

matters, the applicant has advised in its Response to Submissions that the reduced width is an acceptable design solution for the following reasons (as summarised):

- the initial design for the Barangaroo Central Promenade did not contemplate a lower boardwalk and following a design review, the lower boardwalk was introduced to provide a secondary pedestrian pathway for users to be closer to the harbour;
- the interface between Barangaroo Central and Barangaroo Point (the Headland Park) has been designed to direct the main pedestrian traffic flows to the upper level of the Barangaroo Central Promenade (refer to **Figure 8** below);
- the integration of Barangaroo Central and Barangaroo South promenades meet the established design principles and overall concept of the Barangaroo waterfront promenade;
- the 2.4m effective width of the timber boardwalk is adequate as a secondary route and is comparable in width to other well-used pathways within the Sydney Region which accommodate significant pedestrian volumes; and
- the modified width of the boardwalk is compliant with AS1428.1 (2009).

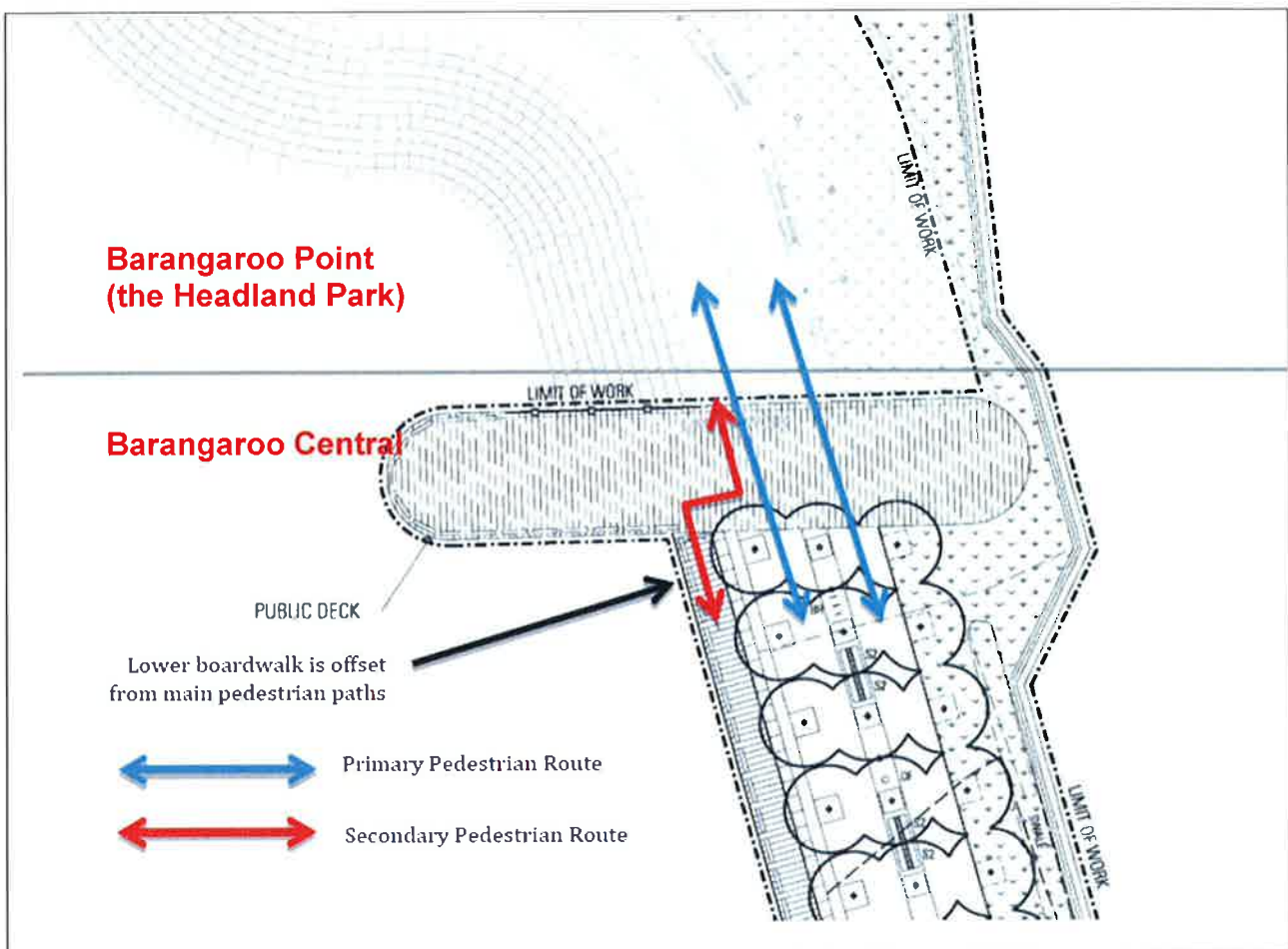


Figure 8: Integration of foreshore works between Barangaroo Point and Barangaroo Central (source: BDA)

Having considered the applicant's Response to Submissions, the Department is satisfied that the amended design, despite the reduction in the useable width of the boardwalk, will continue to facilitate public access to the foreshore consistent with the design principles in the Barangaroo Concept Plan, and will coherently integrate and provide a sufficient level of connectivity to the Headland Park and the surrounding public domain. Furthermore, whilst the final design for foreshore promenade for Stage 1B of Barangaroo South is unknown, the Department is satisfied that the constructed detail for Barangaroo Central can be accommodated in the future design and therefore, is capable of seamlessly integrating with the neighbouring land to the south.

The Department also notes that the amended finished levels for the public deck and the section of the boardwalk relative to the public deck remains compliant with finished level of RL 2.335 nominated in Condition C9 of the consent and that the design suitably integrates with the finished levels for the remainder of the boardwalk.

Based on the above, the Department supports the amended design for the foreshore promenade and is satisfied that the applicant has provided sufficient justification for the modifications proposed.

Seawall Design

The approved design for a portion of the seawall adjacent to the public pier incorporates feature sandstone cladding, as illustrated in **Figure 9** below. In this location, this section of the seawall extends to form the outer wall of the promenade ramp, which provides direct access to the public deck (RL 3.65).

MOD 1 proposes a reduction in the finished height of the public deck from RL 3.65 to RL 2.70 and subsequently, changes to the design of the seawall. Consequently, the seawall no longer extends to form the outer edge of the promenade ramp and instead the timber boardwalk gently ramps up to align with the proposed reduced height the public deck (RL 2.70). The western edge of the timber boardwalk is now proposed to be edged in hardware blocks and would be consistent with the remainder of the boardwalk, thereby eliminating the requirement for the sandstone-clad section of the seawall. The Department also notes that sections of the boardwalk relative to the public deck are also proposed to be reduced in height by some 0.395 metres to levels at or above RL 2.335 in order to integrate with the public deck.

The approved and proposed designs for the foreshore promenade are illustrated in **Figures 9 and 10** below.

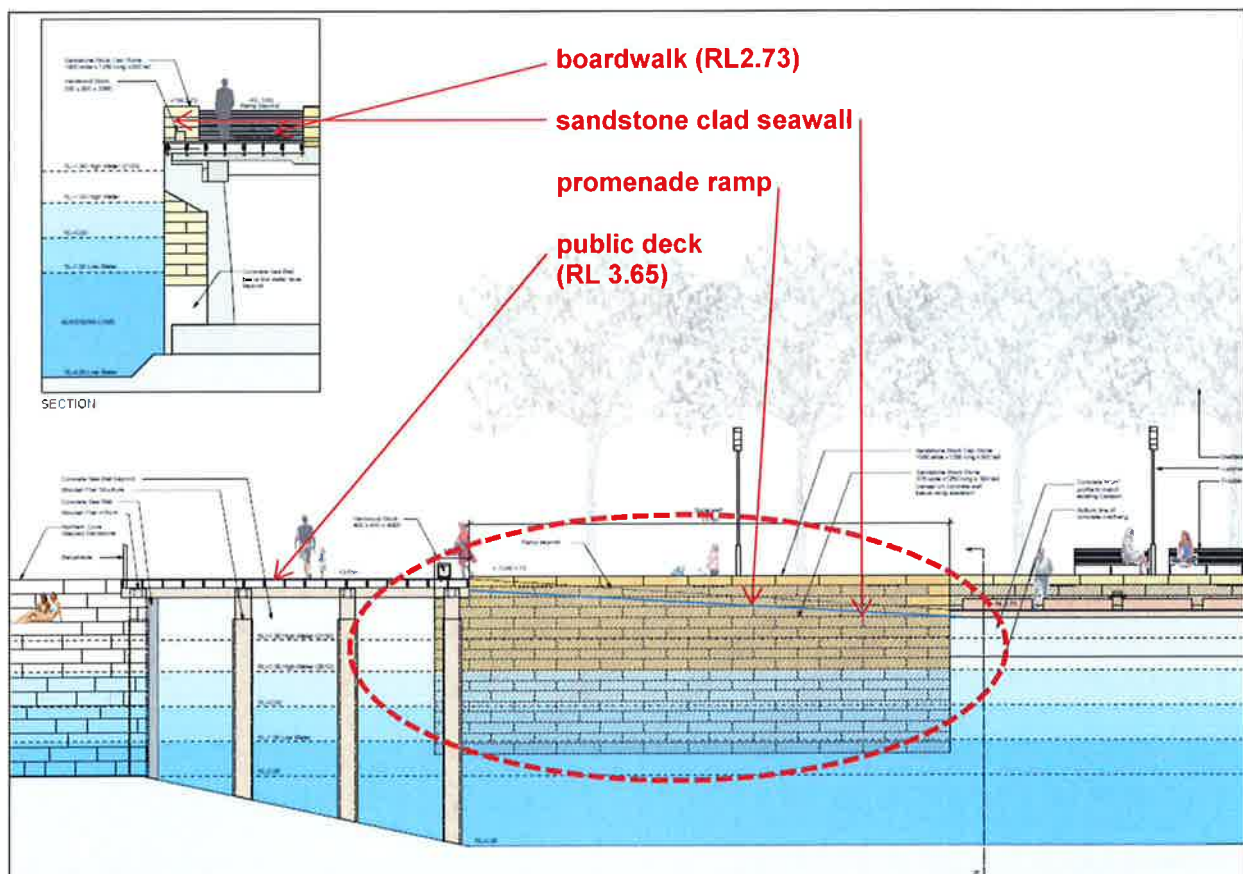


Figure 9: Approved promenade ramp, seawall and public deck (SSD 5374).

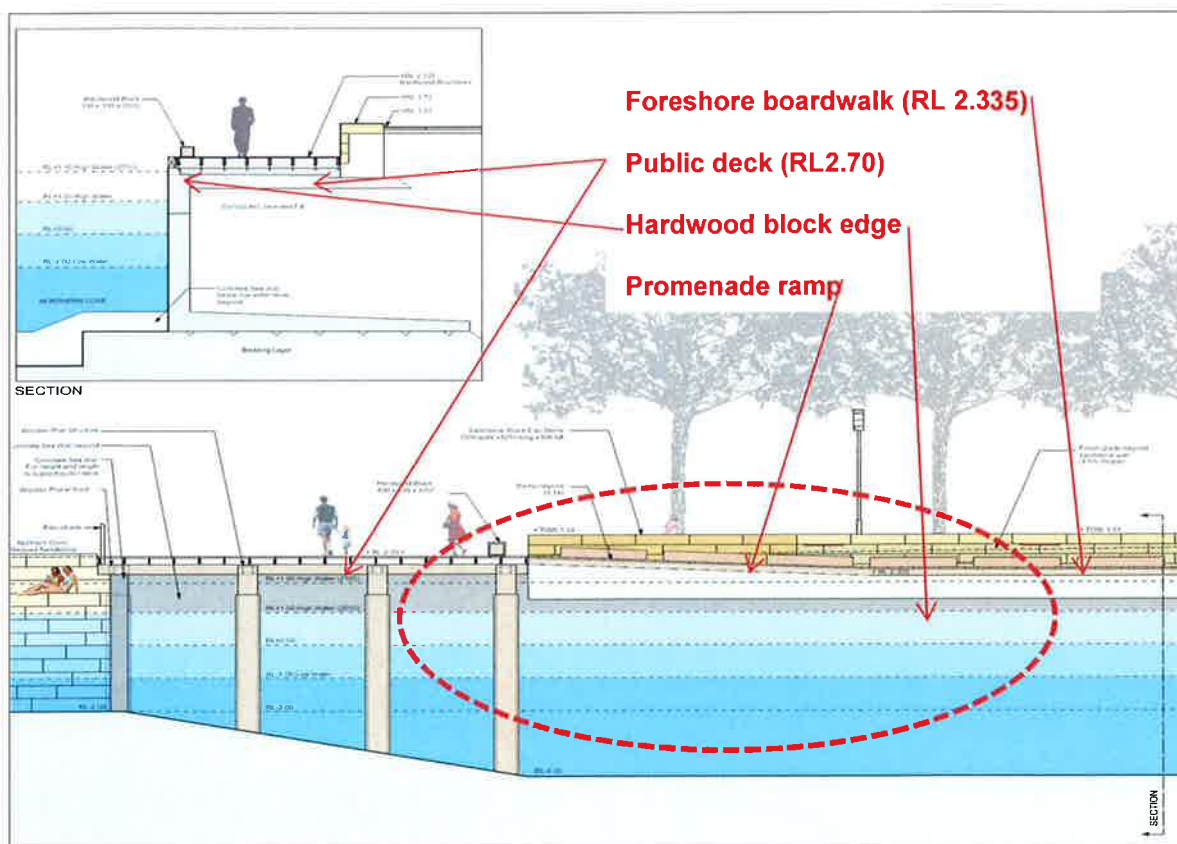


Figure 10: Proposed promenade ramp, seawall and public deck

In its original assessment of SSD 5347, the Department established that RL 2.335 was an appropriate lower level limit for the timber boardwalk, as it is not a primary access route. On this basis, the Department also considered it reasonable to apply the lower range of levels predicted to accommodate climate change within the Barangaroo site (RL 2.335m) to this component of the application. Subsequently, Condition C9 (final finished levels) was included as a condition of consent and required that all structures achieve a minimum finished level of RL 2.335.

The proponent has submitted additional information, including civil works drawings, to demonstrate that the construction of the timber boardwalk and the public deck has complied with Condition C9. As illustrated in **Figure 10**, the new levels for the public deck and the boardwalk appropriately integrates with the new finished levels for the promenade and negates the need for the extended seawall. On this basis, no objection is raised to the modified design.

Paving selection

The application seeks to modify Condition B5 (paving materials) of the consent in order to permit the use of stabilised decomposed granite material. Condition B5 of the consent currently requires that the paving material for footways, thoroughfares, plazas and the like must comply with AS/NZS 4586:2004 "Slip resistance classification of new pedestrian surface materials".

The approved surface materials for the foreshore promenade are unmodified by this modification application and the use of stabilised decomposed granite has been approved as a surface material, as illustrated in **Figure 11** below. Notwithstanding this, the applicant has advised that despite decomposed granite being approved as a paving material, it does not comply slip resistance requirements of AS/NZS 4586:2004 and therefore, is unable to comply with Condition B5.

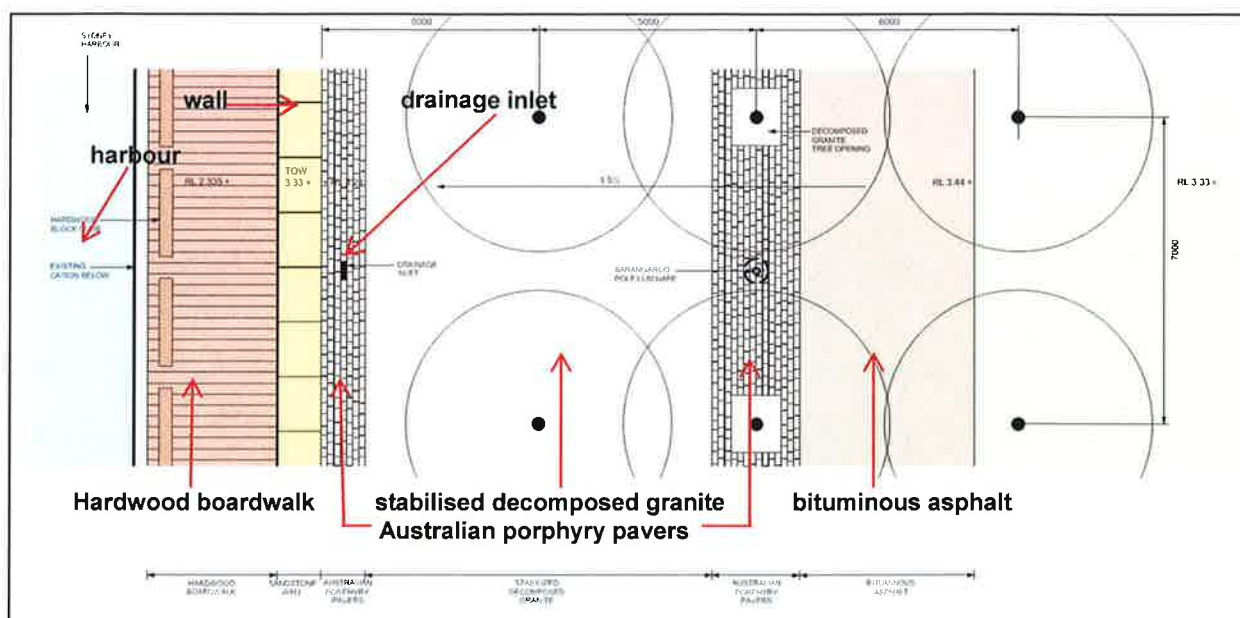


Figure 11: Typical paving detail (Source PWP Landscape Architecture)

The applicant has advised that decomposed granite is commonly used as a surface material throughout the City of Sydney LGA. The Department also notes that it has been approved as a surface material in the Headland Park and Northern Cove at Barangaroo (MP10_0048). Furthermore, a recent modification to the project approval for the Headland Park and Northern Cove (MP10_0048 MOD 5) amended the same condition (Condition B37 of MP10_0048 MOD 5) to permit the use of decomposite granite and to acknowledge that the Condition does not clearly differentiate between paving materials and 'other' surfacing materials which may be used to finish footways, thoroughfares, plazas and the like at Barangaroo.

In order to ensure administrative consistency across all development approvals issued for Barangaroo and furthermore, to ensure a consistent and integrated surface treatment for all footways, the Department recommends that Condition B5 be amended in line with recent amendments made to Condition B37 of MP10_0048 MOD 5. In doing so, the Department acknowledges that the decomposed granite surface is set behind a sandstone wall and therefore, the risk of the paving becoming destabilised as a result of sea level rise, storm surge and wave action will be minimised. Furthermore, it is noted that drainage inlets are proposed to be constructed at regular intervals in adjoining porphyry paving to enable the combined surface area to suitably drain in a storm event (refer **Figure 11**, above).

5.2 Tree Selection

The trees currently approved for the Barangaroo Central Waterfront Promenade (SSD 5374) are the *Gleditsia tricanthos* var. *inermis* 'shademaster' (Honey Locust). MOD 1 seeks approval to change approved foreshore promenade trees to *Celtis Australis* (Southern Hackberry). In addition, it is proposed to increase the spacing between the trees from 6 metres to 7 metres.

The Department of Primary Industries has previously advised the Department that the Honey Locust is identified as a noxious weed on the Noxious Weeds Register. In this regard, the *Noxious Weeds (Weed Control) Order 2014* (the Order), gazetted on 28 February 2014 (and which post-dates the approval of SSD 5374), classifies the Honey Locust as a Class 3 Weed (Part 1 of Schedule 3) in the LGA administered by the City of Sydney and neighbouring LGAs.

For this reason, this Department did not approve the use of the Honey Locust for the Stage 1A public domain works in Barangaroo South (SSD 6303), and instead approved the use of the Southern Hackberry. Given the landscape concept for Barangaroo seeks to provide a consistent and unifying treatment to the foreshore promenade, the Department supports the continued use of

the Southern Hackberry in Barangaroo Central. A new condition (Condition B9) has been recommended to acknowledge the change in the tree species.

The Department also considers the changes proposed to the spacing (layout) of the foreshore planting to be inconsequential. In this regard, the three rows of trees would be maintained along the foreshore promenade, as illustrated in **Figure 12** below. This would continue to suitably embellish the landscape quality of the foreshore and will reflect the established design principles and overall concept of the Barangaroo waterfront promenade.

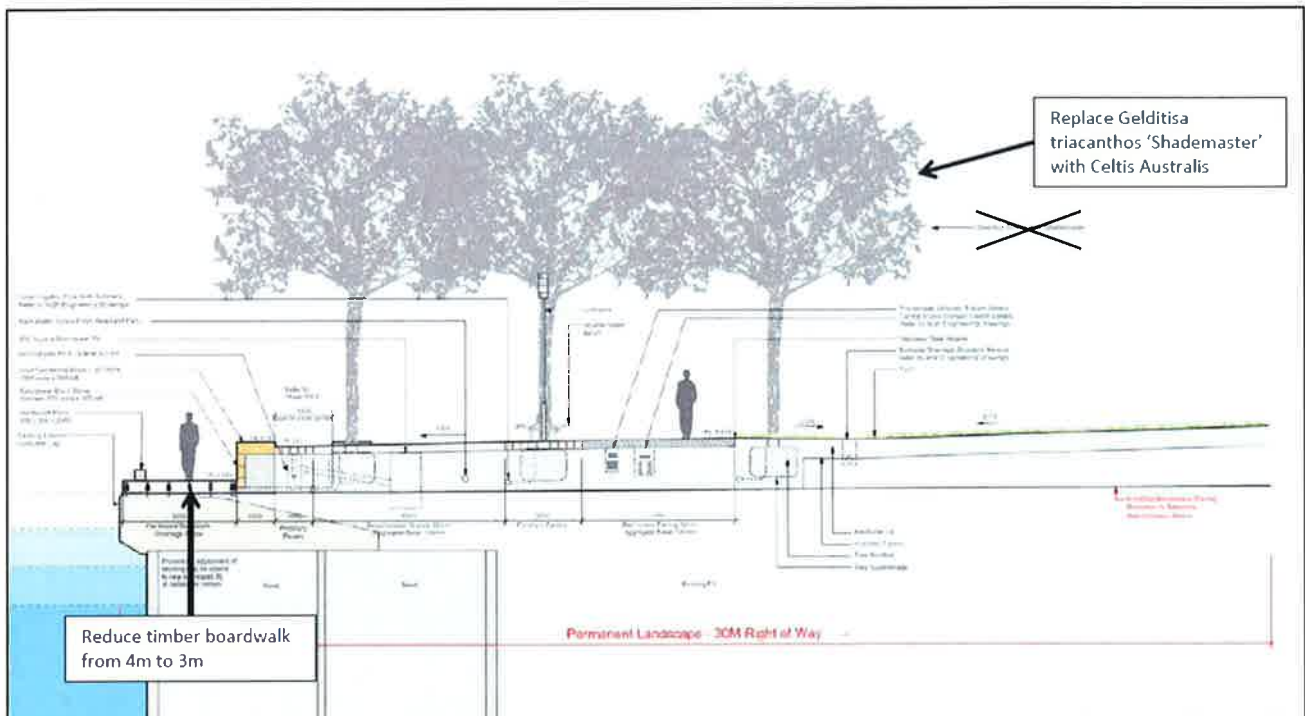


Figure 12: Promenade section showing tree planting (Source: PWP Landscape Architecture)

5.3 Other matters

Post Approval Requirements

As detailed in **section 3.1**, the works to the foreshore promenade have been constructed. The applicant has advised the Department that the constructed works have been completed in accordance with the section 96(1A) application. The civil works design package for the construction of the public domain works has been provided to the Department for information purposes. The Department's review of these plans has established that the construction details are generally consistent with the MOD 1 application and in particular, the finished levels, layout and finishes.

On this basis, the Department does not consider that any further changes to the Notice of Determination are required in respect to post-approval requirements.

6. CONCLUSION

The modification application has been assessed in accordance with the matters for consideration under section 96(1A) and 79C of the EP&A Act, and all relevant environmental planning instruments, and is considered to comply with all relevant items, subject to conditions.

The Department supports the proposed modifications because it would not result in any new environmental or amenity impacts and is generally consistent with the overall concept for the

Barangaroo waterfront. Whilst the Department acknowledges that the reduction in the width of the timber boardwalk is not ideal, it is submitted that the effective width of the boardwalk, as a secondary pathway, is acceptable from a functional perspective and furthermore, that the overall foreshore promenade suitably integrates with the approved design for the Headland Park and is not inconsistent with the design intent of the Barangaroo Concept Plan.

In addition, the Department notes that legal precedent has been established to permit the use of section 96 of the Act to regularise the completed works.

It is therefore recommended that the modification application be approved to regularise the constructed foreshore promenade, subject to the modifications to the Notice of Determination detailed in this report.

7. RECOMMENDATION

It is recommended that the Acting Director, Key Site Assessments:

- (a) **consider** the findings and recommendations of this report;
- (b) **approve** the modification under delegated authority, subject to condition; and
- (c) **sign** the attached Instrument of Modification for SSD 5374.

Prepared by: Sara Roach
Contract Planner

Endorsed by:



Cameron Sargent
A/Director
Key Site Assessments

APPENDIX A MODIFICATION REQUEST

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6892

APPENDIX B SUBMISSIONS

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6892

APPENDIX C RESPONSE TO SUBMISSIONS REPORT

See the Department's website at:

http://majorprojects.planning.nsw.gov.au/index.pl?action=view_job&job_id=6892

APPENDIX D PLANING HISTORY- BARANGAROO CONCEPT PLAN

Barangaroo Concept Plan MP 06_0162

The then Minister for Planning approved the Barangaroo Concept Plan (MP 06_0162) on 9 February 2007.

The Concept Plan approval allowed for:

- mixed use development involving a maximum of 388,300 sqm of gross floor area (GFA) contained within eight blocks on a total site area of 22 hectares (ha);
- approximately 11 ha of new public open space/public domain, including a 1.4 kilometre (km) public foreshore promenade;
- a maximum of 8,500 sqm GFA for a passenger terminal and a maximum of 3,000 sqm GFA for active uses that support the public domain within the public recreation zone;
- built form design principles, maximum building heights and maximum GFA for each development block within the mixed use zone;
- alteration of the existing seawalls and creation of a partial new shoreline to the Harbour;
- retention of the existing Sydney Ports Corporation Port Safety Operations and Harbour Tower Control Operations including employee parking; and
- an underground car park beneath the northern headland park, containing approximately 300 car parking spaces.

The capital investment value (CIV) of the approved Concept Plan was \$1.5 billion with up to 16,000 operational jobs

The following outlines the subsequent 7 modification approvals to the Concept Plan:

MP 06_0162 MOD 1

On 25 September 2007, the Executive Director, Strategic Sites and Urban Renewal, as delegate of the Minister for Planning, approved a minor modification to the approved Concept Plan to correct minor typographical errors and re-wording of the design excellence terms. This modification did not alter the maximum GFA or mix of uses.

MP 06_0162 MOD 2

On 16 February 2009, the then Minister for Planning approved a second modification to the Concept Plan to increase the GFA of commercial uses by 120,000 sqm in Blocks 2, 3, 4 and 5, to a total overall GFA of 438,000 sqm. The modification increased the total maximum GFA for Barangaroo to 508,300 m² (an increase of 120,000 sqm or 31 per cent over the whole site).

MP 06_0162 MOD 3

On 11 November 2009, the then Minister for Planning approved a third modification to the Concept Plan, generally meeting the requirements of the Concept Plan approval relating to the northern headland and northern cove, with other changes as follows:

- the reinstatement of a headland at the northern end of the site with a naturalised shape and form including a build up of height and a landscaped connection to physically link Clyne Reserve to allow direct pedestrian access from Argyle Place;
- an enlargement of the northern cove to achieve a greater naturalised shape, form and edges (note this modification and the one above were required modifications in the terms of the original Concept Plan, contained in Modification B1 and B2, and following recommendations made in the jury report regarding the original winning competition scheme);
- the consequential re-alignment of Globe Street to turn right towards Hickson Road immediately south of the enlarged cove, rather than continuing north around the headland;
- the consequential removal of development Block 8 and part of Block 7 and redistribution of the associated land use mix;
- the demolition of three heritage items being the Sandstone Seawall; the Sydney Ports Harbour Control Tower; and the MWS & DB Sewage Pumping Station; and

- amendments to the Statement of Commitments relating to the preparation of relevant plans and strategies so that work can commence in stages.

This modification slightly reduced the approved GFA and mix of uses, with a resulting total GFA of 501,000 m² (comprising 489,500 m² of mixed uses and 11,500 m² for the passenger terminal and active uses in the open space zone).

MP 06_0162 MOD 4

On 16 December 2010, the then Minister for Planning approved a fourth modification to the Concept Plan. The modified Concept Plan provides for the following:

- a maximum of 563,965 sqm mixed uses GFA, including residential, commercial and retail uses which includes:
 - a maximum of 128,763 sqm of residential uses
 - a maximum of 50,000 sqm of tourist uses GFA; and
 - a maximum of 39,000 sqm of retail GFA.
- a maximum of 4,500 sqm of active uses GFA (3,000 sqm of which will be in Barangaroo South);
- a minimum of 12,000 sqm of community uses GFA (10,000 sqm of which will be in Barangaroo South);
- approximately 11 hectares of new public open space/public domain, with a range of formal and informal open space serving separate recreational functions and includes a 2.2 km public foreshore promenade;
- built form principles, maximum building heights and GFA for each development block within the mixed use zone;
- public domain landscape concept including parks, streets and pedestrian connections; and
- alteration of the existing seawalls and creation of a portion of the new shoreline to the Harbour.

In order to accommodate the changes made to the Concept Plan, Schedule 3 of Part 12 of the MD SEPP was concurrently amended. The amendment rezoned parts of the Barangaroo site and the adjoining areas from 'RE1 Public Recreation' and 'W1 Maritime Waters and Transport' to 'B4 Mixed Use' and 'RE1 Public Recreation'. Modifications to the distribution of GFA and building heights were also included in the amendment.

MP 06_0162 MOD 5

This modification was lodged in February 2011, and proposed modifications to clarify the outcomes with respect to the distribution of community uses GFA across the Barangaroo site, and to correct a number of minor typographical errors. This application was subsequently withdrawn on 22 March 2011.

MP 06_0162 MOD 6

This modification application proposed to modify the Barangaroo Concept Plan for Barangaroo South. The proposed modifications, as publicly exhibited, sought approval for the following:

- the realignment of the development block boundaries for Blocks 3, 4A and 4B;
- revisions to the Urban Design Controls to reflect the changes to the Block boundaries for Blocks 3, 4A and 4B;
- change the requirement for a 'minimum' of 12,000 sqm of community uses gross floor area (GFA) to be delivered to a 'maximum';
- allow architectural roof elements and building management units to be excluded from the maximum height limit definition; and
- specify the car parking rates for 'other' uses thus removing the requirement to comply with City of Sydney Council's current car parking rates.

On 25 March 2014, the Planning Assessment Commission approved the application.

MP 06_0162 MOD 7

On 11 April 2014, the then Minister for Planning and Infrastructure approved a seventh modification to the Concept Plan to allow the construction, operation and maintenance of a concrete batching plant to supply concrete for the construction of future development under this Concept Plan at Barangaroo South.

MP 06_0162 MOD 8

On 20 March 2015, the Applicant lodged MOD 8 to the Barangaroo Concept Plan which generally seeks to:

- increase the total maximum GFA and height limits of development blocks at Barangaroo South;
- amend the development block configurations of Block Y and Block 4;
- amend the GFA allocated to various land uses within Barangaroo;
- amend the Barangaroo site boundary due to the north-eastern relocation of the hotel and relocate the Pier;
- amend public domain areas and reduce the size of the Southern Cove; and
- introduce a new set of Design Guidelines to guide the future development within Barangaroo South.

This modification application is currently being considered by the Department.

APPENDIX E MODIFYING INSTRUMENT
