APPENDIX 1

Summary of Submissions

Barangaroo – Headland Park & Northern Cove Main Works Summary of Public Submissions

Respondent	Main Issues Raised	Response
1. B Bowden	1.1 Use of local streets by trucks and heavy vehicles accessing Towns Place during construction	1.1 Addressed in Section 2.4 of Response to Submissions Report (Report). Most trucks will access site via Hickson Rd or from Barangaroo South across the site. Towns Place would only be a secondary access.
	1.2 Inclusion of car park (considers inadequate justification for carpark)	1.2 Addressed in Section 2.4 of Report. Car park approved in original Concept Plan. It is an integral part of the Barangaroo Precinct and is needed to provide traffic access to northern part of the site.
	1.3 Impact of access to carpark at Towns Place (should comply with RTA environmental limit of 330vph)	1.3 Analysis indicates that while there would be more traffic on Towns Place and Dalgety Road, the future levels would be within normal environmental limits even for a suburban location let alone a CBD location. Refer Section 2.4 of Report for further discussion.
	1.4 Inclusion of cultural facility (amendment to Concept Plan) with inadequate information	1.4 Detail of cultural facility will be provided in separate Project Application. Refer Section 2.10 of Report for discussion.
	1.5 Impacts on surrounding area in terms of vibration, noise and air pollution	1.5 Addressed in Sections 2.1 and 2.2 of Report.
2. Dynamic Property Services	2.1Support concept of Headland Park	2.1Noted
(OBO Owners Corp. SP76902 Towns Place – mixed use building)	2.20bject to transportation, storage and use of contaminated fill in headland	2.2 Noted. Contamination being dealt with in accordance with comprehensive legislative requirements. Draft RAP and draft HHERA included at Appendices 4 and 6 and have been submitted to Independent Site Auditor for approval prior to implementation. Refer discussion in Section 2.3 of Report
	2.3 Object to use of Gate 3 by heavy vehicles – noise and vibration impacts on residents – request limit to Gates 4 and 5	2.3 Addressed in Section 2.4 of Report. Most trucks will access site via Hickson Rd or from Barangaroo South across the site. Towns Place would only be a secondary access.
	2.4 Potential for structural damage as a result in sandstone excavation and fill truck movements – request "Towns Place" be included in buildings subject to condition report	2.4 Pre-dilapidation reports to be prepared for all existing and adjoining buildings, infrastructure, roads and public domain in accordance with Minister's Terms of Approval for Early Works Project Application dated 8 November 2010.
	2.5 Potential for works to result in airborne contamination which may impact on properties to the east	2.5 Impacts relating to air pollution created by contaminated material during remedial works will be managed in accordance with the 'Air Quality Management Plan', which will include application of water sprays to disturbed areas; reduced material handling during poor meteorological conditions; minimisation of the quantities of impacted

Respondent	Main Issues Raised	Response
2. Dynamic Property Services cont'd		materials and stockpiles; the installation of an odour suppression system; and ongoing air monitoring works. Provided these measures are successfully carried out, it is considered that the works will not pose an unacceptable level of air quality. Refer also discussion in Section 2.2.
	2.6 Support complaints register and request representation on proposed Community Liaison Forum.	2.6 Noted
3. G Logan	3.1 Concerned about traffic impact to surrounding streets of car park entry off Dalgety Road/Towns Place. Suggest would be better off Hickson Road.	3.1 Addressed in Section 2.4 of Report and in Halcrow Report at Appendix 8. Most trucks will access site via Hickson Rd or from Barangaroo South across the site.
4. G Washington	4.1Concerned that new car park will encourage people to drive to City. Considers car parking should not be allowed except for persons with a disability	4.1 The amount of parking proposed is very modest even in the Sydney CBD context. Not all persons are able to travel by public transport or non motorised modes and a minimum amount of essential parking is needed.
5. I Webster	5.1 Concerned about traffic impact to surrounding streets of car park entry off Dalgety Road/Towns Place – previously Globe Street	5.1 See response to B Bowden
	5.2 Pollution and noise impacts from car park to Towns Place apartments	5.2 Analysis indicates that while there would be more traffic on Towns Place and Dalgety Road, the future levels would be within normal environmental limits for a suburban location let alone a CBD location. Refer discussion in Section 2.4 and Halcrow Report at Appendix 8.
	5.3 Notes Dalgety Road dangerous with accidents having occurred in the past	5.3 Dalgety Rd will be made safer due to provision of roundabout at the car park entrance and realignment of Dalgety Rd and Towns Place on the approaches thereto.
	5.4 Queries potential to reopen Pottinger Street	5.4 Re-opening of Pottinger St may or may not have merit in its own right. However the matter is not related to the Headland Park proposal.
	5.5 Considers 300 space car park will end up being 800 spaces	5.5 The number of car spaces of 300 is limited by original Concept Plan approval. This application confirms the original number. Any increase would need to be the subject of a separate application and there is no intention of doing so.
	5.6 Considers Hickson Road entry would be preferable given major road	5.6 See response to B Bowden
	5.7 Concerned about levels of contamination	5.7 Noted. Contamination being dealt with in accordance with comprehensive legislative requirements. In summary JBS has advised (refer Appendix 7) the use of contaminated fill is considered not to pose a health risk to humans based on extensive modelling of contaminants during the completion of the draft HHERA, using industry accepted modelling practices, on the Headland Park site. HHERA and RAP attached at Appendices 4 and 6 and submitted to Site Auditor for approval. Further detailed provided in Section 2.3 of PPR.

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6. Clr I Doutney (City of Sydney)	6.1 Support parkland but considers landscaping particularly creation of the coves excessive	6.1 Noted but the Authority does not agree with this view.	
6. Clr Doutney cont'd	6.2 Objects to 300 space car park and considers it inconsistent with sustainable, low car ideals espoused by BDA and City of Sydney	6.2 Proposed car park is consistent with sustainable, low car ideals given its small scale in the context of the overall Barangaroo development.	
	6.3 Impact of open heat exchange on marine environment. University of Sydney currently undertaking study on open v closed systems	6.3 The Worley Parsons report, Marine Ecology, Water Quality and Contaminated Sediment Impact Assessment (28 July 2010), shows the paucity of ecological features on the harbour floor adjacent to the existing wharf. The proposed heat exchange concept (pre-design) extracts and discharges water from the north of the park into the main harbour channel ensuring a hydrographical environment conducive to rapid dispersion. The design parameters noted in the WSP report are based on proven (and authority approved) systems that are already in use in the Sydney Harbour environment (including the biocide specifications). An analysis of alternative systems, including that suggested by Clr Doutney, can form part of the design process.	
	6.4 Queries use of solar energy generating infrastructure on site – suggest trigeneration plant in car park	6.4 A variety of renewable technologies opportunities applicable to the site have been explored. From this the photovoltaic system was the most favourable option given the site. Provision for future installation of harbour heat rejection has been included in the design for heat rejection requirements of the internal space.	
	6.5 Suggests promotion of wildlife habitat through creation of artificial wetlands, habitat for grey headed flying fox etc.	6.5 The project will promote wildlife habitat.	
	6.6 Suggest inclusion of skate park	6.6 Active recreational facilities are to be provided in Barangaroo Central. Refer discussion in Section 2.8 of Report.	
7. Jane Irwin Landscape Architecture	Shaping of the shoreline 7.1 Northern Cove – query potential for vessels to enter given depth of - 1.2m	7.1 Addressed in Section 2.9 of Report and Hyder Report at Appendix 14.	
	7.2 Northern Cove disconnects headland from Barangaroo south	7.2 The design of the Headland Park and Northern Cove is in direct response to the Minister's Terms of Approval for the original Barangaroo Concept Plan which required more detailed design work to achieve, amongst other matters, enlargement of Northern Cove. Refer discussion in Section 2.6 of Report.	
	7.3 Believes beach could be a safety concern given use of park for special events	7.3 A beach is not part of the application.	
	7.4 Questions ability of Northern Cove to effectively flush water	7.4 Addressed in Section 2.9 of Report and Hyder Report at Appendix 14.	
	7.5 Believes creation of rocky shoreline waste of energy, will cause sediment impacts and disingenuous to actual heritage of the site	7.5 Noted but view not supported by the Authority.	

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	7.6 Questions why heritage sandstone sea wall being dismantled – impact on heritage value	7.6 Removal and reuse of seawall addressed in Concept Plan S75W Modification for Headland Park and Northern Cove and demolition approved by Minister. Agreed that an archival record of the sea wall will be undertaken (as required by Statement of Commitment No 62) and that consideration will be given to retaining at least a small section of the sea wall in situ. Refer also Section 7.1.2 of updated Heritage Impact Statement.	
7. Jane Irwin Landscape Architecture cont'd	<u>Demolition / modification of Harbour Control Tower</u> 7.7 Asks why not included in application	7.7 This issue was addressed in the Barangaroo Concept Plan Section 75W Modification for the Headland Park and Northern Cove and approval was granted for demolition of the HCT. However, at this stage the future of the Tower has not yet been finalised and it has therefore been incorporated into the design. Appropriate adaptive reuse of the tower will be considered provided that the tower is to be retained and becomes redundant.	
	7.8 Queries why visual / view impact assessment does not address HCT when one of the most prominent features of the site	7.8 See above	
	7.9 Considers discussion on HCT amounts to reasons for demolition – queries why not heritage value not addressed and queries whether secret plan for it	7.9 No – demolition proposed and already approved in principal – refer Concept Plan Modification for Headland Park and Northern Cove.	
	Detailed design 7.10 Queries why 1836 shoreline represented by low sandstone wall and not actual shoreline if intention is to create a naturalistic headland	7.10 Intention is to develop a more naturalistic shape inspired by the original shoreline but not replicate it. Refer discussion in Section 2.5.	
	7.11 Considers large shade trees in irrigated grassland not representative of naturalistic headland	7.11 The aim is to create a park that is usable with grass and shade, similar to the around Mrs Macquarie's Chair	
	7.12 Queries how use of palm trees throughout park will create a "naturalistic headland"	7.12 Palms are proposed to be <i>Livistona australis</i> , a native species which was common around the harbour on sites like this before they were largely removed.	
	7.13 Questions treatment of light wells in the middle of the parkland – more information required	7.13 Light wells not yet designed as they are connected with the proposed cultural facility which is still under design development.	
	7.14 Queries what the spray fountain is? Concerned function of the landscape is an object in space rather than a well considered landscape proposition	7.14 No spray fountain proposed in Headland Park. There may be water features in Barangaroo Central	
	7.15 Queries role of the amphitheatre – not connected to other spaces and divides the parkland space	7.15 The amphitheatre (if it proceeds) will be in Barangaroo Central.	
	7.16 What is circular element in the cultural facility forecourt plaza?	7.16 Notional design element. Design of forecourt will be developed with the design of the cultural facility.	
	7.17 Raises inconsistency between landscape design in Appendix 1 pages 3 and 4 – queries which is being assessed.	7.17 The plan on Page 3 more closely reflects the design development. However, it should be noted that design development has been and is ongoing so that there are	

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		several relatively minor design differences.	
	Stormwater Strategy	7.18 Stormwater system described in the Infrastructure and Services Report (Appendix	
	7.18 Stormwater strategy not included on landscape plans	14 to Main Works EA).	
	7.19 Queries location of proposed 1250kL tank	7.19 Location of storage tank for stormwater re-use is subject to detailed design but in general terms will be located underground along the line of the foreshore promenade.	
7. Jane Irwin	7.20 Queries how stormwater infrastructure identified (dish drains, swales,	7.20 Stormwater system will be closely integrated with the landscape which needs	
Landscape	bio retention swales) integrated into rest of parklands	extensive detailed design work outside the scope of this application.	
Architecture cont'd	Accessibility	7.21 Landscape architects working with traffic engineers to finalise design for entry.	
	7.21 Towns Place entry undeveloped	Final design for the roundabout will be worked up with council engineers to promote	
		both pedestrian safety/amenity and traffic safety/efficiency.	
	7.22 Entry to top of parkland poor for people with disability (only by lift or	7.22 Access Review undertaken (refer Appendix 25 of Main Works EA). It states that the	
	long distance)	proposed development demonstrates a reasonable degree of accessibility subject to its	
		recommendations and that compliance with statutory requirements, pertaining to site	
		access, common area access, accessible parking and accessible sanitary facilities, can be	
		readily achieved.	
	7.23 Southern entry "grand stairways" inconsistent documentation and	7.23 Inconsistencies in documentation noted and are being resolved as design	
	potential to be unfriendly	progresses. Authority is keen to ensure that southern entrance to cultural facility is	
		welcoming and attractive. Design Excellence Review Panel and appointment of	
		experienced and high profile architects will ensure this is achieved.	
	7.24 Light rail stop 150m from entrance and no commitment to light rail	7.24 Considered appropriate location – 150m within accepted standard. The need for	
	given	substantial public transport links to Barangaroo is accepted government policy.	
	7.25 Movement from main entrance points of Towns Place and Hickson	7.25 Refer discussion in Access Review at Appendix 25 of Main Works EA	
	Road convoluted and lengthy		
	7.26 Distinction between upper bluff and promenade – design could	7.26 Design good balance between formal and informal paths	
	include more informal walking paths through bush walking area		
	7.27 Main entry point for tourist and other parties (including weddings)	7.27 Merriman St will need to be managed to protect resident priority to kerbside	
	likely to be Merriman street which could be in conflict with residents	parking the same as any other street in Sydney CBD.	
	7.28 Towns Place could be dangerous as main car park entry and main	7.28 Proposed reconfiguration of Towns Place at the car park entry will make this a safe	
	tourist entry	entry point.	
	7.29 Concern raised during special events given large number of people	7.29 The public lifts are not intended nor required for moving large crowds during	
	wanting to use the lifts and the steep slope at the southern end	special events. They are intended only for vertical access to and from the car park, the	
		cultural space and the top level of the park, particularly for mobility impaired during	
		normal use of the park. The main entrances of the park are connected by 5m wide	

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Respondent	Main Issues Raised	Response	
		foreshore path which is connected to the upper levels of the park by a 4m wide	
		accessible (<1:20 gradient) path as well as by bridges from Clyne Reserve, Merriman St	
		and Munn St Reserve.	
	Car Park within the headland	7.30 The 'slot' is intended to expose the sandstone cliff along its length and to allow	
	7.30 Car park as entry to parkland problematic and slot entry ungenerous	light and ventilation. It is wide enough only to allow trucks and cars to access the car	
		park and the future 'back of house' for the cultural space. It is considered more	
		important to maximise the park area than to widen the slot.	
7. Jane Irwin	7.31 Single lift to service 300 car spaces	7.31 The provision of two lifts (in one shaft) will be sufficient for public access from the	
Landscape		car park to all levels of the park, including the foreshore walk, the upper bluffs and the	
Architecture cont'd		cultural space. However the majority of park users will arrive by other means.	
	7.32 Western air plenum – how does air get out – vented to park. Not	7.32 The car park will exhaust at a low level to the north via the car park driveway	
	addressed in air quality report	ventilation slot away from publicly accessible areas and the adjacent residential areas.	
		There will be no car park exhaust stacks within the park.	
	7.33 South and north entry almost meet – why not put original street	7.33 There is no advantage in connecting and mixing pedestrian with vehicular traffic	
	through	and there is no intention of driving through the ground floor of the future cultural	
		space.	
	7.34 Queries traffic impact assessment given example of Royal Botanic	7.34 In contrast to the situation at Mrs Macquarie's Chair, traffic generated by the	
	Gardens and Mrs Macquarie's Chair?	Headland Park will not pass through it but beside it. Parking will take place beneath the	
		park rather than within the park. The effects of the generated traffic and parking will	
		therefore be noticeably better at the Headland Park as compared to Mrs Macquarie's	
		Chair.	
	7.35 Queries logic of high charging rates for car park	7.35 The car park is not proposed to serve long stay commuter parking and, in keeping	
		with CoS policies, the charging rate will discourage such parking. There is potential to	
		charge lower rates at weekends but these would still seek to discourage all day parking	
		so that short and medium stay parkers would not be discouraged.	
	7.36 Raises concern that Merriman Street will be preferred parking	7.36 Merriman St will need to be managed to protect resident priority to kerbside	
	location given ease of access – impact on residential area	parking the same as any other street in Sydney CBD.	
	7.37 Lack of information on cultural space – query visual access to outside?	7.37 As noted elsewhere, detail of future cultural facility use and design will be subject	
		of future application	
	<u>Cultural Space</u>	7.38 Noted however no decision has as yet been made regarding the future use of the	
	7.38 Considers it disrespectful that Aboriginal cultural space to be located	cultural space and any decision will be made in consultation with stakeholders,	
	in a fabricated landscape	including the Indigenous community. Refer discussion in Section 2.10	
	7.39 Should have a physical presence	7.39 Agreed that cultural facility should have an appropriate physical presence.	

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Respondent	Main Issues Raised	Response
	7.40 Lacks a generous public address and entry	7.40 Design of future cultural facility will allow for its entry to be expressed with appropriate significance - the immediate entry 'forecourt' is approximately 35m x 35m.
	7.41 Will rely on artificial light with exception of unresolved light wells – raises ESD issues	7.41 ESD is an important element in the design. Light will not only be brought into the facility through light wells but also via the 'slot' along Merriman St.
	7.42 Should be located above ground where it can develop a strong, generous, expressive and accessible public identity.	7.42 The comment that the facility should be located above ground is noted but the Authority believes that it can have an equally 'strong, generous, expressive and accessible public identity' in its proposed location.
7. Jane Irwin Landscape	7.43 Should be located close to public transport "not marooned under fake headland"	7.43 Will be within 150m of light rail stop and along major public thoroughfares.
Architecture cont'd	Park Amenities 7.44 Notes only 1 public amenities block for whole parkland – could require users to walk 300-400m and down 14m	7.44 Cultural facility subject to future application will contain additional public amenities, as will Barangaroo Central
	Heritage Interpretation 7.45 Queries how sandstone seawall being interpreted	7.45 Removal and reuse of seawall addressed in Concept Plan S75W Modification for Headland Park and Northern Cove and demolition approved by Minister. Agreed that an archival record of the sea wall will be undertaken (as required by Statement of Commitment No 62) and that consideration will be given to retaining at least a small section of the sea wall in situ. Refer also Section 7.1.2 of updated Heritage Impact Statement at Appendix 9.
	7.46 Disputes the approach to sandstone cliff – considers should be left exposed to public domain as at Pirrama Park. Considers this approach more evocative of sandstone headland.	7.46 Different approach proposed which continues to allow interpretation of cliff
8. Kent Street Residents Group	8.1 Considers proposal expensive construct with no real relevance to site or its history	8.1 Disagree. Refer discussion in Section 2.5 of Report and Public Domain Plan (Appendix 10 to Main Works EA)
	8.2 Considers shortage of open space in area but that open space should be developed based on existing site levels	8.2 Addressed in Section 2.5 of Report. Building up of headland a specific requirement of Minister's Terms of Approval for Barangaroo Concept Plan.
	8.3 Considers proposal should respect site's history and not be developed in manner which has no regard to it or relevant to the local area	8.3 Refer discussion in Section 2.5.
	8.4 Query why Royal Botanic Gardens and City of Sydney have not been consulted in relation to ongoing management of parkland – their expertise would be valuable in addressing issues	8.4 The Authority has consulted with both Royal Botanic Gardens and CoS.
	8.5 Raise safety concerns resulting from unsupervised parkland particular outside of daylight hours (note RBG and Centennial Park access restricted	8.5 Passive surveillance, lighting, management and planting measures will assist in safety and security

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	to daylight hours).	
	8.6 Also note potential safety concerns to surrounding residential areas	8.6 Note concern
	8.7 Raise concern of use of contaminated fill within headland – note residents have been exposed to lead from Harbour Bridge in past	8.7 Noted. Contamination being dealt with in accordance with comprehensive legislative requirements. Draft RAP and draft HHERA included at Appendices 4 and 6 and have been submitted to Independent Site Auditor for approval prior to implementation. Refer discussion in Section 2.3 of Report
8. Kent Street Residents Group cont'd	8.8 Noise impacts of park use and use of cultural / entertainment facility	8.8 Noise impacts associated with the use of the parkland for passive open space purposes are not anticipated to be significant. The exact nature of other future uses, such as the proposed cultural facility, is not known at this stage therefore it is not possible to undertake an assessment of any associated noise impacts. Such uses would be subject to separate applications as required.
	8.9 Concerned that cost of facility (which is not wanted by locals) and resulted in excessive development being required at southern end of Barangaroo site. Other local facilities have no funding.	8.9 Noted but park is intended to be a major State significant attraction for visitors from elsewhere in Sydney and Australia as well as overseas.
	8.10 Concerned that National Trust has been excluded from Reference Group – recommend consulted	8.10 National Trust has made submission on application – also being considered
	8.11 Consider third party verification should be required for LTEMP	8.11 LTEMP to be prepared in accordance with relevant legislation. Will be approved by accredited site auditor appointed by DECCW
	8.12 Notes that NVMP concludes that noise criteria will be exceeded at some receivers. Notes main issue of Saturday when work is proposed outside of DECCW Standard Construction Hours. Consider given potential long term impact no work should be allowed on Saturdays.	8.12 Addressed in Section 2.1 of Report
	8.13 In relation to air quality – notes report concludes criteria will not be exceeded where air quality controls successfully implemented – queries who will monitor.	8.13 Monitoring to be undertaken in accordance with the Air Quality Management Plan – refer discussion in Section 2.2
9. E. Lowrie	9.1 Objects to car park entrance being located on corner of Towns Place and Dalgety Rd. The residential area surrounding Towns Place has considerable traffic noise. The car park entrance at this location would exacerbate noise problems in the surrounding residential areas and would not allow people to rest or sleep. Car park should be moved to business	 9.1 Reasons for the location of the car park access off Towns Place are explained in full in the Traffic Impact Assessment & Construction Traffic Management Plan (Appendix 20 to Main Works EA). These include: Minimisation of impacts on the future light rail on Hickson Road Avoidance of pedestrian and bicycle conflicts with vehicles along the foreshore

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	end of Barangaroo	 Reduced amenity for the northern cove and built space on the site, and Reduced driveway length. 	
		Analysis indicates that while there would be more traffic on Towns Place and Dalgety Road, the future levels would be within normal environmental limits.	
	9.2 Suggests a pedestrian crossing be placed opposite the gateway to the Barangaroo foreshore walkway and another pedestrian crossing be placed up the hill on Windmill Street where people access Argyle Street.	9.2 The need for a pedestrian crossing will be agreed with the Sydney Local Traffic Committee when it considers plans for the roundabout controlled access to the car park	
9. E. Lowrie cont'd	9.3 With at least two private car parks in the vicinity of Hickson Road from Towns Place to Pottinger Street, probably amounting to 300 private places, it is not clear why anyone would need another car park in that particular area. It would make more sense to have the Barangaroo business community use the car park.	9.3 Car park is an integral part of the Barangaroo Precinct and is needed to provide traffic access to the northern part of the site.	
	9.4 The traffic generated by the car park would jeopardise the safety of pedestrians, traffic and those living in her apartment building.	9.4 The amount of parking proposed is very modest even in the Sydney CBD context. Traffic Impact Assessment (Appendix 20 of Main Works EA) indicates that while there would be more traffic on Towns Place and Dalgety Rd, the future levels would be within normal environmental limits for a suburban location let alone a CBD location.	
10. National Trust	10.1 Submission relates specifically to Heritage Impact Statement and contains detailed comments on claimed inaccuracies in and inadequate of report	10.1 National Trust submission addressed in detail in Section 2.5 and in the updated Heritage Impact Statement at Appendix 9.	
	10.2 Considers report inadequate and therefore consent cannot be granted.	10.2 See above.	
11. N. Dunn	11.1 Concerned about negative impact development of parkland will have on investments (2 apartments on Level 25 in Stamford Marque building)	11.1 Proposal is for a major new headland park which will greatly enhance this former industrial site and provide an attractive setting for surrounding residential area.	
12. P. Morris	12.1 Use of local streets by trucks and heavy vehicles accessing Towns Place during construction	12.1 Refer to response to B. Bowden above.	
	12.2 Inclusion of car park (considers inadequate justification for carpark)	12.2 As above	
	12.3 Impact of access to carpark at Towns Place (should comply with RTA environmental limit of 330vph)	12.3 As above	
	12.4 Inclusion of cultural facility (amendment to Concept Plan) with inadequate information	12.4 As above	

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	12.5 Impacts on surrounding area in terms of vibration, noise and air pollution	12.5 As above	
	12.6 Object to use of Gate 3 by heavy vehicles – noise and vibration impacts on residents – request limit to Gates 4 and 5	12.6 As above	
13. P. Bushby	13.1 Objects to construction of car park within the Headland with access from Towns Place	13.1 Addressed in Section 2.4 of Report. Car park approved in original Concept Plan. It is an integral part of the Barangaroo Precinct and is needed to provide traffic access to northern part of the site.	
42 D. Bushley sould	13.2 Considers numerous existing car parks and on street parking in the area which are underutilised on weekends when demand would be highest	13.2 Headland Park car park is needed for both weekdays and weekends.	
13. P. Bushby cont'd	13.3 Access at Towns Place would cause traffic congestion in an area which is already dangerous	13.3 Analysis indicates that traffic effects of the car park would be satisfactory.	
	13.4 Use of cars should not be encouraged in an area which is becoming a pedestrian precinct. Public transport should be provided at its use encouraged	13.4 Proposed car park is consistent with sustainable, low car ideals given its small scale in the context of the overall Barangaroo development. It will be the only fulltime public car park in the whole development.	
14. W. & R. Rush Mackay	14.1 Object to entry to car park being at corner of Towns Place and Dalgety Road an intersection which is already dangerous	14.1 See response to B. Bowden	
	14.2 Consider need to pedestrian crossing opposite gateway to Barangaroo	14.2 The need for a pedestrian crossing will be agreed with the Sydney Local Traffic	
	Foreshore Walkway to protect pedestrians	Committee when it considers plans for the roundabout controlled access to the car park	
	14.3 Consider entry should be on Hickson Road – larger road not so congested	14.3 See response to E. Lowrie	
	14.4 Consider Pottinger Street should be reopened – adding to traffic congestion	14.4 See response to I. Webster	
15. Sydney Harbour	15.1 Object to the proposal	15.1 Noted	
Association	15.2 Concerned that there has been a 5m reduction in height of headland	15.2 Height reduced to protect views from Merriman Street. Will not diminish integrity	
	since pre-exhibition. This will weaken the visual integrity and significance of the park and diminish the importance of the headland	of design.	
	15.3 Considers headland park will be overshadowed (in terms of prominence) by hotel in water if approved. Considered it should not be approved.	15.3 Noted but view not supported	
	15.4 Recommends height be restored with lower level at Merriman Street seen as appropriate	15.4 Noted – comment as above	
	15.5 Planting on western foreshore should be rearranged to enable direct views of Mel-Mel (Goat Island)	15.5 Direct views of Mel Mel will be available from the majority of the foreshore and from the northern parts of the site (including the northern slopes). Views from upper	

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		bluffs and the bush walk will be filtered through the trees, as they are on similar sites such as Balls Head. Providing a variety of views is considered to be a desirable design objective.	
	15.6 Propose revised treatment of upper bluff area connecting community and tourist activities by lift to the cultural facility below	15.6 Agreed that upper bluff should be connected to facilities below. Proposal includes provision of access by lift and by pathways into cultural facility and car park.	
15. Sydney Harbour Association cont'd	15.7 Queries whether impact of "no-wash" rivercat ferries has been considered in design	15.7 Rivercats, ferries charter boats and various combinations of these in combination with wind wave effects has been considered. Observations of wave impact have also been made at the site and at a number of adjacent sites.	
	15.8 Agree with sand blasting of sandstone slabs. Suggest will improve diversity of marine biota in vicinity.	15.8 Noted	

Barangaroo –Headland Park & Northern Cove Main Works Summary of Submissions from Government Agencies

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Submission from	Issues Raised	Response	
1. Housing NSW	1.1 Impact of vibration on assets. Notes condition on Early Works application for dilapidation reports to all existing and adjoining buildings, infrastructure, roads and public domain areas.	1.1 Addressed in Section 2.1 of the Response to Submissions Report ("the Report"). Pre-construction dilapidation reports will include all of the Housing NSW assets that are referred to in its submission.	
	1.2 Notes no hotline for residents to call in circumstances where noise levels are excessive	1.2 Hotline will be available at all times during construction. Notification and complaints handling procedures are detailed in Section 5.3 of the Preliminary Environmental and Construction Management Plan, provided in Appendix 26 to the Main Works EA.	
	1.3 Notes predicted noise levels at properties in Merriman and Bettington Streets 85 – 92dB(A). This is outside the guidelines of 10dB(A) above the background level of 46 – 53dB(A) and is likely to have a significant impact on Housing NSW tenants.	1.3 Addressed in Section 2.1 of Report and in Noise and Vibration Assessment Addendum ("Noise Addendum") at Appendix 2.	
	1.4 Note other developments at Barangaroo which have not been able to meet noise criteria have been subject conditions to require specific noise mitigation treatments to be implemented and/or additional measures such as reduced hours of construction or provision of respite from noisy, vibration intensive activities.	1.4 As above	
	 1.4 Request DoP to impose conditions of consent requiring: (1) mitigation of noise, including reduced hours of construction or provision of respite from noisy, vibration intensive activities (2) The Barangaroo Delivery Authority establish a hotline for residents to call to report concerns and seek information about noise, vibration or dust emanating from the 	1.4 As above. Also reflected in recommended condition of approval (1h) in the DECCW submission.	
2. NSW Maritime	Headland Park site once works commence. 2.1 No objection to proposal	2.1 Noted	

SUMMARY OF SUBI	SUMMARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES		
Submission from	Issues Raised	Response	
NSW Maritime cont'd	2.2 Concern over Northern Cove – based on the PA documentation considers that the depth of the Northern Cove is unclear. It would be preferable for it to be of sufficient depth to allow some navigation of area. Notes there is potential to provide further protection for the shoreline by building out part of the shoreline. Cutting the existing caissons to just below the tide level, rather than the bed level of the cove itself has the potential to create a significant navigation hazard and should be reconsidered.	2.2 Harbour floor of the Northern Cove is at a level that will allow access for powered vessels up to 25 metres at all times. Refer to Hyder Consulting advice at Appendix 14 and Section 2.9 of the Report.	
	2.3 Recommend further design development of the shoreline and associated infrastructure should involve close consultation with NSW Maritime	2.3 Agreed. Authority is continuing to liaise closely with NSW Maritime in development of shoreline.	
3. Sydney Water	3.1 Notes Sydney Water has entered into an agreement for the works required to the Headland Park and Northern Cove and that Sydney Water's requirements are addressed in that agreement.	3.1 Noted	
4. Sydney Ports	Noise 4.1 Concerned re: noise impacts on HCT, Moore's Wharf and interim CPT given specific measures outlined in PNVMP not committed to. Request noise assessment of impact on assets during construction works. Request commitment to specific measures or maximum acceptable noise levels. Seek agreement of Sydney Ports to NVMP prior to commencement of works	4.1 Addressed in Section 2.1 of the Report and Noise Addendum at Appendix 2.	
	Vibration 4.2 Predictions indicated exceedances to human comfort level (amenity) criteria at HCT and Moore's Wharf but no mitigation measures adopted. Should be resolved prior to project approval.	4.2 As above	
	4.3 EA does not contain assessment of impact on contiguous piling on Moores Wharf	4.3 Wharf to be constructed using non-impact driven piles. Therefore, construction of wharf not expected to result in significant ground vibration at the Moores Wharf Building over and above those indicated in Noise and Vibration Assessment. Refer Noise Addendum at Appendix 2.	

Issues Raised	Pornonco
	Response
4.4 Supports continuous vibration monitoring and SMS alarm to detect vibration on HCT. Request SMS alarm installed at Moore's Wharf to detect vibration levels above goals	4.4 Refer discussion on monitoring in Section 2.1 of the Report and Noise Addendum at Appendix 2
4.5 Request comprehensive dilapidation survey of both Moore's Wharf and HCT prior to commencement of construction works to Sydney Ports satisfaction.	4.5 Agreed.
Traffic 4.6 Given CPT operations request traffic assessment be revised to consider traffic flows on Hickson Road during morning and midday period (between 8am and 12 noon) and potential traffic impacts on CPT (specifically north and south movements on Hickson Road and impact on vehicles entering and existing CPT)	4.6 The main potential for impact of Headland Park construction traffic would occur due to the transport of fill material from Barangaroo (south) Stage 1 excavation to the Headland Park site. This transport and its potential impacts on access to the CPT are discussed in detail in the construction traffic management plan prepared by consultant, Arup, for the Stage 1 works. Halcrow has undertaken additional analysis to determine the impact of Headland Park construction traffic on the CPT access (refer Appendix 8). The Halcrow analysis indicates that the CPT access will continue to operate at a satisfactory level with the Headland Park construction traffic along Hickson Road.
4.7 Request plan to indicate where truck queuing area is on site to ensure no queuing across Moores Wharf entry gate.	4.7 While the Authority confirms that truck queuing will occur on site and not along Towns Place, the exact location will depend on construction staging therefore it is not possible to provide a plan at this stage. The Authority also advises that in the unlikely event that trucks are unable to queue on site, they will be directed to queue on Hickson Road and not Towns Place.
4.8 Safety of intersection of Towns Place and Dalgety road should be improved. Suggest give way or stop sign at bottom of Dalgety Road. Would improve Sydney Port access to Moores Wharf site and flow of vehicles into Barangaroo site.	4.8 It is proposed to construct a roundabout at this intersection which will improve safety.
4.9 Request Construction Traffic Management Plan and Waste Traffic Management Plan be reviewed and agree to by Sydney Ports prior to commencement of construction works. Air Quality	 4.9 The Authority commits to continue liaising with Sydney Ports on the management of traffic related to construction activities. 4.10 Addressed in Section 2.2 of Report and JBS advice at Appendix 7. Risk assessment has been prepared and concluded that the
	A.5 Request comprehensive dilapidation survey of both Moore's Wharf and HCT prior to commencement of construction works to Sydney Ports satisfaction. Traffic 4.6 Given CPT operations request traffic assessment be revised to consider traffic flows on Hickson Road during morning and midday period (between 8am and 12 noon) and potential traffic impacts on CPT (specifically north and south movements on Hickson Road and impact on vehicles entering and existing CPT) 4.7 Request plan to indicate where truck queuing area is on site to ensure no queuing across Moores Wharf entry gate. 4.8 Safety of intersection of Towns Place and Dalgety road should be improved. Suggest give way or stop sign at bottom of Dalgety Road. Would improve Sydney Port access to Moores Wharf site and flow of vehicles into Barangaroo site. 4.9 Request Construction Traffic Management Plan and Waste Traffic Management Plan be reviewed and agree to by Sydney Ports prior to commencement of construction works.

Submission from	Issues Raised	Response
	issue as only in early morning. Require further confirmation that levels do not pose a health risk	predicted levels of benzene will not pose an unacceptable level of
4. Sydney Ports cont'd	to staff or passengers on site / ships during early morning periods. Further information also required on how they will know levels have been exceeded and proposed mitigation measures.	risk or hazard to users of the interim CPT. The air quality management plan [AQMP] will contain provision for continuous monitoring of volatile compounds.
	4.11 Re: predicted exceedances of PM_{10} (24 hours) and odour at HCT, Moores Wharf and CPT request continuous air quality monitoring for PM_{10} and odour at sites. Also request works cease if there is an exceedance of PM_{10} at HCT, Moores Wharf or CPT.	4.11 Addressed in Section 2.2 of the Report and JBS advice at Appendix 7. Monitoring will be undertaken at the HCT, CPT and Moores Wharf as requested.
	Remediation and Health Impacts 4.12 Request copy of HHERA and Remediation Works Plan prior to application being determined.	4.12 Draft RAP and draft HHERA provided at Appendices 4 and 6 and draft RWP at Appendix 15.
	Navigation and Safety 4.13 Notes Navigation and Water Safety Report indicates navigation impact of proposed has not been assessed. Recommends assessment be undertaken prior to determination	4.13 All excavation, demolition and construction will be land based from Barangaroo site and within site boundary. There will be no water based construction. Refer discussion in Hyder Report at Appendix 14.
	4.14 Requests confirmation water depths in shipping channel to north and west will not crease as a result of development	4.14 As above.
	4.15 Object to use of area of western side of Moores Wharf being used for kayak (or any other form of boating) access. No assessment of risk undertaken.	4.15 Moores Wharf cove has been redesigned. It is confirmed that there will be no kayaking launching facility in this cove.
	4.16 Lighting for Park and construction should be downward facing to ensure no impact on ships / vessels	4.16 Noted
	4.17 Need to confirm navigation aid on Merriman Street will not be obscured from sea level in the area of Peacock Point during construction works and when completed	4.17 Noted. Dialogue has commenced with Sydney Ports Corporation to address this issue.
	4.18 Communication Engineer to confirm works will not impact on coastal radio network (existing HF aerial suspended between the existing sandstone cliff face on the HCT site) during construction and operation	4.18 As above
	4.19 Harbour Master's approval required under Clause 67 of Management of Waters and Waterside Regulations – NSW.	4.19 Noted
	Waste Management 4.20 Further information required on the storage of chemicals on site (WMP plan states chemicals be stored on site) given potential human health and ecological risk impacts	4.20 Section 6 Hazardous Materials Management of the Waste Management Plan (Appendix 27 of Main Works EA) states that should PCBs be encountered during the project works, any capacitors should be handled and disposed of as containing PCBs. According to ANZECC (1997) PCB containing capacitors are to be

	MMARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES	
Submission from	Issues Raised	Response
4. Sydney Ports cont'd		sealable metal container. This container must be clearly marked with the details of the contents and must be maintained in good order (that is, no visible signs of damage or corrosion). If some of these materials are leaking, the container should be partially filled with an absorbent material, such as a commercial absorbent, kitty litter or a diatomaceous earth. Waste removal should be consistent with relevant state and Commonwealth regulatory requirements.
	Construction Impacts on Moores Wharf 4.21 EA does not assess impacts of shoreline construction on Moores Wharf. Request assessment undertaken prior to determination	4.21 Addressed in Section 2.9 of the Report and Hyder advice at Appendix 14.
	Construction Staging 4.22 Request plan / drawing illustrating proposed staging of works on the HCT site to ensure car park could be construction if Sydney Ports was to continue to occupy Lot 4 876514 (HCT site).	4.22 The Authority will provide a construction staging plan/drawing to Sydney Ports Corporation, when available.
5. City of Sydney	5.1 Work of Peter Walker generally supported from design perspective. Concerned design does not address needs of local and regional community for facilities but notes project relies on Barangaroo Central to meet these needs. CoS does not have access to plans for Barangaroo Central therefore has provided comments in absence of this information.	5.1 Noted. Refer also discussion in Section 2.8 of the Report
	Urban Design	
	Connectivity with Millers Point 5.2 Concerned that park separate from surrounding Miller Point with series on controlled narrow entry points not open boundaries such as at the Domain. Boundary walls / fences unclear. Consider high level of connectivity, accessibility and physical integration important particularly at adjacent parks and with Merriman Street.	5.2 Addressed in Section 2.6 of the Report
	5.3 Any approval should be conditioned to require the Headland Park to remain open to the public, 24 hours a day and 7 days a week.	5.3 Park proposed to be opened 24/7.

SUMMARY OF SUBI	SUMMARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES		
Submission from	Issues Raised	Response	
	Cultural building and car park 5.4 Servicing arrangements and impact on park unclear	5.4 Servicing arrangements and integration with park still being developed. These issues will be addressed in separate Project Application for cultural facility.	
	5.5 Design should include active uses at edges of cultural facility shell to activate parkland	5.5 Noted	
5. City of Sydney cont'd	5.6 Lack of passive surveillance opportunities and dense planting without lighting on some paths and stairs will lead to unsafe environment	5.6 Addressed in Section 2.10 of the Report and in JPW Response to Submissions at Appendix 10.	
	5.7 Limited access points to car park and cultural facilities from Walsh Bay	5.7 As above	
	5.8 No amenities for Headland Park other than relocated sewage pumping station (to be used as toilets). Shell provides opportunity to integrate facilities (toilets, kiosks, cafes etc) while preserving naturalised form	5.8 Toilet facilities to be provided at northern end of park in adapted SPS and in future cultural facility. Kiosks, cafes etc more appropriately located in Barangaroo Central.	
	5.9 Lack of detail and inconsistent documentation re: light wells	5.9 To be addressed in separate Project Application for cultural facility.	
	Park amenity and usability 5.10 Desire to create a stylised naturalised headland has resulted in limited provision for activities and attractions to encourage patronage	5.10 Refer discussion in Sections 2.6 and 2.8 of the Report	
	5.11 Foreshore walk requires shade trees	5.11 Additional tree planting has now been included between the foreshore walk and the shoreline during design development, to help provide shading from the western sun.	
	5.12 Need for regional children's playground (if in B. Central certainty should be provided by conditions), skate park and indoor / outdoor recreation facility	5.12 Addressed in Section 2.8 of the Report. Active recreation facilities to be provided in Barangaroo Central.	
	5.13 Additional amenities and services required including appropriate way finding to ensure ease of access	5.13 Public Domain Design Guidelines to be prepared including way finding requirements. Refer new Statement of Commitment No. 32 in Section 3 of the Report.	

Submission from	Issues Raised	Response	
300111331011110111	issues raised	Nesponse	
	Heritage interpretation 5.14 DGRs require public domain plan to address heritage interpretation as part of urban design and landscape design of park. SoC required Interpretation Plan to be prepared prior to commencement of works on site. Application delays preparation of Interpretation Strategy to 6 months prior to completion of construction. Timing precludes interpretation being included into design of parkland and informing public art strategy. BDA should be prepared to amend design to incorporate.	5.14 Addressed in Section 2.5 of the Report.	
	Public art 5.15 Consider submitted Draft Pubic Art Strategy inadequate and does not address DGR 4.	5.15 Addressed in Section 2.6 of the Report. The Draft Public Art Strategy forming Appendix 29 of the Main Works EA clearly states that that it is an evolving document. It will need to respond to numerous elements during the development of the project and the Barangaroo precinct.	
5. City of Sydney cont'd	Harbour Control Tower 5.16 No long term strategy for HCT use or access specified and relationship to HP at Merriman Street unresolved. Need further detail.	5.16 This issue was addressed in the Barangaroo Concept Plan Section 75W Modification for the Headland Park and Northern Cove and approval was granted for demolition of the Tower. However, at this stage the future of the Tower has not yet been finalised and it has therefore been incorporated into the design. Appropriate adaptive reuse of the tower will be considered provided that the tower is to be retained and becomes redundant.	
	Heritage Heritage Status 5.17 Provides details of heritage items within site, items of State Heritage Register and items in vicinity	5.17 Noted	

	MARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES		
Submission from	Issues Raised	Response	
	Heritage Impact upon the understanding of Millers Point 5.18 Restates relevant statements of significance for Millers Point and notes that proposal will dramatically change significant cultural landscape and understanding of Millers Point promontory as it evolved. Indicated proposal is not a reconstruction of the naturalistic headland but rather proposes effectively interpretative distortions of the original profile and shoreline configuration. Considers proposal flawed in respect of Australian ICOMOS Burra Charter 1999.	5.18 Authority does not agree with this view. Addressed in Section 2.5 of the Report.	
5. City of Sydney cont'd	Impact upon the Merriman Street cottages and terraces 5.19 Notes infill of existing land levels to create the "Upper Bluff" will result in a contoured shape that does not interpret the original natural steep incline west of Merriman Street down to the harbour foreshores. It will restrict views to the west from the public domain of Merriman Street and the Merriman Street heritage items and alter their distinctive setting. Supports 6m wide crevasse allowing rock face to be exposed and cultural facility but not at expense of Merriman Street and its heritage items Increase in traffic in Merriman Street and subsequent loss of character.	5.19 Addressed in Sections 7.1.4, 7.1.5 and 7.1.6 of updated Heritage Impact Statement at Appendix 9, Section 2.5 of the Report, and in the Halcrow traffic report in Appendix 8 (in relation to traffic impacts).	
	Impact upon Clyne Reserve and Merriman Street 5.20 Do not support the proposed open cut of the vehicular entrance to the car park which limits connections between Clyne Reserve and HP single bridge	5.20 Addressed in Sections 2.5 and 2.6 (in relation to connectivity) of the Report.	
	5.21 Infilling of existing land level to create Upper Bluff will severely restrict panoramic views from Clyne Reserve to the west and south west	5.21 Addressed in Section 2.5 of the Report. Note that the upper areas of the park will be approximately at the level of Merriman Street	
	Impact upon the Port Operations and Communications Centre and the Merriman Street rock face 5.22 Support retention of the HCT and associated Merriman Street rock face for its contribution to the cultural significance of Milers Point and Sydney Harbour.	5.22 Note HCT retention temporary only. Refer discussion in Section 2.5 of the Report. Agreed that the rock face will be retained and visible within the proposed headland and that consideration for adaptive reuse of the tower should be explored, provided that the tower is retained and becomes redundant.	

Submission from	Issues Raised	Response
	Protection of Moore's Wharf 5.23 Proposed seawall and new harbour inlet of western side of former Moore's Wharf building supported as re-establishes the wharfs original dockside setting, however proposed shoreline and promenade to be resolved. Conservation Management Plan should be developed for former Moore's Wharf building. The detail design resolution of the proposed seawall and new harbour inlet on the western side of the former Moore's Wharf should be developed alongside the Interpretation Strategy for the Headland Park and in consultation with the Heritage Architect Conybeare Morrison International and the City of Sydney	5.23 Agreed that the relocated building must be protected. A Conservation Management Strategy will be prepared as required by Statement of Commitment 56 (refer Minister's Terms of Approval to Concept Plan Modification dated 11 November 2009). Refer also Section 7.1.1 of updated Heritage Impact Statement at Appendix 9.
	Impact upon the 1913 sandstone seawall 5.24 Proposed incorporation of sandstone from sandstone seawall into naturalistic shoreline will have a detrimental impact on item. Short section of seawall should be kept in its original form. Wall should be recorded to archival standard prior to disassembly.	5.24 Removal and reuse of seawall addressed in Concept Plan S75W Modification for Headland Park and Northern Cove and demolition approved by Minister. Agreed that an archival record of the sea wall will be undertaken (as required by Statement of Commitment No 62) and that consideration will be given to retaining at least a small section of the sea wall in situ. Refer also Section 7.1.2 of updated Heritage Impact Statement at Appendix 9.
5. City of Sydney cont'd	Relocation of Sewage Pumping Station (SPS0014) 5.25 Support relocation but consider not enough information relating to the design of its new setting to ensure that its heritage significant is retained. Archival recording should be undertaken prior to any demolition works. Suitable adaptive reuse plan required. Archaeological monitoring of any ground disturbance should be undertaken.	5.25 Application only seeks approval for new location and use of SPS. Separate application will be lodged for actual works. Archaeological monitoring already a requirement of Minister's Terms of Approval for Concept Plan. Refer also discussion in Section 2.5 of the Report and Section 7.1.3 of updated Heritage Impact Statement.
	Impact on Munn Street and buildings 5.26 Outlines significance of Munn Street and Dalgety Bond Stores. Supports but questions ability of the proposal to interpret alignment of Munn Street. Notes will restrict view from Block A of the former Dalgety Stores and will significantly change the appreciation of its former dockside location. Also alters setting of the Federation Arts and Craft terrace at Munn Street. Considers design resolution critical and needs to be reconsidered to achieve state objective of interpreting the former Munn Street alignment and to conserve setting.	5.26 Refer discussion in Sections 7.1.7 and 7.1.8 of updated Heritage Impact Statement at Appendix 9. Conservation Management Plan for Dalgety Bond Stores required in accordance with Statement of Commitment No 49 of Minister's Terms of Approval to Concept plan.
	Interpretation to be developed alongside the design 5.27 Interpretation Strategy to be developed alongside design and public art strategy not as	5.27 Addressed in Section 2.5 of the Report.

SUMMARY OF SUBN	UMMARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES	
Submission from	Issues Raised	Response
	afterthought. Should interpret the original steep incline west of Merriman Street. Aboriginal use of the area followed by non indigenous cultures provides potential for public art that is interpretive. Naming of new elements provides opportunity for interpretation.	
	Archaeological disturbance and monitoring 5.28 Agree proposed works will have little or no impact on archaeological features and deposits. However further excavation greater than 2m along Hickson Road boundary of the site south of Dalgety Bond Stores, archaeological features and deposits may be present below the fill. Excavation to a depth greater than 2 metres should be minimised along the Hickson Rd boundary of the site south of Dalgety Bond Stores to avoid disturbance of archaeological features and deposits. Archaeological monitoring to be undertaken and appropriate measures to be taken if features/deposits exposed.	5.28 Agreed
	Protection of heritage conservation areas and precincts during construction 5.29 Note extent of vehicular traffic, noise and dust and temporary construction signage has the potential to erode the character of the area, perception of heritage values of area over a number of years can lead to long term impacts. Dust accumulation and vibration can also impact on heritage fabric. Dilapidation surveys of heritage items should be undertaken.	5.29 Construction management measures to be put in place aimed at minimising dust generation and vibration. The Authority is preparing a brief to carry out a Dilapidation Survey of the heritage properties in the vicinity of the proposed works.
5. City of Sydney cont'd	Protection of heritage conservation areas and precincts post construction 5.30 Concern increased traffic over time will impact on character of area and reduce visitor perception of heritage values. Traffic Management Plan should be developed with aim of discouraging vehicular traffic. Consider repaving streets to enhance heritage character and discourage through traffic.	5.30 The extent of traffic that would be generated by the proposed development does not necessitate such a major intervention.
	Impact of Signage and Lighting 5.31 Need for significant new signage and lighting has potential to impact on character and setting of surrounding heritage items and conservation areas. Signage strategy should be developed based on City of Sydney Signage and Advertising Structures. Lighting should be designed sympathetically with heritage setting.	5.31 Signage and lighting to be addressed in Public Domain Design Guidelines (refer discussion in Section 2.6 of the Report) in consultation with CoS.
	Traffic, Transport and Parking	

SUMMARY OF SUBI	SUMMARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES	
Submission from	Issues Raised	Response
	Construction Traffic Management Plan 5.32 Raises concerns about CTMP relating to limiting construction traffic to Hickson Road only, no congregation in Hickson Road before 7am, only existing gates in Hickson Road to be used, changes to roadway requiring approval, measures to discourage construction workers using local on street parking and concerns that work may impact on existing peak hour traffic conditions in northern part of the city.	5.32 This is not expected to be a major issue as trucks bringing fill material into the site will for the most part come from excavation works at Barangaroo south and their times and concentrations will be controlled by truck filling rates at that end rather than discharge rates at the Headland Park end. This would reduce the potential for truck queuing on Hickson Road prior to 7:00am at the Headland Park gates. It would be unreasonable to be prescriptive about such as during the course of construction situations such as utility or drainage adjustments, site re-grading or other construction activities may necessitate minor changes to gate locations. Construction workers will be treated the same as all other CBD
5. City of Sydney cont'd	5.33 Concerned about cumulative impact with other development on Barangaroo site. Not clear with all developments assessed individually and proposing different construction traffic routes. Recommends construction traffic route for entire site be formulated and adopted (not through residential streets rather using Hickson Road). Site specific Traffic Control Plans need to be developed for all modes of transport. Green Travel Strategy should also be developed.	works in terms of access to on-street car parking. In particular they will need to pay the going rates for parking as set by Sydney City Council. These are set to discourage all day car parking. 5.33 The cumulative construction traffic impacts of the Lend Lease Barangaroo south "Stage 1" construction are assessed in the Traffic Impact Assessment and Construction Traffic Management Plan for this project. This finds that the combined traffic generation would have an acceptable impact on the local road system.
		As only 50 construction workers are expected to work on the Headland Park sites at any one time and travel by private car will be inhibited by the City Council's on street car parking charges, it is not considered appropriate to prepare a formal green travel strategy for the site.
	Car Park Access Location 5.34 Proposed location of car park entry / exit driveway at intersection of Towns Place and Dalgety Road will impact on surrounding residential amenity and significantly increase traffic movements at intersection. Resident amenity must be considered. Arguments presented against Hickson Road access but do not offset loss of resident amenity. Request review alternate access options with Council including from internal Barangaroo street	 5.34 Reasons for the location of the car park access off Towns Place are explained in full in the Traffic Impact Assessment & Construction Traffic Management Plan (Appendix 20 to Main Works EA). These include: Minimisation of impacts on the future light rail on Hickson Road

Submission from	Issues Raised	Response
		 Avoidance of pedestrian and bicycle conflicts with vehicles along the foreshore Reduced amenity for the northern cove and built space on the site, and Reduced driveway length.
		Analysis indicates that while there would be more traffic on Town Place and Dalgety Road, the future levels would be within norma environmental limits.
	5.35 Will increase traffic through Millers Point as motorist heading north may use Dalgety Road.	5.35 The Headland Park car park was included in the original and the modified Barangaroo Concept Plans both of which have been approved. Traffic from the car park was included in the detailed traffic modelling and assessment that informed these approvals. Thus cumulative traffic impacts have been considered. Towns Place will carry a traffic level that is consistent with RTA guidelines and is considered to be reasonable
	Pedestrian Amenity 5.36 Development would increase pedestrian traffic on Dalgety Road. Need new footpath on western side and widen footpath on eastern side to Councils satisfaction.	5.36 The proposed development would be unlikely to generate significant pedestrian activity on the eastern side of Dalgety Road once a new footpath was constructed on the western sides. Thus footpath widening on the eastern side would not be necessitated by the proposal.
5. City of Sydney cont'd	Car Parking Pay Structure 5.37 Need to provide details that public parking pay structure will ensure spaces are not used by commuters. Include condition of consent requiring Council approval.	5.37 In order to ensure that the car park does not become a commuter car park it is proposed that during the day time an increasing charge rate apply so that long stay parking is discouraged. This is in keeping with Sydney City Council policies short stay casual parking in the CBD.
	Proposed New Roundabout 5.38 Do not support proposed roundabout, indicate no details provides as to why required and why intersection can't operate as give way driveway. Consider roundabouts as not pedestrian friendly. Important given location at main north pedestrian entry point. Further information to be submitted justifying roundabout for City's approval.	5.38 An intersection is required at this location for safety reason because the sharp bend at the junction of Dalgety Road and Tow Place has limited sight distance and would make the provision of the necessary sheltered right turn lane at an un-signalised intersection very awkward to provide. A roundabout would slow traffic and generally make the two roads safer for both pedestria and motor vehicles.

Submission from	Issues Raised	Response
		The final design for the roundabout will be worked up with council engineers to promote both pedestrian safety/amenity and traffic safety/efficiency.
	Proposed Changes to Kerb Side Parking 5.39 Application refers to potential bus set down/pick up areas and potential kiss and ride arrangements in vicinity of site. These require approval from City of Sydney. Approval also required for taxi rank (plus NSW Taxi Council approval)	5.39 Noted
	Impact Assessment and Construction Traffic Management Plan 5.40 Concerns raised over: car parking provided for Walsh Bay, bike parking, need to reconsider role of Towns Place as local road (and associated traffic impacts), weekend traffic conditions and bus / coach drop off areas.	5.40 While the car park is specifically proposed to serve Barangaro development, it nevertheless could serve the arts precinct at Wals Bay for the infrequent occasions on which there was excess parkin demand generated by that precinct. It is agreed that bicycle parking should be provided and as outlined in ESD report in the Built Ecology section (Appendix 17) of the Main Works EA it is proposed to provide about 30 bicycle parking spaces initially along with provision for this number to be increased to 150 spaces in future. Other issues addressed in Halcrow Response to Submissions at Appendix 8.
5. City of Sydney cont'd	Trees Protection of existing City street trees – temporary facilities and structures 5.41 Construction work areas have potential to impact on City's street trees – need specific measures to ensure protected (AS 4970). To be addressed prior to commencement of works.	5.41 Agreed. This is a requirement of Condition D6 of Project Approval 10_0047 for Barangaroo Headland Park and Northern Cove – Early Works dated 8 November 2010.
Cont a	 5.42 New Landscape No technical data provided to support proposal in relation to landscape works (technical specifications required for soils, trees and the maintenance and management of the park) Issues identified lower irrigation requirements of native / endemic species, sourcing of advanced stock, top soil preparation and measures to prevent compaction, details of irrigation system (including watering schedule / water management plan for new trees in a tree management plan) Matters to be addressed by qualified Arborist and Soil Scientist Tree Management Plan should be provided. 	5.42 Refer discussion in Section 2.6 of the Report.

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Submission from	Issues Raised	Response
	Volume and Height of Proposed Fill 5.43 Noted volume of fill from Stage 1 may increase by 80,000m³ to approximately 230,000m³ putting pressure on ability to provide useful amenity space for visitors.	5.43 Not additional. PA refers to up to 300,00m ³ with 150,000m ³ proposed for Early Works and 80,000m ³ for Main Works. No increase proposed but rather a reduction.
	5.44 Note increase in gradients on the west and south sides of the park from 1:2 to 1:1.5 with no explanation. Raises concerns re: design being fill driven, stabilisation of slope will require engineered solution that will detract from natural landscape appearance, maintenance and provision of safe workplace.	5.44 The design has been driven by the 1836 headland form. The design of the earthworks has been carried out by civil and geotechnical engineers. Further design development has resulted in gradients on the western slopes of closer to 1:1.9, with steepest sections around 1:1.7. Whilst engineered stabilisation is required for these steep slopes, the consultant team is working with landscape appearance, maintenance and safety considerations in mind.
	5.45 Topsoil should be increased to meet Council standards of 1.5m topsoil depth for trees Landform	5.45 Refer discussion in Section 2.6 of the Report
	5.46 Regularity of proposed contours and profiling indicates a uniform gradient not typical of headlands of Sydney Harbour.	5.46 The landform has been derived from studies of the historic profile of Millers Point. Refer to discussion in JPW Response to Submissions at Appendix 10.
5. City of Sydney cont'd	5.47 Landform will impact on views from even upper floors of residences in Merriman Street contrary to DGR 4. Landform profile should be amended to more closely match historic profile of Millers Point and be terraced and graded so that partial views from Merriman St are retained.	5.47 The landform itself will not impact on views from any residence in Merriman Street since all levels in the park are either at the level of the adjacent street or are lower. It is acknowledged that the tree planting in the park will impact on views but there will still be framed views from parts of Merriman Street and there will be extensive views from the park itself.

	JMMARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES	
Submission from	Issues Raised	Response
	 5.48 Public Domain Materials and Park Furniture Suggested finishes and furnishings reference City of Sydney standards as specified. Lighting Lighting plan generally acceptable subject to lighting levels being met. Suggest landings on stair receive increased lighting especially to increase safety upon the western stairway where it crosses through areas of understorey planting. Signage and Interpretation Signage Strategy plan to be submitted for Council comment with signage at key locations, including site interpretation and surrounding points of interest. 5.49 Access The access strategy should be reviewed to address the following: A map should be provided at the lift at the south end of the park so that disabled visitors may choose alternate routes or, if the lift were disabled / not available they are directed to the nearest accessible route Review access points through the sandstone wall along the Foreshore Path to ensure that accessible ramps are included at appropriate locations (e.g. the end of the footway in the north of the park, which is an accessible path, is terminated by steps at the crossing point through the wall, it would be desirable to provide a ramp Investigate providing an accessible path to allow disabled users to get closer to the tidal pools. Such a facility would be a unique opportunity to allow disabled users rate access to usually inaccessible environment. 	5.48 Public Domain Design Guidelines to be prepared which will address materials, finishes, signage, planting, lighting etc. Will be prepared in consultation with City of Sydney 5.49 Addressed in Section 2.6 of the Report and in advice from Accessibility consultant at Appendix 11.
5. City of Sydney cont'd	Plan of Management 5.50 Unlikely BDA will remain long term responsible owner. Plan of Management should be prepared and forwarded to CoS. The Plan must include but is not restricted to: hours of operation of the Cultural Facility; access routes and entry points to the park for vehicles and services; noise from both the Cultural Facility and Headland Park and impact on residents; access control during special events, security management; and handling of complaints.	5.50 Addressed in Section 2.8 of the Report. Statement of Commitment to ensure PoM is prepared.

Submission from	Issues Raised	Response
6. DECCW	General 6.1 Notes Environment Protection Licence to be varied as project approvals granted – proponent needs to ensure works comply with project approvals and EPL licence conditions	6.1 Noted
	6.2 Notes contamination documents in draft form and need to be finalised	6.2 Documents have now been revised. Drafts of the HHERA and RAP are provided at Appendices 4 and 6 and have been provided to DECCW. The draft HHERA and draft RAP have also been submitted to the Site Auditor for approval.
	Contamination 6.3 General remediation and material placement approach may be appropriate but significant detail lacking in current info	6.3 See above.
	6.4 Notes Draft RAP based on HHERA which is not available. Given significance of HHERA criteria considers DECCW review of HHERA essential. EA documentation lacks detail for DECCW to comment further	6.4 See above
	6.5 Can't comment on adequacy of RAP until HHERA available. Considers all documents must be made available for review by DECCW prior to project approval or possibly before implementation as a condition of approval. Notes site auditor has primary decision making role.	6.5 See above.
	6.6 Considers a number of values used are very high, particularly in Northern Cove	6.6 This matter has been rectified in the Draft RAP (at Appendix 6) in accordance with the draft HHERA (Appendix 4). As noted above these documents have now been submitted to the Site Auditor for approval and copies have been provided to DECCW.
	6.7 Report in EA refers to type of water treatment plant – questions information as not referred to in water management appendix.	6.7 A blackwater treatment plant is being provided by Lend Lease for Barangaroo South which it is understood is required to meet discharge guidelines in accordance with National and NSW guidelines for discharge of effluent. Further discussions will take place with DECCW during the detailed development of water sensitive urban design for the operational phase of the project.
6. DECCW cont'd	6.8 Considered proposed criteria for irrigation of water post construction seems high – need confirmation on whether values based on human health considerations or ecological ones	6.8 These issues addressed in draft HHERA and draft RAP, copies of which are provided at Appendices 4 and 6. They have been submitted to the Site Auditor for approval and copies have been provided to DECCW.
	6.9 Recommend Long Term Management Plan and park managers ensure its full and ongoing implementation	6.9 Agreed – refer Statement of Commitment No 7 in Report.

Submission from	Issues Raised	Response
	Waste Management	6.10 The Authority will comply with all statutory requirements with
	6.10 Notes some waste may be imported as required (topsoil, fill, sandstone, rock armour) and some waste may need to be exported. Notes must comply with POEO Act and especially Resource Recovery Exemption mechanism.	respect to importing and exporting of waste. Refer to Appendix 27 of Main Works EA for further details.
	6.11 Need to record all waste being imported to the site (quantities, address of source site, classification, transporter details) and retain records that material meets the relevant Resource Recovery Exemption	6.11 Noted
	6.12 Must record all waste exported from the site and retain records demonstrating information and the lawful disposal of the waste	6.12 Noted
	6.13 Traceable waste must be transport and tracked in accordance with POEO Waste Regulation 2005	6.13 Noted
	6.14 Any soil to be disposed of off site to comply with Waste Classification Guidelines. This may require material to be immobilised prior to disposal which requires a site specific immobilisation approval.	6.14 Noted
	Noise and Vibration	
	6.15 Large amount of data affected by weather in data	6.15 Addressed in Noise and Vibration Assessment Addendum (NVAA) at Appendix 2.
	6.16 Recommend restriction on hours for rock hammering to provide respite as condition given predicted exceedances	6.16 Addressed in NVAA at Appendix 2 and in Section 2.1 of the Report.
	6.17 Recommend vibration dose monitoring at residences in High Street given predicted exceedances of both the continuous and intermittent vibration criteria	6.17 As above
	6.18 Recommend NVMP include provisions to reduce construction hours on Saturday in line with ICNG (8am to 1pm) in event of significant and unresolved community concern re: noise	6.18 As above
	6.19 EA does not include assessment of operational noise. All mechanical plant and equipment not to emit noise more than 5dBA above background consistent with NSW Government's Industrial Noise Policy	6.19 Noise impacts associated with the use of the parkland for passive open space purposes are not anticipated to be significant. The exact nature of other future uses, such as the proposed cultura facility, is not known at this stage therefore it is not possible to undertake an assessment of any associated noise impacts. Such
6. DECCW cont'd		uses would be subject to separate applications as required. Note requirement regarding mechanical plant and equipment.
	6.20 Includes recommended conditions for noise and vibration	6.20 Refer NVAA at Appendix 2 for response.
	Air	

Submission from	Issues Raised	Response
	6.21 Air quality impact assessment should be revised to address all technical issues in	6.21 All issues raised have been addressed in the drafts of HHERA
	Attachment 1	and RAP which are provided at Appendices 4 and 6.
	6.22 Air quality impact assessment should be revised to demonstrate that proper management will not cause additional exceedances at nearby sensitive receptors	6.22 Refer discussion in Section 2.2 of Report and JBS letter at Appendix 7
	Water	
	6.23 Unable to assess proposed water management measures as haven't reviewed HHERA – unable to confidently provide advice on water re-use suitability in context of contaminated site remediation	6.23 Noted. Draft HHERA and draft RAP attached at Appendices and 6. It is acknowledged that these documents need to be reviewed by DECCW and copies have now been submitted to DECCW. The Authority will work will DECCW to ensure that its statutory requirements are met.
	6.24 Recommend all water management information be consolidated into one Soil and Water Management Plan but site/sub-catchment specific Erosion and Sediment Control Plans are acceptable	6.24 Noted
	6.25 Silt curtains required where excavations for the shoreline design proposed and around waster discharge structure. DECW will require turbidity monitoring outside of silt curtains.	6.25 Noted
	6.26 Will require further information on whether flocculants used in sediment basins and water treatment plant	6.26 Noted
	6.27 Particular attention required to protect water quality during caisson wall demolition	6.27 Noted
	6.28 Discharge must comply with table of limits (Attachment 2) unless otherwise agreed. Limit may need to be applied to flocculants if used	6.28 Addressed in WSP advice at Appendix 12.
	Post Construction	
	6.29 Need to address risk of bioswales for stormwater management	6.29 Addressed in WSP advice at Appendix 13.
	6.30 Any antifouling agent used in conjunction with the seawater cooling system to be registered or permitted by the APVMA and used in accordance with the Pesticides Act	6.30 Noted
	6.31 Trade Waste Discharge – need to demonstrate whether or not sewer discharge of liquid waste streams an option	6.31 Addressed in WSP advice at Appendix 13. BDA have entered into discussions with Sydney Water Corporation. BDA has had a licence granted to discharge trade waste for a limited period associated with current sewage bypass works.
. DECCW cont'd	6.32 Irrigation water criteria – cannot comment until HHERA reviewed	6.32 Draft HHERA and draft RAP attached at Appendices 4 and 6 and have been submitted to DECCW. To date independent testing
	6.33 Blackwater – proposal to use recycled blackwater from Barangaroo South as top up for	has found the water to be suitable for irrigation. 6.33 A blackwater treatment plant is being provided by Lend Lea
	water used to manage park. Not acceptable unless full sewage treatment system including	for Barangaroo South which it is understood is required to meet

SUMMARY OF SUBMISSIONS FROM GOVERNMENT AGENCIES		
Submission from	Issues Raised	Response
		wideling for the house of efficient Footbooking will be be
		guidelines for discharge of effluent. Further discussions will take
		place with DECCW during the detailed development of water
		sensitive urban design for the operational phase of the project.
	6.34 Includes recommended conditions for water	6.34 Noted.
7. Industry and	7.1 No objections provided "Acid Sulphate Soil" and "Hydrology and Water Management"	7.1 Agreed
Investment	measures in SoCs are implemented in full and included in approval	
(Fisheries,	7.2 Shore based recreational fishing should be a permitted activity within the public foreshore	7.2 Agreed
Conservation and	reserve	
Aquaculture)	7.3 Recommend seawall structures constructed as proposed and commend inclusion of	7.3 Agreed
	naturalistic rocky foreshore and rock pool. Should increase biodiversity values and act as	
	incentive for installation of design at other locations.	