

Section 96 Modification Application SSD 6611
Renewal of Marine Structures Cockle Bay, Darling Harbour SSD
Determination (SSD 6611) Approved 13 Nov 2015



Applicant:	Place Management, Property NSW (Applicant formerly known as Sydney Harbour Foreshore Authority (SHFA))
Consent Authority:	Minister for Planning
Land:	Cockle Bay Darling Harbour (Lot 11 in DP 1082970, Lot 1010 in DP 1147364 and Lot 63 in DP 1009964)
Approval SSD6611:	Renewal of marine structures at Cockle Bay, Darling Harbour, Including: <ul style="list-style-type: none"> • Demolition and removal of the harbourside jetty, promenade and steps, convention wharf and marina, • Construction of a floating pontoon pedestrian walkway incorporating a 45 m pick up and drop off facility for passengers of charter and tourism vessels, private water transport services and water taxis; and • Construction of a floating pontoon marina providing 40 short stay berths, a water taxi pick up and drop off zone, and an event staging and event barge storage area.
S96 Modification:	To re-include 24.0 m length floating walkway adjacent to the Australian National Maritime Museum (ANMM) in two sections (11.25 m + 12.65m) @ 3.0 m wide, supported by fixed supports including four timber and steel piles (Pile Numbers 24,25,26 &27). Subject walkway was part of the SSD 6611 application until the issue of LOC was raised by the ANMM. Cost of the walkway was included in original quantity surveyor's costing of development application for SSD 6611.

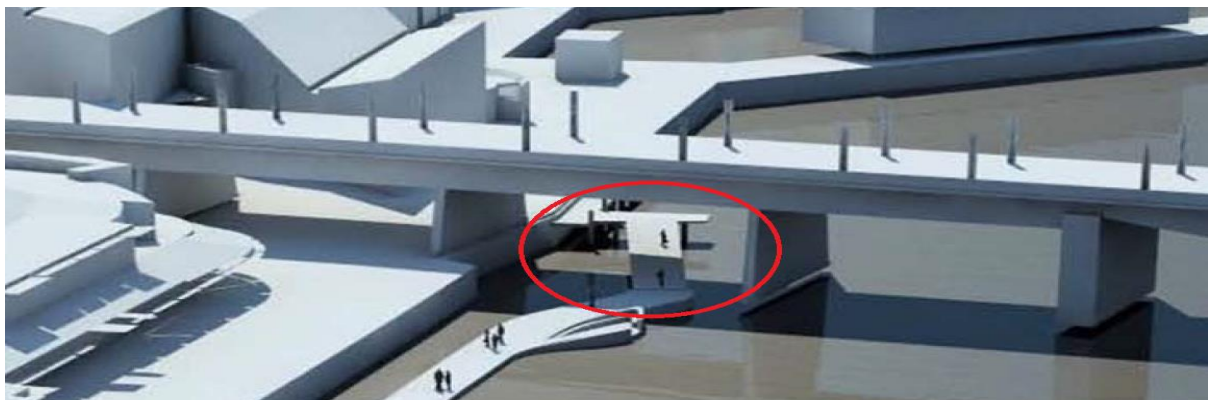


Figure 1: Model view of ANMM Floating Walkway (Southern Elevation)

1.0 INTRODUCTION

- 1.1 This s96 modification impact assessment report to modify State Significant Development 6611 consent provides the framework of evidence and an undertaking in accordance with Environmental Planning and Assessment Regulation 2000 Part 6 Division 12 Clause 115 that *“the effect of the development (as to be modified) will remain substantially the same as the development that was originally approved”*.
- 1.2 In this case, the original development ‘Renewal of marine structures at Cockle Bay’ included the proposed walkway under Pyrmont Bridge now proposed as an amendment. The subject walkway was on the plans and considered by the consultants’ for the geotechnical, maritime archeology, heritage, navigation and safety assessment, traffic and parking, pedestrian flows, water and sediment impact, flora, fauna, air quality, noise and vibration. Most importantly the Turner & Townsend Quantity Surveyor’s Report (EIS Appendix 5) included the cost of the ANMM walkway in the cost of the original development proposal/application (refer Appendix 1: Consultants’ Comment Table V. *“...item 5, page 4 of 25 of our cost plan relates to the section of walkway in question.”*) This inclusion, as well as the other environmental assessments which included the ANMM Walkway results in an application under S96 which, in the context of the proposal, has minimal environmental impact – because it has already been assessed.
- 1.3 This report provides that the environmental impacts of the walkway was part of the assessment in the original DA and EIS as the walkway was on the plans considered in all matters raised in the Secretary’s Environmental Assessment Requirements (SEARs). The assessment found the proposal would result in an improvement on current conditions in relation to:
- Social impacts, including community facilities and services, employment opportunities, transport infrastructure, public safety and accessibility
 - Navigation Safety
 - Public Access
 - Transport and accessibility
 - Visual amenity
 - Event management and recreational capacity
- 1.4 This report on the modification impact assessment has been prepared by Environet Consultancy Pty Ltd and is submitted to the Department of Planning and Environment in support of its re-inclusion in the renewal of marine structures at Cockle Bay, Darling Harbour (SSD6611).
- 1.5 The owner and applicant is Place Management, Property NSW (formerly known as Sydney Harbour Foreshore Authority (SHFA)), a Crown applicant.
- 1.6 This S(96) modification application identifies the consent, describes the proposed modification and provides a planning assessment of the relevant matters for consideration. **This report should be read in conjunction with the Environmental Impact Statement (EIS) prepared by Environet Consultancy Pty Ltd dated May 2015 and accompanying Appendices and the Response to Submission to SSD6611.** (Refer: http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6611) Revised plans prepared by Mott MacDonald Dated 13.09.16 Revision 05 Sheet 3 of 3 and Sheet 7 of 7 dated 13.09.16 (Refer: Section 4.0) and ANMM & PNSW LOC.
- 1.7 To date this is the first modification, consequently the conditions of consent remain as originally approved.

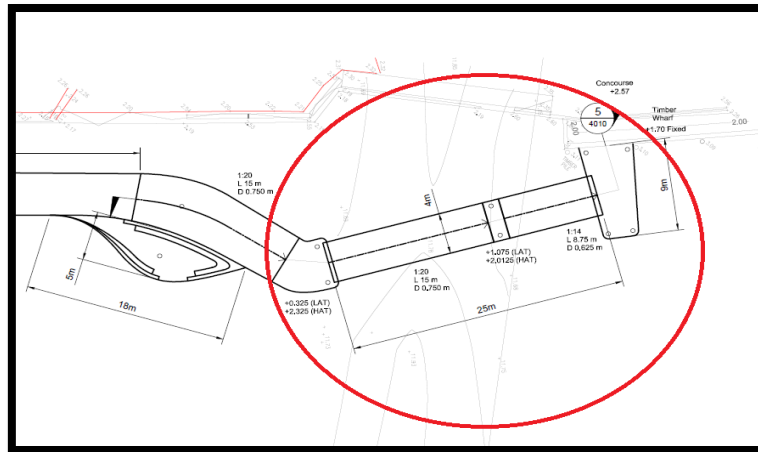


Figure 2: Original Proposal includes ANMM walkway (4m wide)



Figure 3: Deleted ANMM Walkway in response to RTS

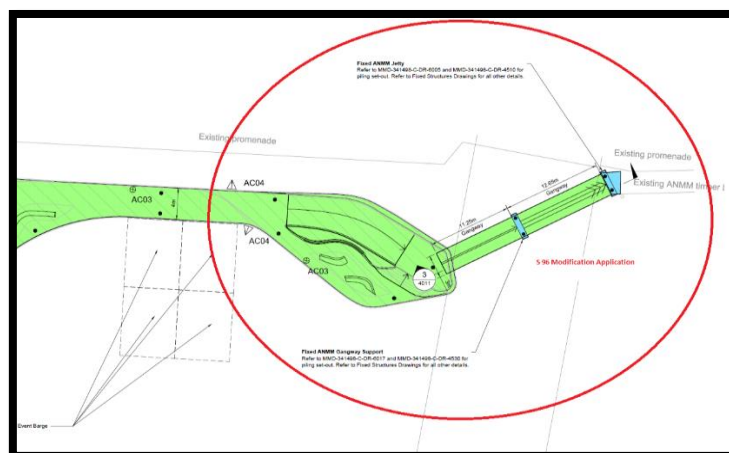


Figure 4: S96 Modification to re-include ANMM Walkway (3m wide)

2.0 PROPOSAL

This modification application seeks approval for the following:

- To re-include a section of proposed walkway (previously included in original application and notified in accordance with the regulations), adjoining the Australian National Maritime Museum (ANMM) which was deleted from the application in response to the “Reply to Submissions” (RTS) as no land owners consent (LOC) had been obtained from the ANMM.
- This proposed walkway was part of the original application and was included on the plans (previously advertised by the Department and considered in the consultant reports.)
- Approval is sought under Section 96 of the EP&A Act for the proposed walkway to be re-included as the ANMM requires the inclusion/continuation of the walkway adjoining the museum for added exposure to the general public in Darling Harbour (a State Significant Site) and so that there is pedestrian flow and not a ‘dead-end’.

The deletion was described in the Secretary’s Environmental Assessment Report as follows: *“The Applicant made a minor amendment to the proposal as part of the Response to Submissions report (RTS) which included removing a section of walkway beneath Pyrmont Bridge and a ramp connecting with the public promenade and foreshore land in front of the Australian National Maritime Museum on the western side of Cockle Bay. The revised design enables this section to be reinstalled in the future, **if required**.” (Our bold)*

The section of walkway referred to above, is **required**, and is the essence of this S96 modification application.

2.1 DESIGN DETAIL

The proposed ANMM walkway is designed in two prefabricated sections (11.25m + 12.65m) at 3.0m wide, supported by fixed supports including four timber and steel piles (Pile Numbers 24, 25, 26 & 27) (Refer 2.2 Plans attached to the S96 application below). There installation will be in three phases:

- Phase 1: installation of the structural piles which will allow for attachment of the floating segments. Prior to installation, a survey will be conducted to identify the location of the piles;
- Phase 2: delivery and installation of pre-fabricated floating segments. The segments will be transported to the site by barge, unloaded by crane, placed into position and fixed;
- Phase 3: final furnishings and services will be installed which will include services such as water, electricity and fire. Final furnishings will be fitted such as timber edging and signage.

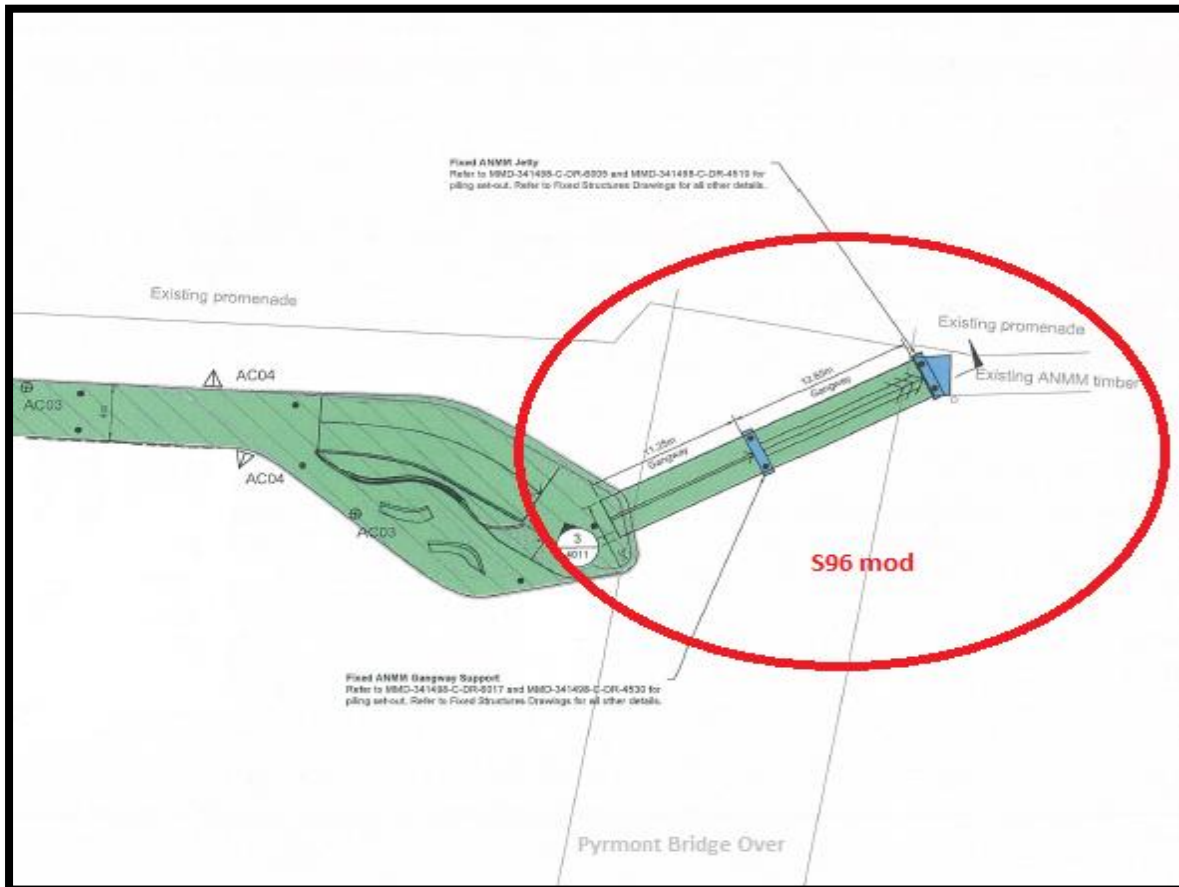


Figure 5: The proposed (re-included) ANMM Walkway section circled

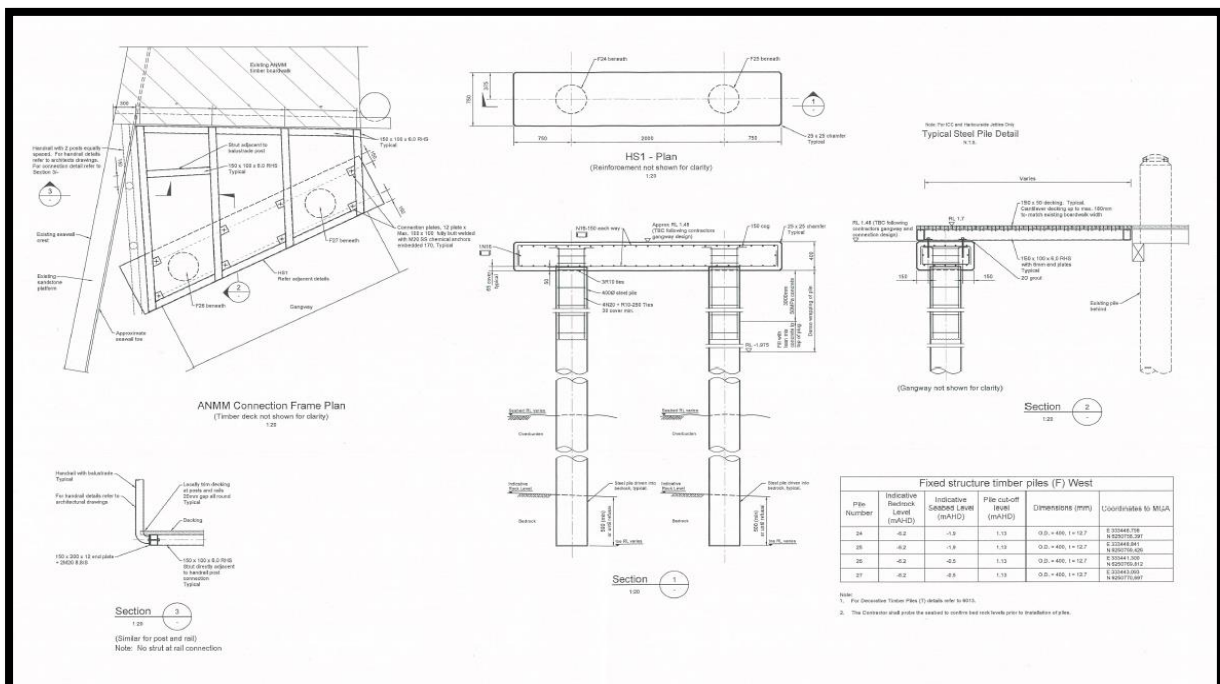


Figure 6: Design of the fixed supports

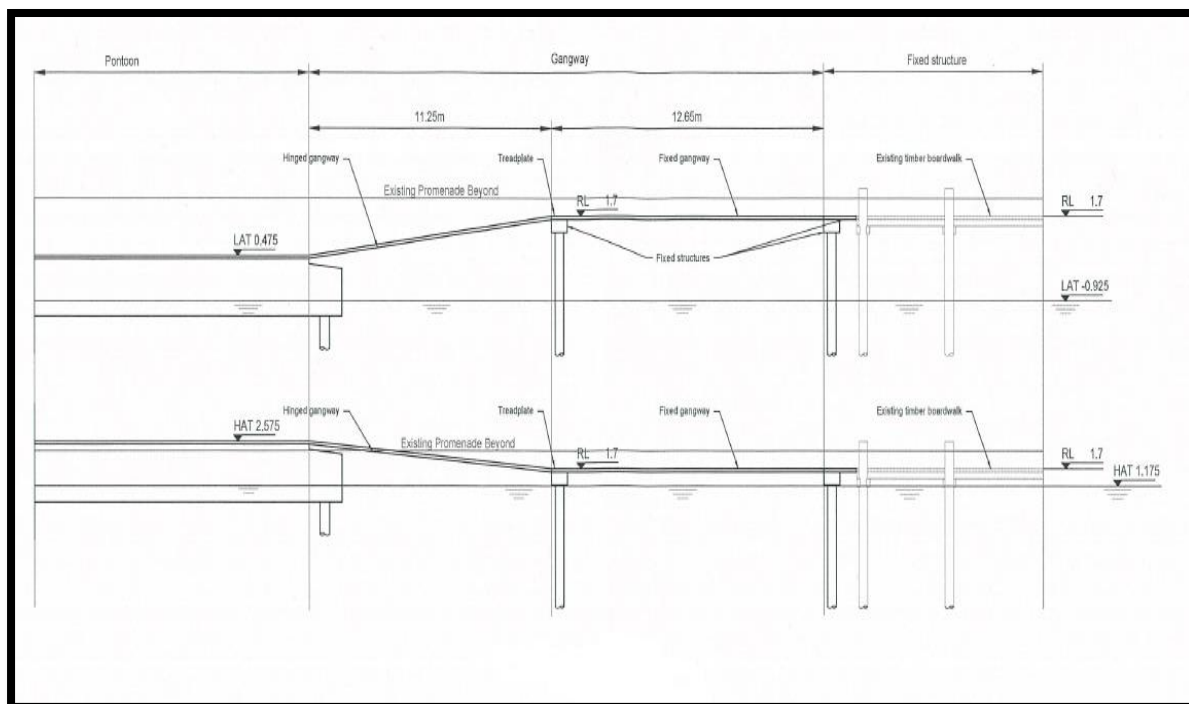


Figure 7: Elevations Long Sections ANMM Walkway

2.2 PLANS ATTACHED TO THE S96 APPLICATION

Schematic Design Drawings prepared by Mott MacDonald

	Drawing No.	Revision	Name of Plan	Date
1.	MMD-341498-C-DR-3005	04	Cockle Bay Marine Structures Tender Indicative Staging Plan	13.09.16
2.	MMD-341498-C-DR-3022	05	Cockle Bay Marine Structures Tender Layout Plan – West Sheet 3 of 3	13.09.16
3.	MMD-341498-C-DR-4011	02	Cockle Bay Marine Structures Tender Long Sections - West Sheet 2 of 2	13.09.16
4.	MMD-341498-S-DR-6017	00	Cockle Bay Marine Structures Developed Design Fixed Structures Detail Sheet 7 of 7	13.09.16

We also highlighted two of the above plans in red (see attached under separate cover) to easily identify the subject ANMM walkway. (File: 4. Amended plans for s96 annotated in red)

	Drawing No.	Revision	Name of Plan	Date
2	MMD-341498-C-DR-3022	05	Cockle Bay Marine Structures Tender Layout Plan – West Sheet 3 of 3	13.09.16
4.	MMD-341498-S-DR-6017	00	Cockle Bay Marine Structures Developed Design Fixed Structures Detail Sheet 7 of 7	13.09.16

2.3 OBJECTIVES OF THE S96 PROPOSAL

The objectives of this S96 application are included in the original DA which states:

“The Authority is seeking to renew the marine structures in Cockle Bay as part of the transformation of Darling Harbour. This proposal supports the Government’s vision of Darling Harbour as Sydney’s premier gathering place and leading urban entertainment precinct. The design quality of the proposal will be keeping with the vision for Cockle Bay as the water forecourt of the new International Convention Centre Sydney. The proposal will optimise Cockle Bay as a unique events and activation space, whilst providing water-based transport and leisure options to International Convention Centre Sydney patrons, other precinct visitors and the people of Sydney.”

The specific objectives of the proposal were summarised as follows:

- Improve public safety and waterway access
- Enable improved events delivery capability
- Improve urban design and heritage outcomes
- Enhance the visitor experience
- Reduce visual impacts
- Reduce ongoing maintenance burden



**Figure 8: The point of attachment, ANMM existing boardwalk
View South**

2.4 DESIGN BACKGROUND

In the EIS it states that the original application (including the ANMM walkway) was for “*new facilities which will cover an area of approximately 3400m² and result in a reduction of area of water occupied by structures by 17 per cent and a reduction in alienated water of 30 per cent. Both facilities will be accessible to all people under all tidal conditions.*”

“The western scheme will replace a clutter of ageing structures and replace them with a single streamlined facility comprising a floating public wharf and associated access systems. It will provide access for charter and tourism vessels, private water transport vessels and water taxis to pick up and drop off passengers. The facility will enhance the area for public entertainment and events in and around ICC Sydney and Darling Harbour.”

The proposal provides for shared use of Cockle Bay, safe navigation, access for people with a disability, retention of major view corridors and visual de-cluttering.”

The design will comply with all applicable legislation, design codes and guidance material including the following:

- AS1428 – 2009 Design for Access & Mobility (Parts 1-4)
- AS 2159: ‘Piling - Design and Installation’
- AS 3962 – 2001: ‘Guidelines for Design Of Marinas’
- AS 1170.2 – 2002: ‘Structural Design Actions – Part 2: Wind Actions’
- AS 4997 – 2005: ‘Guidelines for the Design of Maritime Structures’
- AS 5100.2 – 2004: ‘Bridge Design – Part 2: Design Loads’
- AS/NZS 3000 – 2007: ‘Electrical Installations’
- AS 2419.1 – 2005: ‘Fire Hydrant Installations - System Design, Installation and Commissioning’
- The Building Code of Australia (BCA)
- Disability Discrimination Act 1992
- Disability Standards for Accessible Public Transport 2002
- Maritime Safety Act 1998
- ‘Engineering Standards and Guidelines for Maritime Structures’, NSW Waterways Authority, 2005
- ‘Procedure for the Assessment of Public Ferry Wharf Safety’, NSW Maritime, August 2007
- ‘Guidelines for the Design of Fender Systems’, PIANC, 2002
- ‘Report of Working Group 41: Guidelines for Managing Wake Wash from High Speed Vessels’, PIANC, 2003
- ‘Approach Channels A Guide for Design’, PIANC, June 1997
- “Inventory of Inspection and Repair Techniques of Navigational Structures”, PIANC Report No. 119 – 2013
- ‘Coastal Engineering Manual’, US Army Corp of Engineers, 2002
- ‘Western Harbour Design Guidelines’, Sydney Harbour Foreshore Authority, 2014
- ‘Boating Destinations Plan’, NSW Maritime
- ‘Cockle Bay Marine Structures Strategic Plan’, Arup, 2012
- ‘New Wharf in Cockle Bay Feasibility Study and Options Analysis’, Arup, 2013
- ‘Cockle Bay Marine Structures Redevelopment Project Design RFT Document - 101100435, Sydney Harbour Foreshore Authority, 2014

The above is relevant and inclusive of the design of the proposed walkway, the subject of this application.

2.5 DESIGN JUSTIFICATION

In relationship to Darling Harbour Live Masterplan (page 11) the proposed walkway is included in this statement, *“While the public wharf is not a direct extension of the Darling Harbour Live ‘Boulevard’, it is orientated to offer an invitation for continuing travel towards the Maritime Museum. The linear progression of the Boulevard gives way to the more meandering course of the Wharf as the journey changes from land to water.”* See Figure 8 below

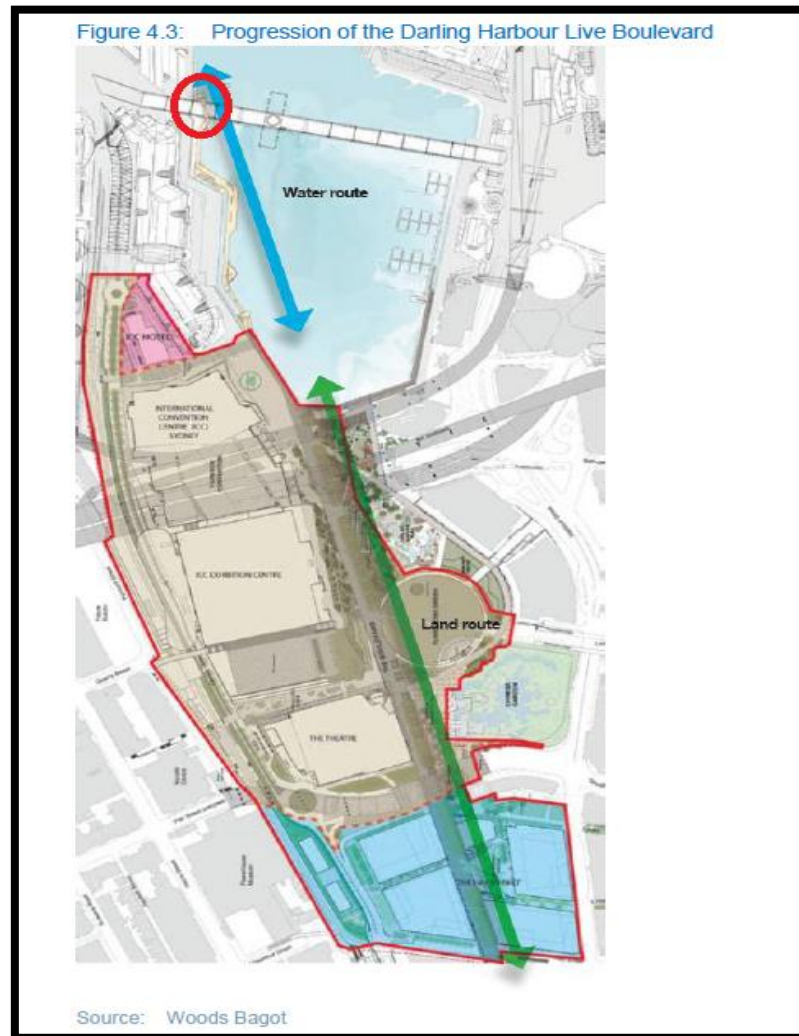


Figure 9: Extract Redevelopment Schematic Design Report 101100435 Woods Bagot

The proposed northern connection provides access to the Australian National Maritime Museum (ANMM) and Pyrmont confluence. The layout of the northern connection near the ANMM allows for appropriate separation from the bridge pier to the east. The routing under the bridge is deliberate from an access point of view and also provides the unique opportunity for viewing the substructure of the heritage listed Pyrmont Bridge. A discrete heritage interpretation breakout area will be provided at this location. The proposed walkway will be accessible under all tidal conditions, providing access for all users.



Figure 10: The proposed walkway will provide an unique opportunity for viewing the substructure of the Heritage Listed Pyrmont Bridge

3.0 THE SITE AND LOCALITY

The Darling Harbour precinct, within which Cockle Bay sits, is located between Pyrmont and Sydney's central business district.

Immediately to the north of the Darling Harbour precinct is the Barangaroo urban renewal precinct. The Rocks and Circular Quay are to the north-east.

To the east is the CBD including Hyde Park and the Botanic Gardens.

To the west of the site is Pyrmont, Rozelle, Glebe, the Anzac Bridge and the Bays urban renewal precinct



Figure 11: View North to Barangaroo & CBD



Figure 12: View South to Darling Harbour Precinct



Figure 13: View East to CBD



Figure 14: View West to Pyrmont



Figure 15: View from Pyrmont to ANMM and Pyrmont Bridge

4.0 CONDITIONS TO BE AMENDED

The proposed modifications described above necessitate amendments to the consent conditions which are suggested/identified below as follows. (Words proposed to be deleted are shown in ~~**bold italics strike through**~~ and words that are to be inserted are shown in **red bold italics**).

SCHEDULE 2

PART A ADMINISTRATIVE CONDITIONS

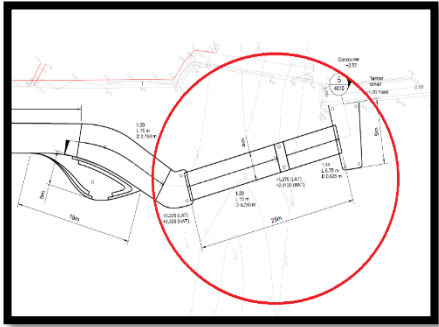

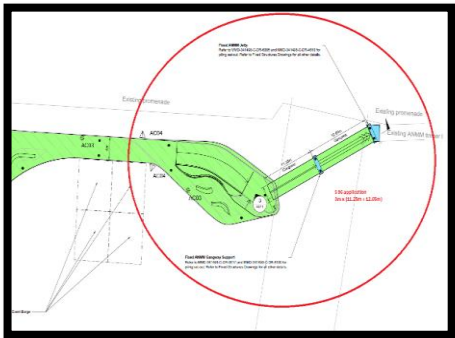
TERMS OF CONSENT

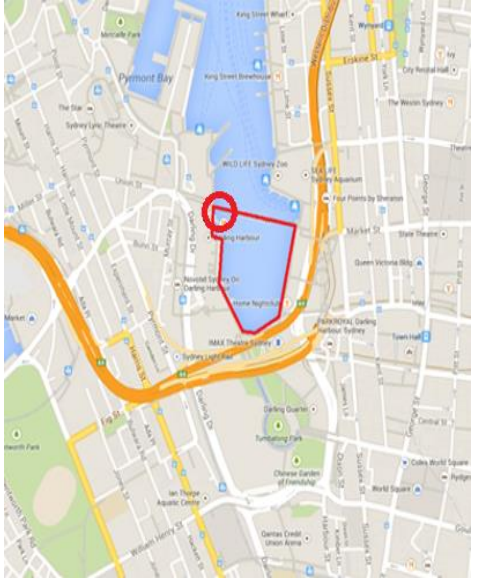
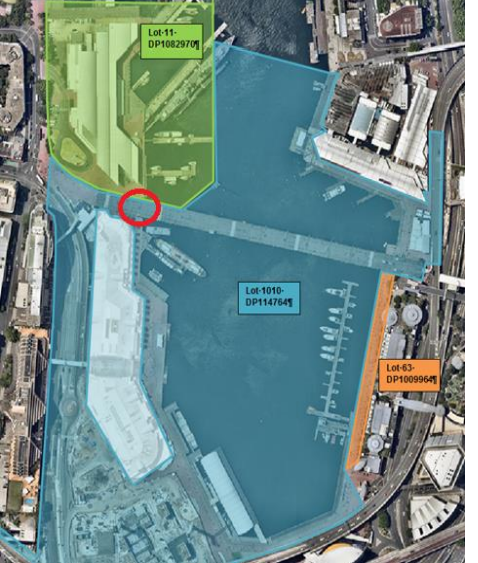

- A1 Except as amended by the conditions of this approval, development approval is granted only to carrying out the development as described in Condition A2.
- A2. The Applicant shall carry out the project generally in accordance with the:
- a) State Significant Development Application SSD 6611;
 - b) Environmental Impact Statement entitled 'Cockle Bay Marine Structures Renewal' and accompanying appendices, prepared by Environet dated May 2015;
 - c) Response to Submissions report entitled 'SSD 6611 Cockle Bay Marine Structures Renewal Response to Submissions' and accompanying appendices, 'SSD 6611 Cockle Bay Marine Structures Renewal Response to Submissions – Addendum 1' and accompanying appendices (**as amended by s96 modification 2017 to re-include ANMM walkway**), 'SSD 6611 Cockle Bay Marine Structures Renewal Response to Submissions – Addendum 2' and accompanying appendices prepared by Sydney Harbour Foreshore Authority
 - d) The conditions of this consent; and
 - e) The following drawings, except for:
 - i) any modifications which are Exempt or Complying Development; and
 - ii) otherwise provided by the conditions of this consent.

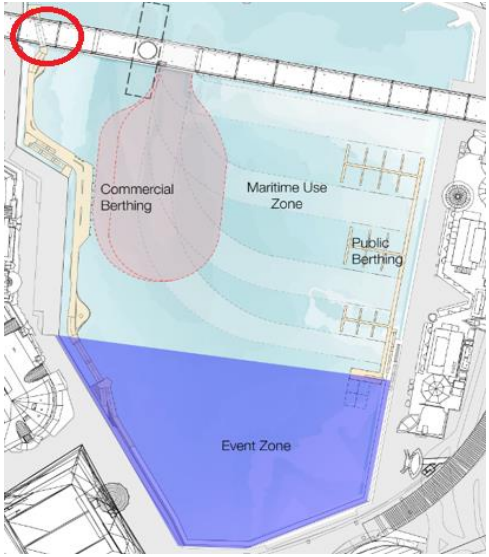
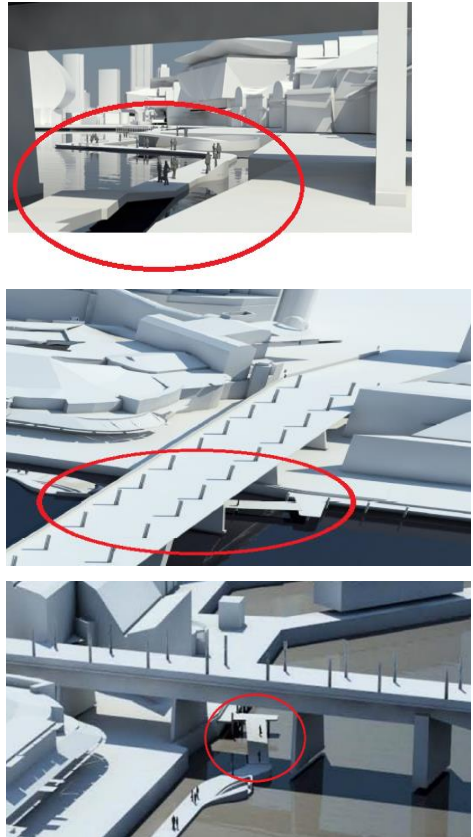
Schematic Design Drawings prepared by Mott MacDonald				
Drawing No.	Revision	Name of Plan	Date	
MMD-341498-C-DR-3000	P5	General Arrangement Plan	19.08.15	
MMD-341498-C-DR-3010	P5	Layout Plan – East Sheet 1 of 2	19.08.15	
MMD-341498-C-DR-3011	P1	Layout Plan – East Sheet 2 of 2	19.08.15	
MMD-341498-C-DR-3020	P5	Layout Plan – West Sheet 1 of 3	19.08.15	
MMD-341498-C-DR-3021	P1	Layout Plan – West Sheet 2 of 3	19.08.15	
MMD-341498-C-DR-3022	P1 05	Layout Plan – West Sheet 3 of 3	19.08.15	13.09.16
MMD-341498-C-DR-4000	P4	Long Sections - East	19.08.15	
MMD-341498-C-DR- 4010 4011	P3 02	Long Sections - West Long Sections - West Sheet 2 of 2	19.08.15	13.09.16
MMD-341498-S-DR-6017	00	Developed Design Fixed Structures Detail Sheet 7 of 7		13.09.16
MMD-341498-C-DR-3005		Indicative Staging Plan		13.09.16

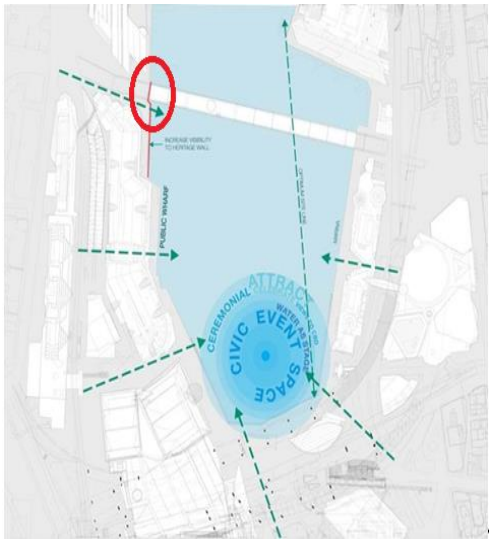

5.0 THE SEARs REQUIREMENTS FOR EIS

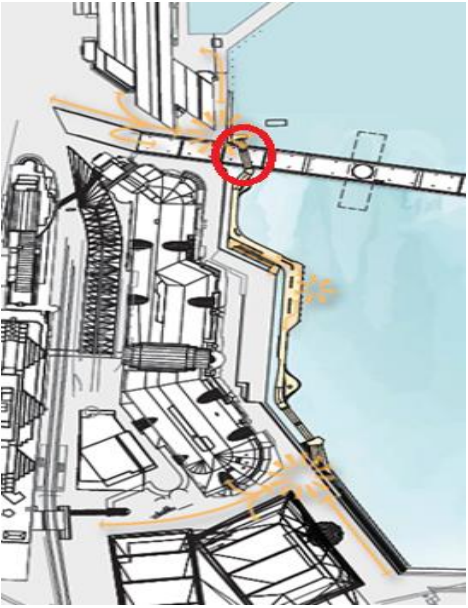
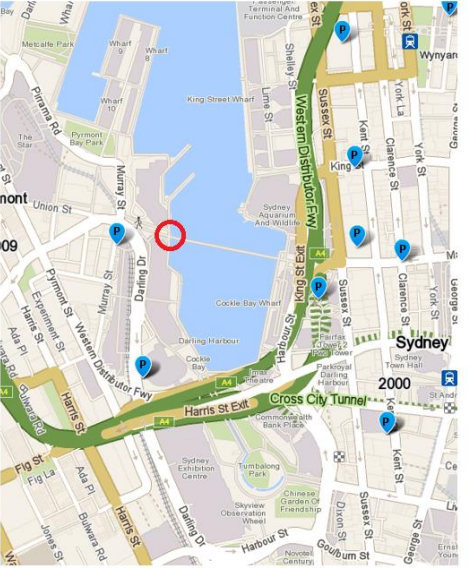
In accordance with section 78A (8A) of the EP&A Act, the Secretary notified the applicant of the Secretary's Environmental Assessment Requirements (SEARs) for the State Significant development application for the 'Renewal of marine structures at Cockle Bay, Darling Harbour' **which included the proposed walkway (the subject of this S96 application)**. It is stated in the EIS that *"The Department was satisfied that the Applicant's EIS adequately addressed compliance with the SEARs to enable the assessment of the application for determination purposes."* The ANMM walkway was proposed in the original proposal and the location of the walkway has been highlighted below in red.

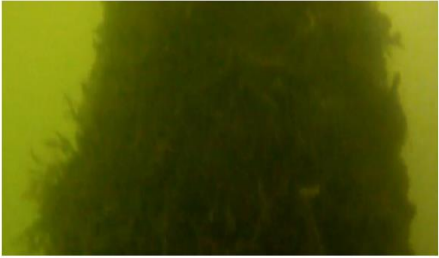
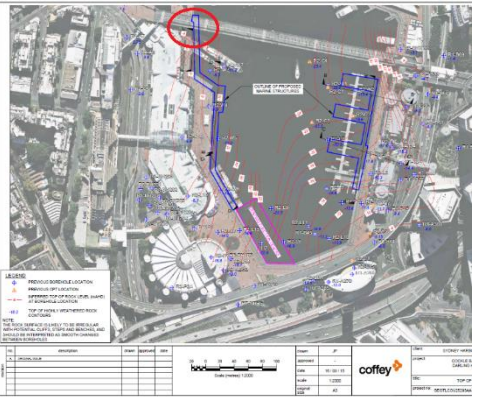
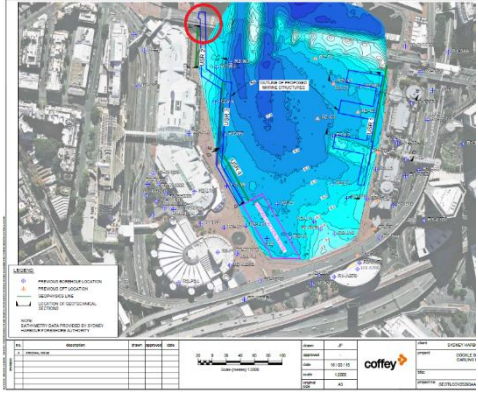
Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
1.Environmental Planning Instruments, Policies and Guidelines	Section 6 Consideration of Policies and Plans	 <p>Figure 16: Original Plan EIS</p>  <p>Figure 17: Amended Plan EIS - ANMM Walkway deleted in response to submissions (RTS)</p>  <p>Figure 18: S96 Modification Application ANMM Walkway re-included</p>
2. Design and Justification a) Details on the proposed design of all structures including construction plans and	a) Appendix 3 Drawings and 4.4 Design Requirements	

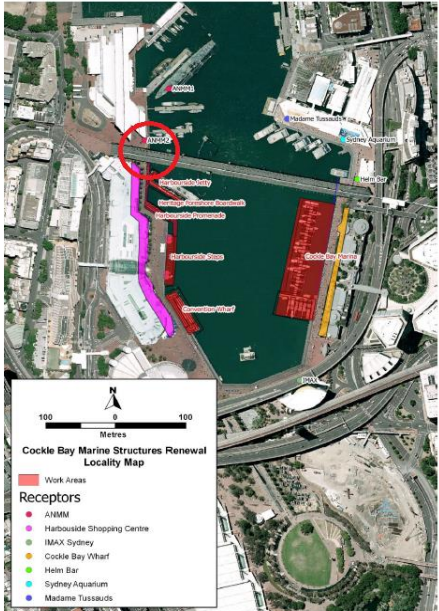
Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
<p>drawings and methods of construction;</p> <p>b) The adequacy of marina design in accordance with the relevant Australian Standards</p> <p>c) Design quality with specific consideration to the foot print, proposed materials and colours, waterfront interface, setbacks and visual impacts of all proposed structures and berthed vessels.</p> <p>d) Justification for development as a whole, in particular the number of berths and the size of occupation of the waterway; and</p> <p>e) An assessment of the need for on-water boat storage (including boat length, height and type) in the locality and region, including justification or any proposed changes to existing berthing facilities</p>	<p>b) 4.8 Footprint</p> <p>c) 4.12 Form & Materiality and 8.5 Visual Impacts</p> <p>d) 4.2 Imperatives for Renewal and 4.11 Capacity & Sizing Considerations</p> <p>e) 5.8.2 Permanent Berthing/Boat Storage in Cockle Bay</p>	 <p>Figure 19: Included in Locality Plan of EIS</p>  <p>Figure 20: Included in Lots and DP's EIS</p>
<p>3. Public Access</p> <p>a) Consideration of existing and future opportunities/ benefits for public access to and along the foreshore and waterfront including pedestrian linkage improvements;</p> <p>b) Identification of proposed open space, public domain and linkages with and between other public domain spaces, including the waterfront;</p> <p>c) Details on the interface between the proposed uses, public domain</p>	<p>a) 8.4.2 Existing & Future Public Access Impact Assessment</p> <p>b) 8.4.3 Proposed Open Space and Linkages Impact Assessment</p> <p>c) 7.4.4 Proposed Uses/Existing Public Domain Interface Impact Assessment</p>	 <p>Figure 21: Pedestrian Access Points</p>

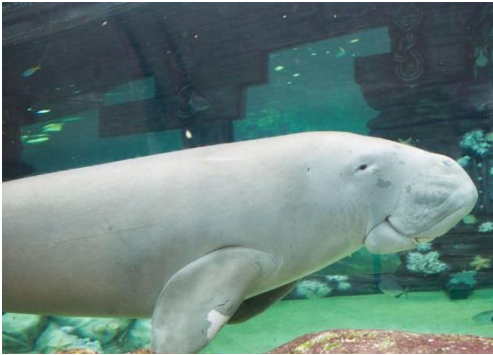
Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM Walkway highlighted below in red.
<p>4. Navigation and Safety</p> <p>a) A review of existing boating activities in the area and an assessment of the impact of the development on water based traffic, waterway access (including equity), waterway sharing and existing users of Cockle Bay and Darling Harbour in the vicinity of the marina;</p> <p>b) Consideration of the potential impacts of increased vessel movements likely to be generated by the proposal (if any) on the existing users of Cockle Bay and Darling Harbour and ferry operations at the King Street, Sydney Aquarium and Pyrmont Bay Wharves; and</p> <p>c) Consideration of measures to ensure the safety of any recreational users of Cockle Bay and Darling Harbour.</p>	<p>Appendix 7</p> <p>a) 8.12.2 Review of Existing Boating Activities & Impact of Proposal</p> <p>b) 8.12.3 Assessment of Vessel Movements during Operational Phase</p> <p>c) 8.12.4 Consideration of Measures to Ensure Public Safety of Recreational Users</p>	 <p>Figure 22: ANMM Walkway will not impact on Navigation and Safety of Cockle Bay</p>
<p>5. Visual Impacts</p> <p>Including an assessment of the visual impact of the proposal, particularly on:</p> <ul style="list-style-type: none"> Land uses along the foreshore areas of Cockle Bay and Darling Harbour; Water uses of Cockle Bay and Darling Harbour Private properties and significant vantage points in the public domain; and The scenic quality of Cockle Bay 	<p>a) 8.5.2 Visual Impact on Land Uses Along the Foreshore</p> <p>b) 8.5.3 Visual Impact on Water Uses of Cockle Bay & Darling Harbour</p> <p>c) 8.5.4 Visual Impact on Private Properties and Significant Vantage Points</p> <p>d) 8.5.5 Visual Impact on the Scenic Quality of Cockle Bay</p>	 <p>Figure 23: ANMM Walkway considered from three different perspectives in the EIS using the scale model, therefore the Visual Impacts have been considered.</p>


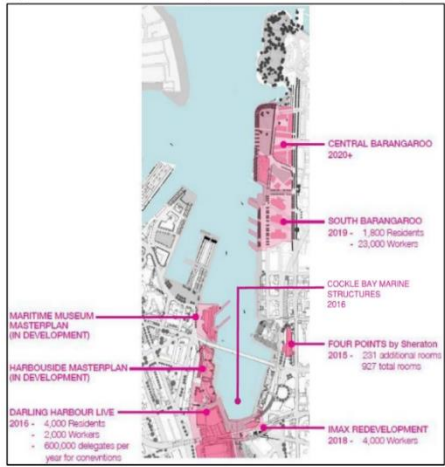
Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
		 <p>Figure 24: Primary View Corridor considered in EIS – s96 will have no additional view impact because it has already been considered and included in EIS assessment.</p>
<p>6. Heritage</p> <p>a) The EIS is to include a Heritage Impact Statement (HIS) which must assess the likely impacts of the proposal on the significance of heritage items in the vicinity of the site including the Pyrmont Bridge, Woodward Water Feature and the former Sydney ferry and floating restaurant SS South Steyne;</p> <p>b) The HIS is also to include an assessment of any potential marine archaeological items or relics (both above and below water and under historical relation areas) that may be impacted by the proposal including strategies and procedures to be followed in the case of an unexpected discovery of items or relics of significance to indigenous and non-indigenous community.</p>	<p>a) 8.11.4 Assessment of Impact on Pyrmont Bridge and 8.11.5 Assessment of Impact on Darling Harbour Woodward Water Feature and 8.11.6 Assessment of Impact Associated with the Removal of Harbourside Jetty</p> <p>b) 8.11.3 Assessment of Impact on Maritime Archaeological Remains</p> <p>Appendix 6</p>	 <p>Figure 25: EIS considered heritage and concluded there was no direct impact on Pyrmont Bridge or the Woodward Water Feature. Minor impacts to state significant maritime archaeological remains on seabed were considered acceptable. Piling works to be carried on with an Exception under S 139(4) of the Heritage Impact Act 1977.</p>
<p>7. Transport and Accessibility Impacts</p> <p>a) Demonstrate the provision of sufficient car parking in accordance with the relevant Australian Standards (AS 3962-2001) and secure bicycle storage and amenities for the amended</p>	<p>a) 8.13 Transport, Traffic and Parking Impacts</p> <p>Appendix 8</p> <p>b) 8.13 Transport, Traffic and Parking Impacts</p>	

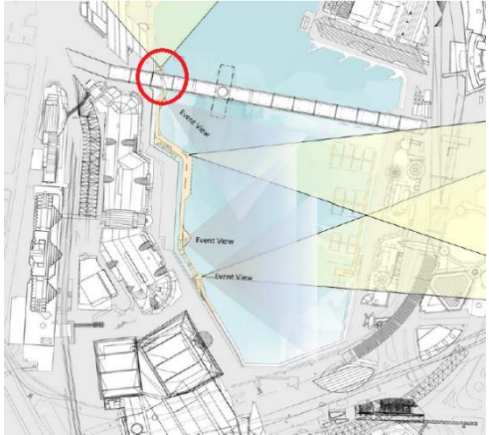

Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
<p>proposal having regard to accessibility of the site to public transport, local planning controls and Roads and Maritime Services (RMS) guidelines; and</p> <p>b) A Traffic Impact Assessment (TIA) is to be prepared in accordance with the RMS Guide to Traffic Generating Developments, considering traffic generation, any required road/ intersection upgrades, access measures to promote public transport usage and pedestrian and bicycle linkages resulting from the development. The TIA is to assess the cumulative impact of the proposal associated with other construction and operational activities on the site and the surrounding area.</p>		 <p>Figure 26: The connection with Landside Circulation Confluences included the ANMM Walkway in the EIS. It was part of the “connectivity”.</p>  <p>Figure 27: ANMM walkway was included on plans and considered in Transport and Accessibility. The S96 has no impact on existing Parking Stations</p>
<p>8. Flora and Fauna</p> <p>a) Assessment of potential impacts on any flora and fauna, including threatened species, populations or communities (e.g. Psodonia seagrass) or their habitats); and</p> <p>b) Recommendation of appropriate mitigation measures during construction and operation,</p>	<p>a) 8.15.4 Construction Effects Assessment & 8.15.5 Operational Phase Considerations</p> <p>b) 8.15.6 Conclusion and Proposed Additional Mitigation Measures</p> <p>Appendix 10</p>	

Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
including potential impacts of shading from fixed facilities and berthed vessels.		 <p>Figure 28: Dive Survey Footage of Aquatic Vegetation on Piles within the Project Area (Source: Cosmos Archaeology Pty Ltd, 2015). <i>ERM were contacted and as the Walkway was part of their original consideration they had no concern or comment with respect to the walkway being re-included.</i></p>
<p>9. Water Quality and Contamination</p> <p>a) Undertake an assessment of the potential impacts on water quality of Cockle Bay and Darling Harbour. Relevant consideration should be given to the National Water Quality Management Strategy: Australian Guidelines for Fresh and Marine Water Quality (ANZECC/ARMCANZ), the ANZECC Guideline and Water Quality Objectives in NSW (OEH) and Approved Methods for Sampling and Analysis of Water Pollutants in NSW (OEH);</p> <p>b) Assess the impacts of the proposal on surface and groundwater quality and hydrology.</p> <p>c) The assessment must include details of proposed erosion and sediment controls (during construction), the proposed stormwater management system (during operations) and management and mitigation measures for the containment of pollutants (e.g. fuel and sewage) and prevention of potential water quality impacts during operation;</p> <p>d) Assess the potential for the development to intercept groundwater, including predicted groundwater dewatering volumes and disposal methods;</p> <p>e) Assess the potential impact of the development on the groundwater flow paths and discharge flows;</p>	<p>a) 8.14.4 Construction Effects Assessment</p> <p>b) 8.14.4.1 Screening & Scoping Results</p> <p>c) 8.14.4 Construction Effects Assessment & 8.14.8 Operational Phase Impacts</p> <p>d) 8.14.4.1 Screening & Scoping Results</p> <p>e) 8.14.4.1 Screening & Scoping Results</p> <p>f) 8.14.5 Water Licensing Requirements & Other Approvals</p> <p>g) 8.14.6 Geotechnical Considerations and Acid Sulphate Soils & 8.10.3 Waste Management & 8.16.6 Air Quality 8.14.7 Water Quality Monitoring Program</p> <p>Appendix 9</p>	 <p>Figure 29: Appendix 9 Coffey Geophysical Investigation and Borehole Location Plan – included the ANMM Walkway</p>  <p>Figure 30: Appendix 9 Coffey Bathymetry Analysis, included the ANMM Walkway</p> <p>4.3 Piling (page 9) Appendix 9 to the EIS states “We do not expect that piles for floating pontoons will experience significant vertical loads. It is therefore likely that the lateral load case will govern the pile design.</p> <p>Appendix 9 of the EIS clearly includes the ANMM walkway, as highlighted above.</p>

Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
<p>f) Identification of any water licensing requirements or other approvals required under the Water Act 1912 or Water Management Act 2000;</p> <p>g) Assess the geotechnical and contamination issues (including Acid Sulphate soils) associated with the construction of the development including the contamination status of the sediments to be disturbed, the impacts associated with disturbance of sediment, and the management and mitigation measures to be employed during marine works; and</p> <p>h) Include a suitable water quality monitoring system</p>		
<p>10. Air Quality and Odour</p> <ul style="list-style-type: none"> An Air Quality Impact Assessment including odour during construction and operation prepared in accordance with relevant Environment Protection Authority guidelines shall be submitted. This assessment must consider any potential impacts on nearby private receptors. 	<p>a) 8.16 Air Quality & Odour Impacts, including all subsections</p> <p>Appendix 11</p>	 <p>Figure 31: The Museum was included as a receptor in the Air and Odour analysis. The original ANMM walkway was considered and the consultants commented with respect to the s96 application that their reports still valid. Therefore no increased impact on Air Quality or Odour.</p>
<p>11. Noise and Vibration</p> <p>a) A Noise and Vibration Assessment during construction, operation and traffic prepared in accordance with relevant Environment Protection Authority guidelines shall be submitted. This assessment must consider any potential impacts on nearby private receptors.</p>	<p>a) 8.17 Noise & Vibration Impacts, including all subsections</p> <p>Appendix 12</p>	

Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
		 <p>Figure 32: Dugongs are located in The Sydney Aquarium and sensitive to sound and this has been taken into consideration for species housed within Sydney Aquarium in the EIS. As dugongs are considered the most sensitive to noise and have similar thresholds to that of cetaceans, which may experience injury at 226 dB re 1 μPa, injury at 225 to 218 dB re 1 μPa and changes in behaviour at 157 to 164 dB re 1 μPa if the underwater noise is within their sensitive hearing range (SLR, 2014). However, it was considered that the distance to the aquarium from the Project Area and the level of noise anticipated to be generated by the project activities it is understood that short-term generation of construction and barge noise is unlikely to alter the behaviour of these species. In addition, this type of noise is unlikely to contribute notably in excess of the existing noise levels generated from vessel movements in waters surrounding the facility from adjacent road traffic. Sensitivity of species within the Aquarium has been assessed as high.</p> <p>The ANMM walkway will have no additional impact – as the walkway was included in the Noise and Vibration Analysis and the construction requirements will remain as required by the approval.</p>
12. Waste Management a) Identify all potential sources of liquid waste and non-liquid wastes as defined in the EPA's Waste Classification Guidelines 2008. The EIS should identify any waste that will be stored, separated or processed on the site and identify the procedures to be adopted to minimise, manage, dispose of this waste in accordance with the relevant standards and guidelines.	a) 8.10 Waste Management Impacts, including all subsections	The ANMM Walkway was included in the plans and analysis for waste management, therefore there will be no changes as the waste will be the same, as it is the same development.
13. Sea Level Rise	a) 8.8 Sea Level Rise Impacts	The EIS states <i>"The design of the guide piles and the access ramps takes into account the recommended sea level rise"</i> . The analysis

Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
a) The EIS must assess the risk associated with sea level rise on the proposal.		included the ANMM walkway, therefore the s96 will have no impact on sea level rise.
14. Infrastructure Servicing a) Detail the existing infrastructure on site and identify possible impacts on any such infrastructure form the proposal; b) Detail measures to mitigate the impacts on any infrastructure items, including proposed relocation; and c) Detail of water supply, consideration of water sensitive urban design and water conservation measures	a) 8.9 Infrastructure Servicing b) 8.9 Infrastructure Servicing c) 8.9 Infrastructure Servicing	 Figure 33: The analysis included the ANMM walkway, therefore the s96 will have no impact on Infrastructure Servicing.
15. Social Impacts <ul style="list-style-type: none"> Consideration of social impacts including but not limited to potential impacts on existing community facilities and services, employment opportunities, transport infrastructure and public safety. 	a) 8.3 Social Impacts, including all subsections	 Figure 34: The S96 modification will have a Social Benefit, as it is in the public interest, it will provide continuous pedestrian flow and will avoid a dead-end.
16. Construction Impacts a) Identify measures to ameliorate construction impacts including to vehicular, pedestrian and maritime access, noise and vibration, air quality, erosion and sediment control, water quality and waste management	a) 8.1 Construction Impacts, including Table 8: Construction Impact Section References Appendices 8-12	A suitably qualified maritime construction contractor familiar with seabed conditions in Sydney Harbour and Cockle Bay and possessing the requisite WHS credentials to ensure the safety of workers on the site.

Issue identified in SEARs	EIS Section Reference & Appendix Reference	S96 Modification: The ANMM walkway highlighted below in red.
17. Event Management <ul style="list-style-type: none"> a) As assessment of event management and recreational capacity, including passive and active recreational opportunities; and b) If events are proposed within the public domain, an event plan of management must be provided. This plan will also inform traffic and maritime management 	<ul style="list-style-type: none"> a) 8.6.2 Existing Situation and Capacity & 8.6.3 Proposed Events and Recreational Capacity & 8.6.4 Construction Impacts on Events b) 8.6.5 Event Plan of Management 	 <p>Figure 35: The analysis included the ANMM walkway for Events.</p>
18. Staging <ul style="list-style-type: none"> • Detail regarding the staging of the proposed development 	<ul style="list-style-type: none"> a) 7 Construction Methodology and Staging 	 <p>Figure 36: The Staging of the proposal included the ANMM walkway, and it was included in Stage 1</p>
19. Ecologically Sustainable Development (ESD) <ul style="list-style-type: none"> a) Identify how the development will incorporate ESD principles in the design, construction and ongoing operation phases of the development 	<ul style="list-style-type: none"> a) 8.7 Sustainability 	<p>The S96 Application will not impact on the ESD analysis and results as the ANMM walkway was included.</p>
20. Consultation <ul style="list-style-type: none"> a) Undertake an appropriate and justified level of consultation in accordance with Department's Major Project Community Consultation Guidelines October 2007. 	<ul style="list-style-type: none"> a) 5 Consultation 	<p>The ANMM walkway as proposed in this S96 application was deleted due to an issue with Land Owners Consent (LOC) from the ANMM – LOC has been obtained and the ANMM would prefer the walkway be included.</p> <p>ANMM LOC is attached.</p>
21. Contributions	<ul style="list-style-type: none"> a) 6.2.7 Contributions 	<p>N/A Crown Application (Property NSW)</p>

6.0 SECTION 96 OF THE EP&A ACT, 1979

The power to amend a development consent is found in section 96 of the EP&A Act. Section 96 is an independent facilitative power that is separate to the grant of a development consent. Pursuant to Section 96 of the EP&A Act, the Minister or his delegate may modify *development consent* if:

96 Modification of consents

(1A) Modifications involving minimal environmental impact

A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

- (a) it is satisfied that the proposed modification is of minimal environmental impact, and*
- (b) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which the consent was originally granted and before that consent as originally granted was modified (if at all), and*
- (c) it has notified the application in accordance with:*
 - (i) the regulations, if the regulations so require, or*
 - (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
- (d) it has considered any submissions made concerning the proposed modification within any period prescribed by the regulations or provided by the development control plan, as the case may be.*

(2) Other modifications

A consent authority may, on application being made by the applicant or any other person entitled to act on a consent granted by the consent authority and subject to and in accordance with the regulations, modify the consent if:

- (a) it is satisfied that the development to which the consent as modified relates is substantially the same development as the development for which consent was originally granted and before that consent as originally granted was modified (if at all), and*
- (b) it has consulted with the relevant Minister, public authority or approval body (within the meaning of Division 5) in respect of a condition imposed as a requirement of a concurrence to the consent or in accordance with the general terms of an approval proposed to be granted by the approval body and that Minister, authority or body has not, within 21 days after being consulted, objected to the modification of that consent, and*
- (c) it has notified the application in accordance with:*
 - (i) the regulations, if the regulations so require, or*
 - (ii) a development control plan, if the consent authority is a council that has made a development control plan that requires the notification or advertising of applications for modification of a development consent, and*
- (d) it has considered any submissions made concerning the proposed modification within the period prescribed by the regulations or provided by the development control plan, as the case may be.*

7.0 CONCLUSION

This Section 96 modification – we believe is an application under Section 96 (1A) because as illustrated in Section 5.0 The SEARs Requirements, the proposed modification is actually the proposed development to which was the original application which was notified in accordance with the regulations, and has been considered by all the expert consultant and its impact assessed in EIS. The development, as proposed to be modified, is the original development as originally proposed and notified:

- No physical modifications to the proposed and consulted on
- The proposed use remains the same
- *Without the ANMM section the proposed walkway does not fulfil its proposed purpose, without the S96 modification the development is not the same development as proposed and in relationship to Darling Harbour Live Masterplan (see Section 2.4 Design Justification above) without the proposed walkway, the “offer an invitation for continuing travel towards the Maritime Museum” is lost. “The linear progression of the Boulevard gives way to the more meandering course of the Wharf as the journey changes from land to water.” Comes to a dead-end and pedestrians would have to turn around and go back – the s96 application to re-include the ANMM walkway is in the public interest.*

Section 96 (1A) of the EP&A Act states that a consent authority may modify a development consent if “it is satisfied that the proposed modification is of minimal environmental impact”.

As stated above, the Turner & Townsend Quantity Surveyor’s Report (EIS Appendix 5) included the cost of the ANMM Walkway in the cost of the original development proposal/application (refer Appendix 1: Consultants’ Comment Table V. “...item 5, page 4 of 25 of our cost plan relates to the section of walkway in question.”). This inclusion, as well as the other environmental assessments which also included the ANMM Walkway results in an application under S96 which, in the context of the proposal, has minimal environmental impact, and previously assessed and found acceptable.

This report demonstrates that the development consent, as proposed to be modified, will be of minimal environmental impact to that analysed and assessed as the proposed forms part of the original proposal, without the ANMM Walkway the approved development does not meet all the objectives of the design, does not finalise the “Live Boulevard” and does not provide access to all. The S96 application is necessary to complete the design intention.

We trust that this information is sufficient to enable a prompt assessment of the proposed modification request. Should you have any queries about this matter, please do not hesitate to contact me on (02) 9967-4422 or Lauren@environet.net.au.

Yours faithfully,



Lauren Moore
Senior Town Planner
Environet Consultancy Pty Ltd

Appendix 1:

Consultants' Comment Table

(Attached as a separate document)

Refer to the Department's website for the EIS and Appendices referenced:

http://www.majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6611