's Wharf

Extensive, but short term / interim views north west to the site from By Street have only recently become available with the removal of the obsolete Mobil Tank Farm and good views, but often filtered by the presence of berthed ships, are also available from Weecon Street and Fisherman's Wharf.



Figure 11: View North West across Port Activities in Snug Cove to the Site

The landscape evident in all of these vantage points has been heavily modified by port activities and associated maritime industries. The land/water interface at the foreshore is now a man-made retaining wall from which the existing jetties and breakwaters extend.

As such, the site is located in an immediate landscape dominated by maritime oriented built form and man-made structures. This character is significant. The proposed marina is not the only visual intrusion in the waters of Twofold Bay in this locality. In particular, the presence of the activities in Snug Cove immediately to the south of the site have a prominent and significant visual impact, which are accepted by the Eden Community. In fact, views of the port and maritime activities within Snug Cove commonly feature prominently in tourism and town branding / attractions brochures and other materials and are likewise well valued.

The Waters of Snug Cove

For the purposes of this exercise, there is no defined limit to the waters of Snug Cove. However, they broadly extend into Twofold Bay and vantage points can be considered to be those locations on the water where a viewer would first become aware, and gain an appreciation (either positive or negative), of the presence of the wave attenuator and marina berths.

These locations are difficult to identify and depend in many respects on local conditions at the time. These conditions include tides (if the object is fixed), wind and wave action, heat / evaporation and refraction that can all act independently, or mutually, to obscure views. Separation also plays a significant role. As a result of the earth's curvature, the ability to view objects beyond the horizon plane becomes progressively difficult as the viewer moves further away from the object. For example, an observer sitting in a boat with eyes 1.7 metres above the water level will not be able to see any object below 2 metres in height from a distance of approximately 3.5 kilometres.

A "before and after" photomontage taken from a vantage point close to the breakwater at Snug Cove (approximately 480 metres separation) is presented below and illustrates the change.

It is evident that:

- The existing cluster of boats on swing moorings establishes an existing character of boating activity. While there will be a significant increase in density of moored boats, at this distance the visual impact of this increase will not be noticeably obtrusive to most casual observers;
- Views, of the marina will, to a certain degree, be absorbed by the visual prominence of surrounding natural features and the presence of Snug Cove, such that any visual appreciation of the presence of the increased concentration of boats and the wave attenuator will be minimal; and
- Given that the level of the car park and building is generally below the level of the marina at this point, it is considered that the car park and building structure will have little or no visual impact when viewed from the waters of Snug Cove.

Any negative visual impact generated by the land based facilities and marina elements from water based viewing points will therefore be minimal.



Figure 12: View of Existing (top) and Photomontage of Estimate of Change (bottom)

In terms of cumulative impact, the proposed marina at Cattle Bay is located with a sufficient separation to the wharves and activities within Snug Cove such that they present as distinctively different and separate foci of activity. The presence of the visual backdrop offered by the cliff face and elevated treed vegetation of the shoreline continues to be visually prominent in the landscape and provides sufficient visual separation between the activities.

As noted in Part 2.4 of this report, the POEM (Port of Eden Marina) proposal adjoins the site to the east. With regard to the cumulative visual impact of the presence of marina activities, the POEM proposal has the potential, if it is realised, to link the Cattle Bay Marina with the activities of Snug Cove to establish a focus of marina activity in the northern part of Snug Cove.

There is no certainty at this time as to when the construction of the marina will take place and in what ultimate form. Similarly, there is no certainty what form of visual impacts may eventuate (scale, positive, negative etc.). At the time of preparation of this report, no development application had been prepared, or was advanced in preparation.

As such, it is expected that the development application that supports the POEM proposal will be required to address the cumulative impact that it may generate on the character of the area, and it will be better informed to make this assessment.

That said, it is appropriate to note, however, that there is empirical evidence to demonstrate that water based marine facilities, where common within particular localities and where prominently visible are not necessarily objectionable or visually intrusive.

Rather, waterfront scenes including wharves and various types of moored vessels are frequently the subject of paintings and photographs and feature prominently in tourism marketing material. Eden is no exception to this sentiment as noted above. Generally, people are not offended by the presence of boats and their facilities where they are located on or adjacent to waterways if they are in an appropriate water and marine context.

Cocora Beach and Cocora Point

Cocora Beach and Cocora Point are located between 250 and 450 metres west of the location of the proposed marina. The foreshore of the beach comprises a popular parkland, Rotaract Park, that includes picnic facilities and children's play equipment.

Views from the public domain are experienced in the context of direct expansive and extensive views to the waters of Twofold Bay to the south. Direct views of the site of the proposed marina are minor and limited to peripheral views from the eastern side of the Beach.

A "before and after" photomontage that illustrates the change generated by the presence of the marina and wave attenuator is presented below.

Direct, but peripheral, views to the proposal from these vantage points will be significant. However it is evident that:

- The existing cluster of boats on swing moorings establishes a character of boating activity. While there will be a significant increase in density of moored boats, the visual impact of this increase in this context is not considered to be offensive;
- Views, of the marina will, to a certain degree, be ameliorated by the presence of the visual backdrop offered by the cliff face and elevated treed vegetation of the shoreline to the east. These natural features are visually prominent in the landscape, such that any visual appreciation of the presence of the increased concentration of boats and the wave attenuator will be seen in this context; and
- Given that the car park and building are generally hidden by the marina and rocky headland at the eastern end of the beach, it is considered that they will have little or no visual impact when viewed from the public domain of Cocora Beach.



Figure 13: View of Existing (top) and Photomontage of Estimate of Change (bottom) from Cocora Beach

In terms of cumulative impact, the marina will be observed in the context of a broader view of the wide expanse of Twofold Bay. Accordingly, the extent of visual impact when viewed from the beach must be seen as part of an extremely wide panorama, within which the waters of the subject site are only a small component.

Any negative visual impact generated by the land based facilities and marina elements from beach based viewing points will therefore be minimal.

4. LANDSCAPE VISUAL IMPACT ASSESSMENT

4.1 General Approach to Landscape Visual Assessment

The assessment in this report adopts the approach presented in the *Guidelines for Landscape and Visual Impact Assessment (2002) (GLVIA)* produced jointly by the UK Landscape Institute and the Institute of Environmental Management and Assessment (IEMA). It is recognised as the established guidance on best practice in carrying out landscape/landscape and visual impact assessment of proposed developments.

A clear distinction is required between impacts on landscape character and visual impacts, which are separate, yet related, as follows:

- Impacts on landscape character relate to the effects of a proposal in terms of changes in the physical fabric and other characteristics of the landscape (referred to as 'landscape receptor') and its resulting character and quality; while
- Visual impacts relate solely to changes in available views of the landscape from people (e.g. residents, visitors, etc - referred to as 'visual receptors' or 'viewers'), and the effects of those changes on the amenity they experience.

Landscape and visual impacts do not necessarily coincide and impacts can be beneficial as well as adverse.

The various features in the landscape make up:

1. its character,
2. its visual quality,
3. its sensitivity and
4. Its absorption capability.

Three steps have been adopted in the assessment:

1. Identify landscape and visual character and quality;
2. Identify landscape and visual sensitivity; and
3. Identify Impact.

4.2 The Base Line

The assessment of the significance of the effects of development on the landscape and visual resource are based upon the prediction of the potential impact in relation to the change in baseline conditions.

For this study, a 'no change to existing' scenario has been adopted as a base line guide against which sensitivity of the addition of the proposed marina has been assessed.

The existing environment, as noted earlier, comprises the grounds and remaining facilities of the Heinz Cannery, once thriving and busy marine industrial complex. Today the wharf remains and there is a prominent cluster of boats on swing moorings within the Bay.

4.3 Landscape and Visual Character and Quality

Landscape and Visual Character

Views of the landscape surrounding the site are presented herein. It can be observed that:

- Within Eden, the Bay area presents a large tract of natural landscape that provides an enduring backdrop to the town;
- The Snug Cove and Cattle Bay precinct has strong, proud and direct association with the maritime foundation and economic function of the town (historically, currently and into the future). The significance of which is evident in buildings, layout, port structures, plantings and other associated landscape features as well as the plans and proposals for future development which focus on creating infrastructure and facilities to attract increased tourist visitation. Cattle Bay is already home to a cluster of moored boats on swing moorings, which contribute to the definition of the character of the area;
- Eden has traditionally had an outlook to the distinctive topographic features of the Twofold Bay area and mountains beyond and the Bay continues to provide a landmark or reference point to the local Eden community;
- As an iconic local and regional landscape feature, Snug Cove and the Bay contributes positively and significantly to Eden's identity; and
- The continuation of existing maritime enterprises preserves the opportunity for further activities that are sympathetic to the traditional waterfront character and hold future benefit for the Town of Eden.

Landscape and Visual Quality

Visual quality is evaluated by identifying the **vividness**, **intactness** and **unity** present in the views and vistas of the Landscape.

Vividness is the visual power or memorability of landscape components as they combine in distinctive visual patterns. Snug Cove's vividness can be identified as its distinct dense green canopy and cliff backdrop, the existing former cannery wharf and cluster of swing moorings, the maritime activities within the port and the wide expanse of water extending into Twofold Bay.

Intactness is the visual integrity of the natural and man-built landscape and its freedom from encroaching elements. Due to the dominant presence of the tree canopy and cliff backdrop, together with the expanse of water, Snug Cove exhibits high visual quality and its visual integrity is intact. While there is a mix of existing maritime activities their visual presence is complimentary, yet also subservient, and they contribute to the area's visual quality. Where views to potentially obtrusive elements within the port are available, the elements do not influence the landscape's visual quality, or erode its intactness.

Unity is the visual coherence and compositional harmony of the landscape considered as a whole. It frequently attests to the placement of individual components in the landscape. As noted above, the area exhibits a harmonious mix of natural and built elements, which in themselves display some commonality and unity in specific areas (e.g. their maritime character).

Overall, despite the mix of natural and built elements, the landscape exhibits high visual quality due to the vividness and intactness of the natural features of the area, that is the visually dominant green treed and cliff backdrop, the elevated tree canopy and the wide expanse of water. These characteristics unify and absorb the disparate built elements within the landscape.

4.4 Landscape and Visual Sensitivity

The sensitivity of the landscape is the estimate of the significance that a change will have on its character and quality (discussed above), and to those viewing it (the viewers).

Best practice guidance recognises that a landscape with a high sensitivity does not automatically mean that the landscape has a low capacity for change. Rather, capacity is a question of the interaction between the sensitivity of the landscape, the type and amount of change and the way that the landscape is valued by the viewer.

There are two elements in determining visual sensitivity: viewer sensitivity; and viewer exposure.

Estimate of Change to Character and Quality

In noting the character and quality of the landscape above:

- The proposed development preserves views to, and appreciation, of the key landscape elements that comprise Snug Cove's natural character; and
- The increased density of boats moored within Cattle Bay, together with the wave attenuator and new shore based facilities reinforce the maritime focus of built activity, that also forms part of Snug Cove's character.

Thus the change proposed by the marina is low and has negligible impact on the character and quality of the area.

4.5 Viewer Sensitivity

Viewer sensitivity is defined as:

- The viewers' concern for visual quality; and
- The viewers' response to change in the visual resources that make up the view.

Viewer sensitivity to the proposed development can best be identified by the concern expressed (and response) by the community to the public consultation of the proposal undertaken by Eden Resort Hotel Pty Ltd. This is described in detail in Part 5 of the Environmental Impact Statement. It notes:

“the feedback received by ERH was supportive. The plans were viewed positively by attendees at the workshops and no issue or concern gained any particular significance. The comments received by ERH suggest that the local community, businesses and Government authorities and agencies are positively disposed to the potential development of the marina at Cattle Bay.

It is appropriate to note that the public exhibition process in 2008 of DA 05 – 0032 only received four public submissions. In the experiences of the EIS authors, this is a significantly low response rate based on the scale of that development proposed and suggests no inherent significant concerns within the Eden community to development at Cattle Bay” (p.70).

This suggests that viewer sensitivity to the proposed changes is low.

Viewer Exposure

Viewer exposure is typically assessed by measuring the number of viewers potentially exposed to the proposed change, type of viewer activity, the duration of their view, the speed at which the viewer moves, and the position of the viewer. High viewer exposure heightens the importance of managing the visual effects of a project.

Due to the undulating terrain within Eden, the layout of the town and the presence of dense fringing vegetation along the foreshore, direct views of the site are limited to filtered and fleeting observations through trees from surrounding roads and elevated views across the site from neighbouring dwellings. Key public domain views are primarily experienced from Cocora Beach.

As noted above, viewer exposure, is experienced in the context of direct expansive and extensive views to the waters of Twofold Bay to the south. Direct views of the site of the proposed marina are minor and limited to peripheral views from the eastern side of the Beach.

In summary, viewer exposure to the site is low.

5. FINDINGS & CONCLUSIONS

The magnitude of impact on the landscape or viewer depends upon the nature and scale of the development. The magnitude of impact is described as being low, moderate or high. Accepted Definitions of Magnitude of Impact are presented in the table below.

Magnitude of Change	Receptor	Criterion
Low	Landscape	A small change in components of the landscape
	Visual	Viewers affected by minor changes in views, or visible for a short duration, at an oblique angle, or which blends to an extent with the existing view.
Moderate	Landscape	Moderate changes in landscape components.
	Visual	Viewers affected by moderate changes in views, or visible for a moderate duration, at a slight angle, or which is in contrast with the existing view.
High	Landscape	A notable change in landscape characteristics over an extensive area.
	Visual	Viewers affected by major changes in view, or visible for a long duration, facing the change, or which is in stark contrast with the existing view.

Figure 14: Definitions of Magnitude of Impact

Impact significance is determined by cross-referencing the sensitivity of the landscape or viewer, with the magnitude of change expected as a result of the development. Thus a substantial impact will usually occur where both sensitivity of the landscape or viewer and the magnitude of the impact are high. Impact significance is described as being *substantial*, *moderate*, *slight* or *none*. Importantly, impacts can be further described as being beneficial/positive as well as adverse/negative. Accepted Definitions of Significance of Impact are presented in the table below.

Magnitude \ Sensitivity	Low Magnitude of Landscape or Visual Change	Moderate Magnitude of Landscape or Visual Change	High Magnitude of Landscape or Visual Change
Low Landscape or Viewer Sensitivity	None	Slight	Slight/Moderate
Moderate Landscape or Viewer Sensitivity	Slight	Moderate	Moderate/Substantial
High Landscape or Viewer Sensitivity	Slight/Moderate	Moderate/Substantial	Substantial

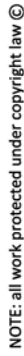
Figure 15: Definitions of Significance of Impact

In the assessment above, it can be observed that the addition of the marina at Cattle Bay in Snug Cove will result in:

- small changes in the landscape; and
- viewers affected by minor changes in views, or visible for a short duration, at an oblique angle, or which blends to an extent with the existing view.

Thus the magnitude in impact will be low. Subsequently in light of the “low” sensitivity to change, this assessment demonstrated that there will be negligible and acceptable visual impact.

APPENDIX 1

**B**



proposed temporary accommodation viewed from entrance steps



view along deck

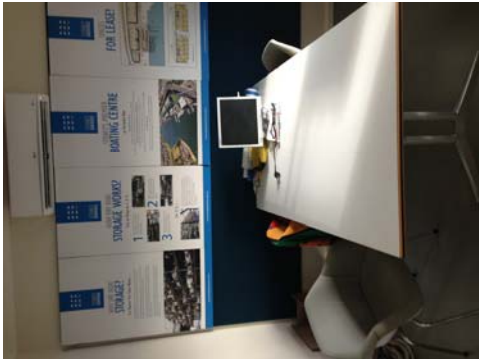
Temporary Accommodation Schedule

Temporary Building No. 1:-

- Female WC, containing:**
2 x WC cubicles, 2 x wash hand basins in vanity counter, hand dryer and other accessories
- Male WC, containing:**
1 x WC cubicle, 2 x urinals, 2 x wash hand basins in vanity counter, hand dryer and other accessories
- Accessible Unisex Facility, containing:**
1 x WC, 1 x wash hand basin, and, 1 x shower, hand dryer and other accessories, all to comply with AS1428.1 to future layout.

Temporary Building No.2:-

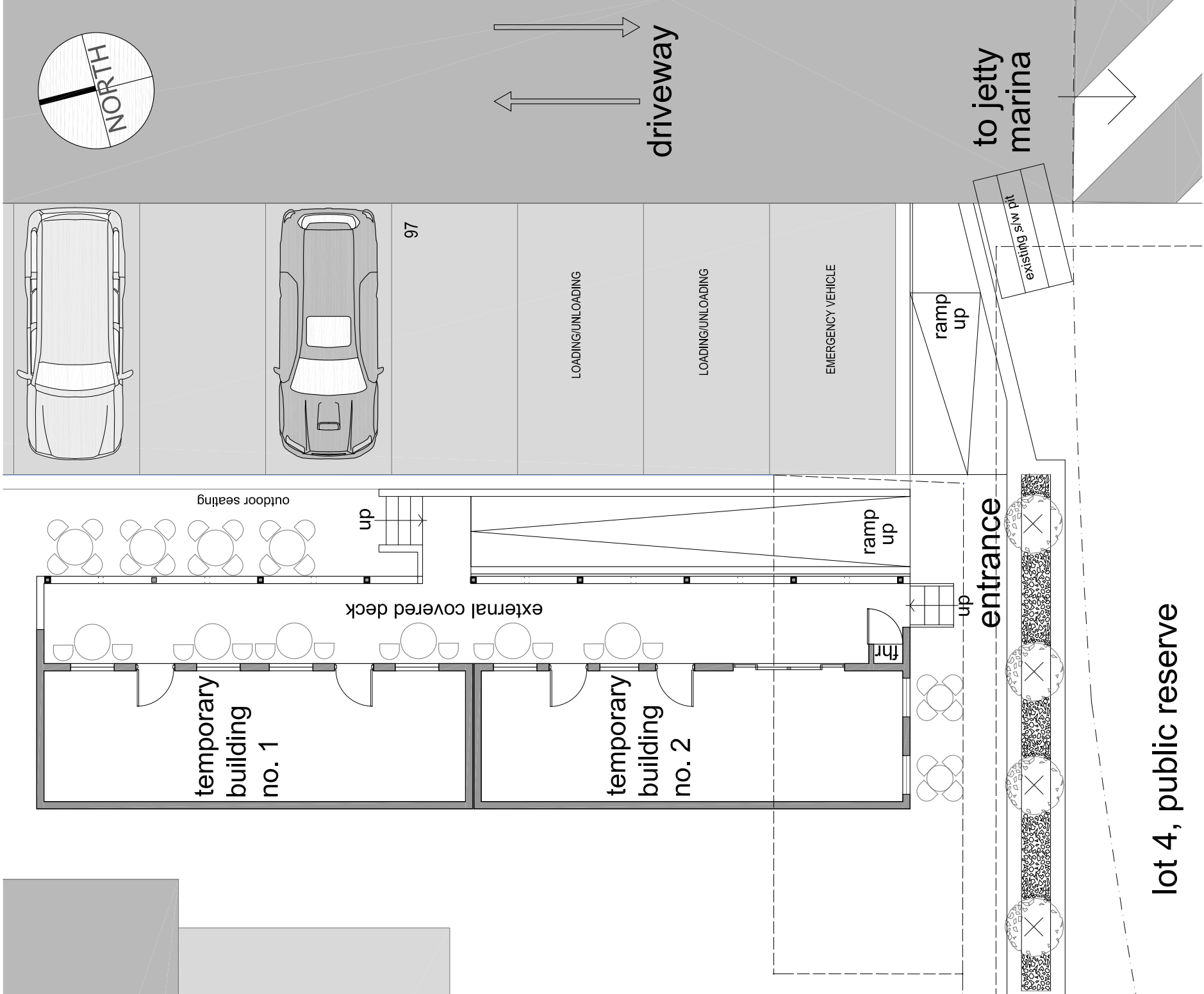
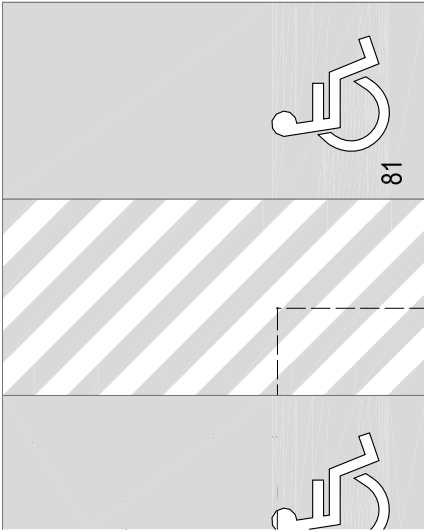
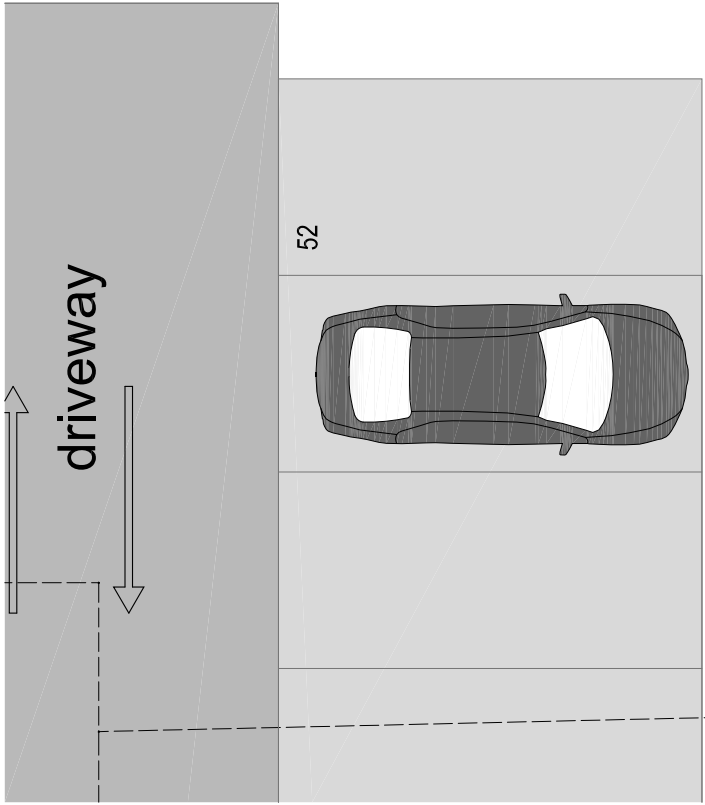
- Office, Meeting Room, and Storage
Facilities to future layout



typical office accom



typical tearoom



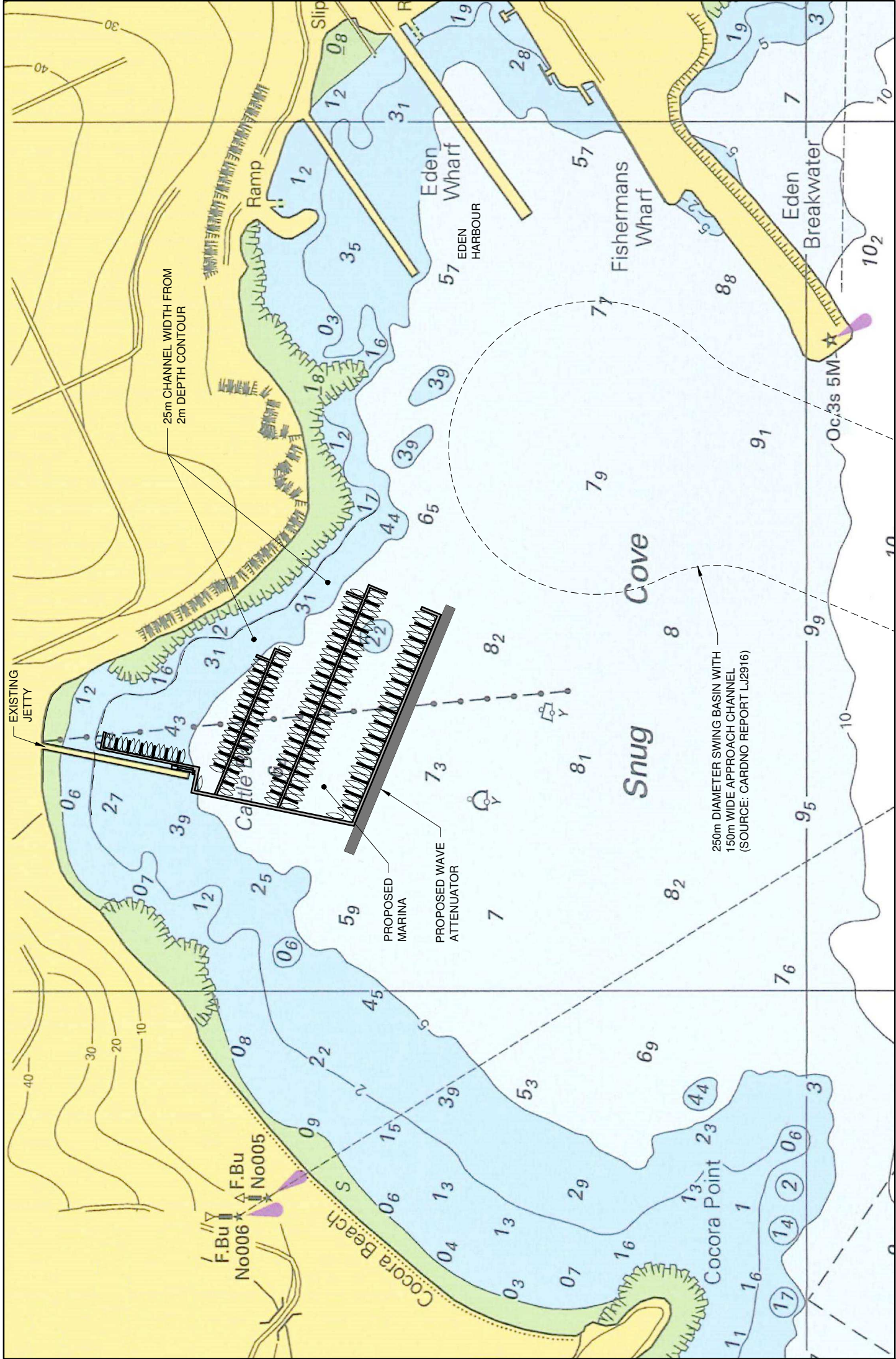
lot 4, public reserve

line of boundary with public reserve

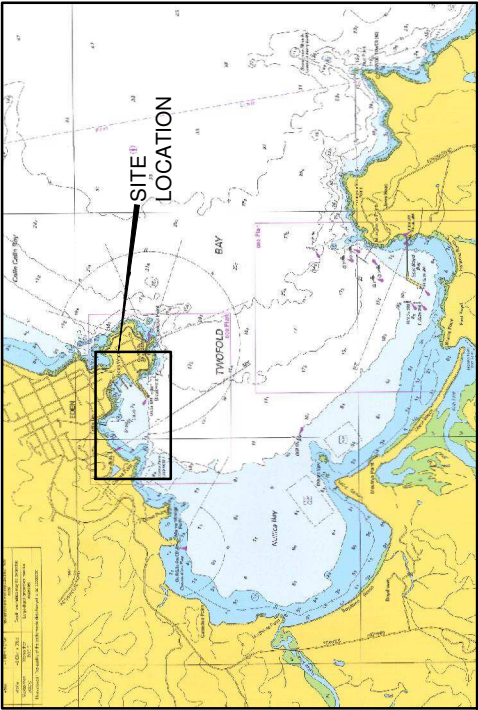
NOTE: all work protected under copyright law ©

PROJECT :		CLIENT :		TOWN PLANNING CONSULTANT :		ARCHITECT :		DRAWING TITLE :		DWG NO. :	
STAGE ONE - PROPOSED MARINA DEVELOPMENT, CATTLE BAY, EDEN, NSW		EDEN RESORT HOTEL PTY LTD		INSPIRE URBAN DESIGN + PLANNING Tel. 0411 486 768 www.inspireplanning.com PO Box 7277 South Sydney Business Hub NSW 2015		BLACK architecture and project management PO Box 439, Alexandria, NSW 1435 NSW Registration No. 6026, ABN: 26 086 957 832 Tel (02) 8971 6666 Mob 0414 765 104 Email: kevinlynnblack@blackapm.com		TEMPORARY BUILDINGS FLOOR PLAN AND TYPICAL IMAGES		DA-A-03	
								0 1 2 3 4 5 6m		SCALE 1:100@A3	
										PROJECT NO.	
										DRAWN BY	
										CHECKED BY	
										ISSUE DATE	
										ISSUED FOR	
										6-05-2013	
										KLB	
										KLB	
										1:100@A3	
										ISSUE	
										A	

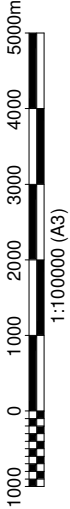
PROPOSED CATTLE BAY MARINA AND WAVE ATTENUATOR
OVERALL GENERAL ARRANGEMENT WITHIN SNUG COVE



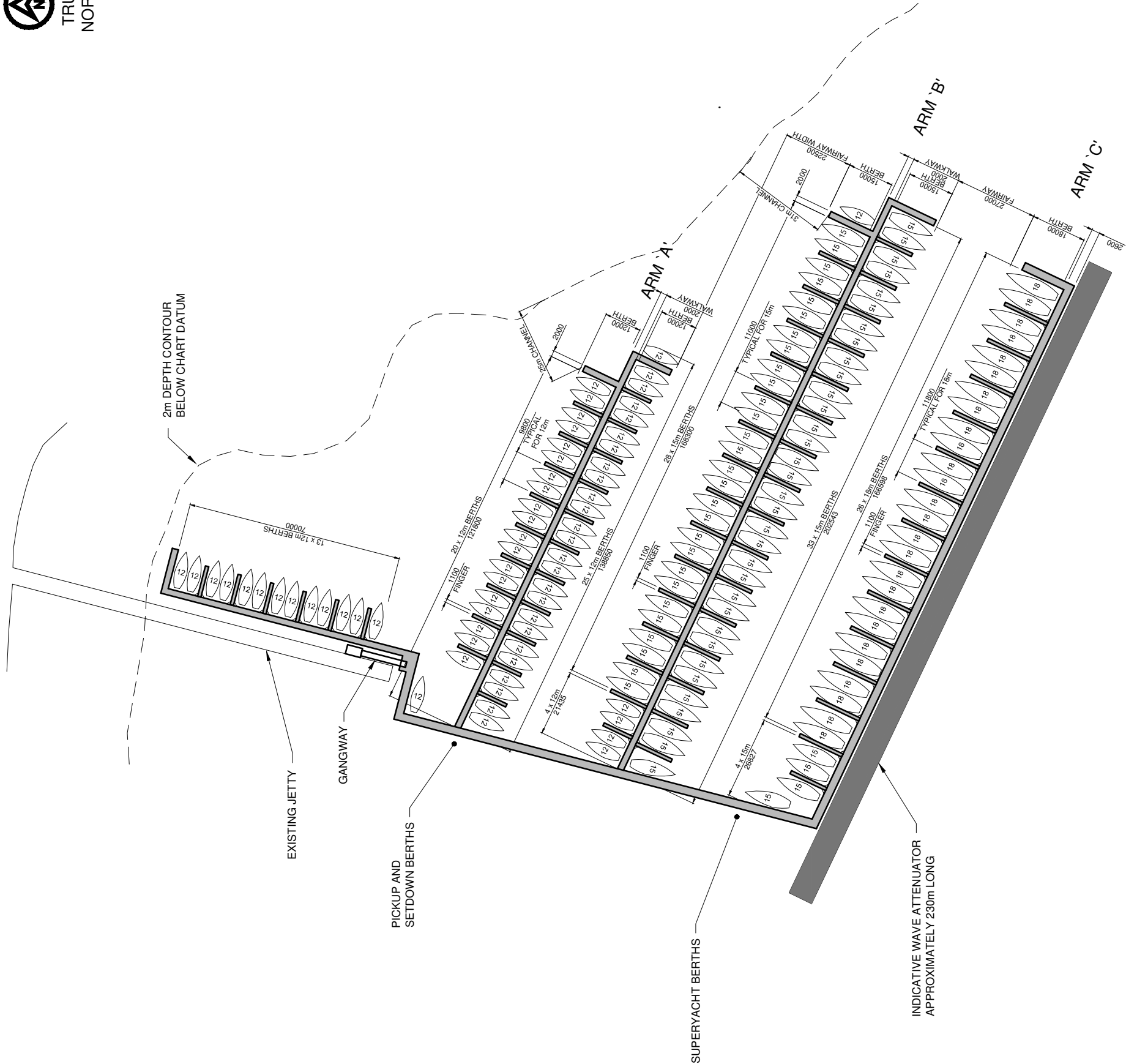
PLAN
1:4,000 (A3)



LOCATION PLAN
1:100,000 (A3)



PROPOSED CATTLE BAY MARINA AND WAVE ATTENUATOR
DETAILED GENERAL ARRANGEMENT

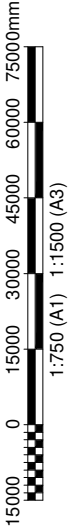


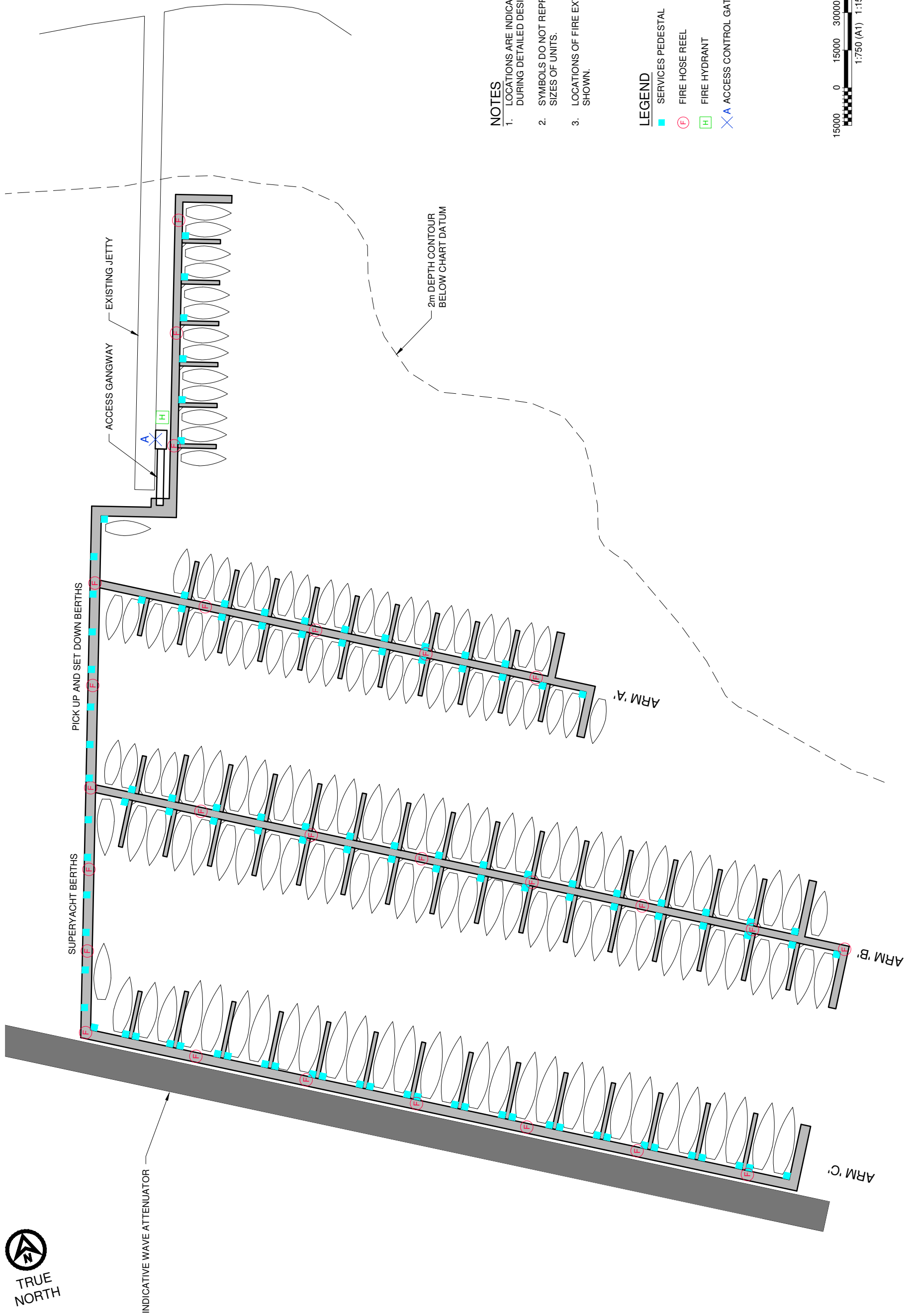
MARINA BERTH SCHEDULE

ARM	12	15	18	TOTAL
	'A'	45		45
	'B'	5	61	66
'C'		4	26	30
	ALONGSIDE JETTY	13		13
TOTAL PROPOSED BERTHS	63	65	26	154
TOTAL PROPOSED BERTHING LENGTH (m)	756	975	468	2199

WIDTH OF MARINA WALKWAYS AND FINGERS,
AND LOCATION OF PILING, SUBJECT TO
DETAILED DESIGN

FINAL ALIGNMENT OF WAVE ATTENUATOR
SUBJECT TO DETAILED DESIGN





NOTES

1. LOCATIONS ARE INDICATIVE & MAY VARY DURING DETAILED DESIGN.
2. SYMBOLS DO NOT REPRESENT ACTUAL SIZES OF UNITS.
3. LOCATIONS OF FIRE EXTINGUISHERS NOT SHOWN.

LEGEND

- SERVICES PEDESTAL
- FIRE HOSE REEL
- FIRE HYDRANT
- ACCESS CONTROL GATE