

# Appendix C

## Mitigation Measures (Architectus)



# Acknowledgement of Country

Architectus acknowledges the Australian Aboriginal and Torres Strait Islander peoples of this nation as the Traditional Custodians of the lands on which we live and work.

We pay our respects to Elders, past and present and emerging.

Architectus is committed to honouring Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to the land, waters, and seas and their rich contribution to society.

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30 November 2023

### Revision history

Issue Reference	Issue Date	Issue Status
A	7 November 2022	WIP
B	17 November 2023	Test of Adequacy
C	30 November 2023	Final Draft

# 1. Mitigation Measures

The collective measures required to mitigate the impacts associated with the proposed development are detailed in **Table 1** below.

**Table 1 Recommendations and Mitigation Measures**

Item	Mitigation Measure	Timing
<b><u>Aboriginal Cultural Heritage (AH)</u></b>		
	<ul style="list-style-type: none"> <li>- AH1: Impact avoidance: for most of the site, construction impacts including excavation will be above the identified depth of PAD across the site and impacts to PAD will be avoided. In areas of the site where avoidance of PAD cannot be implemented, further archaeological management may be required in accordance with the below recommendations.</li> <li>- AH2: Archaeological Monitoring: a program of Aboriginal archaeological monitoring would be undertaken at 1-3 Bank Street during works that have the potential to expose or impact areas of PAD.</li> <li>- AH3: Aboriginal archaeological investigation: should deposits with PAD be identified during civil works as an unexpected find, during works that have the potential to expose or impact areas of PAD.</li> <li>- AH4: Heritage induction: a heritage induction should be developed to inform all workers involved in the proposed development of the actual and potential heritage resource, the procedure to follow in case of an unexpected find, and key contact details for heritage management for the project.</li> <li>- AH5: Unexpected Finds Procedure: An unexpected finds procedure should be prepared for the project and provided to all staff and contractors working on the project.</li> <li>- AH6: Ongoing artefact management: an artefact management strategy of the present and potential future artefact assemblage identified in the Bank Street site. This strategy should be developed in consultation with the project RAPs and other key First Nations stakeholders and should detail the long-term management and storage of Aboriginal objects recovered from the site.</li> </ul>	Prior to construction/during construction works.
<b><u>European Heritage (EH)</u></b>		
<b>European heritage</b>		
	<p><b>Building D, 1-3 Bank Street</b></p> <ul style="list-style-type: none"> <li>- EH1: Technical advice should be sought to identify whether Building D's existing roof structure is viable and could be repaired and re-used in lieu of replacement.</li> <li>- EH2: Options to fully or partially retain the southern elevation of Building D should be explored at the detailed design stage in conjunction with a suitably qualified and experienced heritage consultant/architect.</li> <li>- EH3: A schedule of conservation works should be prepared for Building D. Original timber sash windows and doors should be retained and repaired wherever possible and replacements with modern windows should be avoided. Brickwork of the street-façade should be repaired and made good.</li> </ul> <p><b>Interpretation Garden Design Development</b></p> <ul style="list-style-type: none"> <li>- EH4: Explore options to retain more fabric of Building A in the Interpretation Garden during design development in conjunction with a suitably qualified and experience heritage consultant/architect. Options to fully retain whole elements, such as doorways, walls and the steel-framed windows, should be prioritised ahead of retaining only some of these elements to improve the experience of the 'ruins' while enabling easy movement and use.</li> <li>- EH5: The advice of a structural engineer should be sought to ensure that retention of more elements is viable.</li> </ul>	Prior to construction / during construction

Item	Mitigation Measure	Timing
	<p><b>Heritage Advice</b></p> <ul style="list-style-type: none"> <li>– EH6: A suitably qualified and experienced heritage consultant / heritage architect should</li> <li>– EH7: Provide ongoing heritage advice during the design development and construction phases of the Bank Street Park project. The objective of this heritage advice will aim to minimise the loss of fabric of Buildings D and A.</li> <li>– EH8: The heritage consultant/heritage architect should also provide advice on the appropriate treatment of the seawalls where they are proposed to be modified.</li> </ul> <p><b>Salvage of Significant Fabric</b></p> <ul style="list-style-type: none"> <li>– EH9: A salvage schedule should be prepared during the detailed design stage identifying early or original fabric at 1–3 Bank Street that should be salvaged for re-use in the design or interpretation in Bank Street Park. This includes the following elements: <ul style="list-style-type: none"> <li>• Brick masonry of demolished buildings</li> <li>• External sliding door to Room A2 (Figure 2.24)</li> <li>• Original electrical conduit box in room A5 (Figure 2.32)</li> <li>• Workshop sign and timber rack over the roller door on the south elevation of Building B (Figure 2.30)</li> <li>• The coal loader crane and bucket stored in the courtyard (Figure 2.26 and Figure 2.31)</li> </ul> </li> <li>– EH10: Opportunities to identify how and where salvaged material might be used should be developed in conjunction with the design team during the preparation of the salvage schedule.</li> <li>– EH11: The salvage schedule should provide clear guidance on the appropriate removal, storage and re-use of salvaged material. This includes how these items will be catalogued and stored during construction.</li> </ul> <p><b>Materiality</b></p> <ul style="list-style-type: none"> <li>– EH12: The new community facilities and marina office / storage building should be designed to be sympathetic to the materiality of Building D and Glebe Island Bridge. Its façade should be predominantly masonry brick or sandstone.</li> </ul> <p><b>Archival Recording</b></p> <ul style="list-style-type: none"> <li>– EH13: An archival recording of 1–3 Bank Street and the areas around Glebe Island Bridge and Anzac Bridge should be undertaken prior to the commencement of works. The recording should be conducted in accordance with the appropriate Heritage NSW guidelines for archival recordings.</li> </ul> <p><b>Interpretation (relevant to all heritage)</b></p> <ul style="list-style-type: none"> <li>– EH14: Proposed works should include heritage interpretation of the industrial history of the site and specifically 1–3 Bank Street. An interpretation plan should be developed during design development which builds on the work of the PHIF (GML 2023). The plan must consider how interpretation will be implemented in accordance with the appropriate Heritage NSW guidelines for heritage interpretation. <ul style="list-style-type: none"> <li>• Interpretation should consider how and where the demolished buildings at 1–3 Bank Street can be interpreted, especially in the proposed interpretation garden.</li> <li>• Interpretation should consider how salvaged material identified in the salvage schedule can be re-used in interpretation.</li> </ul> </li> </ul>	
<b>Historical Archaeology (HA)</b>		
	<ul style="list-style-type: none"> <li>– HA1: A heritage induction is to be provided to all construction workers prior to works to provide information about the archaeology, obligations under the Heritage Act and the role of the archaeologist on site.</li> <li>– HA2: The archaeological excavation program should be undertaken in accordance with the methodology outlined in the Historical Research Design and Excavation Methodology (HARDEM). Additionally, appropriate time in the</li> </ul>	<p>Prior to Construction/ During Construction</p>

Item	Mitigation Measure	Timing
	<p>construction program should be allocated to undertake the required archaeological works.</p> <ul style="list-style-type: none"> <li>- HA3: A final report on archaeological investigations should be prepared.</li> </ul>	
<b>Maritime Archaeology (MA)</b>		
	<ul style="list-style-type: none"> <li>- MA1: A survey in the form of an archaeological dive inspection or shallow water side scan sonar should be undertaken prior to disturbance of the harbour bed.</li> <li>- MA2: The Maritime Archaeological Assessment report should then be reviewed and updated to include the results of the above geophysical data/dive survey. It should include a detailed significance assessment and impact assessment.</li> <li>- MA3: In the event of unexpected finds of potentially significant cultural material during construction works: <ul style="list-style-type: none"> <li>• Activity in the immediate area of that find should cease.</li> <li>• The find should be reported to the appropriate site supervisor.</li> <li>• Advice sought from a suitably qualified archaeologist with experience in working with and managing items from a submerged environment.</li> <li>• If the item is assessed by the archaeologist as being a relic of heritage significance, advice should subsequently be sought from Heritage NSW.</li> <li>• No further work in the vicinity of that item should be undertaken until approval is received from Heritage NSW.</li> </ul> </li> </ul>	Prior to construction/ During Construction
<b>Heritage interpretation (HI)</b>		
	<p>A Preliminary Heritage Interpretation Framework (PHIF) has been prepared by GML Heritage and is provided at <b>Appendix Q</b>. The framework provides key interpretive devices to represent the site's industrial and Aboriginal Cultural history in the proposed development. Refer to <b>Appendix P</b> and <b>Mitigation Measure EH14</b> above.</p>	Detailed Design Stage
<b>Arboricultural impact (AI)</b>		
	<ul style="list-style-type: none"> <li>- AI1: A Project Arborist shall be engaged prior the commencement of work on-site and monitor compliance with the protection measures. The Project Arborist shall inspect the tree protection measures and Compliance Certification shall be prepared by the Project Arborist for review by the Principal Certifying Authority prior to the release of the Compliance Certificate. The Project Arborist shall have a minimum qualification equivalent (using the Australian Qualifications Framework) of NSW TAFE Certificate Level 5 or above in Arboriculture.</li> <li>- AI2: Three trees (19, 21 and 22) identified for retention are affected by storm damage. Deadwood removal and an aerial inspection should be undertaken during development works. Structural defects should be reported to the Project Arborist to recommend necessary management measures. To protect these trees from development works, fencing should be constructed around each tree's TPZ (approximately 1.8m).</li> <li>- AI3: Excavation of the footings and supports of the shade structure within the TPZ of trees 29, 21 and 22 should be undertaken using tree sensitive techniques. The roots of should be protected and retained in this process.</li> <li>- AI4: Shade structure should provide sufficient clearance to the trees and avoid excess pruning. Pruning is to be completed in accordance with Australian standard 4373 Pruning of Amenity Trees (2007).</li> <li>- AI5: Trunk protection should be installed for trees located at the northern part of the site (Trees 77, 79 &amp; 83) during development works.</li> <li>- AI6: Small areas of mulch, turf and vegetation within TPZ areas should be removed with hand tools. Larger woody shrubs and small trees which cannot be removed without significant ground disturbance should either be cut to ground level and treated with herbicide to prevent regrowth (where required) or stump ground. Stump grinding should not be undertaken in the SRZ of existing trees to be retained.</li> <li>- AI7: Demolition occurring in the TPZ areas should be supervised by the Project Arborist and use tree sensitive methods. Existing structures within the SRZ can</li> </ul>	During construction

Item	Mitigation Measure	Timing
	<p>contribute to tree stability by providing ballast to the rootplate or act as a stop to the overturning of the rootball and should be retained in-situ if possible.</p> <ul style="list-style-type: none"> <li>- AI8: To carry out soil remediation works in TPZs, should be undertaken in accordance to tree sensitive methods outlined within the Arboricultural Impact Assessment Report.</li> <li>- AI9: Underground services should be located outside TPZ areas, if not, services should be installed using tree sensitive excavation. Excavations of starting and receiving pits for boring should be located outside TPZ or avoid roots.</li> <li>- AI10: Soft landscaping in TPZ should be completed using hand tools and away from tree roots. Soil conditioners and underlay should not increase existing soil levels more than 100mm and not raise levels within 1m of the tree base.</li> <li>- AI11: New trees should be supplied in accordance with the Urban Forest Strategy for Blackwattle Bay State Significant Precinct Study Report.</li> <li>- AI12: A dual horizon soil profile resembling of natural environments should be used in areas of new tree planting. Soil should contain low organic matter below 300mm and sufficient levels of soil consolidation for the successful establishment of trees.</li> <li>- AI13: To ensure correct installation, the top of the tree root ball should be the same height as adjacent finished levels. Irrigation should be provided directly to the root ball surfaces to maintain moisture during establishment period. New tree plantings should be supervised by horticulturalists (AQF level 3 or above in horticulture).</li> <li>- AI14: An underground tree anchoring system should be installed for all advanced size trees and should ensure the root balls of new trees remain firm during establishment period.</li> <li>- AI15: A permanent irrigation system should be installed for trees without access to rainfall.</li> </ul>	
<b><u>Traffic, Transport and Accessibility (TTA)</u></b>		
<b>Construction Pedestrian Traffic Management</b>		
	<ul style="list-style-type: none"> <li>- TA1: Manage and control construction traffic movements on the adjacent road network and vehicle movements to and from the site.</li> <li>- TTA2: Trucks must enter and exit the site in a forward direction.</li> <li>- TTA3: Limit the amount of parking provided for construction workers.</li> <li>- TTA4: Provide designated construction vehicle routes.</li> <li>- TTA5: Construction access driveways to be managed and controlled by certified site personnel.</li> <li>- TTA6: Pedestrian warning signs and construction safety signs/devices should be utilised.</li> <li>- TTA7: Construction activity is to occur during the approved hours of work.</li> <li>- TTA8: Truck loads should be covered during transportation off-site.</li> <li>- TTA9: Enforcement of appropriate on-site vehicle speed limits</li> <li>- TTA10: Materials delivery and spoil removal would occur during construction hours.</li> <li>- TTA11: Construction vehicles are not to queue on public roads and be wholly accommodated within the site;</li> <li>- TTA12: Minimal construction traffic movements to/from the site will occur during peak hours.</li> </ul>	During Demolition and Construction
<b><u>Biodiversity</u></b>		
<b>Terrestrial Biodiversity (TB)</b>		
	<ul style="list-style-type: none"> <li>- TB1: Sediment barriers or sedimentation ponds to control the quality of water released from the site into the receiving environment.</li> <li>- TB2: Construction or development lights should be positioned to prevent shine into waterbody.</li> <li>- TB3: Proposed streetlights should use ecologically sensitive design including use of shields, timers and positioned away from water bodies.</li> </ul>	Prior to construction/ During Construction

Item	Mitigation Measure	Timing
	<ul style="list-style-type: none"> <li>- TB4: Noise should be limited to construction hours only.</li> <li>- TB5: Dust should be managed through a dust management control plan.</li> <li>- TB6: A Microbat Management Plan (MMP) is to be prepared before construction and include additional surveys to ensure no microbats are utilising the buildings or seawall for roosting prior to construction.</li> <li>- TB7: To prevent the spread of weeds or pathogens between infected and uninfected areas, vehicles and machinery should be cleaned of soil prior to entry onto the subject land.</li> <li>- TB8: Where possible within construction timelines, clearing works should be avoided during breeding and nesting seasons for animals.</li> <li>- TB9: Retain microbat foraging areas in the northwest and south east corners of the site.</li> <li>- TB10: Waste bins are to be present on the site and include covers to prevent blown litter, the entry of pests or rain.</li> <li>- TB11: Installation of temporary fencing and signage at the edge of the site to prevent entry into adjacent waterbody.</li> <li>- TB12: Construction staff are informed before the commencement of work of sensitive biodiversity values and environmental procedures.</li> </ul>	
<b>Marine Ecology (ME)</b>		
	<ul style="list-style-type: none"> <li>- ME1: The gangway and elevated boat ramp should be constructed from a mesh material to allow light to penetrate the water column.</li> <li>- ME2: Aside from the pontoon, rough timber piles are preferred to smooth steel piles to improve colonisation of marine biota.</li> <li>- ME3: Bins near the shoreline should be provided for fishing and general waste.</li> <li>- ME4: After the boat ramp is relocated, the addition of rocky rubble along the sea floor is recommended.</li> <li>- ME5: The base of seawalls would benefit from additional rock rubble on the seafloor.</li> <li>- ME6: Explore the opportunity to add two seahorse hotels in a quiet area.</li> <li>- ME7: Explore the suitability of attaching marine habitat features such as seawall tiles or water retention pots to parts of existing seawalls.</li> </ul>	Prior to Construction
<b>Construction and Operation</b>		
	<ul style="list-style-type: none"> <li>- ME8: Finalise and apply the Construction Environmental Management Plan to address: <ul style="list-style-type: none"> <li>• Sediment and debris control</li> <li>• Oil/fuel/chemical storage and spill management</li> <li>• Machinery and engine maintenance schedule to reduce oil/fuel leakage.</li> <li>• Low impact barge positioning to prevent propeller scouring and thrust wash onto benthic habitats.</li> <li>• Minimise footprint and establish no-go zones in shallow habitats, especially on macroalgae beds.</li> <li>• Accidental waste/material overboard response</li> <li>• Biological hygiene</li> </ul> </li> <li>- ME9: Position barges, drilling and pile driving during calm conditions.</li> <li>- ME10: Avoid shallow water when turning vessels. Large vessels/barges should avoid macroalgae at low tide.</li> <li>- ME11: All mooring lines should be suspended off the seafloor to minimise drag across benthic habitat.</li> <li>- ME12: Use of a floating boom with silt curtain encompassing full works area. The curtain is to remain in place until all suspended material has settled.</li> <li>- ME13: All waste material should be disposed of on land and not reused in the construction or left on the seafloor.</li> <li>- ME14: Drill heads or anchors used at another site with <i>Caulerpa taxifolia</i> should be clean to avoid the introduction of <i>Caulerpa</i>.</li> </ul>	During Construction/Operation



Item	Mitigation Measure	Timing
	<ul style="list-style-type: none"> <li>– ME15: Gentle start-up hammering is recommended to allow undetected aquatic fauna to leave the area and avoid hearing damage and include staged breaks. Work should be stopped if large fauna is observed nearby.</li> <li>– ME16: An inspection for seahorses should occur two weeks prior to demolition of submerged piles/supports or where works will remove or directly damage macroalgae, or at a time recommended by the diver. The diver must operate under a s.37 licence (FM Act) and Seahorse Relocation Plan approved by DPI Fisheries. The relocation site should be selected by the diver in a nearby area with similar habitat.</li> </ul>	
<b><u>Noise and Vibration</u></b>		
<b>Construction Noise and Vibration (CNV)</b>		
	<ul style="list-style-type: none"> <li>– CNV1: For all construction works, the contractor is to write a detailed Construction Noise and Vibration Management Plan which will identify noise criteria exceedances and relevant mitigation measures.</li> <li>– CNV2: Work associated with the proposed development should be carried out during the City of Sydney Standard Construction Hours.</li> <li>– CNV3: Maximises distance between noise sources and sensitive receivers.</li> <li>– CNV4: Reduce line-of-sight noise transmission to residences or sensitive land uses by using temporary barriers.</li> <li>– CNV5: Barriers should be included early in the project design.</li> <li>– CNV6: Purpose built noise barriers, acoustic sheds and enclosures should be installed.</li> <li>– CNV7: Implement gentle start up and staged breaks when hammering the seabed.</li> <li>– CNV8: Where distance is limited, screening noise should be undertaken. Careful consideration should be given to reducing noise breakout from any openings with closed structures.</li> <li>– CNV9: To reduce noise emissions of diesel operated cranes, an appropriate silencer on the muffler and acoustic screen around the engine bay should be implemented.</li> <li>– CNV10: Alternative warning alarms to provide a safe system of work should be implemented where possible to avoid the noise impacts of reversing and warning alarms.</li> </ul>	During Construction
<b>Operational Noise and Vibration (CNV)</b>		
	<p><b>Mechanical Noise Emissions</b></p> <ul style="list-style-type: none"> <li>– ONV1: Locate plant as far away from possible noise sensitive receivers.</li> <li>– ONV2: Select low noise mechanical equipment.</li> <li>– ONV3: Where possible locate plant within an enclosed plant space.</li> </ul> <p><b>Multipurpose Court</b></p> <ul style="list-style-type: none"> <li>– ONV5: To comply with noise criteria, the use of whistles on the court past 6pm is not recommended.</li> <li>– ONV6: It is recommended to not light the court after 10pm to discourage its use between 10pm and 7am</li> </ul>	During operation

Item	Mitigation Measure	Timing
<b><u>Geotechnical (G)</u></b>		
	<ul style="list-style-type: none"> <li>- G1: Site Preparation: Subgrade preparation should be undertaken in areas where new pavements will be constructed, or minor earthworks are undertaken to regrade the site in accordance with the construction methods recommended in the Geotechnical Assessment Report.</li> <li>- G2: Groundwater: Any potential seepage of groundwater encountered during construction can be controlled using a sump and pump system to discharge water into the Council stormwater system.</li> <li>- G3: Design Parameters: Undertake construction in accordance with the recommended design parameters for soil and rock outlined within the Geotechnical Assessment Report.</li> <li>- G4: Footings: Proposed structures are recommended to be designed as fully suspended and supported on footings that are uniformly founded into the underlying sandstone bedrock. Footings and existing fill should be considered on a case-by-case basis for lightweight buildings. Footings on bedrock and soil should be constructed in accordance with construction methods outlined in section 8.4.1 and 8.4.2 of the Geotechnical Assessment Report.</li> </ul>	Prior to construction / during construction
<b><u>Flood (F)</u></b>		
	<p>A Flood Risk and Impact Assessment has been prepared by Mott Macdonald at <b>Appendix AF</b>. The following mitigation measures are provided to mitigate against the worst-case flood event on the site:</p> <ul style="list-style-type: none"> <li>- F1: Provision of overland flow paths to accommodate overland flows which are in excess of the piped system capacity.</li> <li>- F2: Increase the capacity of piped systems to capture a greater runoff volume.</li> <li>- F3: Nominated evacuation routes towards the Star Casino via rising road access from Blackwattle Bay are preferred.</li> </ul>	Prior to construction
<b><u>Waste</u></b>		
<b>Construction and Demolition Waste (CDW)</b>		
	<p>The Construction and Demolition Waste Management Plan (CDWMP) prepared by Mott MacDonald (<b>Appendix AL</b>) outlines the following mitigation measures for construction waste:</p> <ul style="list-style-type: none"> <li>- CDW1: The Principal Contractor (PC) will be responsible for developing a detailed waste management plan prior to commencement of the construction works. The plan must be consistent with the approach, principles and management methods provided in the WMP. The Contractor will also be responsible for: <ul style="list-style-type: none"> <li>• Inducting all contractors and visitors in relation to procedures outlined in the WMP.</li> <li>• Ensuring all waste management contractors have the necessary qualifications and licenses to remove waste.</li> <li>• Carrying out periodic audits to check compliance with the WMP.</li> </ul> </li> </ul>	Prior to construction
<b>Operational Waste (OW)</b>		
	<p>An Operational Waste Management plan (OWMP) has been prepared which primarily covers the community building part of the development. outlines the following measures to respond to operational waste associated with the proposed development:</p> <ul style="list-style-type: none"> <li>- OW1: Meet the target of 80% diversion of operational waste as per the Blackwattle Bay Design Guidelines.</li> <li>- OW2: Waste separation strategies through colour coded bins for general waste, mixed recycling and food waste.</li> <li>- OW3: It is recommended that an inventory or database of assets be developed to support waste minimisation.</li> <li>- OW4: Skills development and education through engagement initiatives.</li> <li>- OW5: A range of additional methods for waste reduction and reuse are outlined with the OWMP.</li> </ul>	During operation

Item	Mitigation Measure	Timing
<b><u>Wind (W)</u></b>		
	<ul style="list-style-type: none"> <li>- W1: Retain all proposed dense tree planting and landscaping within and around the park and add a line of trees to the western aspect of the Marina area.</li> <li>- W2: Inclusion of the proposed batten fence around Dragon boat deck at a maximum porosity of 30%.</li> </ul>	Prior to construction
<b><u>Navigation Impact (N)</u></b>		
	<ul style="list-style-type: none"> <li>- N1: Maintain the existing 4 knot speed limit and no wash zone within Blackwattle Bay.</li> <li>- N2: Structures and berths are to be sited more than 25m from the existing rowing route.</li> <li>- N3: Install signage to aid in safe navigation at marina and wharf facilities, including clear notification of speed limit, no anchoring at the head of Blackwattle Bay, looking out for non-power craft, peak times and giving way to recreational craft.</li> <li>- N4: Incorporation of safe navigation requirements into the 'berthing rules' and/or a Plan of Management.</li> <li>- N5: A 'Blackwattle Bay Waterway User Group Agreement' is drafted by INSW in consultation with TfNSW - Maritime in consultation with key stakeholders to document the rules and requirements that water recreation groups.</li> <li>- N6: Installation of appropriate navigation aids to provide night time visibility in the marina and wharf structures.</li> <li>- N7: Installation of prominent signage at the Glebe Island Bridge entrance advising that "non-powered vessels are using this area frequently".</li> </ul>	During Construction/ Operation
<b><u>Contamination (C)</u></b>		
	<p><b>Detailed Site Investigation (DSI)</b></p> <ul style="list-style-type: none"> <li>- C1: Implementation of site management procedures such as updating site Asbestos Management Plan/asbestos register to ensure occupational exposure risks are appropriately managed during activities that will result in ground surface disturbance.</li> <li>- C2: Management of the identified Potential Acid Sulfate Soils (PASS) will require preparation and implementation of an Acid Sulfate Soils Management Plan specific to the proposed development works.</li> </ul> <p><b>Acid Sulfate Soil Management Strategy (ASSMP)</b></p> <ul style="list-style-type: none"> <li>- C3: The ASSMP should be adhered to during construction.</li> </ul> <p><b>Remedial Action Plan (RAP)</b></p> <ul style="list-style-type: none"> <li>- C4: Decommissioning and removal of the potential UST infrastructure and any associated impacts through excavation and off-site disposal to a licensed waste facility</li> <li>- C5: Identification, excavation and offsite disposal of fill material with elevated contaminant leachate which is assumed to present in the northern section of the site.</li> <li>- C6: On-site containment of the balance of the fill material characterised with asbestos, lead, copper, zinc, PAH and TRH contamination beneath a permanent physical barrier or offsite disposal of material.</li> </ul>	Prior to and during construction.
<b><u>Hazardous Building Materials (HBM)</u></b>		
	<p><b>Asbestos containing Materials</b></p> <ul style="list-style-type: none"> <li>- HBM1: Due to the extent of identified hazardous materials, Prensa recommends that the Site in its entirety is not re-occupied until an appropriate remediation project has been completed. Contamination extent throughout the Site should be clearly defined, with management systems for identified hazardous materials implemented and understood by Site occupants.</li> <li>- HBM2: When asbestos removal works are required, the person that commissions the works must ensure that this is undertaken by an appropriately licensed asbestos contractor. The asbestos removal works must be conducted under controlled asbestos removal working conditions.</li> </ul>	During construction

Item	Mitigation Measure	Timing
	<ul style="list-style-type: none"> <li>– HBM3: When non-friable asbestos removal works are to be conducted within or adjacent to a highly sensitive area or public location, Prensa recommends that a hygienist who is independent of the asbestos contractor should be engaged to undertake airborne asbestos fibre monitoring along the boundary of the works and within the work area on completion of the works.</li> <li>– HBM4: Where friable asbestos removal works are to be conducted a licensed asbestos assessor who is independent of the asbestos contractor must be engaged to: <ul style="list-style-type: none"> <li>• Inspect the asbestos removal work area prior to commencement of the works;</li> <li>• Undertake asbestos fibre air monitoring before and during friable removal works in the surrounding areas and clearance asbestos fibre air monitoring at the conclusion of the asbestos removal work; and</li> <li>• Complete a visual inspection of the asbestos removal area and the area immediately surrounding it and ensure these are free from visible asbestos contamination.</li> </ul> </li> <li>– HBM5: The licensed asbestos assessor must provide a Clearance Certificate that documents the visual clearance inspection and the satisfactory completion of the asbestos removal works. The Clearance Certificate should state that all visible asbestos dust and debris resulting from the asbestos removal process has been removed from the removal area(s) and from areas adjacent to the removal work area(s).</li> <li>– HBM6: Most ACM were found not to be appropriately labelled. ACM on-site should be labelled in accordance with Regulation 424 of the <i>NSW Work Health and Safety Regulation, 2017</i> and AS 1319-1994 <i>Safety signs for the occupational environment</i> to warn of the dangers of disturbing these materials.</li> <li>– HBM7: An Asbestos Management Plan (AMP) should be created and maintained for all ACM that remain at the Site to assist the site controller with the management of these materials. The AMP must ensure that suitable control measures are implemented to prevent site personnel and others from being exposed to airborne asbestos fibre.</li> <li>– HBM8: Schedule periodic reassessment of ACM remaining on-site to monitor their aging/deterioration so that the site controller can be alerted if any ACM require encapsulation or removal – in accordance with <i>NSW Code of Practice: How to Manage and Control Asbestos in the Workplace, 2019</i>.</li> <li>– HBM9: A destructive hazardous building material survey must be carried out prior to any demolition or refurbishment works. Any hazardous building materials identified within this survey should be removed prior to the commencement of any works that may cause disturbance - as per <i>NSW Code of Practice: Demolition Work, 2019</i>.</li> <li>– HBM10: During demolition/refurbishment works, if any materials that are not referenced in the Hazardous Building Materials Survey report and are suspected to be asbestos-containing are encountered, then works must cease and a hygienist/asbestos assessor should be notified to determine whether the material contains asbestos.</li> </ul> <p><b>Synthetic Mineral Fibre Materials</b></p> <ul style="list-style-type: none"> <li>– HBM11: SMF materials that are likely to be disturbed during any proposed demolition/refurbishment works should be handled in accordance with The National Code of Practice for the Safe Use of Synthetic Mineral Fibres [NOHSC:2006(1990)] and the SafeWork Australia Guide to Handling Refractory Ceramic Fibres, as appropriate.</li> </ul> <p><b>Polychlorinated Biphenyls</b></p> <ul style="list-style-type: none"> <li>– HBM12: Electrical fittings suspected of containing PCB oil capacitors should be treated as containing PCB oils until such time as evidence suggest otherwise e.g. further assessed.</li> </ul>	

Item	Mitigation Measure	Timing
	<ul style="list-style-type: none"> <li>- HBM13: Electrical fittings that contain or are suspected to contain PCB oil-containing capacitors should be removed as hazardous/regulated waste under controlled working conditions prior to any demolition/ refurbishment works in accordance with the <i>Polychlorinated Biphenyls Management Plan, Revised Edition April 2003</i>.</li> </ul> <p><b>Lead containing Paint</b></p> <ul style="list-style-type: none"> <li>- HBM14: Any works that are likely to disturb LCP surfaces should be conducted in accordance with the requirements of AS 4361.2:2017 <i>Guide to Hazardous Paint Management – Part 2: Lead Paint in Residential, Public and Commercial Buildings</i>;</li> <li>- HBM15: Advise all relevant site personnel and site contractors of the results of the LCP and the safe work procedures required and/or work practices to be avoided in the areas of confirmed LCP;</li> <li>- HBM16: The safest method of dealing with LCP is to replace or remove the items in their entirety that have LCP on them and replace them with new items that do not contain lead. The advantage of this method is the reduction in labour requirements to remove the lead paint and this also reduces the risk to workers of exposure to lead dust or fumes. If the removal of the LCP or coatings is the preferred or required option this may generate significant amounts of potential hazardous waste. This waste must be removed, collected and disposed of by an appropriately licensed contractor under controlled conditions that minimises the release to air, water and soil. Lead waste must be disposed of as hazardous waste at an approved waste facility;</li> <li>- HBM17: Any remediation works that may generate dust or fumes (i.e. sanding, burning) must be performed under controlled conditions by a suitably resourced and experienced hazardous material/waste abatement contractor (e.g. a Class A licensed asbestos removal contractor); and</li> <li>- HBM18: LCP removal work conditions may include: <ul style="list-style-type: none"> <li>• Clear separation of the removal area from other areas;</li> <li>• Controlled air flow within the work area;</li> <li>• Wet removal techniques employed;</li> <li>• Use of HEPA vacuum cleaner;</li> <li>• Management of lead paint/dust and waste;</li> <li>• Wet decontamination facilities;</li> <li>• Prohibitions on eating, drinking, smoking and gum within the work area;</li> <li>• Use of appropriate PPE; and</li> <li>• Lead dust removal clearance requirements.</li> </ul> </li> </ul>	
<b>Social Impact (SI)</b>		
	<p><b>Way of Life</b></p> <ul style="list-style-type: none"> <li>- SI1: Continue engaging with existing users using the park ahead of construction and support relocation process to an alternative site and back to Bank Street Park</li> <li>- SI2: Ensure all abilities and inclusive design of the play space as well as throughout the park.</li> <li>- SI3: Lighting of the court, fitness station and playground after dark and extending hours past 6pm is recommended in collaboration with adjacent neighbors and noise recommendations.</li> <li>- SI4: Finalise the operation of future kayak kiosk and consider other recreational water based uses.</li> <li>- SI5: Ensure adequate bins and maintenance is provided along the foreshore.</li> <li>- SI6: Investigate the need for increased shading at the play space and fitness equipment.</li> </ul> <p><b>Community</b></p> <ul style="list-style-type: none"> <li>- SI7: Future activation of the space through public art, events and celebration of local heritage</li> </ul>	During construction / operation

Item	Mitigation Measure	Timing
	<ul style="list-style-type: none"> <li>- SI8: Ensure detailed design supports flexible use for a range of purposes and user groups.</li> <li>- SI9: A Plan of Management is to be prepared to guide the future use of the park and community facilities to ensure equity and a well-maintained environment. This should be reviewed regularly to align with increases in population.</li> <li>- SI10: Work with Placemaking NSW to undertake random patrols through the park network, during the day and at night.</li> <li>- SI11: Provide clear signage identifying security safe points and contact details in case of a management issue.</li> </ul> <p><b>Accessibility</b></p> <ul style="list-style-type: none"> <li>- SI12: Advocate for the reopening of Glebe Island Bridge, which would extend active transport options to the site.</li> </ul> <p><b>Culture</b></p> <ul style="list-style-type: none"> <li>- SI13: During operations, additional measures to connect users to maritime heritage could be explored via public art displays (indoor or outdoor) or education programs.</li> <li>- SI14: Involve Aboriginal and Torres Strait Island artists, practitioners, elders and knowledge holders in the detailed design of the future park and in the longer term future operation of the park.</li> </ul> <p><b>Health and Wellbeing</b></p> <ul style="list-style-type: none"> <li>- SI15: Provide sharp bins in toilets to prevent sharps being disposed of in open spaces.</li> <li>- SI16: Provide a help button near the water in case of an emergency.</li> </ul> <p><b>Surroundings</b></p> <ul style="list-style-type: none"> <li>- SI17: Ensure appropriate long-term maintenance of the space to promote the future amenity of the park.</li> </ul>	
<b><u>Construction management (CM)</u></b>		
<b>General</b>		
	<ul style="list-style-type: none"> <li>- CM1: All contractors will take part in a site induction on arrival and before the commencement of any work.</li> <li>- CM2: A site specific emergency control Plan would be developed before construction.</li> <li>- CM3: A compliance monitoring inspection program to ensure conditions of consent are being met throughout construction must be implemented.</li> <li>- CM4: Contractors should report all environmental and safety events to the environmental coordinator within one hour of the incident occurring.</li> <li>- CM5: The CEMP will be reviewed and updated throughout construction to reflect current best practice.</li> <li>- CM6: A list of the relevant contact information for key persons and stakeholders should be developed in the case of significant issues during construction.</li> <li>- CM7: A complaints register will be maintained by the PC.</li> <li>- CM8: To avoid or minimise cumulative impacts, projects in the surrounding areas are to coordinate to ensure scheduling of noisy or dust generating works do not overlap.</li> </ul> <p>CM9: Examples of management strategies are provided in the Preliminary CEMP.</p>	During construction
<b>Maritime Archaeology</b>		
	<ul style="list-style-type: none"> <li>- CM10: A limitation of the Maritime Archaeological Assessment is the absence of harbour bed survey data (geophysical and/or archaeological dive inspection). It is therefore recommended that a survey in the form of (a) an archaeological dive inspection or (b) shallow water side scan sonar is undertaken prior to the commencement of disturbance of the harbour bed.</li> <li>- CM11: The Maritime Archaeological Assessment report should then be reviewed and updated to include the results of the geophysical data/dive survey. That</li> </ul>	

Item	Mitigation Measure	Timing
	<p>should include a detailed significance assessment and impact assessment. Detailed mitigation and management recommendations can then be developed.</p>	
<b>Contamination</b>		
	<ul style="list-style-type: none"> <li>- CM12: A Construction Environmental Management Plan (CEMP) is to be prepared to include unexpected finds protocol, unexpected contamination ASS conditions and risk associated with soil disturbance during construction.</li> </ul>	
<b>Crime Prevention (CP)</b>		
	<p>A Crime Prevention Through Environmental Design (CPTED) Report has been prepared by Core 42 at <b>Appendix W</b>. The following recommendations are provided to prevent crime and antisocial behaviour in the proposed development:</p> <ul style="list-style-type: none"> <li>- CP1: Street Edge: Vegetation height should be kept below 150mm in this location, and trunk width and in-between distances should be of sufficient distance to enable surveillance from the street.</li> <li>- CP2: Pylon: The ANZAC Bridge Pylon requires CCTV surveillance as it has limited natural surveillance opportunities. This area should also be supported with lighting.</li> <li>- CP3: Multipurpose Court: Fencing should be constructed of a chain link mesh type to support natural surveillance from the street, and from within the court. The multi-purpose court should not be fully enclosed to enable free movement.</li> <li>- CP4: Plaza: CCTV should be provided to the plaza to surveil the public toilet entries, plaza, and cafe.</li> <li>- CP5: Street Edge Vehicle Access: vehicle access to the park should be restricted through retractable bollards at the street entry, and at the second line of defence at the Pylon.</li> <li>- CP6: Pylon Vehicle Access: The ANZAC Bridge pylon vehicle perimeter must provide a vehicle impact rating. A minimum rating of V/2500[N1G]/20/90:N/A is recommended. The low height wall at the top of the landscaped area leading to the ANZAC Bridge Pylon should be designed to provide a visual deterrent to a vehicle attacker. The wall should be of a minimum height of 510mm to ensure the N1G vehicle chassis will be engaged on impact.</li> <li>- CP7: Public Toilet: The Public Toilet block should be locked for use after operational hours.</li> <li>- CP8: Signage: Signage should be provided throughout the park displaying the use of CCTV, security contact information and Navigational aids.</li> <li>- CP9: Night Time Lighting: Night time lighting should focus on maximising accurate colour rendition, and colour temperature uniformity. Lighting should avoid floodlights and comply with relevant building codes outlined in the CPTED.</li> <li>- CP10: Park Management: Consider running community events at Bank St Park to develop community territoriality around the site.</li> <li>- CP11: Waste management: should be considered throughout the park, with waste bins provided at regular intervals along paths of travel, and at dwelling points such as seats, the multi-purpose court, and the fitness areas.</li> <li>- CP12: Graffiti Management Graffiti and vandalism should be cleaned and repaired by park management as soon as possible.</li> <li>- CP13: CCTV: 10 to 15 cameras are recommended for use throughout the park and should be provided in accordance with the layout outlined in the CPTED Report.</li> <li>- CP14: Dragon Boat Storage: Intruder resistant construction should be implemented at the entrance and roller shutters.</li> </ul>	<p>Detailed design stage / operation</p>