Milsons Point Wharf Interchange Expansion

Submissions report

February 2017

BLANK PAGE

Roads and Maritime Services

Milsons Point Wharf Interchange Expansion

Submissions report

February 2017

Prepared by Roads and Maritime Services

COPYRIGHT: The concepts and information contained in this document are the property of Roads and Maritime Services NSW (Roads and Maritime). Use or copying of this document in whole or in part without the written permission of Roads and Maritime constitutes an infringement of copyright.

Document controls

Approval and authorisation

Title	Milsons Point Wharf Interchange Expansion
Accepted on behalf of Roads and Maritime NSW by	Bob Rimac – Senior Project Manager
Signed	
Dated	

Document status

Document status	Date	Prepared by	Reviewed by
Draft	13/02/17	Rosie Majer	Karina Rubenis
Rev 1	22/02/17	Rosie Majer	Karina Rubenis
Final	24/02/17	Rosie Majer	Karina Rubenis

Executive summary

This submissions report relates to the Review of Environmental Factors (REF) prepared for the Milsons Point Wharf Interchange Expansion, and should be read in conjunction with that document.

The Milsons Point Wharf Interchange Expansion is one of the projects within the Ferry Wharf Upgrade Program, being delivered as part of the Transport for New South Wales (TfNSW) Transport Access Program. The proposal involves the expansion of the existing Milsons Point Wharf to provide a second berthing face, and upgrade of the interchange around the wharf to provide DDA compliant access to the structure, meeting the standards of the Disability Discrimination Act (1992). The existing waiting area would be expanded, with existing roof shifted to the centre of the expanded area, providing additional capacity for users.

As part of the planning process Roads and Maritime Services (Roads and Maritime) placed the REF on public display for 56 days between 13th December 2016 and 7th February 2017. A community update detailing locations of the REF display and invitation to comment was distributed, advertising a Community Information Session held on the 31st January 2017 where feedback could be given in person.

A total of seven submissions were received in response to the display of the REF, received either via a dedicated wharf upgrade email or in person at a community information session. This included submissions from one government agency and six from the community. Following the end of the display period an additional submission was received from a government agency. This submission has also been considered within this report.

Of the eight submissions, two were generally supportive of the proposal and one submission objected to the preferred design in favour of another. Other submissions did not provide a general position on the proposal, but raised issues about specific aspects.

The issues raised in the submissions have been categorised into three main areas:

1. The design of the proposal, including the need for the expansion, preferred option chosen and visual impact of this option and confirmation of amenities included within the proposal.

   Summary response: Roads and Maritime addressed these issues in preparing the REF and specialist reports for the proposal. The REF explains the strategic need and key objectives of the proposal and details the four options that were considered and the justification for the preferred option. The specialist Landscape Character and Visual Impact Assessment report considered the visual impact of the proposal from key viewpoints and concluded the overall impact to be moderate to low. The provision of additional amenities, such as bubblers or public toilets does not form part of the Transport Access Program initiatives, and therefore were not considered as part of the upgrade

2. The impacts of the proposal on existing heritage items in the Milsons Point vicinity, including how the proposal would adhere to heritage legislation and how specific areas of proposal would be designed to mitigate potential heritage impacts.

   Summary response: A Statement of Heritage Impact (SOHI) report was prepared and included as an Appendix to the REF. The SOHI confirms no impact to the fabric for any of the heritage items, however as the proposal includes minor upgrades within the curtilage area of the state heritage listed Sydney Harbour Bridge, an Exemption Notification must be submitted to the NSW Heritage Council under the Heritage Act prior to construction starting.

3. The construction impacts of the proposal, including the requirement to close the existing wharf, associated noise impacts and importance of communication during construction to minimise impacts.

   Summary response: The REF outlines the construction methodology for the proposal and subsequent impacts and mitigation measures. The wharf will be closed during construction however commuters will be directed to the nearby Jeffrey Street Wharf which will be operate during the construction period.

   Noise impacts have been assessed and mitigation measures identified in the REF and Noise and Vibration Impact Assessment provided as an Appendix to the REF. Proactive communication will take place to ensure that all stakeholders are kept informed about details of the work, construction progress, wharf closure, changes to public transport and other impacts throughout the construction period.

   Revisions have also been made to the safeguards to ensure Roads and Maritime consult with North Sydney Council regarding the repositioning of an existing Council-owned inlet pipe for North Sydney Olympic Pool.

Further revision made to the design since placing the REF on public display is also considered within this Submissions Report, with a decision made to update the proposal design to increase the operational safety of the proposal by adding two additional piles. A copy of the revised design is included in Appendix A of this submission report.

Contents

Executive summary **6**
Contents **7**
1 Introduction and background **8**
1.1 The proposal 8
1.2 REF display 9
1.3 Purpose of the report 10
2 Response to issues **11**
2.1 Overview of issues raised 11
2.2 Design 12
2.3 Heritage 16
2.4 Construction 18
3 Changes to the proposal **20**
3.1 Design revision to include two additional piles adjacent to berthing faces 20
4 Environmental management **21**
4.1 Environmental management plans (or system) 21
4.2 Summary of safeguards and management measures 21
4.3 Licensing and approvals 40
5 References **41**

Appendices

Appendix A – Proposal Drawings Revision 1

1 Introduction and background

1.1 The proposal

The Milsons Point Wharf Interchange Expansion is one of the projects within the Ferry Wharf Upgrade Program, being delivered as part of the Transport for New South Wales (TfNSW) Transport Access Program. The proposal involves the expansion of the existing Milsons Point Wharf to provide a second berthing face, and upgrade of the interchange around the wharf to provide DDA compliant access to the structure, meeting the standards of the Disability Discrimination Act (1992). The existing waiting area would be expanded, with existing roof shifted to the centre of the expanded area, providing additional capacity for users.

The main elements of the proposal for the Milsons Point Wharf Interchange Expansion include:

- modifications to the existing wharf
    - the waiting face within the existing fixed structure would be expanded to support the second berthing face, constructed to the east of the existing structure and supported by about 20 new piles
    - the existing waiting area roof would be relocated to sit centrally over the expanded waiting area
    - relocating, and increasing seating, glazing and balustrading within the fixed structure
    - relocation of customer information and ticketing equipment
    - installation of new signage and wayfinding
    - a new stairway would connect the waiting area to the existing foreshore.
- construction of a new gangway and hydraulic platform
    - a new 18m covered aluminium gangway would connect to, and be supported by, the fixed structure and new hydraulic platform
    - a new triangular shaped steel hydraulic platform would be constructed at the eastern end of the gangway
    - about eight new piles would be installed to assist with berthing
- construction and modification of landside infrastructure
    - a new accessible ramp would be constructed on the southern side of the existing seawall, providing DDA compliant access to and from the wharf
    - upgrade of two existing accessible parking spaces on the northern side of Alfred St to provide DDA compliant access
    - installation of bicycle racks at the wharf entrance
- ancillary facilities

The existing wharf is located on the north side of Sydney Harbour within the North Sydney Local Government Area, directly adjacent to Luna Park and North Sydney Pool and about 1.25 kilometres north by water from Circular Quay. Figure 1 shows the proposal location in relation to Sydney Harbour.

Figure 1 Proposal Location (taken from REF)

A more detailed description of the Milsons Point Wharf Interchange Expansion is found in the Milsons Point Wharf Interchange Expansion Review of Environmental Factors (REF) prepared by Roads and Maritime Services (Roads and Maritime) in December 2016.

1.2 REF display

Roads and Maritime prepared a review of environmental factors (REF) to assess the environmental impacts of the proposed work. The REF was publically displayed for 56 days between 13th December 2016 and 7th February 2017 at two locations, as detailed in Table 1.1. The REF was placed on the Roads and Maritime project website and made available for download. The display locations and website link were advertised in the Mosman Daily.

In addition to the above public display, an invitation to comment was sent directly to several identified stakeholders including local clubs, businesses and water user groups.

Two community updates, detailing locations of the REF display and invitation to comment was distributed to around 1,200 residents and business, with a second Community Information Session held on the 31st January 2017 where feedback could be given in person.

Table 1.1: Display locations

Location	Address
Roads and Maritime Office	20-44 Ennis Road, Milsons Point
Stanton Library	234 Miller Street, North Sydney

1.3 Purpose of the report

This submissions report relates to the REF prepared for the Milsons Point Wharf Interchange Expansion, and should be read in conjunction with that document.

The REF was placed on public display and submissions relating to the proposal and the REF were received by Roads and Maritime. This submissions report summarises the issues raised and provides responses to each issue (Chapter 2). It describes and assesses the environmental impact of changes to the proposal (Chapter 3) and identifies new or revised environmental management measures (Chapter 4).

2 Response to issues

Roads and Maritime received three submissions, accepted up until the 8th February 2017. Four submissions, made in person at a community information session have also been considered within this Submissions Report. Following the end of the display period an additional submission was provided to Roads and Maritime for consideration 23 February 2017. This submission has been considered within this report. Table 2.1 lists the respondents and each respondent's allocated submission number. The table also indicates where the issues from each submission have been addressed in Chapter 3 of this report.

Table 2.1: Respondents

Respondent	Submission No.	Section number where issues are addressed
Individual 1	1	2.4.1
Government 1	2	2.2.5, 2.2.6, 2.2.7, 2.3.1, 2.3.2, 2.3.3, 2.4.3
Individual 2	3	2.2.2
Information Session 1	4	2.4.1
Information Session 2	5	2.2.4
Information Session 3	6	2.2.4
Information Session 4	7	2.2.5
Government 2	8	2.2.1, 2.2.3, 2.2.7, 2.3.1, 2.3.2, 2.4.2, 2.4.3

2.1 Overview of issues raised

A total of eight submissions were received in response to the display of the REF, received either via a dedicated wharf upgrade email or in person at a community information session. This included two submissions from one government agency and six from the community.

Each submission has been examined individually to understand the issues being raised. The issues raised in each submission have been extracted and collated, and corresponding responses to the issues have been provided. Where similar issues have been raised in different submissions, only one response has been provided. The issues raised and Roads and Maritime response to these issues forms the basis of this chapter.

Of the eight submissions considered, two were generally supportive of the proposal and one submission objecting to the preferred design in favour of another. Other submissions did not provide a general position on the proposal, but raised issues about specific aspects.

The issues raised in the submissions can be categorised into three main areas:

1. The design of the proposal, including the need for the expansion, preferred option chosen and visual impact of this option and confirmation of amenities included within the proposal.
2. The impacts of the proposal on existing heritage items in the Milsons Point vicinity, including how the proposal would adhere to heritage legislation and how specific areas of proposal would be designed to mitigate potential heritage impacts.
3. The construction of the proposal, including the requirement to close the existing wharf, associated noise impacts and importance of communication during construction to minimise impacts.

2.1.1 Government submissions

The project received submissions from the following Government agencies:

- North Sydney Council

North Sydney Council

Council provided a submission during the public display of the REF confirming general support for the proposal but made some recommendations for consideration in design to assist with minimising the visual and heritage impact. Council also recommended construction of the proposal should be carefully managed to minimise the impact on the wider community, and Council-owned assets, with specific issues raised discussed in sections below.

Following the end of the public display period, North Sydney Council provided a second submission which has been considered in the sections below. This submission raised further queries regarding the heritage and visual impact of the proposal, with further recommendations for considerations to assist with minimising the impact of the proposal. The submission also noted areas discussed in the previous submission.

2.2 Design

2.2.1 Need for the Proposal

Submission number

8

Issue description

- Council recommended REF justification for the proposal should include a summary of the current and expected scheduling requirements for future ferry services to assist with explaining the need for the proposal.

Response

As confirmed in information issued to the community during public display of the REF, the Milsons Point Wharf Interchange Expansion proposal would increase the capacity of Milsons Point Wharf by enabling two ferries to berth at the same time, resulting in more frequent, reliable services for ferry customers and improved boarding and disembarking time during peak periods.
Once completed, the proposal would have positive long-term socio-economic impacts, with the additional capacity providing potential to provide a better public transport solution for residents, commuters and visitors.
As confirmed in the REF the proposal is aligned to the NSW Government's *Sydney's Ferry Future* 2003 plan, which outlines short and long term cost initiatives to get the most out of the ferry network today and invest in the infrastructure and services needed to attract more customers in future. The plan identifies the need for development of new routes and services that respond to emerging employment hubs such as Barangaroo and population growth centres. The proposed redeveloped wharf would support this plan by providing improved access to the wharf and a second berthing face to support additional services as part of the future ferry network. Information regarding additional services and ferry routes and impacts of potential changes however are considered outside the scope of the REF.

2.2.2 Preferred Option

Submission number

3

Issue description

- Would prefer one of the alternative designs considered as this is less visually obstructive than the design chosen

Response

The preferred design for the proposal is confirmed as Option 2 - wharf extension with hydraulic platform. Whilst Options 2 and 4 both broadly meet the objectives of the proposal, providing capacity for a secondary berthing face and a DDA compliant wharf interchange, Option 2 is considered to best meet the objective to create a practical, functional and robust ferry commuter wharf. The existing Milsons Point Wharf consists of a fixed concourse with zinc roof, providing access to a gangway with zinc roof. The preferred option would relocate the existing concourse roof to the centre of the expanded concourse, and replicate the existing gangway; providing a second covered gangway with the same zinc roof. By expanding the existing fixed structure and relocating the existing roof structure to the new centre the proposal would provide one appropriately sized waiting area which would improve boarding efficiency. The uncovered areas of the fixed structure would allow for the enjoyment of good weather and harbour views. This option is also preferred from an operational perspective as it provides a safe separation distance for berthing ferries with no requirement to reverse.

Option 2 would best meet the urban design objectives of the proposal by respecting the setting and place by mirroring the existing hydraulic platform, rather than installing a larger pontoon structure which would assist with minimising impact to existing views of the harbour. The Landscape Character and Visual Impact Assessment (LCVIA) produced for the Milsons Point Wharf Expansion, notes the impact of the proposal on existing landscape character would be minimised by using the same materials and maintaining the same size, shape and character of the roof.

Replicating the existing material enables the proposal to remain consistent with the Ferry Wharf Upgrade Program, by providing a standardised family of elements for wharf upgrades around the harbour. The LCVIA notes providing a standardised family of elements forms a key design strategy for mitigating visual impact of the proposal.

Further details of option analysis undertaken to confirm the preferred option are detailed in Chapter 2.4.2 of the REF, with the LCVIA located in Appendix E.

2.2.3 Visual Impact

Submission number

8

Issue description

- Recommends the proposal carefully consider any impact of the proposal on existing view lines of iconic views of Luna Park, North Sydney Olympic Pool, Harbour Bridge, Opera House and Harbour and notes design and materials of the new wharf should assist with minimising view loss.

Response

The existing Milsons Point Wharf consists of a fixed concourse with zinc roof, providing access to a gangway with zinc roof. The proposal design will relocate the existing concourse roof to the centre of the expanded concourse, and replicate the existing gangway by providing a second covered gangway with the same zinc roof. The proposal design for the expansion works, in addition to replicating existing material, uses the same material used throughout the Ferry Wharf Upgrade Program, providing a standardised family of elements for wharf upgrades around the harbour. The LCVIA for the Milsons Point Wharf Expansion assesses the impact of the proposal on existing landscape character and the visual impact of the proposal from key viewpoints around the harbour including Luna Park, North Sydney Olympic Pool and the Opera House and concludes the overall impact of the proposal is considered to be moderate to low. The LCVIA considers the design and selection of material and colours, noting that these form key design strategies to mitigate the impact of the proposal.

The LCVIA also notes providing a standardised family of elements forms a key design strategy for mitigating the visual impact of the proposal.

Further details of landscape character and visual impact assessment and materials and colours chosen for the proposal are detailed in the LCVIA, located in Appendix E of the REF.

2.2.4 Amenities

Submission numbers

5, 6

Issue description

- Attendees at the community information session noted they would like to see bubblers and public toilets on the wharf and questioned whether they had been considered as part of the upgrade scope.

Response

Milsons Point Wharf Expansion sits within the Transport Access Program, a Transport for NSW initiative to provide a better experience for public transport customers by delivering accessible, modern, secure and integrated transport infrastructure.

Expansion of Milsons Point Wharf is required to increase wharf capacity and improve service levels for ferry customers in accordance with the Disability Standards for Accessible Public Transport 2002 (DSAPT) and Disability (Access to Premises - Buildings) Standards 2010 (Disability Standards 2010) made under the Disability Discrimination Act (DDA). Further details on the strategic need for the proposal and planning are detailed in Chapter 2.1 of the REF.

The provision of additional amenities, such as bubblers or public toilets does not form part of the Transport Access Program's initiatives, and therefore were not considered as part of the upgrade scope.

2.2.5 Signage

Submission numbers

2, 7

Issue description

- Signage relating to Milsons Point Precinct should be included within the proposal and include relevant information about the interchange and surrounding area
- Attendees at the Community Information Session suggested that illuminated “wait here” signage should be included within the proposal to assist with crowd management.

Response

Proposal objectives for the Milsons Point Wharf Expansion include increasing the speed at which passengers embark and disembark ferries to improve boarding efficiency and travel times whilst providing a practical, functional and robust ferry commuter wharf with appropriate waiting areas, passenger seating, standing and shelter. These objectives would be realised through the proposal, which includes installation of new signage and wayfinding which would be designed to enable efficient crowd management in order to meet project objectives for efficiency. The new signage and wayfinding would be designed in accordance with Transport for NSW's integrated approach to wayfinding and signage for the NSW transport network, and would include relevant information about the interchange and surrounding area.

Further information on the design of the proposal is detailed in Chapter 3.1 of the REF.

2.2.6 Bird Roosting

Submission number

2

Issue description

North Sydney Council requested measures should be included within the proposal to ensure the roof of the wharf is clear of bird droppings as it can be seen from the Harbour Bridge and bird roosting could spoil views within this iconic location.

Response

The proposal would expand the fixed structure and relocate the existing concourse roof to the centre of the expanded concourse. The existing concourse roof does not currently have a problem with roosting birds, and therefore bird droppings. As the existing roof would be retained in the proposal, relocated within the centre of the expanded fixed structure, measures to prevent bird roosting and droppings on the roof would continue through routine maintenance.

2.2.7 North Sydney Pool Inlet

Submission numbers

2, 8

Issue description

- Requests proposal considers the permanent position of an existing North Sydney Council owned inlet pipe for the North Sydney Pool, with relocation of the pipe requested by Council.

Response

As part of the expansion of the existing Milsons Point Wharf an existing inlet pipe, situated under the existing wharf structure, would need to be relocated to enable North Sydney Council to access and maintain their pipe once construction of the proposal is complete.

Previous safeguards were detailed in the REF to prevent the impact of construction on the existing inlet pipe; however relocating the pipe was not included within the proposal.

A safeguard has been added to this Submissions Report to ensure Roads and Maritime work with North Sydney Council to identify an appropriate location for the inlet pipe and undertake relocation of the pipe prior to the completion of construction, with date to be agreed with North Sydney Council. An updated list of these safeguards and management measures is detailed in Chapter 4.2 of this Submissions Report.

2.3 Heritage

2.3.1 Impact on existing heritage items within the vicinity

Submission numbers

2, 8

Issue description

- North Sydney Council noted the location of the proposal, recommending the REF should consider the impact of the proposal on existing heritage items within the vicinity of the expansion, including impact on fabric and heritage views.
- North Sydney Council confirmed the proposal was acceptable from a heritage perspective provided the following recommendations were incorporated:
  - Comments and approval should be received by the NSW Heritage Council prior to the commencement of work, with recommendations implemented into the proposal
  - Implementation of recommendations 1-4 from the Statement of Heritage Impact (SOHI) report
  - Level of lighting should be kept to minimum requirements, to avoid impact on Luna Park lighting
  - Consideration should be given to glazed roofing in order to minimise visual impact
  - Council recommended the proposal is referred to the Office of Environment and Heritage for their comment and consideration.

Response

The impact of the proposal on existing heritage items within the vicinity of the expansion has been assessed, with a Statement of Heritage Impact (SOHI) produced for the REF which considers the heritage impact of the proposal.

The SOHI confirms no impact to the fabric for any of the heritage items, however as the proposal includes minor upgrades within the curtilage area of the State Heritage Listed Sydney Harbour Bridge, an Exemption Notification must be submitted to the NSW Heritage Council under Section 57(A) of the Heritage Act prior to construction starting. A copy of the SOHI would also be provided to the Heritage Council of NSW and OEH, who have delegated authority to consider the SOHI and application on behalf of the Heritage Council.

This recommendation, along with other recommendations from the SOHI, has been included in the REF within the safeguards and management chapter which the proposal must adhere to. A complete list of revised safeguards and management measures has been provided in Chapter 4.2 of this Submissions Report.

Responses to queries about visual impact are detailed in Chapter 2.2.3 with responses to lighting levels detailed in Chapter 2.3.2, and responses to roof material detailed in Chapter 2.3.4.

2.3.2 Lighting

Submission numbers

2, 8

Issue description

- North Sydney Council recommended level of lighting should be kept to minimum requirements, to avoid impact on lighting within the vicinity, specifically mentioning the importance of Luna Park lighting.

Response

The lighting of the Milsons Point Wharf Expansion would be designed to comply with the DSAPT 2002, however to ensure lighting levels are kept to a minimum, a safeguard has been included in

Chapter 6.6 of the REF to ensure lighting would be designed to maintain the primacy of Luna Park lighting in the night-time landscape.

Further details of safeguards and management measures included to minimise the visual impact of the proposal have been included in Chapter 7.2 of the REF and in Chapter 4.2 of this Submissions Report.

2.3.3 Wharf Roof

Submission number

2

Issue description

- North Sydney Council recommended a glazed roof was considered for the proposal to minimise visual impact

Response

The proposal would expand the fixed structure and relocate the existing concourse roof to the centre of the expanded concourse, with the LCVIA confirming impacts on landscape character would be minimised by using the same materials and maintaining the same size, shape and character of the existing roof.

Replicating existing material enables the proposal to match materials used throughout the Ferry Wharf Upgrade Program, providing a standardised family of elements for wharf upgrades around the harbour. The LCVIA notes providing a standardised family of elements forms a key design strategy for mitigating visual impact of the proposal.

Further details of safeguards and management measures included to minimise the visual impact of the proposal have been included in Chapter 7.2 of the REF and in Chapter 4.2 of this Submissions Report.

2.4 Construction

2.4.1 Temporary closure of Milsons Point Wharf

Submission numbers

1, 4

Issue description

- Supports the design but does not agree a wharf closure is required to construct the expansion and thinks this would unnecessarily inconvenience locals.
- Attendees at the community information session noted they were unhappy with the closure of Milsons Point Wharf during the expansion, with some questioning why closure was required to expand the existing structure.

Response

Construction of the Milsons Point Interchange Expansion would involve substantial work to the existing structure, extending the fixed structure from its current position and relocating the existing roof, handrails, glazed screens and furniture to support the expansion which would require closing the existing wharf to complete.

During construction, the majority of construction would be undertaken from the waterside, with construction personnel, materials, plant and equipment brought to Milsons Point Wharf via boat or barge to reduce environmental impacts from traffic, parking and noise. The size of the construction zone proposed would be kept to a minimum throughout construction, however due to the position and proximity of the expansion to the existing wharf, and additional risk and time this would add to ferries berthing, diverting existing services to Jeffrey Street Wharf was identified as the preferred methodology to minimise the impact of construction on existing water transport users.

The closure of Milsons Point Wharf during construction would impact on the local and wider community looking to use the wharf, although this impact would be minimised through the use of Jeffrey Street Wharf which would operate the Milsons Point Wharf timetable during construction. Jeffrey Street Wharf is about 450 metres and a six minute walk from Milsons Point Wharf, with users also able to connect to existing train services at Milsons Point Station and existing bus services operating from Alfred Street.

Further information on the impact of the closure is detailed in Chapter 6.8 of the REF.
A complete list of safeguards and management measures for communication during construction has been included in Chapter 7.2 of the REF and in Chapter 4.2 of this Submissions Report.

2.4.2 Noise

Submission number

8

Issue description

- Recommends an acoustic management plan is implemented to minimise the impact of noise during construction

Response

Construction methodology and construction hours of the proposal have been developed to minimise the impact of construction, with construction normally limited to between standard work times of 7am to 6pm Monday to Friday and 8am to 1pm Saturday. However due to the requirement for piling activities to be undertaken from water, piling activities to drill and hammer in piles would need to be undertaken outside of standard work hours - between 11pm and 7am.

Installation of the piles requires calm environmental conditions (still water and minimal wind) so that the floating barge used for the piling can remain still to enable piles to be installed accurately and these conditions usually occur during the early morning period.
The impact of piling activities has been assessed in the REF, with a Noise and Vibration Impact Assessment produced for the REF which provides mitigation measures to minimise the impact of working outside of standard construction hours. Further detail of the safeguards and management measures proposed to mitigate the impact of the proposal are detailed in the Noise and Vibration Impact Assessment report provided in the Appendices of the REF, with an updated list of safeguards and management measures provided in Chapter 4.2 of this Submissions Report.

2.4.3 Communication

Submission numbers

2, 8

Issue description

- Notes details of alternative travel arrangements and project contact details should be clearly communicated to enable feedback to be received.
- Requests proposal is co-ordinated with Council program of work including work to upgrade existing balustrade along the foreshore adjacent to, and within, proposal area.
- Notes any activities impacting on Council land will require agreement from Council.

Response

Chapter 5.7 of the REF notes that further consultation with North Sydney Council and the wider community would be undertaken should the proposal progress, with safeguards included in the REF to ensure all stakeholders would be kept informed about details of the work, construction progress, wharf closure, changes to public transport and other impacts throughout the construction period in accordance with the Milsons Point Wharf Interchange Communication Plan.

An internet site and free call phone number for proposal enquiries would be established for the duration of the project, and contact details would be clearly displayed at the site throughout the construction period.

A complete list of safeguards and management measures for communication during construction has been included in Chapter 7.2 of the REF and in Chapter 4.2 of this Submissions Report.

3 Changes to the proposal

3.1 Design revision to include two additional piles adjacent to berthing faces

3.1.1 Description

During the public display of the REF documentation, design drawings were issued to a wide range of key project stakeholders for review and comment.

Following comments made by Harbour City Ferries, operators of the Sydney Harbour ferry service which would berth at Milsons Point Wharf, two additional piles have been added to the design. These additional piles would assist with berthing, acting as pivot points during poor weather conditions and also reduce the risk of ferries damaging the existing and proposed gangways.

A copy of the revised design has been included in Appendix A of this Submissions Report for information.

3.1.2 Environmental assessment

The inclusion of additional piles within the proposal design would have a positive impact on the biodiversity impacts of the proposal, increasing the amount of vertical hard substrate offered by the proposal which can provide habitat for sessile marine organisms and protection for small fish and therefore reducing the overall offset the proposal needs to provide to meet the “no net loss” of Key Fish Habitat required by NSW Government.

The two additional piles would be 900mm in diameter and white in colour, maintaining the same design as piles along the existing and proposed berthing faces. These additional items are not considered to increase the visual impact of the proposal; although more piles would be visible from certain locations, installation would be within the footprint of the expanded structure, about 4m to the inside face of each berthing face, and therefore the conclusions of the LCVIA included in Appendix E of the REF remain valid.

The additional protection piles would have a positive socio-economic impact, improving safety at the wharf by removing the potential for a power loss on vessels to result in damage to the gangways, and potentially to users. The piles would also assist with berthing, acting as pivot points during poor weather conditions, and enabling the proposal to meet a key objective to increase boarding efficiency and travel times.

During construction, the addition of two piles to the existing proposal would increase the amount of night-shifts previously considered in the REF for pile installation, with an increase of two days to the thirty days previously identified for pile installation within a nine week overall period. As the existing nine week period previously assessed for pile installation would not increase, it is considered the installation of two additional piles would have minimal impact, which would be managed through existing safeguards and management measures identified for the proposal and detailed in Chapter 4.2 of this Submissions Report.

3.1.3 Revised management and mitigation measures

It is considered the impact of adding two piles to the proposal would be managed through existing safeguards and management measures previously included in the REF. A copy of these safeguards and management measures is also available in Chapter 4.2 of this Submissions Report.

4 Environmental management

The REF for the Milsons Point Wharf Interchange Expansion identified the framework for environmental management, including safeguards and management measures that would be adopted to avoid or reduce environmental impacts (Chapter 7.2 of the REF).

After consideration of the issues raised in the public submissions and changes to the proposal, the safeguard and management measures have been revised in the following ways:

- inclusion of a safeguard to ensure Roads and Maritime work with North Sydney Council to identify an appropriate location for the inlet pipe and undertake relocation of the pipe prior to the completion of construction, with date to be agreed with North Sydney Council.

Should the proposal proceed, environmental management would be guided by the framework and measures outlined below.

4.1 Environmental management plans (or system)

A number of safeguards and management measures have been identified in order to minimise adverse environmental impacts, including social impacts, which could potentially arise as a result of the proposal. Should the proposal proceed, these management measures would be incorporated into the detailed design and applied during the construction and operation of the proposal.

A Construction Environmental Management Plan (CEMP) would be prepared to describe safeguards and management measures identified. The CEMP would provide a framework for establishing how these measures would be implemented and who would be responsible for their implementation.

The CEMP would be prepared prior to construction of the proposal and must be reviewed and certified by Roads and Maritime, prior to commencement on-site. The CEMP would be a working document, subject to ongoing change and updated as necessary to respond to specific requirements.

4.2 Summary of safeguards and management measures

The REF for the Milsons Point Wharf Interchange Expansion identified a range of environmental outcomes and management measures that would be required to avoid or reduce the environmental impacts.

After consideration of the issues raised in the public submissions, the environmental management measures for the project (refer to Chapter 7.2 of the REF) have been revised. Should the project proceed, the environmental management measures in Table 5.1 would guide the subsequent phases of the Milsons Point Wharf Interchange Expansion development. Additional and/or modified environmental safeguards and management measures to those presented in the REF have been emboldened.

Table 4.1: Summary of environmental safeguards and management measures

No	Impact	Environmental safeguards	Responsibility	Timing
GEN1	General - minimise environmental impacts during construction	A CEMP will be prepared and submitted for review and endorsement of the Roads and Maritime Environment Manager prior to commencement of the activity. As a minimum, the CEMP will address the following: • any requirements associated with statutory approvals • details of how the project will implement the identified safeguards outlined in the REF • issue-specific environmental management plans • roles and responsibilities • communication requirements • induction and training requirements • procedures for monitoring and evaluating environmental performance, and for corrective action • reporting requirements and record-keeping • procedures for emergency and incident management • procedures for audit and review. The endorsed CEMP will be implemented during the undertaking of the activity.	Contractor / Roads and Maritime Project Manager	Pre-construction / detailed design
GEN2	General - notification	All businesses, residential properties and other key stakeholders (e.g. schools, local councils) affected by the activity will be notified at least five days prior to commencement of the activity.	Contractor / Roads and Maritime Project Manager	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
GEN3	General - environmental awareness	All personnel working on site will receive training to ensure awareness of environment protection requirements to be implemented during the project. This will include up-front site induction and regular "toolbox" style briefings. Site-specific training will be provided to personnel engaged in activities or areas of higher risk. These include [the following are examples only: • areas of Aboriginal heritage sensitivity • threatened species habitat • adjoining residential areas requiring particular noise management measures.]	Contractor / Roads and Maritime Project Manager	Pre-construction / detailed design
4	Land and water based land surface	A Soil and Water Management Plan (SWMP) would be prepared and implemented as part of the CEMP. The SWMP would identify all reasonable foreseeable risks relating to soil erosion and water pollution and describe how these risks would be addressed during construction	Contractor	Detailed design / Pre-Construction
5	Land and water based land surface	A site specific Erosion and Sediment Control Plan/s would be prepared and implemented as part of the SWMP. The Plan would include arrangements for managing wet weather events, including monitoring of potential high risk events (such as storms) and specific controls and follow-up measures to be applied in the event of wet weather.	Contractor	Detailed design / Pre-construction
6	Land and water based land surface	Silt and sediment controls would be established prior to any disturbance of the land surface. Controls would be in accordance with edition 4 of “Managing Urban Stormwater, Soils and Construction” (NSW Government, 2004) (the blue book)	Contractor	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
7	Water based land surface	A silt curtain, extending from a minimum of 100 millimetres above the water line and extending to no less than 2.5m to below sea level would be installed around the entire redevelopment work area within the waterway prior to commencement of work that would disturb the seafloor	Contractor	Construction
8	Water based land surface	Inspections of the silt curtain or boom device should be undertaken on a daily basis after ebbing tides, with an additional inspection to be carried out after storm events. If excessive turbidity of the water is observed during removal of the first few piles, a second, moveable silt curtain would be installed around the piles being removed during each day of operation • Results of the observations of the integrity of the silt curtain are required to be recorded in a site notebook maintained specifically for the purpose. The notebook is required to be kept on the site and to be available for inspection by persons authorised by Roads and Maritime	Contractor	Construction
9	Water based land surface	Any excavated sediments that require disposal would be sampled, tested and classified in accordance with the EPA's *Waste Classification Guidelines: Part 1 Classifying Waste* (EPA 2014) prior to being disposed of at a waste facility licensed to accept the relevant class of waste. Any materials classified as Hazardous Waste may require treatment or an immobilisation approach in accordance with Part 10 of the *Protection of the Environment Operations (Waste) Regulation* 2014 prior to off-site disposal.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
10	Land surface	Trees located within the vicinity of the temporary compound would be protected by tree protection measures for the duration of construction	Roads and Maritime Project Manager	Pre-construction and Construction
11	Land surface	Following completion of landside activities and the removal of the temporary compound, the area would be restored with all land surfaces rehabilitated	Roads and Maritime Project Manager	Construction
12	Land surface	Dial Before You Dig (DBYD) investigations would be carried out during the detailed design phase. If any relocation of services is required further assessment would be carried out in accordance with Roads and Maritime Environment Branch requirements and the appropriate utility providers would be consulted	Roads and Maritime Project Manager	Pre-construction
13	Hydrology	Weather forecasts would be checked regularly during construction and where flooding is forecast, all equipment and materials would be removed from the compound site and wharf construction area or appropriately secured	Contractor	Construction
14	Water quality	Erosion and sediment measures would be checked prior to forecasted rainfall and following periods of rainfall	Contractor	Construction
15	Water quality	Emergency spill kits would be kept on site at all times and maintained throughout the construction work. The spill kit must be appropriately sized for the volume of substances at the work site. A spill kit would be kept on each barge and at the temporary compound site. All staff would be made aware of the location of spill kits and trained in their use. If a spill occurs, the Roads and Maritime contract manager would be notified as soon as practicable and the Roads and Maritime Incident Procedure would be followed	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
16	Water quality	Equipment barges carrying plant or machinery would be fitted with bunding around equipment which contain chemicals to prevent chemical spills or leakages from entering the water. All equipment, materials and wastes transported between an appropriately approved and licenced facility, and the construction work site would be secured to avoid spills during transportation	Contractor	Construction
17	Water quality	Any chemicals or fuels stored at the temporary compound would be within double bunded areas	Contractor	Construction
18	Water quality	Vehicles, vessels and plant would be properly maintained and regularly inspected for fluid leaks	Contractor	Construction
19	Water quality	No vehicle or vessel would be washed down or refuelled while on site	Contractor	Construction
20	Water quality	Emergency contacts would be kept in an easily accessible location on the construction work site and on all construction vessels. All construction workers would be advised of these contact details and procedures	Contractor	Construction
21	Water quality	Daily clean-up of site to be undertaken to ensure no materials could enter the water	Contractor	Construction
22	Water quality	Any debris that enters the water must be retrieved as soon as possible. Floating debris to be retrieved by scoop. Sinking debris to be removed by diver	Contractor	Construction
23	Water quality	In an event of a spill during operation, the incident emergency plan would be implemented in accordance with Sydney Ports Corporation's response to shipping incidents and emergencies outlined in the 'NSW State Waters Marine Oil and Chemical Spill Contingency Plan' (Maritime, 2008)	Operator	Operation

No	Impact	Environmental safeguards	Responsibility	Timing
24	Water quality	Waste disposed of off-site shall be classified in accordance with the Waste Classification Guidelines: Part 1 Classifying Waste (EPA 2014) prior to disposal and shall be disposed of at an appropriately licenced facility for that waste. Where necessary, this shall include sampling and analysis	Operator	Operation
25	Water quality	All equipment, materials and waste transported between an appropriately licenced facility and the construction site would be secured to avoid spills during transportation.	Contractor	Construction
26	Water quality	A silt curtain, extending from a minimum of 100 millimetres above the water line and extending to no less than 2.5m to below sea level would be installed around the entire redevelopment work area within the waterway prior to commencement of work that disturb the seafloor with regard to the inlet pipe from North Sydney Pool	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
27	Air quality	Measures to address air quality impacts would be incorporated into the CEMP and implemented throughout the construction period. As a minimum, the following measures would be included • Covering all loaded trucks and vessels • Machinery to be turned off rather than left to idle when not in use • Maintenance of all vehicles, including trucks and vessels entering and leaving the site in accordance with the manufacturers specifications to comply with all relevant legislation • Maintenance of all plant and equipment to ensure good operating conditions and exhaust emissions comply with the Protection of the Environment Operations Act 1997 • Maintaining the work site in a condition that minimises fugitive emissions such as minor dust • Dust for any excavation work Appropriate sediment and erosion controls for any exposed earth or stockpiled waste	Project Manager	Pre-construction and Construction
28	Noise and vibration	Notification of all potentially affected residents would be undertaken at least five days prior to the proposed night time work Properties where noise management levels may be exceeded would receive indirect notification through a letter drop and residences that may be highly noise affected would receive direct notification through a door knock These notifications would include the timing and nature of work as well as the expected noise levels, duration and impacts prior to the commencement of construction Contact details to lodge noise complaints or receive updates would also be provided at this time.	Roads and Maritime Project Manager	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
29	Noise and vibration	A Noise and Vibration Management Plan would be prepared and incorporated into the CEMP. The management plan would include, but not be limited to: • Reasonable and feasible noise control measures to reduce noise levels taking into account the control methods specified in the noise and vibration impact assessment for the proposal • Identification of nearby sensitive noise receivers • A construction noise assessment in accordance with EPA Interim Construction Noise Guidelines for qualitative noise assessment and Roads and Maritime Noise and Vibration Guidelines • Details of the assessed hours of work and work to be undertaken Behavioural practices or other management measures to be implemented to minimise noise"	Contractor	Pre-construction
30	Noise and vibration	Work would be carried out during the recommended standard construction hours identified in the Interim Construction Noise Guideline (DECC, 2009a) unless Roads and Maritime approval has been provided	Contractor	Construction
31	Noise and vibration	Preparation and movement of material would be maximised prior to work commencing so that it can be limited during the extended hours period	Contractor	Construction
32	Noise and vibration	Temporary hoarding would be erected around the compound site	Contractor	Construction
33	Noise and vibration	Construction personnel would be informed of the location of sensitive receivers, and the need to minimise noise and vibration from the work, through site induction and regular toolbox talks	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
34	Noise and vibration	The use of portable radios, public address systems or other methods of site communication that may impact on residents unnecessarily would be avoided	Contractor	Construction
35	Noise and vibration	Non-tonal alarms to be used	Contractor	Construction
36	Noise and vibration	Plant and equipment would be inspected fortnightly to ensure they are in good working order and not emitting excessive noise levels	Contractor	Construction
37	Noise and vibration	Quieter plant and equipment would be selected based on the optimal power and size to most efficiently perform the required task	Contractor	Construction
38	Noise and vibration	Continuous noise monitoring will be undertaken during high noise periods of construction work, including piling. The results of monitoring will be used to devise further control methods where required	Contractor	Construction
39	Noise and vibration	Roads and Maritime will consult with local restaurants at least two weeks prior to the commencement of construction to determine reasonable noise management measures during lunch service	Roads and Maritime Project Manager	Pre-Construction
40	Noise and vibration	A photographic record will be provided for the seawall and North Sydney Pool prior to construction to establish condition	Contractor	Pre-Construction
41	Landscape character and visual impact	Urban design principles will be integrated throughout the detailed design and construction of the proposal	Contractor	Pre-construction and Construction
42	Landscape character and visual impact	Selection of neutral and transparent materials will be integrated throughout the detailed design and construction of the proposal	Contractor	Pre-construction and Construction

No	Impact	Environmental safeguards	Responsibility	Timing
43	Landscape character and visual impact	The impact of the proposal on the existing foreshore will be minimised by maintaining the current ramp adjacent to Luna Park and coordinating the new ramp and steps to the wharf with the existing balustrade and sea wall during detailed design development	Contractor	Pre-Construction
44	Landscape character and visual impact	The impact of the proposal on the Luna Park lighting in the night time landscape will be minimised by designing lighting to maintain the primacy of Luna Park during detailed design development	Contractor	Pre-Construction
45	Landscape character and visual impact	The compound site and work area would be kept clean and clear of rubbish	Contractor	Construction
46	Biodiversity	A spill management plan will be developed and communicated to all staff working on site	Contractor	Pre-construction
47	Biodiversity	Consult with Department of Fisheries regarding offsets	Roads and Maritime Project Manager	Pre-construction
48	Biodiversity	The construction work site area used will be the minimum size necessary to safely undertake the proposal • Exclusion zones will be established to identify the work area and prevent damage to marine habitats outside the work area Should the construction work area identified be expanded further environmental assessment would be required	Contractor	Pre-Construction and Construction

No	Impact	Environmental safeguards	Responsibility	Timing
49	Biodiversity	In the event of a spill or paint contamination of the waterway, work would cease and a Roads and Maritime Environmental Officer would be contacted immediately. Fisheries NSW (ph. 1800 043 536) and the Office of Environment and Heritage (OEH) (ph. 131 555) are to be immediately notified of any fish kills in the vicinity of the work. In such cases, all work other than emergency response procedures are to cease until the issue is rectified and written approval to proceed is provided by Fisheries NSW or OEH	Contractor	Construction
50	Biodiversity	To minimise wash and prevent bottom scouring of the marine sediments, vessels will not use excessive power when manoeuvring barges into place over the course sand and rock rubble habitat Scouring damage will also be minimised by 'working the wind and tides', by only moving floating plant into place on high tides and under favourable or no-wind conditions, where practicable	Contractor	Construction
51	Biodiversity	In the case that any unexpected threatened species are observed in the construction area, work will cease and Roads and Maritime will be informed to guide further action	Contractor	Construction
52	Biodiversity	A s205 FM Act permit to Harm Marine Vegetation will be required. Further offset would be required to mitigate the impact of the loss of Key Fish Habitat.	Contractor	Pre-construction
53	Biodiversity	A Construction Environmental Management Plan (CEMP) to address pollution, contamination and unnecessary disturbance would be developed prior to construction	Roads and Maritime Project Manager	Pre-construction

No	Impact	Environmental safeguards	Responsibility	Timing
54	Biodiversity	Establish no-go zones to avoid damage to adjacent habitats. For most of the construction period, the no-go zone generally includes the base of the stone seawall in the intertidal zone and nearshore rocky macroalgae habitat, but may temporarily exclude those areas for one off drilling or piling.	Contractor	Construction
55	Biodiversity	Work involving placement of barges, drilling and pile driving should occur during calm conditions.	Contractor	Construction
56	Biodiversity	No anchors or mooring blocks/lines should be placed on the rocky macroalgae habitat. All lines should be suspended off the seafloor to minimise drag across benthic communities.	Contractor	Construction
57	Biodiversity	Use a floating boom with silt curtain to contain sediment plumes during drilling and pile hammering. Silt curtains should aim to protect the rocky macroalgae habitat from lateral sedimentation and rock debris during drilling. A curtain can be suspended parallel to shore between the postposed pile location and macroalgae habitat. If pilot holes are required to be drilled into the rocky macroalgae bed, then silt curtains may need reconfiguration for each individual dill location, aiming to reduce longitudinal displacement of sediment and rock debris. Other silt curtains may be required to delineate the outer work area, firstly to establish a construction site and secondly to minimise spread of sediment plumes onto bare sand habitat in deeper water.	Contractor	Construction
58	Biodiversity	Minor earthwork required at the top of the stone seawall should be constructed and stabilised without debris falling into the waterway.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
59	Biodiversity	All waste material should be disposed of on land and not reused in the construction.	Contractor	Construction
60	Biodiversity	If drilling into the rocky macroalgae bed, underwater inspection of each drill location should occur to relocate any sensitive flora and fauna, or small rocks with those species attached. Sensitive flora includes macroalgae attached to rubble (limited to <20 kg rocks) and Syngnathiformes (seahorses and their relatives) sheltering in or attached to marine vegetation. Rock rubble habitat, macroalgae and/or Syngnathids can be relocated by a licenced marine/aquatic ecologist to similar macroalgae habitat at least 50 m to the east towards the bridge.	Contractor	Construction
61	Biodiversity	A specialist marine/aquatic ecologist would undertake a pre-construction inspection of the piles for Syngnathids (seahorses and pipefish) • In the case that any syngnathids are observed on the piles, the specialist marine/aquatic ecologist would re-locate these to an adjacent suitable rocky reef habitat away from the construction work site • The marine ecologist must hold the appropriate permit under Section 37 of the FM Act to undertake the handling and relocation of the syngnathiformes. This would be obtained prior to the commencement of work. All personnel working within the waters of the construction site would be informed of the potential to encounter syngnathids.	Contractor	Pre-Construction

No	Impact	Environmental safeguards	Responsibility	Timing
62	Biodiversity	The noxious marine alga Caulerpa taxifolia was not overserved in the study area. Care should be taken not to introduce this species to the area by using contaminated vessels and machinery. Best hygiene practices outlined in the NSW Control Plan for the Noxious Marine Alga Caulerpa taxifolia (NSW I&I 2009) are to be followed	Contractor	Construction
63	Biodiversity	Construction crews should maintain contact with the Port Authority of NSW (Sydney Ports) for advance warning of large marine mammals moving west into the harbour. To avoid disturbing these animals, pile drilling and hammering work should cease until those animals have passed an exclusion zone monitored by staff, or are heading east (i.e. past Kirribilli Point). Gentle start-up hammering is recommended to allow undetected aquatic fauna to leave the area and avoid hearing damage.	Roads and Maritime Project Manager	Construction
64	Socio-economic	North Sydney Council and the local community to be kept informed about details of the work, construction progress, wharf closure, changes to public transport and other impacts throughout the construction period in accordance with the Milsons Point Wharf Interchange Communication Plan	Contractor	Pre-construction and Construction
65	Socio-economic	An internet site and free call phone number for proposal enquiries will be established for the duration of the work. Contact details will be clearly displayed at the site throughout the construction period. Directions will be provided on how to make an enquiry or register a complaint regarding the work	Roads and Maritime Project Manager	Pre-construction and Construction

No	Impact	Environmental safeguards	Responsibility	Timing
66	Socio-economic	An enquiry and complaint tracking system will be established. Any enquiries or complaints will be acknowledged within 24 hours of being received	Roads and Maritime Project Manager	Pre-construction and Construction
67	Socio-economic	All operational wharf lighting and signage is to comply with the DSAPT 2002	Contractor	Construction and Operation
68	Socio-economic	The construction site will be lit at night for safety. Lights will be positioned so that light is not directed towards nearby residences	Contractor	Construction
69	**Socio-economic**	**Consult with North Sydney Council to identify an appropriate location for the inlet pipe and undertake relocation of the pipe prior to the completion of construction, with date to be agreed with North Sydney Council.**	**Roads and Maritime Project Manager**	**Pre-Construction and Construction**
70	Land transport and parking	A traffic control plan will be prepared in accordance with the 'Traffic control at work sites manual' (RTA, 2010a) and Australian Standard 1742.3 (manual of uniform traffic controls devices) and will include such things as appropriate wayfinding signage to be installed advising of alternative transport options where necessary	Contractor	Pre-construction
71	Land transport and parking	Worker parking will be developed in consultation with Council prior to work commencing.	Contractor	Pre-construction
72	Water Transport	Commercial, recreational operators and private services that use the existing wharf will be advised of the wharf closure at least two weeks prior to closure.	Roads and Maritime Project Manager	Pre-construction
73	Water transport	The water-based construction zone will be clearly delineated and marked to prevent non-construction vessels from entering the construction site.	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
74	Water transport	• A Marine Traffic Management Plan will be prepared and implemented during water based construction work, in consultation with NSW Maritime and approved by the Harbourmaster • The proposed work will not interfere with the movement of seagoing ships unless agreed in advance with the Harbourmaster • Buoys will not be laid in or adjacent to shipping channels unless agreed in advance with Harbourmaster • All buoys will be fitted with lights • All vessels associated with the work are to have Response Plans for emergencies and spills • At least one vessel is to be fitted with an Automatic Identification System (AIS) • The applicant is to consult with NSW Maritime and Harbourmaster regarding any navigation lights placed on the structure • Any marine spill (whether spill occurs on water or land and subsequently enters the water) is to be immediately reported to Sydney Ports VTS and VHF Channel 13 • Any material associated with the construction of the development that enters the water is to be immediately retrieved. Should material not be retrieved, the Port Authority will organise for its removal and recover costs from the applicant The Applicant is to prepare a Communications Plan for implementation during the work which must include 24/7 contact details, protocols for enquiries, complaints and emergencies.	Contractor	Pre-Construction

No	Impact	Environmental safeguards	Responsibility	Timing
75	Aboriginal heritage	If Aboriginal heritage items are uncovered during the work, all work in the vicinity of the find must cease and the Roads and Maritime' Aboriginal cultural heritage advisor and the senior regional environmental officer contacted immediately. Steps in the Roads and Maritime Standard Management Procedure: Unexpected Archaeological Finds must be followed	Contractor	Construction
76	Non-Aboriginal heritage	All construction staff will be inducted in the Roads and Maritime Unexpected Archaeological Finds Procedure (2011) and will implement this procedure where necessary. The item will be identified to personnel during induction to ensure care is taken in the vicinity of the item	Contractor	Construction
77	Non-Aboriginal heritage	Section 57(2) exemption will be submitted and approved prior to construction commencing within the Sydney Harbour Bridge curtilage area	Roads and Maritime Project Manager	Pre-Construction
78	Non-Aboriginal heritage	If approval for the Section 57(2) exemption is granted, any impacts temporary or permanent, to the character of Bradfield Park that are outside the descriptions provided in the civil drawings, must be avoided. It is recommended that machinery be restricted to the road side of the work and ground surface disturbance must be limited to the spaces indicated in the descriptions of proposed work	Contractor	Construction
79	Non-Aboriginal heritage	In the unlikely event that suspected human skeletal remains are identified, the Roads and Maritime procedure for uncovering bones must be followed	Contractor	Construction

No	Impact	Environmental safeguards	Responsibility	Timing
80	Hazards	A life preserving ring and appropriate first aid provisions will be located within the compound and on all barges during the construction period Spill kits will be available as outlined in Chapter 6.3.3 of the REF Waste management procedures and incident protocols will be adopted as outlined in Chapter 6.3.3 of the REF	Roads and Maritime Project Manager	Construction
81	Climate change	It is considered the potential for adverse impacts to and by climate change are effectively addressed by the design of the proposal	Roads and Maritime Project Manager	Pre-construction
82	Climate change	The design of the wharf should allow for a sea level rise of 500mm over 50 years	Roads and Maritime Project Manager	Detailed design
83	Utilities	Design for the proposal to include all utilities within and outside of the construction area	Contractor	Pre-construction
84	Utilities	Dial Before You Dig (DBYD) investigations would be carried out prior to undertaking any excavation or piling work to identify any additional cables not identified during design.	Contractor	Pre-Construction

4.3 Licensing and approvals

Table 4.3: Summary of licensing and approval required

Instrument	Requirement	Timing
Fisheries Management Act 1994 (s205)	Permit to harm marine vegetation from the Minister for Primary Industries	Prior to the start of the activity
Heritage Act 1977 (s57)	Exemption notification for minor excavation to an item on the State Heritage Register from the Director OEH.	Prior to the start of the activity
Licence/ short term lease	Licence/short term lease would be required from North Sydney Council for the location of the temporary compound	Prior to the start of construction work
Approval from Harbourmaster	Approval from Harbourmaster for any work that disturb the seafloor (Form Z)	Prior to the commencement of any work that disturb the seafloor

5 References

Jane Irwin Landscape Architecture 2016, *Milsons Point Wharf Interchange Expansion Landscape Character and Visual Impact Assessment*, Sydney.

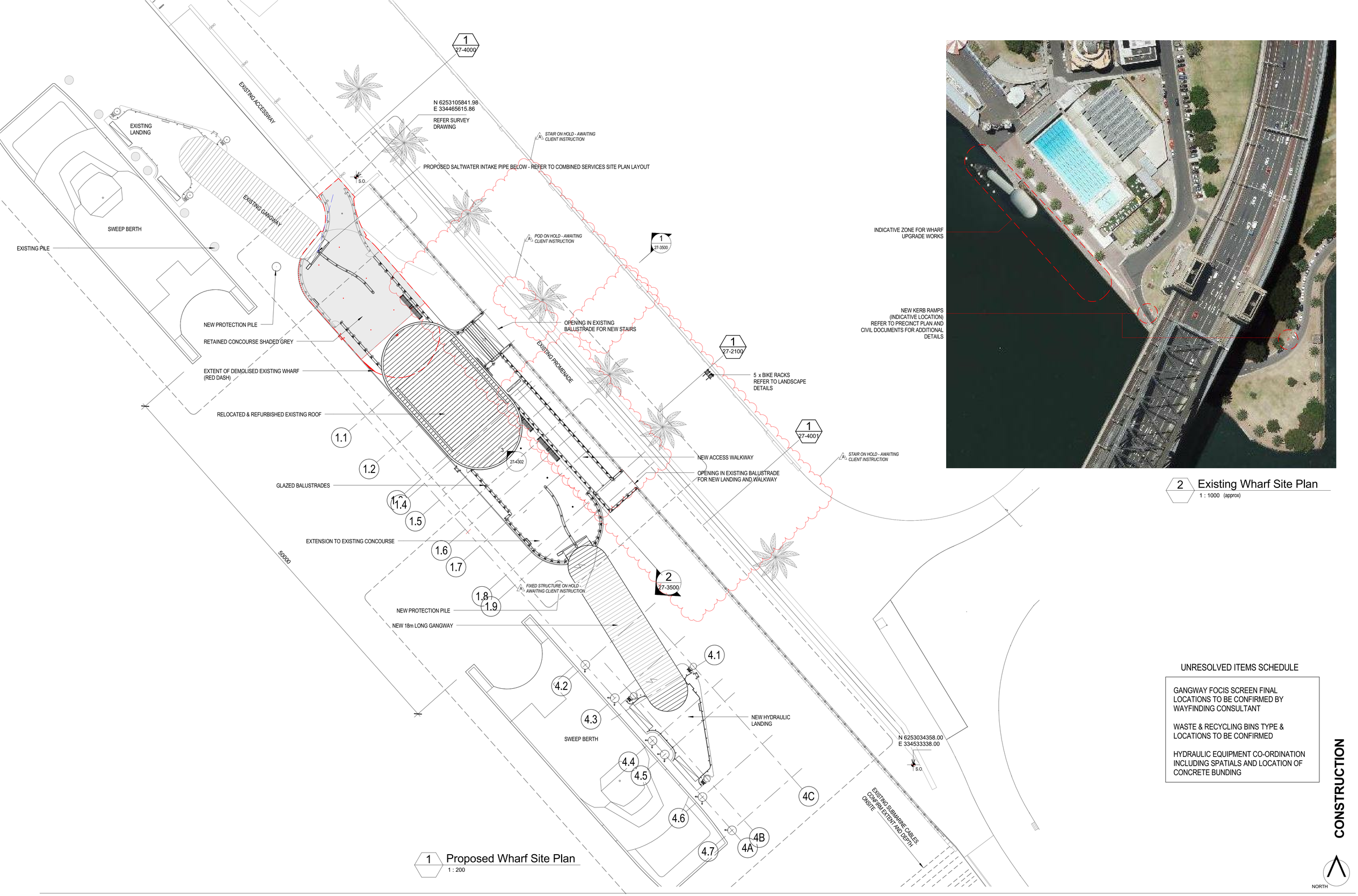
NSW Government 2013, *Sydney's Ferry Future Modernising Sydney's Ferries.*

RPS Australia East Pty Ltd 2016, *Ferry Wharves Upgrade Program – Milsons Point Wharf Interchange Expansion Review of Environmental Factors*, Sydney.

RPS Australia East Pty Ltd 2016, *Ferry Wharves Upgrade Program – Statement of Heritage Impact Milsons Point Wharf Interchange Expansion*, Sydney.

Appendix A

Proposal Drawings, Revision 1



1 Proposed Wharf Site Plan
1 : 200

2 Existing Wharf Site Plan
1 : 1000 (approx)

UNRESOLVED ITEMS SCHEDULE

GANGWAY FOCIS SCREEN FINAL LOCATIONS TO BE CONFIRMED BY WAYFINDING CONSULTANT

WASTE & RECYCLING BINS TYPE & LOCATIONS TO BE CONFIRMED

HYDRAULIC EQUIPMENT CO-ORDINATION INCLUDING SPATIALS AND LOCATION OF CONCRETE BUNDING

CONSTRUCTION

NORTH

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

10 0 10 20 30 40 50
SCALE 1:1 @ A1 mm

© CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350
DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

ISSUE	REVISION DESCRIPTION	DATE	APD
A	ISSUE FOR CONSTRUCTION	23.02.17	

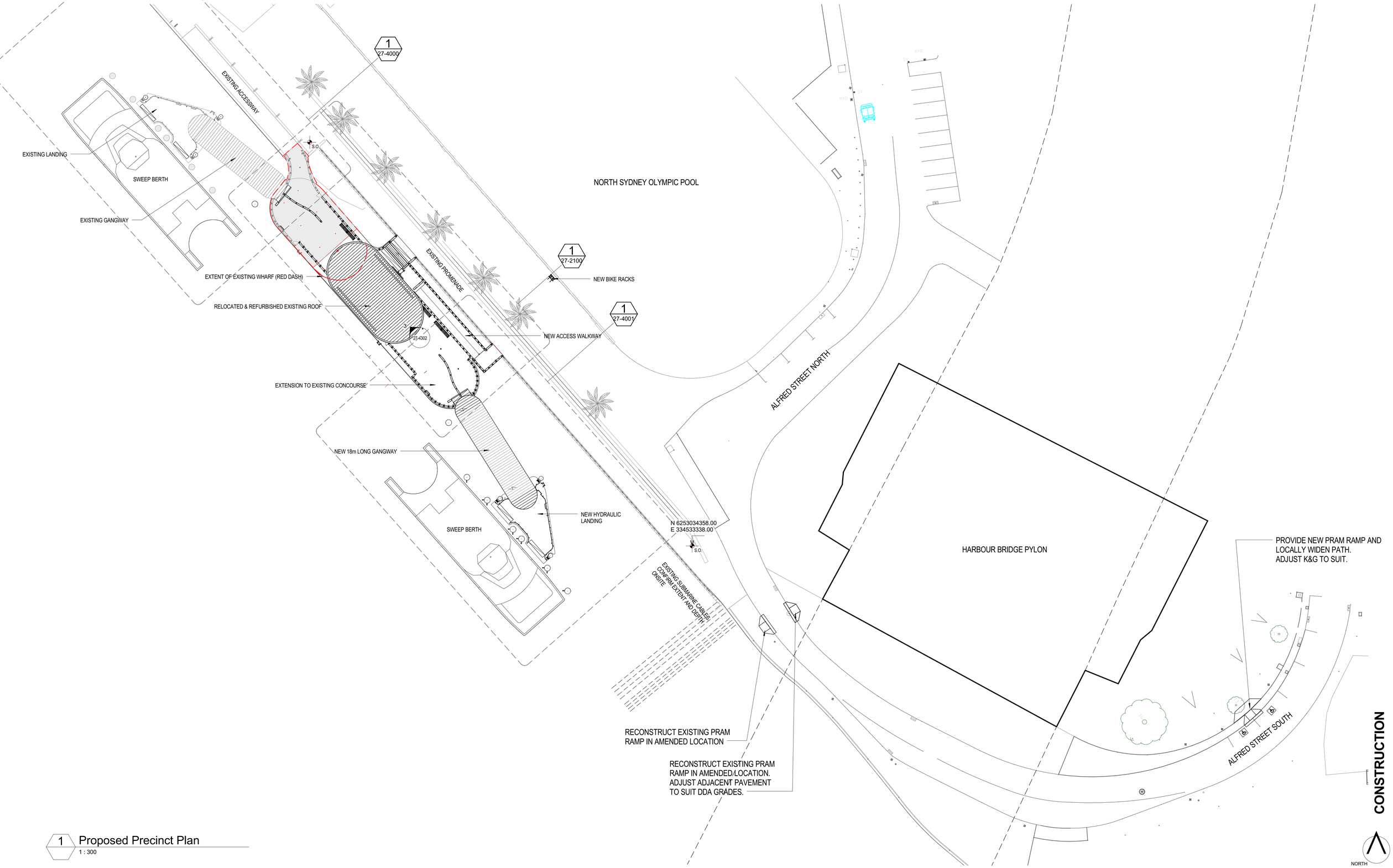
TRANSPORT AUTHORITY
NSW GOVERNMENT Transport Roads & Maritime Services

CLIENT
hansen yuncken

DRAWING
Proposed Wharf Site Plan

PROJECT
Ferry Wharves Upgrade Program 2 - Milsons Point

PROJECT No:	STATUS	DRAWING No:	REV:	A1 SCALE
14214	DD	AR-27-1000	A	As indicated



1 Proposed Precinct Plan
1 : 300

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

10 0 10 20 30 40 50
SCALE 1:1 @ A1 mm

© CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350
DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

ISSUE	REVISION DESCRIPTION	DATE	APD
A	ISSUE FOR CONSTRUCTION	23.02.17	

TRANSPORT AUTHORITY: NSW GOVERNMENT Transport Roads & Maritime Services

CLIENT: hansen yuncken

DRAWING: Proposed Precinct Plan

PROJECT: Ferry Wharves Upgrade Program 2 - Milsons Point

PROJECT No:	STATUS	DRAWING No:	REV:	A1 SCALE
14214	DD	AR-27-1005	A	1 : 300

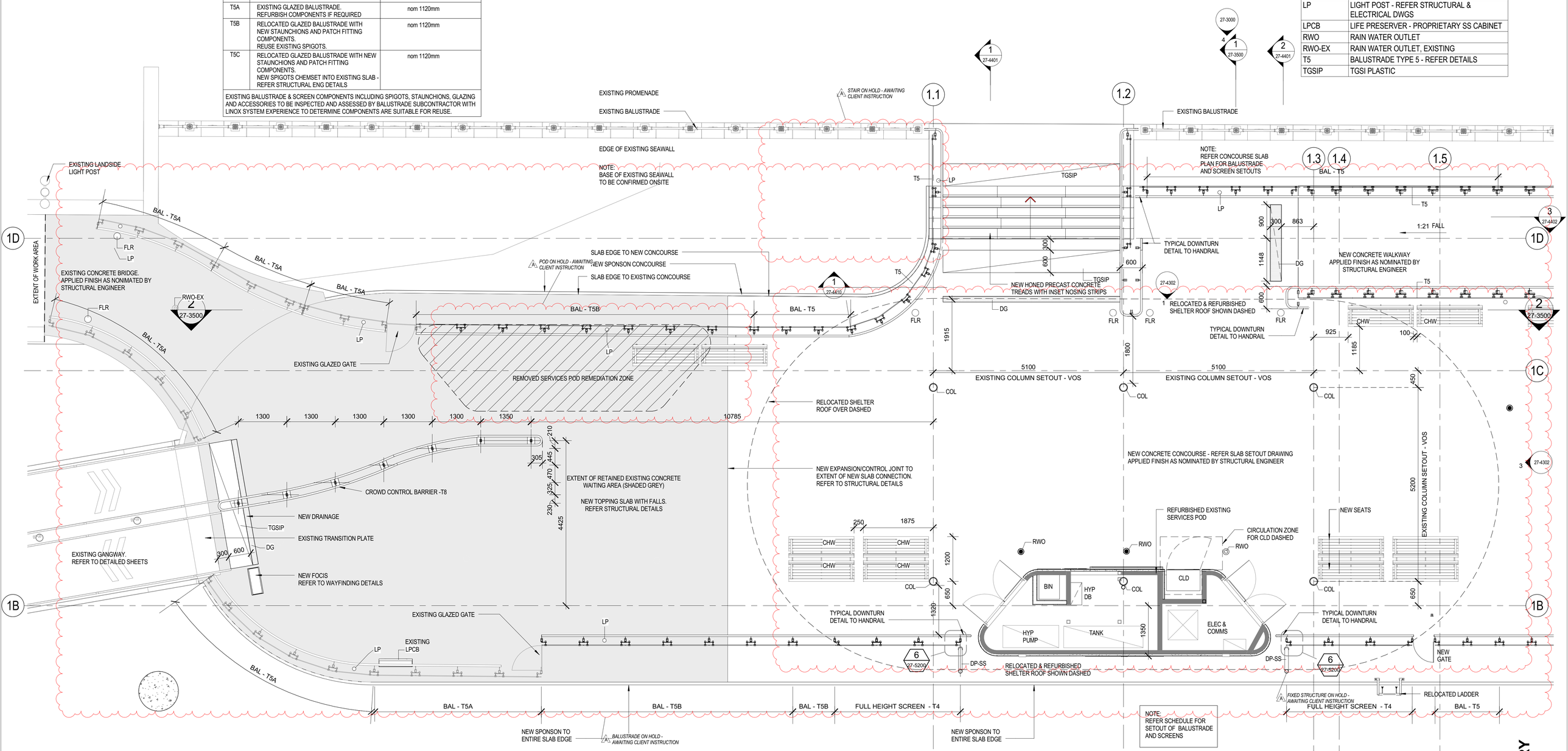
GLAZED BALUSTRADE & SCREENS SCHEDULE

TYPE	SCOPE DESCRIPTION	TYPICAL PANEL WIDTH
T5	NEW GLAZED BALUSTRADE WITH NEW COMPONENTS. TYPICAL GLAZED PANEL TO MATCH FWUP WIDE PANEL	nom 850mm
T5G	NEW GLAZED GATE WITH LATCH TO SUIT BALUSTRADE TYPE T5	REFER SETOUT
T4	RELOCATED FULL HEIGHT SCREEN USING EXISTING COMPONENTS. PROVIDE NEW BASEPLATE AND SPIGOT IN NOMINATED LOCATION	nom 1120mm
T5A	EXISTING GLAZED BALUSTRADE. REFURBISH COMPONENTS IF REQUIRED	nom 1120mm
T5B	RELOCATED GLAZED BALUSTRADE WITH NEW STAUNCHIONS AND PATCH FITTING COMPONENTS. REUSE EXISTING SPIGOTS.	nom 1120mm
T5C	RELOCATED GLAZED BALUSTRADE WITH NEW STAUNCHIONS AND PATCH FITTING COMPONENTS. NEW SPIGOTS CHEMSET INTO EXISTING SLAB - REFER STRUCTURAL ENG DETAILS	nom 1120mm
EXISTING BALUSTRADE & SCREEN COMPONENTS INCLUDING SPIGOTS, STAUNCHIONS, GLAZING AND ACCESSORIES TO BE INSPECTED AND ASSESSED BY BALUSTRADE SUBCONTRACTOR WITH LINOX SYSTEM EXPERIENCE TO DETERMINE COMPONENTS ARE SUITABLE FOR REUSE.		

SETOUT NOTES

IT IS THE CONTRACTOR RESPONSIBILITY TO CROSS REFERENCE ALL NORTHING AND EASTING COORDINATE POINTS WITH NOTED DIMENSIONS TO CONFIRM DESIGN INTENT IS ACHIEVED.
ADVISE ARCHITECT OR SUPERINDENDENT OF ANY DISCREPANCIES PRIOR TO ACTUAL WORK PROCEEDING

Legend - Keynote	
CHW	CHAIR, WAITING - REFER SCHEDULE
CLD	CASH LOADING DEVICE
COL	COLUMN
DATA	
DG	DRAIN, GRATED - HEEL SAFE
DP-SS	DOWN PIPE, HEAVY GAUGE SS 316 GRADE
FLR	FIXED LOCATION READER (OPAL)
LP	LIGHT POST - REFER STRUCTURAL & ELECTRICAL DWGS
LPCB	LIFE PRESERVER - PROPRIETARY SS CABINET
RWO	RAIN WATER OUTLET
RWO-EX	RAIN WATER OUTLET, EXISTING
T5	BALUSTRADE TYPE 5 - REFER DETAILS
TGSIP	TGSI PLASTIC



PRELIMINARY

1 27-1000 Ground Floor - GA Plan, Concourse - West
1 : 50

NORTH

10 0 10 20 30 40 50
SCALE 1:1 @ A1 mm

© CONRAD GARGETT
mail@conradgargett.com.au ABN 49 325 121 350
DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

ISSUE	REVISION DESCRIPTION	DATE	APD
A	ISSUE FOR CONSTRUCTION	23.02.17	

TRANSPORT AUTHORITY: NSW GOVERNMENT Transport Roads & Maritime Services
CLIENT: hansen yuncken
DRAWING: Concourse - Plan

PROJECT: Ferry Wharves Upgrade Program 2 - Milsons Point

PROJECT No:	STATUS	DRAWING No:	REV:	A1 SCALE
14214	DD	AR-27-4000	A	As indicated

Legend - Keynote	
CHW	CHAIR, WAITING - REFER SCHEDULE
COL	COLUMN
DG	DRAIN, GRATED - HEEL SAFE
DP-SS	DOWN PIPE, HEAVY GAUGE SS 316 GRADE
FLR	FIXED LOCATION READER (OPAL)
LP	LIGHT POST - REFER STRUCTURAL & ELECTRICAL DWGS
LPCB	LIFE PRESERVER - PROPRIETARY SS CABINET
RWO	RAIN WATER OUTLET
T5	BALUSTRADE TYPE 5 - REFER DETAILS
TGSIP	TGSI PLASTIC

GLAZED BALUSTRADE & SCREENS SCHEDULE

TYPE	SCOPE DESCRIPTION	TYPICAL PANEL WIDTH
T5	NEW GLAZED BALUSTRADE WITH NEW COMPONENTS. TYPICAL GLAZED PANEL TO MATCH FWUP WIDE PANEL	nom 850mm
T5G	NEW GLAZED GATE WITH LATCH TO SUIT BALUSTRADE TYPE T5	REFER SETOUT
T4	RELOCATED FULL HEIGHT SCREEN USING EXISTING COMPONENTS. PROVIDE NEW BASEPLATE AND SPIGOT IN NOMINATED LOCATION	nom 1120mm
T5A	EXISTING GLAZED BALUSTRADE. REFURBISH COMPONENTS IF REQUIRED	nom 1120mm
T5B	RELOCATED GLAZED BALUSTRADE WITH NEW STAUNCHIONS AND PATCH FITTING COMPONENTS. REUSE EXISTING SPIGOTS.	nom 1120mm
T5C	RELOCATED GLAZED BALUSTRADE WITH NEW STAUNCHIONS AND PATCH FITTING COMPONENTS. NEW SPIGOTS CHEMSET INTO EXISTING SLAB - REFER STRUCTURAL ENG DETAILS	nom 1120mm
EXISTING BALUSTRADE & SCREEN COMPONENTS INCLUDING SPIGOTS, STAUNCHIONS, GLAZING AND ACCESSORIES TO BE INSPECTED AND ASSESSED BY BALUSTRADE SUBCONTRACTOR WITH LINOX SYSTEM EXPERIENCE TO DETERMINE COMPONENTS ARE SUITABLE FOR REUSE.		

1 27-1000 Ground Floor - GA Plan, Concourse - East
1 : 50

CONSTRUCTION

NORTH

CONRAD GARGETT | ANCHER MORTLOCK WOOLLEY

SCALE 1:1 @ A1 (10 0 10 20 30 40 50 mm)

© CONRAD GARGETT ANCHER MORTLOCK WOOLLEY
mail@conradgargett.com.au ABN 49 325 121 350
DO NOT SCALE DRAWING & VERIFY ALL DIMENSIONS AND LEVELS ON SITE

ISSUE	REVISION DESCRIPTION	DATE	APD
A	ISSUE FOR CONSTRUCTION	23.02.17	

TRANSPORT AUTHORITY: NSW GOVERNMENT Transport Roads & Maritime Services

CLIENT: hansen yuncken

DRAWING: Concourse - Plan

PROJECT: Ferry Wharves Upgrade Program 2 - Milsons Point

PROJECT No:	STATUS	DRAWING No:	REV:	A1 SCALE
14214	DD	AR-27-4001	A	1 : 50

rms.nsw.gov.au

contactus@rms.nsw.gov.au

Customer feedback
Roads and Maritime
Locked Bag 928,
North Sydney NSW 2059

Transport Roads & Maritime Services