



Heritage Management Plan

SMWSTCTP-AFJ-1NL-PE-PLN-000004 Revision 06

Sydney Metro West – Central Tunnelling Package



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29 July 2022

REF: HMP REV6

Dear Carolyn

RE: Sydney Metro Central Tunnelling Package: Heritage Management Plan (Rev 6)

I refer to Sydney Metro's (SM) submission of the following document required by Condition C5 and C13 of the Sydney Metro West Infrastructure Approval (SSI 10038). A previous version of the document was approved by the Department of Planning, Industry and Environment (DPIE) on 20 December 2021:

- Sydney Metro West, Central Tunnelling Package Heritage Management Plan (HMP Rev 06 dated 27 July 2022).

It is noted that:

- The Approved Heritage Management Plan (SMWSTCTP-AFJ-1NL-PE-PLN-000004) was prepared by Acciona Ferrovia Joint Venture (AFJV) to address the requirements of Condition C5(d) and C13 of the Infrastructure Approval for Phase B1 or Civil Works as described in the Sydney Metro West Phasing Report. This Revision (Rev 6) has been updated to also cover Phase B2: Tunnelling Works as described in the Phasing Report.
- Previous versions of the document have been reviewed and updated following comments from the ER. Some ER comments noted that the HMP (Rev 6) refers to EIS settlement predictions, and has not been updated to include settlement predictions developed by AFJV from further modelling and assessment conducted as part of ongoing project design and reviews.
- Sydney Metro has reviewed and commented on previous versions of the document.
- Consultation has occurred with relevant councils, Place Management and SOPA. Some comments from these agencies relate to management of settlement at heritage buildings (see discussion below).

As was noted in the ER Endorsement of the previous document prepared for Phase B1, the revised HMP (Section 5.8) includes reference to an Instrumentation and Monitoring Program being developed to measure and respond to settlement for key sensitive locations under Condition D63. The HMP states that *"The program will identify settlement trigger levels which require additional action including monitoring, review of construction methodologies, design review and/or repairs."* This document has not been reviewed or its adequacy assessed as part of the ER review of the HMP. It is assumed this document would include approaches to effectively manage settlement predicted for potentially affected heritage buildings.

Further, the HMP states *“The (detailed geotechnical and hydrogeological) model would be developed in accordance with REMM GW05, which would include assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain. If building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage.”*

This ER endorsement has not considered the above approaches in the management of settlement impacts of heritage buildings, noting this assessment is outside of the competence of the ERs.

As the approved Environmental Representative for the Metro West and as required by Conditions A30(d) and C7, and subject to the comments above, the Heritage Management Plan (Revision 6) is endorsed and considered appropriate for submission to DPE for their consideration for Approval.

Yours sincerely



Michael Woolley

Environmental Representative – Sydney Metro West
CC: John Ieroklis, Matthew Marrinan, Ben Armstrong

DOCUMENT APPROVAL

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03	16/11/2021	All	SH	Submission for Planning Secretary approval
04	01/06/2022	All	GW	Revised to include Phase B2 for ER endorsement
05	12/07/2022	All	OG	Revised to address stakeholder comments
06	27/07/2022	All	GW	Revised to address ER comments

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GLOSSARY / ABBREVIATIONS

Abbreviation	Description / Definition
ACHAR	Aboriginal Cultural Heritage Assessment Report (Artefact, 2020) Technical Paper 4, Sydney Metro West Concept and Stage 1 Environmental Impact Statement (April 2020)
AFJV	Acciona Ferrovia Joint Venture (the Contractor)
Amendment Report	Sydney Metro West Westmead to The Bays and Sydney CBD Amendment Report Concept and Stage 1 (2020)
CEMP	Construction Environmental Management Plan
Construction	Includes all work required to construct Stage 1 of the CSSI as described in the documents listed in Condition A1 of Schedule 3, including commissioning trials of equipment and temporary use of any part of the CSSI, but excluding Low Impact Work. <i>Note: As defined in Table 1 of SSI 10038 Infrastructure approval for the Project.</i>
CoA	Minister's Conditions of Approval (as relevant to Sydney Metro West Concept and Stage 1)
CTP	Central Tunnelling Package (refer to Section 1.3.3 of the CEMP)
DPIE	NSW Department of Planning, Infrastructure and Environment
EIS	Sydney Metro West Concept and Stage 1 Environmental Impact Statement (April 2020)
EMS	Environmental Management System
EP&A Act	<i>NSW Environmental Planning and Assessment Act 1979</i>
Heritage Act	<i>NSW Heritage Act 1977</i>
Heritage item	<i>A place, building, work, relic, archaeological site, tree, movable object or precinct of heritage significance, that is listed under one or more of the following registers: the State Heritage Register under the Heritage Act 1977 (NSW), a state agency heritage and conservation register under section 170 of the Heritage Act 1977 (NSW), a Local Environmental Plan under the EP&A Act, the World, National or Commonwealth Heritage lists under the Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth), and an "Aboriginal object" or "Aboriginal place" as defined in section 5 of the National Parks and Wildlife Act 1974 (NSW).</i> <i>Note: As defined in Table 1 of SSI 10038 Infrastructure approval for the Project.</i>
Heritage NSW	Heritage NSW (Department of Premier and Cabinet)
HMP	Heritage Management Plan (this Plan)
Minister, the	NSW Minister for Planning and Public Spaces
NPW Act	<i>NSW National Parks and Wildlife Act 1974</i>
Planning Secretary	The Planning Secretary of the Department of Planning, Industry and Environment
Project	Sydney Metro West Concept and Stage 1

Abbreviation	Description / Definition
RAP	Registered Aboriginal Parties
Relevant Councils	Any or all local government councils as relevant including Inner West, Strathfield, Burwood, Canada Bay and Parramatta Local Government Areas
REMM	Revised Environmental Mitigation Measure
Submissions Report	Sydney Metro West Westmead to The Bays and Sydney CBD Submissions Report Concept and Stage 1 (2020)
Unexpected heritage find	An object or place that is discovered during the carrying out of the CSSI and which may be a Heritage item but was not identified in the documents listed in Condition A1 of Schedule 3 or suspected to be present. An unexpected heritage item does not include human remains.

1. INTRODUCTION

1.1 BACKGROUND

Sydney Metro is Australia's biggest public transport program. Services on the North West Metro Line between Rouse Hill and Chatswood started in May 2019. The Sydney Metro network also includes Sydney Metro City & Southwest, Sydney Metro West and Sydney Metro Western Sydney Airport.

Sydney Metro West is a new 24 kilometre metro line between Westmead and the Sydney CBD. This infrastructure investment will double the rail capacity of the Greater Parramatta to Sydney CBD corridor with a travel time target between the two centres of about 20 minutes.

The planning approvals and environmental impact assessment for Sydney Metro West has been split into a number of stages recognising the size of the project. This includes:

- Stage 1 – Concept and all major civil construction works including station excavation and tunnelling between Westmead and The Bays. Planning approval for this stage was granted in March 2021.
- Stage 2 – All major civil construction works including station excavation and tunnelling from The Bays to Sydney CBD
- Stage 3 – Tunnel fit-out, construction of stations, ancillary facilities and station precincts, and operation and maintenance of the Sydney Metro West line.

An Environmental Impact Statement (EIS) (Jacobs/Arcadis, 2020) for the Concept and Stage 1 (herein referred to as the Project) assessed the heritage impacts in response to the Secretary's Environmental Assessment Requirements issued by the Department of Planning, Industry and Environment (DPIE). The non-Aboriginal heritage impacts were assessed in Chapter 12 and Technical Paper 3 and Aboriginal Cultural heritage impacts were assessed in Chapter 13 and Technical Paper 4 of the Project EIS. The Project was approved by the NSW Minister for Planning and Public Spaces on 11 March 2021 (SSI 10038).

1.2 SCOPE

The Heritage Management Plan (HMP) forms part of the Construction Environmental Management Plan (CEMP). This Plan outlines how Acciona Ferrovial Joint Venture (AFJV) will comply with and implement the applicable 'environmental requirements' for the Central Tunnelling Package (CTP) and identify how AFJV will manage the Aboriginal Cultural heritage and non-Aboriginal heritage impacts during construction of the CTP civils construction phase B1 and tunnelling construction phase B2 (in accordance with the Sydney Metro Phasing Report).

This HMP outlines how AFJV will comply with and implement the applicable elements from the following documents, herein referred to as the 'Project requirements':

- The Project EIS
- NSW Minister for Planning and Public Spaces Conditions of Approval (CoA)
- Revised Environmental Mitigation Measures (REMMs)
- Sydney Metro Construction Environmental Management Framework (CEMF).

2. OBJECTIVES AND TARGETS

The key objective of this HMP is to ensure that heritage impacts are minimised during construction and that all works are undertaken in compliance with the Project requirements.

In order to assess the environmental performance during construction, environmental objectives and targets have been established. These objectives and targets have been developed with consideration of key performance outcomes for each key issue as specified in Chapter 27 of the Project EIS. The performance outcomes relating to heritage in Chapter 27 of the EIS include:

- The long-term protection, conservation and management of the heritage significance of items of environmental heritage
- The long-term protection, conservation and management of the heritage significance of Aboriginal objects and places.

The CEMF has specific objectives in relation to heritage management that will apply to construction. Targets established to achieve the relevant performance outcomes outlined in the CEMF are outlined in Table 1.

The performance during construction will be monitored against the objectives and targets (refer to Section 3.3 of the CEMP) and performance monitoring will be documented in the compliance reporting and at least on an annual basis as part of auditing requirements (refer to Section 3.9 of the CEMP).

TABLE 1: OBJECTIVES AND TARGETS FROM THE CEMF

Objective	Target	Measurement Tool
Minimise impacts on items or places of heritage value	Minimise impacts on heritage items and to areas of archaeological potential during construction	Condition surveys and pre-and post-condition surveys Archival recording and reporting Monitoring records – vibration Monitoring records – archaeological Site inspections Audits Archaeological investigations in accordance with the ARDEM (once approved) Reporting and recording required by ARDEM (once approved)
Maximise worker's awareness of Aboriginal and Non-Aboriginal heritage	Heritage specific induction for all on-site personnel Deliver site specific heritage awareness training at toolbox and pre-starts, including training on the Unexpected Heritage Finds Protocol Any additional training requirements identified in the ARDEM (once approved)	Induction records Training records

3. ENVIRONMENTAL REQUIREMENTS

3.1 RELEVANT LEGISLATION AND GUIDELINES

The relevant legislation to the Heritage Management Plan is the:

- *Heritage Act 1977* (Heritage Act), and
- *National Parks and Wildlife Act 1974* (NPW Act)

Table 2 identifies the approvals relating to heritage that do not apply to an approved State significant infrastructure project under the *Environmental Planning & Assessment Act 1974* (EP&A Act)

TABLE 2: LEGISLATION / APPROVALS THAT DO NOT APPLY

Act	Exemption
Heritage Act 1977	<p>Section 57</p> <p>Do not undertake an activity that will affect a place, building, work, relic, moveable object or precinct which is subject to an Interim Heritage Order or is listed on the State Heritage Register without approval from the Heritage Council</p> <p>Section 139</p> <p>Do not disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed unless the disturbance or excavation is carried out in accordance with an excavation permit</p>
National Parks and Wildlife Act 1974	<p>Section 90 Aboriginal heritage impact permits</p> <p>Interim protection order – Division 2 of Part 6A</p> <p>Stop work order under Division 1 of Part 6A</p>

The relevant guidelines and standards relating to Aboriginal Cultural heritage and non-Aboriginal heritage management include:

- NSW Heritage Council's Criteria for Assessment of Excavation Directors (2011)
- NSW Heritage Council's Assessing Significance for Historical Archaeological Sites and Relics (2009)
- NSW Heritage Office Archaeological Assessments (1996)
- Office of Environment and Heritage's Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (2011)
- Office of Environment and Heritage's Aboriginal cultural heritage consultation requirements for proponents 2010 (DECCW 2010)
- NSW Heritage Council's Photographic Recording of Heritage Items Using Film or Digital Capture (2006) guidelines
- NSW Heritage Office Guidelines for Management of Human Skeletal Remains (1998)
- Code of Practice for Archaeological Investigations of Aboriginal Objects in New South Wales (DECC, 2010)

3.2 PROJECT REQUIREMENTS

The CoA and the CEMF requirements relevant to the preparation of this HMP are listed in Table 3. Other requirements relevant to this Plan are included in **Appendix A**.

TABLE 3: COMPLIANCE TABLE - REQUIREMENTS FOR PREPARATION OF THE HMP

Project Planning Approval		
C1	Construction Environmental Management Plans (CEMPs) and CEMP Sub-plans must be prepared in accordance with the Construction Environmental Management Framework (CEMF) included in the documents listed in Condition A1 of this schedule to detail how the performance outcomes, commitments and mitigation measures specified in the documents listed in Condition A1 of this schedule will be implemented and achieved during construction.	This Plan
C5	Of the CEMP Sub-plans required under Condition C1 of this schedule, the following CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan. Details of issues raised by a government agency during consultation must be included in the relevant CEMP Sub-plan, including copies of all correspondence from those government agencies as required by Condition A6 of this schedule. Where a government agency(ies) request(s) is not included, the Proponent must provide the Planning Secretary / ER (whichever is applicable) justification as to why: d) Heritage (Non-Aboriginal and Aboriginal) – Heritage NSW, SOPA (in respect of Sydney Olympic Park), Place Management NSW (in respect of The Bays) and relevant councils.	Section 3.3 Appendix C
C6	The CEMP Sub-plans must state how:	
	(a) the environmental performance outcomes identified in the documents listed in Condition A1 of this schedule will be achieved;	Section 2
	(b) the mitigation measures identified in the documents listed in Condition A1 of this schedule will be implemented;	Section 5
	(c) the relevant conditions of this approval will be complied with; and	This Table Appendix A
	(d) issues requiring management during construction (including cumulative impacts), as identified through ongoing environmental risk analysis, will be managed through SMART principles.	Section 5
C7	With the exception of any CEMP Sub-plans expressly nominated by the Planning Secretary to be endorsed by the ER , all CEMP Sub-plans must be submitted to the Planning Secretary for approval.	This Plan will be submitted to the Planning Secretary for approval.
C8	The CEMP Sub-plans not requiring the Planning Secretary's approval must obtain the endorsement of the ER as being in accordance with the conditions of approval and all relevant undertakings made in the documents listed in Condition A1 of this schedule. Any of these CEMP Sub-plans must be submitted to the	Not applicable as this Plan will be submitted to the Planning Secretary for approval.

Project Planning Approval		
	ER with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is phased no later than one (1) month before the commencement of that phase.	
C9	Any of the CEMP Sub-plans to be approved by the Planning Secretary must be submitted to the Planning Secretary with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before construction or where construction is phased no later than one (1) month before the commencement of that phase.	The CEMP sub-plans will be submitted for approval with or subsequent to the final submission of the CEMP for Planning Secretary approval no later than one month prior to the commencement of construction
C10	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary or endorsed by the ER (whichever is applicable), unless otherwise agreed by the Planning Secretary. The CEMP and CEMP Sub-plans , as approved by the Planning Secretary or endorsed by the ER (whichever is applicable), including any minor amendments approved by the ER , must be implemented for the duration of construction. Where construction of Stage 1 of the CSSI is phased, construction of a phase must not commence until the CEMP and CEMP Sub-plans for that phase have been approved by the Planning Secretary or endorsed by the ER upon nomination by the Planning Secretary (whichever is applicable).	CEMP Section 2.2
C13	In addition to the relevant requirements of the CEMP, the Heritage CEMP Sub-plan must include, but not be limited to:	
	(a) be prepared in consultation with a suitably qualified and experienced heritage expert;	Appendix D
	(b) identify exclusion zones, archival recording requirements, baseline and periodic monitoring protocols (including before and during construction);	Section 5.3.1 Section 5.4 Section 5.6
	(c) identify and assess the heritage significance of the ancillary structures proposed to be demolished or significantly impacted that are within the curtilage of White Bay Power Station and other items identified as retaining 'potential heritage significance' in the documents listed in Condition A1 of this schedule and which will be impacted by the CSSI;	Section 5.3.4
	(d) in association with Condition D61 of this schedule, set out the final site inspections to be conducted within three (3) months of completion of construction for the following heritage sites unless otherwise agreed by the Planning Secretary:	Section 5.7 AFJV is responsible for this condition to

Project Planning Approval		
	(i) the Roxy Theatre (SHR I00711) (ii) White Bay Power Station (SHR I01015); (iii) the former State Abattoirs (State Environmental Planning Policy (State Significant Precincts) 2005 Item 141) (iv) the RTA Depot facade fronting Unwin Street (Parramatta Local Environmental Plan 2011 I576); and	the extent it relates to White Bay Power Station and the former State Abattoirs.
	(e) set out means of rectification of any damage by the CSSI to Heritage items (d)(i) to (d)(iv) above within six (6) months of the completion of construction at the construction site identified in the relevant Heritage CEMP Sub-plan. This rectification work must be in consultation with a suitably qualified and experienced heritage consultant to ensure the use of appropriate materials, appropriate conservation practices and in accordance with existing heritage management documents (for example, conservation management plans or strategies) to protect and conserve the heritage significance of the items.	Section 5.7 Section 6.1 AFJV is responsible for this condition to the extent it relates to White Bay Power Station and the former State Abattoirs.
	The Heritage CEMP Sub-plan must include Aboriginal cultural heritage management and mitigation measures (that may include conservation, archaeological salvage excavation and community collection) based on the Aboriginal Cultural Heritage Excavation Report and continuing Aboriginal community consultation.	Section 6.2
Construction Environmental Management Framework		
9.2a	Principal Contractors will develop and implement a Heritage Management Plan which will include as a minimum:	This Plan
	i. Evidence of and processes for consultation with Registered Aboriginal Parties and the NSW Heritage Council	Section 3.3 Section 5.2.1
	ii. Identification of all heritage buildings and structures, to guide the assessment, retention, protection, conservation, salvage and reuse of heritage elements throughout the work;	Section 4
	iii. Identification of initiatives that will be implemented to enhance heritage values and minimise heritage impacts, including procedures and processes that will be used to implement and document heritage management initiatives;	Section 5 Sydney Metro will be responsible for initiatives that will enhance heritage values (REMM NAH3)
	iv. The Heritage Management Plan must be prepared in accordance with the relevant conditions of the Planning Approval and the Construction Environmental Management Framework, and set out how the Contractor will evidence the achievement of these requirements	This Table Section 2 Section 6 Appendix A
	v. The responsibilities of key project personnel with respect to the implementation of the plan;	Section 6.1

Project Planning Approval		
	vi. Both the methodology and critical stages within the Contractor's Activities for the identification, assessment, retention, protection, conservation, interpretation, salvage and reuse of heritage elements	Section 5
	vii. Procedures for interpretation of heritage items uncovered through salvage or excavation during detailed design;	Sydney Metro will be responsible for heritage interpretation (REMM NAH3)
	viii. Procedures for the investigation of archaeological relics, objects and/ or sites (where relevant), prior to works commencing that would affect them;	Section 5.2.2 Section 5.3.3
	ix. Details for the short and / or long term management of objects, archaeological artefacts and/or movable heritage;	Section 5.3
	x. archaeological management plans for both Aboriginal and non-Aboriginal archaeology	Section 5.2.2 Section 5.3.3
	xi. Details of management measures to be implemented to prevent and minimise impacts on heritage items (including further heritage investigations, archival recordings and/or measures to protect unaffected sites during construction works in the vicinity);	Section 5
	xii. Procedures for unexpected heritage finds, including procedures for dealing with human remains consistent with the Sydney Metro procedures;	Section 5.5 Appendix B
	xiii. Heritage monitoring requirements; and	Section 6.3
	xiv. Compliance record generation and management.	Section 6.4

3.2.1 REVISED ENVIRONMENTAL MITIGATION MEASURES

Refer to **Appendix A** for all relevant REMMs.

3.3 CONSULTATION

Prior to submission to the ER for endorsement and the Planning Secretary for approval, external consultation during the preparation of this Plan was undertaken with relevant government agencies as described in CoA C5, including:

- Heritage NSW
- Place Management NSW (in respect of They Bays)
- Sydney Olympic Park Authority (SOPA) (in respect of Sydney Olympic Park)
- Inner West Council
- City of Canada Bay
- Strathfield City Council
- Burwood Council, and
- City of Paramatta Council.

Details of issues raised by stakeholders during consultation is provided in **Appendix C** including copies of correspondence in accordance with Condition A6.

A description of ongoing consultation requirements to be implemented throughout construction are described in Section 5.2.1 and Section 5.3.3 and 5.3.4.

4. EXISTING ENVIRONMENT AND POTENTIAL IMPACTS

The potential for impacts on non-Aboriginal heritage and Aboriginal Cultural heritage has been assessed as part of the Project EIS. The Non-Aboriginal heritage impacts were assessed in Chapter 12 and Technical Paper 3 of the EIS, and Appendix F ([Archaeological Research Design](#)) of the Submissions report. Aboriginal Cultural heritage impacts were assessed in Chapter 13 and Technical Paper 4 of the Project EIS, and revised for the Submissions Report.

Aboriginal heritage impacts have been defined as direct harm and indirect harm in accordance with the NPW Act. Direct harm may occur as a result of activities which disturb the ground surface including site preparation activities, and the installation of services and infrastructure. Indirect harm for Aboriginal heritage refers to impacts that may affect sites or features located immediately beyond or within the area of the proposed works. Indirect harm may include impacts from vibration, increased visitation, increased erosion, or changing access to wild resources.

Non-Aboriginal heritage impacts have been assessed based on impacts to the significance of the item as a result of:

- Direct impacts, resulting in the demolition or alteration of fabric of heritage significance or significant archaeological remains
- Potential direct impact, resulting in impacts from vibration, subsidence, architectural noise treatment and demolition of adjoining structures
- Indirect impacts, resulting in changes to the setting or curtilage of heritage items or places, historic streetscapes and landscapes, visual amenity or views.

The construction activities that have the potential to impact on Aboriginal and Non-Aboriginal heritage are:

- Enabling works including demolition of existing structures, vegetation clearing, site levelling and grading, establishment of site access/internal haul routes, and
- Station excavation at Sydney Olympic Park, North Strathfield, Burwood North, Five Dock and The Bays construction sites.

The potential for impacts on Aboriginal Cultural heritage is discussed in Section 4.1. The potential for impacts on non-Aboriginal heritage is discussed in Section 4.2. Refer to Section 5 for mitigation and management measures to minimise impacts to Aboriginal Cultural heritage and non-Aboriginal heritage.

The avoidance of impacts to Aboriginal and non-Aboriginal Heritage items has been prioritised throughout the design phase of the Project (Chapter 3 of the EIS). Refer to **Appendix A** and Section 5 for mitigation and management measures to minimise impacts to Aboriginal Cultural heritage and non-Aboriginal heritage.

Aspects and the potential for impacts have been considered during a high-level CTP wide risk assessment which is included as Appendix C of the CEMP. All activities with a residual risk ranking of 'high' or greater require an Environmental Work Method Statement which considers in greater detail the potential risks and appropriate management for that activity unless an existing risk assessment process is in place.

With reference to The Bays construction site, due to the sensitivities of the heritage value and potential archaeology attributable to this location, an EWMS will be prepared prior to the commencement of construction as approved in this plan, to address the following potential hazards:

- Failure to identify, or damage of unexpected heritage items.
- Unapproved heritage impacts at The Bays (including to the State heritage listed White Bay Power Station and the potential archaeology at the site)

Refer to the CEMP for further detail on the process of preparation, approval and implementation of EWMS, and ongoing risk identification processes.

4.1 ABORIGINAL CULTURAL HERITAGE

An Aboriginal Cultural Heritage Assessment Report (ACHAR) was prepared for the EIS and revised for the Sydney Metro West Westmead to The Bays and Sydney CBD Submissions Report Concept and Stage 1 (2020) (Submissions Report).

The ACHAR identified no recorded Aboriginal sites within 100m of the construction sites, with the exception of the potential archaeological deposit (PAD) at The Bays which is listed in the Aboriginal Heritage Information Management System as item 45-6-3826.

A summary of the indicative archaeological values for Aboriginal heritage for the project is provided in Table 4 (sourced from Table 15 of Submissions Report Appendix E (ACHAR)), which identifies an overall moderate indicative significance for Aboriginal heritage values at The Bays within the area of PAD.

TABLE 4 SUMMARY OF INDICATIVE SCIENTIFIC SIGNIFICANCE FOR ABORIGINAL HERITAGE VALUE

Construction site	Research potential	Scientific value	Representative value	Rarity value	Overall indicative significance assessment
Sydney Olympic Park	Low	Low	Low	Low	Low
North Strathfield	Low	Low	Low	Low	Low
Burwood North	Low	Low	Low	Low	Low
Five Dock	Low	Low	Low	Low	Low
The Bays (within the PAD)	Low-moderate	Moderate	Moderate	Moderate-high	Moderate
The Bays (outside the PAD)	Low	Low	Low	Low	Low

The following has been described in Section 8.10.5 of Submissions Report Appendix E (ACHAR):

- The White Bay area provided a range of subsistence resources that may have been utilised by Aboriginal people, including valuable marine and plant resources, close to reliable water sources, near ridges and cliffs, and close to raw materials suitable for the construction of stone tools. As such, there is low-moderate potential for Aboriginal archaeological remains to be preserved in the south-western portion of The Bays construction site (Figure 1). The former shoreline was in this location and remnants of intact deposit may remain buried beneath fill. Intact deposits have the potential to contain Aboriginal objects. This was identified as a PAD
- The remainder of The Bays construction site is considered to be of low research potential and of low significance as it is on reclaimed land.
- The remaining construction sites have been identified as being located outside of identified sensitive landforms or as being subject to substantial levels of disturbance and subsequently containing low archaeological significance, as described in Section 9.6 of the Submissions Report Appendix E (ACHAR).



Figure 1: The Bays – Location of Aboriginal Archaeological Potential

4.2 NON-ABORIGINAL HERITAGE

The Non-Aboriginal Heritage Assessment (Technical Paper 3) prepared by Artefact (2020), also defined the construction sites as the study area and applied a 50m buffer around each of the construction sites (refer to Figure 2, Figure 3, Figure 4, Figure 5, Figure 6).

The EIS (Technical Paper 3, Section 6) identified that the CTP works area has the potential to impact on several listed heritage items as described in Table 5. A full description of the heritage items and assessment of significance can be found in the EIS (Technical Paper 3). Refer to Figure 2, Figure 3, Figure 4, Figure 5 and Figure 6 for the location of each heritage item.

EIS (Technical Paper 3, Section 6) identified that the State Abattoirs (State Environmental Planning Policy 2005 Listing No. A) within the boundary of the Sydney Olympic Park construction site would have been directly impacted as the proposed works encroached into the curtilage associated with this heritage listing. During preliminary design, AFJV have avoided this impact by reducing the footprint of this site, and as such no longer encroach onto the State Abattoirs heritage listing curtilage. As such, the impacts have been reduced from those identified in the EIS, as reflected in Table 5.

The direct impact identified to the White Bay Power Station (SHR Listing No. 01015) in Table 5 relates to the 0.7 hectares of The Bays construction site that encroaches into the White Bay Power Station heritage listing curtilage (as shown in Figure 6). Further the direct impact of partial demolition to the North Strathfield Railway Station Group relates to the station gardens only.

There is no planned demolition or significant impact to ancillary structures proposed within the curtilage of White Bay Power Station. However, in accordance with CoA C13(c), where construction inside this area of 'overlap', or anywhere inside this heritage curtilage, is identified during detailed design as having potential to demolish or significantly impact ancillary structures of the White Bay Power Station, an assessment will be undertaken to identify the item and the heritage significance prior to impact, and archival recording will be undertaken in accordance with REMM NAH1.

A similar assessment under CoA C13(c) would also be undertaken for the items identified as having 'potential heritage significance' shown in Table 6.

Any archaeological discoveries within the footprint of The Bays construction site, including the overlap area into the White Bay Power Station heritage curtilage, would be managed in accordance with the ARDEM.

Should further potential impacts that were not considered and approved in the EIS, Amendment Report and Submissions Report be identified during detailed design, these will be considered under the approval process described in Section 1.6 of the CEMP, for consistency with the Project approval, or for further consideration and assessment by DPIE.

TABLE 5: NON-ABORIGINAL HERITAGE ITEMS WITHIN THE STUDY AREA

Heritage Item	Construction Site	Significance	EIS Assessed impact
State Abattoirs	Sydney Olympic Park	State Environmental Planning Policy (State Significant Precincts) 2005 Listing No. A; Sydney Regional Environmental Plan No 24 – Homebush Bay Area Item No. 1	Minor potential direct impact – vibration Moderate indirect impact – views and vistas
Street Trees (adjacent to North Strathfield Railway Station)	North Strathfield	Canada Bay LEP Item No. I397	Negligible indirect impact – views and vistas (temporary)

Heritage Item	Construction Site	Significance	EIS Assessed impact
North Strathfield Railway Station Group	North Strathfield	Railcorp's Section 170 4801029	Minor direct impact – partial demolition Minor indirect impact – views and vistas
St Luke's Park gateway / entrance gates and trees only	Burwood North	Canada Bay LEP Item No. I308	Negligible indirect impact – views and vistas (temporary)
St Luke's Anglican Church and grounds	Burwood North	Canada Bay LEP Item No. I40	Negligible indirect impact – views and vistas (temporary)
Bath Arms Hotel	Burwood North	Burwood LEP Item No. I94	Minor indirect impact – views and vistas (temporary)
St Alban's Anglican Church Hall and Shops	Five Dock	Canada Bay LEP Item No. I228	Minor indirect impact – views and vistas
St Alban's Anglican Church Rectory	Five Dock	Canada Bay LEP Item No. I227	Minor indirect impact – views and vistas
St Alban's Anglican Church	Five Dock	Canada Bay LEP Item No. I226	Minor potential direct impact – vibration Moderate indirect impact – views and vistas
Police Station	Five Dock	Canada Bay LEP Item No. I211 NSW Police Service s170 4180246	No impact
White Bay Power Station	The Bays	SHR Listing No. 01015 Urban Growth NSW Development Corporation S170 4500460	Moderate direct impact – partial demolition Minor potential direct impact – vibration Moderate indirect impact – views and vistas
White Bay Power Station (inlet) canal	The Bays	Port Authority of NSW s170 4560062	Minor potential direct impact – vibration (additional assessments to be undertaken to ensure vibration criteria are achieved) Neutral to Moderate – potential direct impact

Heritage Item	Construction Site	Significance	EIS Assessed impact
			through accidental damage during construction.
White Bay Power Station (outlet) Canal	The Bays	Port Authority of NSW s170 4560026	No direct impact – construction would not be near to this item.
The Valley Heritage Conservation Area	The Bays	Leichhardt LEP Item No. C7	Minor indirect impact – views and vistas (temporary)
Beattie Street Stormwater Channel No. 15	The Bays	Sydney Water S170 4570329	No impact
Glebe Island Silos	The Bays	Port Authority of NSW s170 4560016 SREP No. 26 – City West Part 3 No. 1	Minor indirect impact – views and vistas (temporary)




It should be noted that potential vibration impacts will be better understood and defined following the completion of the site Detailed Noise and Vibration Impact Assessments (DNVIS) required by CoA D44. Also note, building structural assessments will be undertaken to inform appropriate vibration criteria for heritage buildings.

As per Section 2.5.1 of the Sydney Metro CNVS and Technical Paper 2 of the EIS, heritage buildings and structures should not be assumed to be more sensitive to vibration unless they are found to be structurally unsound. In accordance with CoA D49 a conservative vibration damage screening level of 2.5 mm/s will be adopted for heritage structures and other sensitive structures of great intrinsic value where they are found to be structurally unsound in the Condition Survey required by CoA D60. Refer to Section 9.2.3 of the Noise and Vibration Management Plan for further detail.

Sydney Metro West - CTP

Sydney Olympic Park heritage items

Legend

-  Construction site
-  EIS Heritage Study Area
-  State Abbatoirs heritage item



This map is shown for reference purposes only. Acciona Ferrovie JV provides this information "as is" with the understanding that it is not guaranteed to be accurate, correct or complete and conclusions drawn from such information are the responsibility of the user. While every effort is made to ensure the information displayed is as accurate and current as possible, Acciona Ferrovie JV will not be held responsible for any loss, damage or inconvenience caused as a result of reliance on such information or data.




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FIGURE 2: SYDNEY OLYMPIC PARK STUDY AREA AND HERITAGE ITEMS



Document Path: D:\GIS\GIS_Mapping\18260_Sydney_Metro_West\PROJECT\Study area and heritage maps_JN 05-12-2019\18260_NorthStrathfieldStation_HeritageItems.mxd



North Strathfield Metro Station
Heritage Items
 18260 Metro West
 LGA: City of Canada Bay

SCALE 1:2,000
 SIZE A4
 DATE 5/12/2019

0 50 100 m




FIGURE 3: NORTH STRATHFIELD STUDY AREA AND HERITAGE ITEMS



Burwood North Station
Heritage Items
 18260 Metro West
 LGA: City of Canada Bay and Burwood

SCALE 1:2,000
 SIZE A4
 DATE 5/12/2019

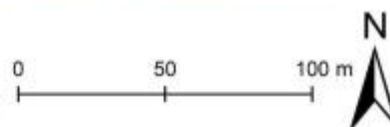


FIGURE 4: BURWOOD NORTH STUDY AREA AND HERITAGE ITEMS



FIGURE 5: FIVE DOCK STUDY AREA AND HERITAGE ITEMS



FIGURE 6: THE BAYS STUDY AREA AND HERITAGE ITEMS

The EIS identified potential unlisted heritage items and the relevant items are summarised in Table 6, which includes the proposed impacts. A full description of the potential heritage / unlisted items and assessment of significance can be found in the EIS (Technical Paper 3).

The preliminary assessment of these items involved the exterior inspection only, as due to access constraints interior access was not possible. In accordance with REMM NAH10 an assessment has been undertaken to determine significance prior to impacting activities commencing for all items as shown in Table 6.

Archival recording will be carried out in accordance with the *NSW Heritage Office's How to Prepare Archival Records of Heritage Items* (1998), and *Photographic Recording of Heritage Items Using Film or Digital Capture* (2006), as per REMM NAH01 for all confirmed heritage items.

None of these items was identified as State Significant and therefore no additional approvals have been required.

TABLE 6: POTENTIAL UNLISTED HERITAGE ITEMS WITHIN THE STUDY AREA

Item	Construction Site	EIS identified Potential Significance	EIS Approved Impact	Confirmed heritage significance
The Pine Inn (19 Parramatta Road, Concord)	Burwood North	Local	Full demolition	Local
338-340 Parramatta Road, Burwood	Burwood North	Local	Full demolition	Local
Former warehouse shed – Glebe Island	The Bays	Local	Full demolition (note, demolition not proposed)	Local

Section 12.5.2 of the EIS identified heritage items that have the potential to be impacted by settlement as a result of ground excavation (summarised in Table 7). The risk of settlement across the whole CTP works is defined as 'slight: possible superficial damage unlikely to have a structural significance (risk level 2)'. Refer to Figure 3, Figure 5 and Figure 6 for the locations of the items in Table 7.

Note, Section 12.3.1 of the EIS states that the tunnel sections between stations and service facilities would generally be too deep to affect heritage items or archaeological deposits.

TABLE 7: POTENTIAL SETTLEMENT IMPACTS ON HERITAGE ITEMS (SUMMARY OF EIS SECTION 12)

Heritage Item	Construction Site	Significance	Predicted Magnitude
North Strathfield Railway Station Group	North Strathfield	Railcorp's 170 4801029	Settlement: 18mm
St Alban's Anglican Church Rectory	Five Dock	Canada Bay LEP I227	Settlement: 17mm
St Albans Anglican Church	Five Dock	Canada Bay LEP I226	Settlement: 30mm
Anzac Bridge	The Bays	RMS s170 4305018	Settlement: 10mm
Glebe Island Silos	The Bays	Port Authority of NSW s170 4560016	Settlement: 20mm

Areas within the CTP surface works area which are of historical archaeological potential have been summarised in Table 8. No areas were identified as containing historical archaeological potential except for The Bays.

TABLE 8: NON-ABORIGINAL PREDICTED ARCHAEOLOGICAL REMAINS (SOURCE: DRAFT ARDEM)

Historical Phase	Archaeological Item	Archaeological Potential	Archaeological Significance
Phase 1 (1800 – 1910)	Reclamation Fills	<ul style="list-style-type: none"> Bulk fill materials – High Potential Undocumented industrial and maritime rubbish or equipment – Low Potential 	<ul style="list-style-type: none"> Bulk fill materials – Local Significance Undocumented industrial and maritime rubbish or equipment – Local to State Significance depending on the nature of the individual items
	First White Bay Hotel and associated structures	Low	Local
	Timber Yard	Low	Not significant
	Rubble Ballast Dyke	Moderate	Local
Phase 2 (1910 – 1950)	Roundhouse, turntable and locomotive siding	Moderate	Local
	Railway Infrastructure	High	Not Significant
	White Bay Steel Works	Low	Local
	Coal Loading and Ash Handling Facilities of the White Bay Power Station	Low	Local / State if in good state of intactness
	No. 9 Shed	Low	Not Significant
	US Army Warehouses and RAAF Mess Hall	Low	Local
	Circulating Water Conduit	High	Local
	Beattie Street Stormwater Canal	High	Local
Phase 3 (1950 – 1970)	Balmain Coal Loader	Moderate	Not significant

5. ENVIRONMENTAL CONTROLS

5.1 PROJECT WIDE HERITAGE MANAGEMENT

A range of standard and specific mitigation and management measures will be implemented in addition to the ARDEM (Section 5.3.3) to minimise Aboriginal cultural heritage, non-Aboriginal heritage and cumulative heritage impacts. The mitigation and management measures have been developed in consideration of CoAs and REMMs. Refer to **Appendix A** for CoA and REMMs relevant to the mitigation and management of Non-Aboriginal and Aboriginal Cultural heritage during construction.

TABLE 9. STANDARD HERITAGE MANAGEMENT MEASURES

ID	Measure/Requirement	Source	Timing	Responsibility
HMP1	All known heritage items within the CTP works area and no-go zones/protected areas will be identified on Environmental Control Plans and onsite.	CEMP	Prior to construction	Environment Manager
HMP2	Training will be provided to relevant Project personnel, including relevant sub-contractors on the location of known Aboriginal and non-Aboriginal heritage items, areas of archaeological sensitivity and artefacts (including photographs where available) along with key requirements from this plan through the project induction. Toolboxes and targeted training would also be employed where appropriate, where there is a high risk of direct impacts to heritage.	AFJV best practice	Prior to construction	Environment Manager
HMP3	The Proponent must not destroy, modify or otherwise physically affect any heritage item not identified in the project documents.	CoA D13	Construction	Environment Manager
HMP4	The White Bay Power Station and the former State Abattoirs, must not be destroyed, modified or otherwise adversely affected, except as identified in the EIS documents.	CoA D17	Construction	Environment Manager
HMP5	A method for the demolition of existing buildings and/or structures at specified construction sites would be developed to minimise direct and indirect impacts to adjacent heritage items.	REMM NAH4	Prior to construction	Site Supervisor
HMP6	If there are any items of local heritage significance that will be partially or fully destroyed, a salvaged materials and moveable heritage register will be developed.	CoA D18	Construction	Project Engineers
HMP7	All reasonable steps must be taken not to harm, modify or otherwise impact Aboriginal objects except as authorised by the Project approval.	CoA D19	Construction	Environment Manager

ID	Measure/Requirement	Source	Timing	Responsibility
HMP8	Settlement monitoring must be undertaken as per CoA D63.	CoA D63	Construction	Design Manager
HMP9	An assessment of significance of the items listed in Table 6 of this HMP must be undertaken in consultation with the relevant local council prior to impacting activities commencing.	REMM NAH10	Pre-construction Construction	Environment Manager
HMP10	Should further potential impacts to ancillary structures within the curtilage of White Bay Power Station that were not considered and approved in the EIS, Amendment Report and Submissions Report be identified during detailed design, these will be considered under the approval process described in Section 1.6 of the CEMP, for consistency with the Project approval, or for further consideration and assessment by DPIE.	Best practice	Pre-construction Construction	Environment Manager
HMP11	Potential indirect impacts to White Bay Power Station (outlet) Canal (Port Authority of NSW s170 4560026) would be assessed when the construction methodology at The Bays is finalised.	Best practice	Pre-construction	Environment Manager
HMP12	<p>A detailed geotechnical and hydrogeological model for Stage 1 would be developed and progressively updated during design and construction. The detailed geotechnical and hydrogeological model would include:</p> <ul style="list-style-type: none"> • Assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain • Predicted groundwater inflows, groundwater take and changes to groundwater levels, including at nearby water supply works. <p>1. Where building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage.</p> <p>2. Where a significant exceedance of target changes to groundwater levels are predicted at surrounding land uses and nearby water supply works, an appropriate</p>	REMM GW05	Construction	Design Manager & Construction manager

ID	Measure/Requirement	Source	Timing	Responsibility
	groundwater monitoring program would be developed and implemented. The program would aim to confirm no adverse impacts on groundwater levels or to appropriately manage any impacts. Monitoring at any specific location would be subject to the status of the water supply work and agreement with the landowner.			

5.1.1 HERITAGE INDUCTION

A specific heritage induction will be prepared for all on-site personnel that will address all relevant heritage requirements. The induction would involve information and illustrate locations of the known and potential heritage items and their significance, specific mitigation measures, legislative requirements, responsibilities and circumstances that could result in a breach. Further information relating to training is provided in Section 6.1.

5.1.2 HERITAGE SPECIALIST

Prior to any Works commencing on the CTP, the AFJV will engage a suitably qualified heritage specialist to assist with the preparation and implementation of this Plan including, but not limited to:

- Provide advice/oversee heritage salvage of heritage items (to be identified during archaeological investigations at The Bays)
- Provide advice in the event unidentified Aboriginal objects are discovered prior to construction re-commencing
- Provide advice on methods and location for installation of site boundary hoarding or monitoring equipment on Heritage items
- Provide advice on proposed installation of at-property vibration treatment on Heritage items, and
- Provide advice on any rectification works that may be required at White Bay Power Station and the former State Abattoirs.
- Undertaken any additional assessments as required by this Plan

5.1.3 EXCAVATION DIRECTOR

In accordance with CoA D27 an Excavation Director, who complies with Heritage Council of NSW's Criteria for Assessment of Excavation Director (September 2019), will be appointed to oversee and advise on matters associated with historical and Aboriginal archaeology. The Excavation Director will be present to oversee excavation, advise on archaeological issues, advise on the duration and extent of oversight required during archaeological excavations required by the ARDEM.

The Excavation Director will also provide specific advice on installation of site boundary hoarding and monitoring equipment at heritage items with regards to impacts on potential archaeology where the potential for archaeology exists as identified in the EIS (i.e. at The Bays), as required under CoA D14. In accordance with the Unexpected Finds Procedure, the Excavation Director would inspect potential heritage items/artefacts and determine the appropriate management for the find.

5.2 ABORIGINAL CULTURAL HERITAGE MANAGEMENT

5.2.1 ABORIGINAL FOCUS GROUP

In accordance with CoA D20 an Aboriginal Focus Group would be established and facilitated by Sydney Metro to provide a forum for ongoing RAP consultation, following approval of the ACHAR.

AFJV will participate in the Aboriginal Focus Groups to keep RAPs informed about the construction of the CTP and in particular, to:

- inform any proposed impacts on known aboriginal heritage areas/items or areas of aboriginal archaeological potential
- inform proposed activities should a salvage exercise be undertaken
- inform long term management of aboriginal heritage
- provide opportunity for provision of management recommendations to be included into relevant work methodologies and/or management strategies.

5.2.2 ARCHAEOLOGICAL EXCAVATION

The revised ACHAR (Table 25) identified areas of archaeological potential relevant to the CTP, at The Bays (refer to Figure 1). In accordance with CoA D21 archaeological excavation would be undertaken at the area of archaeological potential at The Bays where potential construction impacts are identified, prior to the commencement of those impacting activities in this location.

Triggers for potential test excavations, which at The Bays construction site include:

- Subsurface impacts within the area assessed as demonstrating archaeological sensitivity
- Notification by the Historical Excavation Director that potential intact soil profiles, or Aboriginal objects, have been identified during historical archaeological investigations. Confirmation by the Aboriginal archaeological Excavation Director (where required) that the finds are intact soil profiles or Aboriginal objects, or
- Aboriginal object(s) identified as an unexpected find

Triggers for potential salvage excavations, which at The Bays construction site include:

- Identification of Aboriginal artefact(s) during test excavation. Minimum number not set due to potential high significance of sites
- Identification of rare or significant artefacts, features or site type
- Identification by the Aboriginal archaeological Excavation Director and/or the geomorphologist of Aboriginal artefacts in contexts that may provide significant information on site formation, including the potential extracting samples suitable for dating

The Aboriginal archaeological Excavation Director would then assess the need for test and salvage excavations given the nature and context of the find and the extent of proposed impacts (where required). Test and salvage excavations would then proceed under the methodology discussed in the archaeological method statement and in adherence to the core methodology and method area consideration presented in the ACHAR. RAP representatives would participate in all Aboriginal archaeological excavations. An archaeological method statement prepared for each work stage would be provided to the RAPs prior to archaeological work commencing. RAP sign off on individual archaeological method statement would not be required as the archaeological method statement would be prepared in adherence to the approved ACHAR.

Excavations will be conducted by a suitably qualified person in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* (DECCW, 2020).

Upon completion of the test and salvage excavations, in accordance with CoA D23 and D28 an Aboriginal Cultural Heritage Excavation Report/s would be prepared by a suitably qualified expert in accordance with the *Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW* (OEH, 2011) and the *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010) and in consultation with the RAPs, who would be given a minimum of 28 days to consider the report and provide comments before the report is finalised. The final report will be provided to the Planning Secretary, Heritage NSW and Inner West Council no later than 24 months upon completion of the excavation (in accordance with CoA D29).

5.3 NON-ABORIGINAL HERITAGE MANAGEMENT

5.3.1 ARCHIVAL RECORDING

In accordance with REMM NAH1 heritage photographic and archival recording would be carried out in accordance with the *NSW Heritage Office's How to Prepare Archival Records of Heritage Items* (1998), and *Photographic Recording of Heritage Items Using Film or Digital Capture* (2006): for the following items to the extent they will be impacted by the CTP works:

- State Abattoirs (SEPP Listing No. A) (noting the Sydney Olympic Park construction site no longer intersects with this item)
- White Bay Power Station (SHR Listing No. 01015)
- The potential unlisted items identified in Table 6 should they be confirmed to have local heritage value.

Once complete, the report would be provided to Heritage NSW, the relevant Councils and the asset owner.

5.3.2 SALVAGE

The Bays site encroaches upon around 0.7 hectares of the SHR curtilage of the White Bay Power Station. No buildings or ancillary structures of the White Bay Power Station are proposed to be demolished or significantly impacted within this overlapping area. However, should significant heritage fabric within the 0.7 hectares of the SHR curtilage be identified, and proposed to be fully or partially demolished this would be salvaged for potential reuse opportunities in accordance with REMM NAH3. Salvage of any items relating to the White Bay Power Station would be undertaken in accordance with the ARDEM required by CoA D25 (refer to Section 5.3.3).

An assessment of significance of the potential unlisted heritage items listed in Table 6 will be undertaken prior to potential impactful works, as per REMM NAH10. The assessment of significance will be undertaken by the Heritage Specialist. If any potential unlisted heritage items identified in Table 6 are confirmed to have local heritage value upon an assessment of significance, then during the archival recording process, and/or a separate inspection, Sydney Metro in consultation with the heritage specialist will identify salvageable elements and materials. Salvageable elements and materials will include those where significance is retained and / or the potential for re-use, reinstatement or re-sale has been identified. The salvage from any State listed items must be undertaken in consultation with Heritage NSW.

Salvage process

The salvage process would be implemented generally as follows:

- The heritage specialist will undertake an inspection and archival recording of the property and identify elements and materials to be salvaged, as per REMM NAH3
- Items to be salvaged would be identified in a salvaged materials and moveable heritage register, as per CoA D18, in consultation with Sydney Metro to determine the feasibility of salvage, with consideration of the potential for significance to be retained and / or the potential for re-use, reinstatement or re-sale, as per CoA D18
- The elements identified for salvage shall be salvaged prior to demolition works, where safe to do so and if feasible (it is noted that in some instances although efforts may be taken to identify items in good condition, the actual condition of these elements may be too poor to successfully salvage). These elements shall be collectively identified as 'salvaged elements' and photographed, tagged and catalogued and stored in suitable repository locations
- Salvage of State listed items would be undertaken in consultation with Heritage NSW
- Salvaged items will be stored as directed by Sydney Metro.

5.3.3 ARCHEAOLOGICAL EXCAVATION

In accordance with CoA D25 a revised ARDEM has been prepared for The Bays in accordance with the Heritage Council of NSW guidelines. The ARDEM has been prepared by the Excavation Director required under CoA D27 and includes:

- Site specific research which is conducted by a professional historian to clearly articulate the historical development of the allotments to assist with the reassessment of potential and significance
- Preparation of research questions based on the additional site-specific research
- A reconsideration of archaeological methods to manage the sites based on this additional assessment.

The ARDEM includes provision for early physical investigation of areas of impact identified as likely to contain State significant archaeology or subterranean Heritage items including the White Bay Power Station (inlet) canal and Beattie Street stormwater channel (refer to Table 5).

The ARDEM was prepared in consultation with Heritage NSW and Place Management NSW and was approved by the Planning Secretary prior to excavation works commencing at The Bays. The ARDEM must be implemented for the duration of the archaeological excavation program at The Bays.

The ARDEM will provide details relating to post excavation management including cleaning, bagging and labelling, and repository location for long term storage of the salvaged artefacts. The ARDEM will be implemented as per the requirement of REMM NAH6.

Following completion of the excavation program, a Final Excavation Report would be prepared in accordance with CoA D28 that includes:

- further detailed and site-specific historical research undertaken
- results of the archaeological excavations undertaken
- details of any significant artefacts recovered, and
- details of ongoing artefact management.

Sydney Metro will be responsible for consideration of re-use of artefacts for future stages of the Project and other Sydney Metro projects.

The Final Excavation Report will be provided to the Planning Secretary, Heritage NSW and Inner West Council no later than 24 months upon completion of the excavation (in accordance with CoA D29).

5.3.4 DEMOLITION MANAGEMENT

Demolition of buildings and structures adjacent to identified retained heritage buildings will be undertaken with care and under the guidance and recommendations from the heritage specialist where required, at the following locations:

- The Bays - White Bay Power Station (State Heritage Register (01015))
- Sydney Olympic Park – State Abattoirs SEPP (State Significant Precincts) (Item 141)
- Five Dock – adjoining St Albans Church (Canada Bay LEP 2013 (I226)).

In addition, the demolition subcontractor has prepared a Demolition Management Plan for the CTP project. The Demolition Management Plan requires a Demolition Work Plan to be prepared for each construction site (where demolition is required, regardless of heritage constraints). The Demolition Work Plan will detail the specific demolition requirements and methodology at each individual site to minimise direct or indirect impacts to adjoining properties, including adjoining heritage properties at the Sydney Olympic Park construction site and The Bays construction site, as required by REMM NAH2. AFJV will provide the Demolition Work Plans for Sydney Olympic Park and The Bays sites to the Heritage Specialist for review and comment.

5.4 VIBRATION MANAGEMENT

In accordance with CoA D46, vibration monitoring will be conducted during vibration generating activities that have the potential to impact heritage items. In accordance with CoA D49, if a heritage item is found to be structurally unsound (following inspection) a more conservative cosmetic damage criterion of 2.5 mm/s peak component particle velocity (from DIN 4150) will be applied.

The Project Wide Risk Assessment, included as Appendix C of the CEMP, identified tunnelling related vibration to have low residual risk to the project. This risk was identified to be 'almost certain' in occurrence, however mitigation strategies, mainly through vibration monitoring, ensure that the risk to heritage on the project, as a result of tunnelling, is negligible.

Details on the strategy and methodology of vibration monitoring are described in the Noise and Vibration Monitoring Program and identified in the DNVIS.

5.5 UNEXPECTED HERITAGE FINDS

Any unexpected heritage finds will be managed in accordance with the Sydney Metro Unexpected Heritage Finds Procedure provided in **Appendix B**. Section 6 of the Sydney Metro Unexpected Heritage Finds Procedure includes steps (refer to Step 1.6) to consider if unexpected heritage finds can be avoided, as required by CoA D13. Further in relation to CoA D13, if a state significant unexpected find is uncovered consideration will also be given to redesign in order to protect the item.

An archaeological find will be unexpected if it was not identified in the ARDEM as a class or type of possible remain, or if it was identified as locally significant but was assessed, after identification, as being of State significance.

The Sydney Metro Unexpected Heritage Finds Procedure complies with Section 146 of the *Heritage Act 1977*, Notification of discovery of relic: A person who is aware or believes that he or she has discovered or located a relic (in any circumstances, and whether or not the person has been issued with a permit) must:

- (a) within a reasonable time after he or she first becomes aware or believes that he or she has discovered or located that relic, notify the Heritage Council of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware of the location of the relic, and
- (b) within the period required by the Heritage Council, furnish the Heritage Council with such information concerning the relic as the Heritage Council may reasonably require.

Notification under s146 of the *Heritage Act 1977* will be undertaken for all relics, however, AFJV will undertake consultation with Heritage NSW to seek agreement that notification under s146 of the *Heritage Act 1977* will only be required if the relic was unexpected.

Notification under s89a of the *National Parks and Wildlife Act 1974* will be required if a person becomes aware of an Aboriginal object.

5.6 ECMS AND EXCLUSION ZONES

An exclusion zone and signage, along with protective fencing will be erected at the interface of The Bays construction site and the White Bay Power Station. The indicative location of the exclusion fencing at The Bays is included in Figure 7.

As described in Section 5.4 a DNVIS will be prepared for each construction location. The DNVIS will identify the site-specific safe working distances for that vibration generating activity with the potential to impact on heritage items. Where safe working distances are within the CTP footprint, exclusion zones will be established to ensure no inadvertent encroachment which could result in potential heritage impacts.

Exclusions zones will be illustrated on Environmental Control Maps (ECMs) (refer to Section 3.4.4 of the CEMP) and will be communicated to AFJV personnel at the heritage induction prior to works commencing (refer to Section 6.1). Guidance from the vibration specialist will be sought in determining

appropriate exclusion zones, and will be determined by the sensitivity of the structure/item and the adjacent works required.

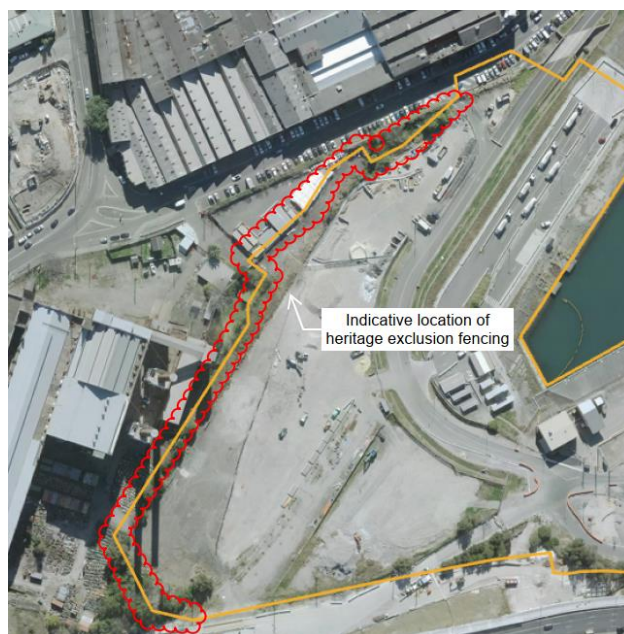


FIGURE 7: INDICATIVE LOCATION OF HERITAGE EXCLUSION FENCING AT THE BAYS

5.7 CONDITION SURVEYS

Prior to the commencement of activities with the potential to generate vibration impacts in that location, AFJV will undertake building condition surveys including elements of White Bay Power Station, the former State Abattoirs and St Albans Church in accordance with CoA C13(d), D60 and D61, in addition to any other heritage buildings identified as being at risk of vibration or settlement induced damage. Within three months of the completion of construction, final site inspections will be conducted (unless otherwise agreed by the Planning Secretary) in accordance with CoA C13(d). Where required, the AFJV would rectify any property damage caused directly or indirectly by the CTP works within six months of completion of the works.

Where damage is identified and confirmed to be the result of project construction, the AFJV would consult with a heritage specialist to ensure the rectification works are consistent with the relevant management documentation for that item in accordance with CoA C13(e).

5.8 SETTLEMENT

The potential for settlement as a result of the CTP has been identified in the EIS and is addressed in REMM GW05. Compliance with this REMM is described in the Groundwater Management Plan which includes measures and controls for understanding and managing settlement. This would include the development of a detailed geotechnical and hydrological model that would be progressively updated during design and construction. The model would be developed in accordance with REMM GW05, which would include assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain. If building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage.

Further, an Instrumentation and Monitoring (I&M) Program is being developed for key sensitive locations across the Project and would be implemented to measure settlement in accordance with CoA D63. The program will identify settlement trigger levels which require additional action including monitoring, review of construction methodologies, design review and/or repairs.

The management of settlement is based on a four-stage risk-based approach as described below, which includes the management of heritage items. Figure 8 provides a more detail on the process described below.

- Stage 1: Preliminary ground movement assessment (ie theoretical prediction of ground movement)
- Stage 2: Identification and impact assessment
- Stage 3: Impact minimisation and protection, such as through design or construction methodology change, or the implementation of ground improvement works
- Stage 4: Instrumentation and monitoring, including “surface” and “in-tunnel” and/or “in-structure” monitoring (undertaken as per CoA D63).

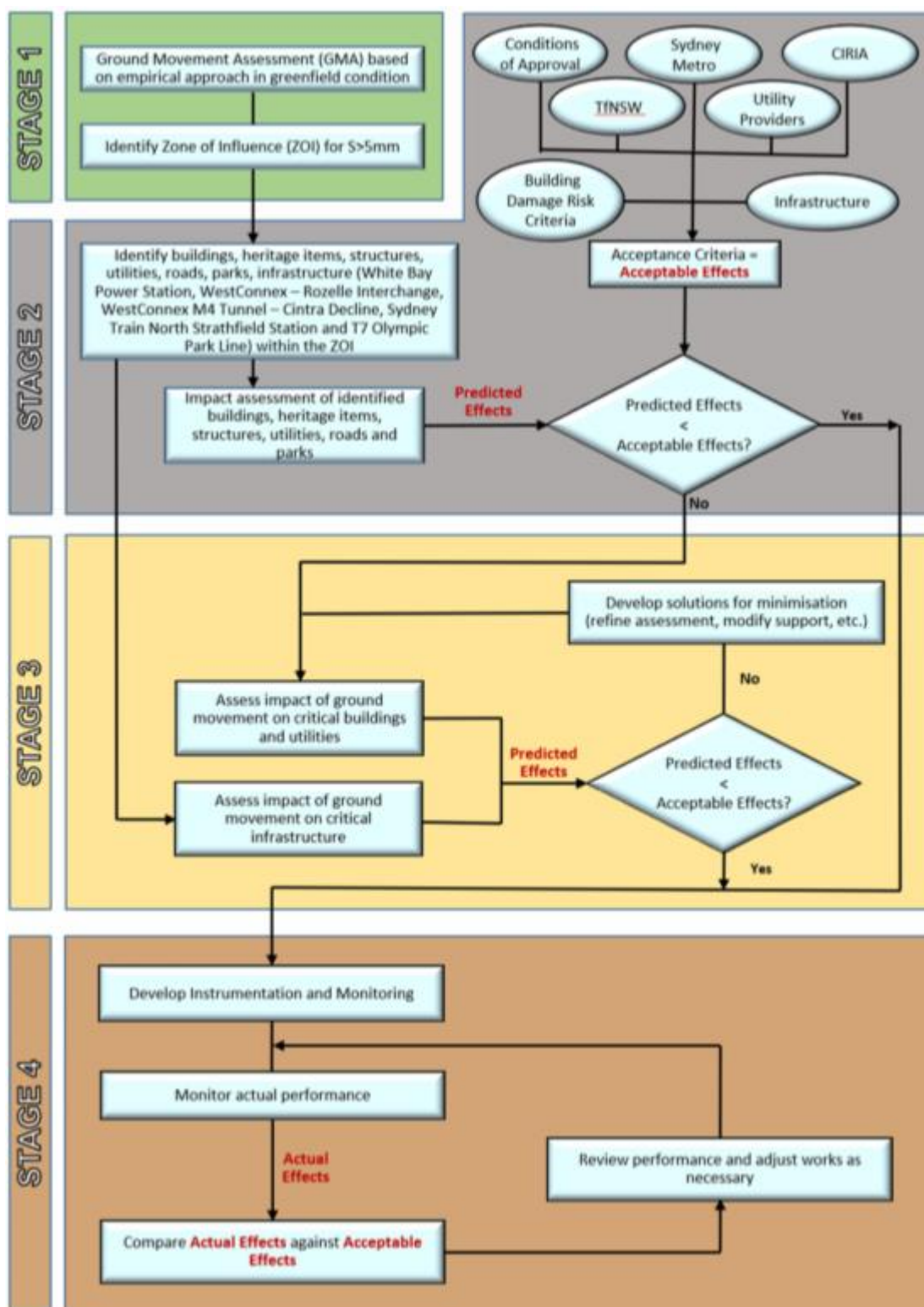


FIGURE 8: GENERAL METHODOLOGY OF THE GROUND MOVEMENT/SETTLEMENT ASSESSMENT AND MONITORING PROCESS

Chapter 18.6.3 of the EIS anticipated that features with high hydraulic conductivity would need to be grouted prior to excavation to reduce the potential for relatively high groundwater inflows into the excavations. The geology within the vicinity of the WBPS is comprised of potential sand-filled defects within the rock mass. As a result of tunnelling, excessive groundwater inflow and potentially induced sand piping at the TBM excavation poses a potential settlement risk in the overlying alluvium soil.

AFJV have undertaken a grouting program for The Bays to reduce the potential settlement magnitude as a result of the CTP Works. This environmental impact of this program was assessed by a suitable heritage consultant and the works were approved to be consistent with the Approved Project. The grouting program was implemented onsite to minimise groundwater inflows during tunnelling by filling in the voids within the rock which will limit the permeability of the rock and subsequently reduce the potential ground settlement in this area.

6. COMPLIANCE MANAGEMENT

6.1 ROLES AND RESPONSIBILITIES

The environmental roles and responsibilities of key project personnel are outlined in Section 3.5 of the CEMP.

Refer to Section 5.1.2 and Section 5.1.3 for detail on relevant external roles.

6.2 TRAINING

The general CTP environmental induction will address requirements in relation to heritage management. The induction would primarily communicate the requirements of this Plan including information and an illustration of locations of the known and potential heritage items and their significance, legislative requirements, responsibilities and circumstances that could result in a breach. The induction would also include training on the requirements of the Sydney Metro Unexpected Heritage Finds Procedure (**Appendix B**).

Specific targeted training packages will be developed by the Environmental Manager to ensure role specific requirements are communicated to staff involved in critical aspects of Heritage management as required. Targeted heritage training packages will include topics such as unexpected heritage finds procedure (Section 5.5) and salvage methodology (Section 5.3.2). Specific role identification would be undertaken via the Workforce Development and Industry Participation portfolio in accordance with Section 3.6 of the CEMP.

Toolbox talks will be scheduled weekly and used to raise awareness and educate personnel on construction related environmental issues during construction.

Refer to Section 3.6 of the CEMP for more detail on training and awareness.

6.3 MONITORING INSPECTIONS & AUDITS

Weekly site environmental inspections will be undertaken to assess the ongoing effectiveness and suitability of the environmental controls, including areas and activities with the potential to impact on Aboriginal Cultural Heritage and non-Aboriginal heritage. Refer to the CEMP for full detail on Project monitoring.

Monitoring of archaeological excavations will be conducted as detailed in Sections 5.2.2, 5.3.3 and 5.1.2.

Noise and vibration monitoring will be undertaken in accordance with the Noise and Vibration Management Plan and Noise and Vibration Construction Monitoring Program.

A Detailed Noise and Vibration Impact Statement will be prepared for each Construction Site to supplement the NVMP and refine impact predictions presented in the Project EIS. The DNVIS will use the Projects predictive modelling tool (refer to Section 8.4 of the Noise and Vibration Management Plan) and will consider actual construction methodologies, plant and equipment, location and duration of activities that could potentially impact on non-Aboriginal heritage.

Audits (both internal and external) will be undertaken to assess the effectiveness of environmental mitigation and management measures, compliance with Project requirements and any other relevant approvals, licenses and guidelines. Audit management is detailed in Section 3.9.4 of the CEMP.

6.4 REPORTING AND RECORDS

Refer to Section 3.10 of the CEMP for all recording and reporting requirements. The AFJV will retain records specific to heritage management including:

- Environmental inspections relating to areas or activities that have the potential to impact on Aboriginal Cultural and non-Aboriginal heritage
- Heritage salvage registers
- Archival recordings of heritage items
- Unexpected finds and stop work orders, and
- Records of any impacts avoided or minimised through design or construction methods.

Reporting requirements specifically relating to heritage management is detailed in Section 5 of this Plan.

7. REVIEW AND IMPROVEMENT

7.1 CONTINUOUS IMPROVEMENT

Continuous improvement of this HMP will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets.

The continuous improvement process will be designed to:

- Identify areas of opportunity for improvement of environmental management and performance
- Determine the cause or causes of non-conformances
- Develop and implement a plan of corrective and preventative action to address any non-conformances
- Verify the effectiveness of the corrective and preventative actions
- Document any changes in procedures resulting from process improvement
- Compare objectives and targets.

7.2 CEMP REVISION

Any revisions to this HMP will be in accordance with the process outlined in Section 3.11 of the CEMP. Section 2.2 of the CEMP provides information on the process for endorsement and approval of the CEMP. The ER can approve necessary minor changes in accordance with A30(j).

APPENDIX A OTHER CONDITIONS OF APPROVAL, REMMS AND CEMF REQUIREMENTS RELEVANT TO THIS PLAN

Minister's Conditions of Approval (11 March 2021) (SSI 10038)		
Ref	Requirement	Where addressed
A6	<p>Where the conditions of this approval require a document or monitoring program to be prepared, or a review to be undertaken, in consultation with identified parties, evidence of the consultation undertaken must be submitted to the Planning Secretary with the document. The evidence must include:</p> <ul style="list-style-type: none"> (a) documentation of the engagement with the party identified in the condition of approval that has occurred before submitting the document for approval; (b) a log of the dates of engagement or attempted engagement with the identified party and a summary of the issues raised by them; (c) documentation of the follow-up with the identified party(s) where feedback has not been provided to confirm that the party(s) has none or has failed to provide feedback after repeated requests; (d) outline of the issues raised by the identified party(s) and how they have been addressed; and (e) a description of the outstanding issues raised by the identified party(s) and the reasons why they have not been addressed. 	<p>Section 3.3</p> <p>Appendix C</p>
D13	<p>The Proponent must not destroy, modify or otherwise physically affect any Heritage item not identified in documents referred to in Condition A1 of this schedule. Unexpected heritage finds identified by Stage 1 of the CSSI must be managed in accordance with the Unexpected Finds Protocol outlined in Conditions D31 to D33 of this schedule. Consideration of avoidance and redesign to protect state significant unexpected finds must be addressed where this condition applies.</p>	Section 5.5
D14	<p>Before installing protective site boundary hoarding or equipment used for vibration and noise monitoring at any Heritage item identified in the documents listed in Condition A1 of this schedule, the advice of a suitably qualified and experienced built heritage expert must be obtained and implemented to ensure any such work does not have an adverse impact on the heritage significance of the item. The installation must also consider and avoid impacts to potential historical archaeology and seek advice from the Excavation Director approved under Condition D27 below.</p>	<p>Section 5.1.2</p> <p>Section 5.3.4</p> <p>Noise and Vibration Management Plan</p>
D17	<p>The Roxy Theatre, White Bay Power Station, the former State Abattoirs and the former RTA Depot facade fronting Unwin Street must not be destroyed, modified or otherwise adversely affected, except as identified in the documents listed in Condition A1 of this schedule.</p>	<p>Section 5.1</p> <p>AFJV is responsible for this condition to the extent it relates the</p>

		White Bay Power Station and the former State Abattoirs
D18	Where Heritage items, or items assessed to be of local heritage significance in the documents listed in Condition A1 of this schedule, are proposed to be fully or partially destroyed, heritage salvage must occur in consultation with a suitably qualified heritage specialist. The Proponent must develop a salvaged materials and moveable heritage register. The register must identify significant items to be salvaged. Salvage must occur where significance is retained and / or the potential for re-use, reinstatement or re-sale has been identified. The salvage from any State listed items must be undertaken in consultation with Heritage NSW.	Section 5.3.4
D19	All reasonable steps must be taken not to harm, modify or otherwise impact Aboriginal objects except as authorised by this approval.	Section 5.1
D20	The Registered Aboriginal Parties (RAPs) must be kept informed about Stage 1 of the CSSI. The RAPs must continue to be provided with the opportunity to be consulted about the Aboriginal cultural heritage management requirements of Stage 1 of the CSSI.	Section 5.2.1
D21	Aboriginal archaeological test excavation must be undertaken at those areas identified in Table 25 of the revised Aboriginal Cultural Heritage Assessment Report (ACHAR) prepared by Artefact Heritage and dated November 2020.	Section 5.2.2
D22	An Aboriginal Archaeological Test Excavation Methodology(s) must be prepared and appropriately integrated with the revised Archaeological Research Design and Excavation Methodology. The Aboriginal Archaeological Salvage Excavation Methodology(s) must be prepared after analysis of the test excavation results.	Section 5.2.2
D23	At the completion of Aboriginal cultural heritage test and salvage excavations, an Aboriginal Cultural Heritage Excavation Report(s), prepared by a suitably qualified expert, must be prepared in accordance with the Guide to Investigation, assessing and reporting on Aboriginal cultural heritage in NSW, OEH 2011 and the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales, DECCW 2010. The Aboriginal Cultural Heritage Excavation Report(s) must document the results of the archaeological test excavations and any subsequent salvage excavations. The RAPs must be given a minimum of 28 days to consider the report and provide comments before the report is finalised. The final report must be provided to Heritage NSW within 24 months of the completion of the Aboriginal archaeological excavations (both test and salvage).	Section 5.2.2

D24	<p>Where previously unidentified Aboriginal objects are discovered, all work must immediately stop in the vicinity of the affected area and a suitably qualified and experienced Aboriginal heritage expert must be contacted to provide specialist heritage advice, before construction recommences. The measures to consider and manage this process must be specified in the Heritage CEMP Sub-plan required by Condition C5 of this schedule and, where relevant, include registration in the Aboriginal Heritage Information Management System (AHIMS).</p>	<p>Section 5.5 Appendix B</p>
D25	<p>Before the commencement of excavation at Parramatta and The Bays metro station construction sites, a revised Archaeological Research Design and Excavation Methodology(s) must be prepared in accordance with Heritage Council of NSW guidelines and with reference to the detailed design of Stage 1 construction of the CSSI to guide archaeological excavation. The revised Archaeological Research Design and Excavation Methodology(s) must be prepared by the Excavation Director (approved under Condition D27 below) and must include:</p> <ul style="list-style-type: none"> (a) site specific research for the Parramatta and The Bays metro station construction sites which is conducted by a professional historian to clearly articulate the historical development of the allotments to assist with the reassessment of potential and significance; (b) comparative analysis from archaeological investigations in Parramatta (including theses, publications and grey literature reports); (c) preparation of research questions based on the additional site-specific research required by this condition, and relevant research agendas from previously excavated early historical occupation in Parramatta including recovered artefact assemblages; and (d) a reconsideration of archaeological methods to manage the sites based on this additional assessment. <p>The revised Archaeological Research Design and Excavation Methodology(s) must apply to both Parramatta and The Bays metro station construction sites and be prepared in consultation with Heritage NSW and Place Management NSW (in respect of The Bays) and submitted to the Planning Secretary for approval.</p> <p>The revised Archaeological Research Design and Excavation Methodology(s) must be implemented throughout the archaeological excavation programs.</p>	<p>Section 5.1.3 Section 5.1.3 AFJV is responsible for this condition to the extent it relates to The Bays construction site</p>
D26	<p>The revised Archaeological Research Design and Excavation Methodology(s) must include provision for early physical investigation of areas of impact identified as likely to contain State significant archaeology or subterranean Heritage items in the research design to inform excavation in these areas. This must include the</p>	<p>Section 5.3.3</p>

	Parramatta and The Bays metro station sites, including Parramatta Convict Drain, Parramatta Sand Body, White Bay Power Station (inlet) Canal and Beattie Street Stormwater Channel.	
D27	Before commencement of archaeological excavation, the Proponent must nominate a suitably qualified Excavation Director , who complies with Heritage Council of NSW's <i>Criteria for Assessment of Excavation Director</i> (September 2019), to oversee and advise on matters associated with historical archaeology for the approval of the Planning Secretary, in consultation with Heritage NSW. The Excavation Director must be present to oversee excavation, advise on archaeological issues, advise on the duration and extent of oversight required during archaeological excavations consistent with the approved Archaeological Research Design and Excavation Methodology(s) required under Condition D25 of this schedule. Aboriginal archaeological excavations must be conducted by a suitably qualified person in accordance with the requirements of the <i>Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales</i> (DECCW 2010). More than one Excavation Director may be engaged for Stage 1 of the CSSI to exercise the functions required under the conditions of this approval.	Section 5.1.3
D28	Following completion of archaeological excavation programs, a Final Excavation Report and an Aboriginal Cultural Heritage Excavation Report must be prepared that includes further detailed and site-specific historical research undertaken to enhance the final reporting, and results of archaeological excavations. The report must include details of any significant artefacts recovered (salvaged), where they are located and details of their ongoing conservation. The Final Excavation Report must document significant results and artefacts which may be re-used in future stages of the CSSI. The Final Excavation Report must be prepared in accordance with guidelines and standards required by Heritage Council of NSW.	Section 5.3.3
D29	The Final Excavation Report and Aboriginal Cultural Heritage Excavation Report must be submitted to the Planning Secretary, Heritage NSW and the Relevant Council for information no later than 24 months after the completion of the archaeological excavation.	Section 5.2.2 Section 5.3.3
D31	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds (heritage items and values) in accordance with any guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW.	Section 5.5 Appendix B
D32	The Unexpected Heritage Finds and Human Remains Procedure must be prepared by a suitably qualified and experienced heritage specialist in consultation with the Heritage Council of NSW (with respect to non-Aboriginal	Section 5.5 Appendix B

	<p>cultural heritage) and in relation to Aboriginal cultural heritage, in accordance with the Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales (DECCW 2010) and submitted to the Planning Secretary for information no later than one (1) month before the commencement of construction.</p>	
D33	<p>The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of construction.</p> <p>Note: Human remains that are found unexpectedly during the carrying out of work may be under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately. Management of human remains in NSW is subject to requirements set out in the Public Health Act 2010 (NSW) and Public Health Regulation 2012 (NSW). Nothing in these conditions prevents separate procedures for the Unexpected Heritage Finds and Human Remains Procedure.</p>	<p>Section 5.5 Appendix B</p>
D46	<p>Vibration testing must be conducted during vibration generating activities that have the potential to impact on Heritage items to identify minimum working distances to prevent cosmetic damage.</p> <p>In the event that the vibration testing and attended monitoring shows that the preferred values for vibration are likely to be exceeded, the Proponent must review the construction methodology and, if necessary, implement additional mitigation measures. Such measures must include, but not be limited to, review or modification of excavation techniques.</p>	<p>Vibration testing is detailed in the Noise and Vibration Management Plan</p>
D47	<p>The Proponent must seek the advice of a heritage specialist on methods and locations for installing equipment used for vibration, movement and noise monitoring at Heritage items.</p>	<p>Section 5.1.2</p>
D48	<p>Before conducting at-property treatment at any Heritage item identified in the documents listed in Condition A1 of this schedule, the advice of a suitably qualified and experienced built heritage expert must be obtained and implemented to ensure any such work does not have an adverse impact on the heritage significance of the item.</p>	<p>Section 5.1.2</p>
D49	<p>If a Heritage item is found to be structurally unsound (following inspection) a more conservative cosmetic damage criterion of 2.5 mm/s peak component particle velocity (from DIN 4150) must be applied.</p>	<p>Minimum working distances and vibration monitoring is detailed in the Noise and Vibration Management Plan</p>
D63	<p>Appropriate equipment to monitor areas in proximity of construction sites and the tunnel route during construction must be installed with particular reference to at risk buildings, structures and utilities identified in the condition surveys required by Condition D60 of this schedule and / or geotechnical analysis as required. If monitoring during construction indicate exceedance of</p>	<p>Table 9 Section 5.8</p>

	the predicted impacts identified in the documents in Condition A1 or determined through geotechnical analysis, then all construction affecting settlement must cease immediately if it is safe to do so and must not resume until fully rectified or a revised method of construction is established that will ensure protection of affected buildings.	
Revised Environmental Mitigation Measures (REMMs)		
NAH1	<p>Archival recording and reporting of the following heritage items would be carried out in accordance with the NSW Heritage Office's How to Prepare Archival Records of Heritage Items (1998), and Photographic Recording of Heritage Items Using Film or Digital Capture (2006):</p> <ul style="list-style-type: none"> • Shops (and potential archaeological site) (Parramatta LEP Item No. I703) • Kia Ora (and potential archaeological site) (Parramatta LEP Item No. I716) • RTA Depot (Parramatta LEP Item No. I576) • State Abattoirs (SEPP Listing No. A) • White Bay Power Station (SHR Listing No. 01015) 	<p>Section 5.3.1</p> <p>AFJV is responsible for this condition to the extent it relates the White Bay Power Station and the State Abattoirs</p>
NAH2	A method for the demolition of existing buildings and/or structures at specified construction sites would be developed to minimise direct and indirect impacts to adjacent and/or adjoining heritage items.	Section 5.3.4
NAH3	Prior to commencement of demolition of heritage elements at White Bay Power Station within The Bays construction site, significant heritage fabric would be identified for salvage and reuse opportunities for salvaged fabric considered.	Section 5.3.4
NAH4	The policies of the White Bay Power Station Conservation Management Plan would be considered in regard to visual impacts of the Stage 1 works, particularly the acoustic shed (or other acoustic measures) and any temporary structures. Significant view lines would be retained during Stage 1 works.	The Bays construction site layout and management of visual amenity is detailed in the Visual Amenity Management Plan
NAH6	The archaeological research design would be implemented. Significant archaeological findings would be considered for inclusion in heritage interpretation (as per NAH5) for the project and be developed in consultation with the relevant local council	<p>Section 5.3.3</p> <p>Sydney Metro is responsible for preparation of a Heritage Interpretation Plan required by NAH5</p>
NAH7	An Archaeological Excavation Report would be prepared by the Excavation Director and be provided to the Planning Secretary, Heritage NSW and relevant Council's within two years of the completion of archaeological excavations specified in the archaeological research design(s).	Section 5.3.3

NAH10	<p>An assessment of significance would be prepared in consultation with the relevant local council for the following potential unlisted heritage items:</p> <p>220 Church Street, Parramatta</p> <p>48 Macquarie Street, Parramatta</p> <p>Pine Inn at 19 Parramatta Road, Concord</p> <p>338-340 Parramatta Road, Burwood</p> <p>Former warehouse shed, Glebe Island.</p> <p>If the assessment of significance confirms these items have local heritage value, an archival recording would be undertaken.</p>	<p>Section 4.2</p> <p>Section 5.3.1</p> <p>AFJV responsible for this to the extent it relates to the items identified in Table 6</p>
AH1	<p>Aboriginal stakeholder consultation would be carried out in accordance with the Heritage NSW, Department of Premier and Cabinet's Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010 (DECCW, 2010).</p>	Section 5.2.1
AH2	<p>Archaeological test excavation (and salvage when required) would be carried out where intact natural profiles with the potential to contain significant archaeological deposits are encountered at the specified construction sites and the Parramatta power supply route. Excavations would be conducted in accordance with the methodology outlined in the Aboriginal cultural heritage assessment report.</p>	Section 5.2.2
AH4	<p>In the event that a potential burial site or potential human skeletal material is exposed during construction, the Sydney Metro Exhumation Management Plan would be implemented.</p>	Superseded by CoA D31
GW5	<p>A detailed geotechnical and hydrogeological model for Stage 1 would be developed and progressively updated during design and construction. The detailed geotechnical and hydrogeological model would include:</p> <ul style="list-style-type: none"> • Assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain • Predicted groundwater inflows, groundwater take and changes to groundwater levels, including at nearby water supply works. <p>1. Where building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage.</p> <p>2. Where a significant exceedance of target changes to groundwater levels are predicted at surrounding land uses and nearby water supply works, an appropriate groundwater monitoring program would be developed</p>	Section 4.2.1

	and implemented. The program would aim to confirm no adverse impacts on groundwater levels or to appropriately manage any impacts. Monitoring at any specific location would be subject to the status of the water supply work and agreement with the landowner.
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APPENDIX B UNEXPECTED FINDS AND HUMAN REMAINS PROCEDURE



Sydney Metro Unexpected Heritage Finds Procedure

[SM-18-00105232]

Sydney Metro Integrated Management System (IMS)

Applicable to:	Sydney Metro
Document Owner:	Author/Document owner
System Owner:	IMS element owner (generally a member of the Executive)
Status:	Draft/Final
Version:	2.0
Date of issue:	19 March 2019
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1. Purpose

This procedure is applicable to the Sydney Metro program of works including major projects delivered under Critical State Significant Infrastructure Planning Approvals (CSSI), early CSSI minor and enabling works and works that are subject to the NSW Heritage Act (1977) including s57/139 and s60/140 exemptions and permit approvals.

This procedure has been prepared for Sydney Metro programs to provide a method for managing unexpected heritage items (both Aboriginal and non-Aboriginal) that are discovered during preconstruction (pre-Construction Heritage Manage Plan approval), construction phases (post Construction Heritage Manage Plan approval) and for works subject to the NSW Heritage Act (1977).

An ‘unexpected heritage find’ can be defined as any unanticipated archaeological discovery, that has not been previously assessed or is not covered by an existing approval under the Heritage Act 1977 (Heritage Act) or National Parks and Wildlife Act 1974 (NPW Act).

In NSW, there are strict laws to protect and manage heritage objects and relics. As a result, appropriate heritage management measures need to be implemented to minimise impacts on heritage values; ensure compliance with relevant heritage notification and other obligations; and to minimise the risk of penalties to individuals, Sydney Metro and its contractors. This procedure includes Sydney Metro’s heritage notification obligations under the Heritage Act, NPW Act and the Coroner’s Act 2009 and the requirements of the conditions of approval (CoA) issued by NSW Department of Planning and Environment.

Note that a Contractor must not amend the Sydney Metro Unexpected Finds Procedure without the prior approval of Sydney Metro.

It should be noted that this procedure must be read in conjunction with the relevant CSSI conditionals of approval (if applicable), the contract documents and other plans including the Sydney Metro Exhumation Management Plan and procedures developed by the contractor during the delivery of the Sydney Metro works.

1.1. Legislation that does not apply

The following authorisations are not required for Sydney Metro approved Critical State Significant Infrastructure (and accordingly the provisions of any Act that prohibits an activity without such an authority do not apply):

- Division 8 of Part 6 of the Heritage Act 1977 does not apply to prevent or interfere with the carrying out of approved State significant infrastructure.
- An approval under Part 4, or an excavation permit under section 139, of the Heritage Act 1977,
- An Aboriginal heritage impact permit under section 90 of the National Parks and Wildlife Act 1974,

This document provides relevant background information in Section 4, followed by the technical procedure in Sections 6 and 7. Associated guidance referred to in the procedure can be found in Appendices 1-6.

2. Scope

Despite earlier investigation, unexpected heritage items may still be discovered during works on a Sydney Metro site. When this happens, this procedure must be followed. This procedure provides direction on when to stop work, where to seek technical advice and how to notify the regulator, if required.

This procedure **applies to**:

- the discovery of any unexpected heritage item, relic or object, where the find is not anticipated in an approved Archaeological Assessment Design Report (AARD) or Archaeological Method Statements (AMS) that are prepared as part of the planning approval for that project.

This procedure must be followed by all Sydney Metro staff, contractors, subcontractors or any person undertaking works for Sydney Metro. It includes references to some of the relevant legislative and regulatory requirements, but is not intended to replace them.

This procedure **does not apply** to:

- The discovery and disturbance of heritage items as a result of investigations being undertaken in accordance with the Office of Environment and Heritage's (OEH) *Code of Practice for Archaeological Investigations of Aboriginal Objects in NSW 2010*¹; an Aboriginal Heritage Impact Permit (AHIP) issued under the NPW Act; or a permit approval issued under the Heritage Act.
- the discovery and disturbance of heritage items as a result of construction related activities, where the disturbance is permissible in accordance with an AHIP; or an approval issued under the Heritage Act or CSSI /CSSD planning approval;

3. Definitions

All terminology in this procedure is taken to mean the generally accepted or dictionary definition with the exception of the following terms which have a specifically defined meaning:

	Definitions
AHIP	Aboriginal Heritage Impact Permit
Aboriginal object	An Aboriginal object is any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains. An Aboriginal object may include a shell midden, stone tools, bones, rock art, Aboriginal-built fences and stockyards, scarred trees and the remains of fringe camps.
CEMP	Construction Environmental Management Plan
CoA	Conditions of Approval
CSSD	Critical State Significant Development
CSSI	Critical State Significant Infrastructure
EP&A Act	NSW Environmental Planning and Assessment Act 1979
Excavation	A person that complies with the Heritage Council of NSW's Criteria for Assessment of

¹ An act carried out in accordance with the *Code of Practice for Archaeological Investigation of Aboriginal Objects in NSW* as published by the Department in the Gazette on 24 September 2010 is excluded from the definition of **harm** an object or place in section 5 (1) of the NPW Act.

Director	Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology. Note this applies to a specific project/program and requires consultation and/or approval by OEH.
Heritage Act	NSW <i>Heritage Act 1977</i>
NPW Act	NSW <i>National Parks and Wildlife Act 1974</i>
OEH	Office of Environment and Heritage
SM	Sydney Metro
Relic (non-Aboriginal heritage)	<p>A relic means any deposit, artefact, object or material evidence that:</p> <ul style="list-style-type: none"> a) relates to the settlement of the area that comprises NSW, not being Aboriginal settlement, and b) is of State or local significance. <p>A relic may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse.</p>
TfNSW	Transport for New South Wales
Work (non-Aboriginal heritage)	Archaeological features such as historic utilities or buried infrastructure that provide evidence of prior occupations such as former rail or tram tracks, timber sleepers, kerbing, historic road pavement, fences, culverts, historic pavement, buried retaining walls, cisterns, conduits, sheds or building foundations, but are also subject to assessment by the Excavation Director to determine its classification

4. Types of unexpected heritage items and corresponding statutory protections

The roles of project, field and environmental personnel (including construction contractors) are critical to the early identification and protection of unexpected heritage items.

Appendix 1 illustrates the wide range of heritage discoveries found on Sydney Metro projects and provides a useful photographic guide. Subsequent to confirmation of a heritage discovery it must then be identified and assessed by Excavation Director. An 'unexpected heritage item' means any unanticipated discovery of an actual or potential heritage item, for which Sydney Metro does not have approval to disturb² and/or have an existing management process in place.

These discoveries are categorised as either:

- (a) Aboriginal objects
- (b) Historic (non-Aboriginal) heritage items
- (c) Human skeletal remains.

The relevant legislation that applies to each of these categories is described below and is also addressed in the Sydney Metro Exhumation Management Plan).

4.1. Aboriginal objects

The NPW Act protects Aboriginal objects which are defined as:

² Disturbance is considered to be any physical interference with the item that results in it being destroyed, defaced, damaged, harmed, impacted or altered in any way (this includes archaeological investigation activities).

“any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains”³.

Examples of Aboriginal objects include stone tool artefacts, shell middens, axe grinding grooves, pigment or engraved rock art, burials and scarred trees.

IMPORTANT!

All Aboriginal objects, regardless of significance, are protected under law.

If any impact is expected to an Aboriginal object, an AHIP is usually required from OEHS. Also, when a person becomes aware of an Aboriginal object they must notify the Director-General of OEHS about its location⁴. Assistance on how to do this is provided in Section 7 (Step 5).

4.2. Historic heritage items

Historic (non-Aboriginal) heritage items may include:

- Archaeological ‘relics’
- Other historic items (i.e. works, structures, buildings or movable objects).

4.2.1. Archaeological relics

The Heritage Act protects *relics* which are defined as:

“any deposit, artefact, object or material evidence that relates to the settlement of the area that comprises NSW, not being Aboriginal settlement; and is of State or local heritage significance”⁵.

Relics are archaeological items of local or state significance which may relate to past domestic, industrial or agricultural activities in NSW, and can include bottles, remnants of clothing, pottery, building materials and general refuse.

IMPORTANT!

All relics are subject to statutory controls and protections.

If a relic is likely to be disturbed, a heritage approval is usually required from the NSW Heritage Council⁶. Also, when a person discovers a relic they must notify the NSW Heritage Council of its location⁷.

4.2.2. Other historic items

Some historic heritage items are not considered to be ‘relics’, but are instead referred to as works, *buildings, structures or movable objects*. Examples of these items that may be encountered include *culverts, historic pavements, retaining walls, tramlines, rail tracks, timber sleepers, cisterns, fences, sheds, buildings and conduits*. Although an approval under the Heritage Act may not be required to disturb these items, their discovery must be managed in accordance with this procedure.

³ Section 5(1) NPW Act.

⁴ This is required under section 89(A) of the NPW Act and applies to all Sydney Metro projects.

⁵ Section 4(1) Heritage Act.

⁷ This is required under section 146 of the Heritage Act and applies to all Sydney Metro projects.

As a general rule, an archaeological relic requires discovery or examination through the act of excavation. For an unexpected find an archaeological excavation permit under section 140 of the Heritage Act may be required to do this. In contrast, 'other historic items' either exist above the ground surface (e.g. a shed), or they are designed to operate and exist beneath the ground surface (e.g. a culvert).

4.3. Human skeletal remains

Also refer to Sydney Metro Exhumation Management Plan for a more detailed explanation of the approval processes.

Human skeletal remains can be identified as either an Aboriginal object or non-Aboriginal relic depending on ancestry of the individual (Aboriginal or non-Aboriginal) and burial context (archaeological or non-archaeological). Remains are considered to be archaeological when the time elapsed since death is suspected of being 100 years or more. Depending on ancestry and context, different legislation applies.

As a simple example, a pre-European settlement archaeological Aboriginal burial would be protected under the NPW Act, while a historic (non-Aboriginal) archaeological burial within a cemetery would be protected under the Heritage Act. For a non-Aboriginal archaeological burial, the relevant heritage approval and notification requirement described in Section 3.1 would apply. In addition to the NPW Act, finding Aboriginal human remains also triggers notification requirements to the Commonwealth Minister for the Environment under section 20(1) of the Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Commonwealth).

IMPORTANT!

All human skeletal remains are subject to statutory controls and protections.

All bones must be treated as potential human skeletal remains and work around them must stop while they are protected and investigated urgently.

However, where it is suspected that less than 100 years has elapsed since death, the human skeletal remains come under the jurisdiction of the State Coroner and the Coroners Act 2009 (NSW). Such a case would be considered a 'reportable death' and under legal notification obligations set out in section 35(2); a person must report the death to a police officer, a coroner or an assistant coroner as soon as possible. This applies to all human remains less than 100 years old⁸ regardless of ancestry (i.e. both Aboriginal and non-Aboriginal remains). Public health controls may also apply.

Guidance on what to do when suspected human remains are found is provided in Appendix 5.

5. Legislative Requirements

Table 1 identifies some of the relevant legislation/regulations for the protection of heritage and the management of unexpected heritage finds in NSW. It should be noted that significant

⁸ Under section 19 of the *Coroners Act 2009*, the coroner has no jurisdiction to conduct an inquest into reportable death unless it appears to the coroner that (or that there is reasonable cause to suspect that) the death or suspected death occurred within the last 100 years.

penalties exist for breaches of the listed legislation as a result of actions that relate to unauthorised impacts on heritage items. Further, it is noted that heritage that has been assessed and is being managed in accordance with relevant statutory approvals(s) is exempt from these offences.

To avoid breaches of legislation, it is important that Sydney Metro and its contractors are aware of their statutory obligations under relevant legislation and that appropriate control measures are in place to ensure that unexpected heritage items are appropriately managed during construction. Contractors/Alliances will need to ensure that they undertake their own due diligence to identify any other legislative requirements that may apply for a given project.

Table 1 Legislation and guidelines for management of unexpected heritage finds

Relevant Requirement	Objectives and offences
<i>Environmental Planning and Assessment Act 1979 (EP&A Act)</i>	Section 115ZB Giving of approval by Minister to carry out a project.
<i>Environmental Planning and Assessment Act 1979 (EP&A Act)</i>	Requires heritage to be considered within the environmental impact assessment of projects. This guideline is based on the premise that an appropriate level of Aboriginal and non-Aboriginal cultural heritage assessment and investigations and mitigation have already been undertaken under the relevant legislation, including the EP&A Act, during the assessment and determination process. It also assumes that appropriate mitigation measures have been included in the conditions of any approval.
<i>Heritage Act 1977 (Heritage Act)</i>	The Heritage Act provides for the care, protection and management of heritage items in NSW. Under section 139, it is an offence to disturb or excavate any land knowing or having reasonable cause to suspect that the disturbance or excavation will or is likely to result in a relic being discovered, exposed, moved, damaged or destroyed, unless the disturbance or excavation is carried out in accordance with an excavation permit issued by the Heritage Division of the OEH. Under the Act, a relic is defined as: <i>'any deposit, artefact, object or material evidence that: (a) relates to the settlement of the area that comprises New South Wales, not being Aboriginal settlement, and (b) is of State or local heritage significance.'</i> A person must notify the Heritage Division of OEH, if a person is aware or believes that they have discovered or located a relic (section 146). Penalties for offences under the Heritage Act can include six months imprisonment and/or a fine of up to \$1.1million.

Relevant Requirement	Objectives and offences
National Parks and Wildlife Act 1974 (NPW Act)	<p>The NPW Act provides the basis for the care, protection and management of Aboriginal objects and places in NSW.</p> <p>An Aboriginal object is defined as: <i>‘any deposit, object or material evidence (not being a handicraft made for sale) relating to the Aboriginal habitation of the area that comprises New South Wales, being habitation before or concurrent with (or both) the occupation of that area by persons of non-Aboriginal extraction, and includes Aboriginal remains’.</i></p> <p>An ‘Aboriginal place’ is an area declared by the Minister administering the Act to be of special significance with respect to Aboriginal culture. An Aboriginal place does not have to contain physical evidence of occupation (such as Aboriginal objects).</p> <p>Under section 87 of the Act, it is an offence to harm or desecrate an Aboriginal object or place. There are strict liability offences. An offence cannot be upheld where the harm or desecration was authorised by an AHIP and the permit’s conditions were not contravened. Defences and exemptions to the offence of harming an Aboriginal object or Aboriginal place are provided in section 87, 87A and 87B of the Act.</p> <p>A person must notify OEH if a person is aware of the location of an Aboriginal object.</p> <p>Penalties for some of the offences can include two years imprisonment and/or up to \$550,000 (for individuals), and a maximum penalty of \$1.1 million (for corporations).</p>

6. Unexpected heritage finds protocol

6.1. What is an unexpected heritage find?

An ‘unexpected heritage find’ can be defined as any unanticipated archaeological discovery that has not been identified during a previous assessment or is not covered by an existing permit under the Heritage Act. The find may have potential cultural heritage value, which may require some type of statutory cultural heritage permit or notification if any interference of the heritage item is proposed or anticipated.

The range of potential archaeological discoveries can include but are not limited to:

- remains of rail infrastructure including buildings, footings, stations, signal boxes, rail lines, bridges and culverts
- remains of other infrastructure including sandstone or brick buildings, wells, cisterns, drainage services, conduits, old kerbing and pavement, former road surfaces, timber and stone culverts, bridge footings and retaining walls
- artefact scatters including clustering of broken and complete bottles, glass, ceramics, animal bones and clay pipes
- Archaeological human skeletal remains.

6.2. Managing unexpected heritage finds

In the event that an unexpected heritage find (the find) is encountered on a Sydney Metro site, the flowchart in Figure 1 must be followed. There are eight steps in the procedure. These steps are summarised in Figure 1 and explained in detail in Table 2.

Figure 1 Overview of steps to be undertaken on the discovery of an unexpected heritage item

IMPORTANT!

Sydney Metro may have approval to impact on certain heritage items during construction. If you think that you may have discovered a heritage item and you are unsure whether an approval is in place or not, **STOP** works and follow this procedure.

Table 2 Specific tasks to be implemented following the discovery of an unexpected heritage item

Step	Task	Responsibility	Guidance and tools
1	Stop work, protect item and inform the Excavation Director		
1.1	Stop all work in the immediate area of the item and notify the Project Manager	Contractor/ Supervisor	Appendix 1 (Identifying Unexpected Heritage items)
1.2	Establish a 'no-go zone' around the item. Use high visibility fencing, where practical. No work is to be undertaken within this zone until further investigations are completed and, if required, appropriate approvals are obtained. Inform all site personnel about the no-go zone.	Project Manager/ Contractor/ Supervisor	
1.3	Inspect, document and photograph the item.	Archaeologist and or Excavation Director	Appendix 2 (Unexpected Heritage Item Recording Form) Appendix 3 (Photographing Unexpected Heritage items)
1.4	Is the item likely to be bone? If yes , follow the steps in Appendix 4 – 'Uncovering bones'. Where it is obvious that the bones are human remains, you must notify the local police by telephone immediately. They may take command of all or part of the site. Also refer to the Sydney Metro Exhumation Management Plan If no , proceed to next step.	Excavation Director	Appendix 4 (Uncovering Bones)

Step	Task	Responsibility	Guidance and tools
1.5	Inform the Excavation Director of the item and provide as much information as possible, including photos and completed form (Appendix 2). Where the project has a Sydney Metro Environmental Manager, the Environmental Manager should be involved in the tasks/process.	Contractors Project Manager	
1.6	Can the works avoid further disturbance to the item? Project Manager to confirm with Sydney Metro's Environment Manager. Complete the remaining tasks in Step 1.	Contractors Project Manager	
1.7	Excavation Director and Sydney Metro Environmental Manager to advise the Project Manager whether Sydney Metro has approval to impact on the 'item'. Does Sydney Metro have an approval or permit to impact on the item? If yes , work may recommence in accordance with that approval or permit. There is no further requirement to follow this procedure. If no , continue to next step.	Contractors Project Manager	
1.8	Has the 'find' been damaged or harmed? If yes , record the incident in the Incident Management System Implement any additional reporting requirements related to the planning approval and CEMP, where relevant.	Contractors Project Manager, Excavation Director	
2	Contact and engage an archaeologist and/or an Aboriginal heritage consultant		
2.1	If an archaeologist and/or Aboriginal heritage consultant has been previously appointed for the project, contact them to discuss the location and extent of the item and arrange a site inspection, if required. The project CEMP may contain contact details of the archaeologist/Aboriginal heritage consultant. Where there is no project archaeologist engaged for the works engage a suitably qualified consultant to assess the find: if the find is a non-Aboriginal deposit, engage a suitably qualified and experienced archaeological consultant if the find is likely to be an Aboriginal object, engage an Aboriginal heritage consultant to assess the find.	Contractors Project Manager, Excavation Director	
2.2	If requested, provide photographs of the item taken during Step 1.3 to the archaeologist or Aboriginal heritage consultant.	Contractors Project Manager, Excavation Director	Appendix 3 (Photographing Unexpected Heritage items)

Step	Task	Responsibility	Guidance and tools
3	Preliminary assessment and recording of the find		
3.1	In a minority of cases, the archaeologist/Aboriginal heritage consultant may determine from the photographs that no site inspection is required because no heritage constraint exists for the project (e.g. the item is not a 'relic', a 'heritage item' or an 'Aboriginal object'). Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Sydney Metro Project Manager.	Archaeologist/ Aboriginal heritage consultant/ Excavation Director	Proceed to Step 8
3.2	Arrange site access for the archaeologist/Aboriginal heritage consultant to inspect the item as soon as practicable. In the majority of cases a site inspection is required to conduct a preliminary assessment.	Contractors Project Manager, Excavation Director	
3.3	Subject to the archaeologist/Aboriginal heritage consultant's assessment, work may recommence at a set distance from the item. This is to protect any other archaeological material that may exist in the vicinity, which may have not yet been uncovered. Existing protective fencing established in Step 1.2 may need to be adjusted to reflect the extent of the newly assessed protective area. No works are to take place within this area once established.	Archaeologist/ Aboriginal heritage consultant Contractors Project Manager, Excavation Director	
3.4	<p>The archaeologist/Aboriginal heritage consultant may provide advice after the site inspection and preliminary assessment that no heritage constraint exists for the project (e.g. the item is not a 'relic' or a 'heritage item' or an 'aboriginal item'. Any such advice should be provided in writing (e.g. via email or letter with the consultant's name and company details clearly identifiable) to the Metro Project Manager.</p> <p>Note that :</p> <p>a relic is evidence of past human activity which has local or State heritage significance. It may include items such as bottles, utensils, remnants of clothing, crockery, personal effects, tools, machinery and domestic or industrial refuse</p> <p>an Aboriginal object may include a shell midden, stone tools, bones, rock art or a scarred tree</p> <p>a "work", building or standing structure may include tram or train tracks, kerbing, historic road pavement, fences, sheds or building foundations.</p>	Archaeologist/ Aboriginal heritage consultant/ Contractors Project Manager, Excavation Director	<p>Proceed to Step 8</p> <p>Refer to Appendix 1 (Identifying heritage items)</p>

Step	Task	Responsibility	Guidance and tools
3.5	Where required, seek additional specialist technical advice (such as a forensic or physical anthropologist to identify skeletal remains). The archaeologist/Aboriginal heritage consultant can provide contacts for such specialist consultants.	Excavation Director Archaeologist	
3.6	Where the item has been identified as a 'relic' or 'heritage item' or an 'Aboriginal object' the archaeologist should formally record the item.	Archaeologist/ Aboriginal heritage consultant	
3.7	OEH (Heritage Division for non-Aboriginal relics and Planning and Aboriginal Heritage Section for Aboriginal objects) can be notified informally by telephone at this stage by the Sydney Metro Environmental Manager Any verbal conversations with regulators must be noted on the project file for future reference.	Contractors Project Manager, Excavation Director	
4	Section 4 not used		
5	Notify the regulator, if required.		
5.1	Based on the findings of the archaeological or heritage management plan and corresponding legislative requirements, is the find required to be notified to OEH and the Secretary? If no , proceed directly to Step 6 If yes , proceed to next step.	Sydney Metro Environmental Manager Excavation Director	
5.2	If notification is required, complete the template notification letter, including the archaeological/heritage management plan and other relevant supporting information and forward to the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) for signature.	Sydney Metro Environmental Manager Excavation Director	Appendix 6 (Template Notification Letter)
5.3	Forward the signed notification letter to OEH and the Secretary. Informal notification (via a phone call or email) to OEH prior to sending the letter is appropriate. The archaeological or heritage management plan and the completed site recording form (Appendix 2) must be submitted with the notification letter (for both Aboriginal objects and non-Aboriginal relics). For Part 5.1 projects, the Department of Planning and Environment must also be notified.		

Step	Task	Responsibility	Guidance and tools
5.4	A copy of the final signed notification letter, archaeological or heritage management plan and the site recording form is to be kept on file and a copy sent to the Sydney Metro Project Manager.	Contractors Project Manager, Excavation Director	
6	Implement archaeological or heritage management plan		
6.1	Modify the archaeological or heritage management plan to take into account any additional advice resulting from notification and discussions with OEH.	Contractors Project Manager, Excavation Director	
6.2	Implement the archaeological or heritage management plan. Where impact is expected, this may include a formal assessment of significance and heritage impact assessment, preparation of excavation or recording methodologies, consultation with Registered Aboriginal Parties, obtaining heritage approvals etc., if required.	Contractors Project Manager, Excavation Director	
6.3	Where heritage approval is required contact the Sydney Metro Environment Manager for further advice and support material. Please note there are time constraints associated with heritage approval preparation and processing.	Contractors Project Manager, Excavation Director	
6.4	Assess whether heritage impact is consistent with the project approval or if project approval modification is required from the Department of Planning and Environment.	, Excavation Director/Sydney Metro Environmental Manager	
6.5	Where statutory approvals (or project approval modification) are required, impact upon relics and/or Aboriginal objects must not occur until heritage approvals are issued by the appropriate regulator.	Contractors Project Manager, Excavation Director	
6.6	Where statutory approval is not required but where recording is recommended by the archaeologist/Aboriginal heritage consultant, sufficient time must be allowed for this to occur.	Contractors Project Manager, Excavation Director	
6.7	Ensure short term and permanent storage locations are identified for archaeological material or other heritage material removed from site, where required. Interested third parties (e.g. museums, local Aboriginal land councils, or local councils) should be consulted on this issue. Contact the archaeologist or Aboriginal heritage consultant for advice on this matter, if required.	Contractors Project Manager, Excavation Director	
7	Section 7 Not Used		

Step	Task	Responsibility	Guidance and tools
8	Resume work		
8.1	Seek written clearance to resume project work from the project Excavation Director/Archaeologist/Aboriginal heritage consultant. Clearance would only be given once all archaeological excavation and/or heritage recommendations and approvals (where required) are complete. Resumption of project work must be in accordance with the all relevant project/heritage approvals/determinations.	Contractors Project Manager, Excavation Director	
8.2	If required, ensure archaeological excavation/heritage reporting and other heritage approval conditions are completed in the required timeframes. This includes artefact retention repositories, conservation and/or disposal strategies.	Contractors Project Manager, Excavation Director	
8.3	Deleted		
8.4	If additional unexpected items are discovered this procedure must begin again from Step 1.	All	

7. Responsibilities

Table 3 Roles and Responsibilities

Role	Responsibility or role under this guideline
Contractor / Supervisor	Stop work immediately when an unexpected heritage find is encountered. Cordon off area until Environmental Manager /Excavation Director advises that work can recommence.
Contractor or Environment Manager	Manage the process of identifying, protecting and mitigating impacts on the 'find'. Liaise with Sydney Metro Project Manager and Environment Manager and assist the archaeologist/Aboriginal heritage consultant with mitigation and regulatory requirements. Complete Incident Report and review CEMP for any changes required. Propose amendments to the CEMP if any changes are required.
Contractor's or Project Heritage Advisor or Consultant	Provide expert advice to the Sydney Metro Environment Manager on 'find' identification, significance, mitigation, legislative procedures and regulatory requirements.
Environmental Representative	Independent environmental advisor engaged by Sydney Metro Ensures compliance with relevant approvals (new and existing).
Heritage Division of OEH	Regulate the care, protection and management of relics (non-Aboriginal heritage). Delegated authority for Heritage Council Issue excavation permits.

Role	Responsibility or role under this guideline
Registered Aboriginal Parties (RAPs)	Aboriginal people who have registered with Sydney Metro to be consulted about a proposed project or activity in accordance with the OEH <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents 2010</i> .
Sydney Metro Environment Manager	Notify the Sydney Metro Principal Manager, Environmental Management of 'find' and manage Incident Reporting once completed by Environmental Manager.
Contractors Project Manager	Ensures all aspects of this procedure are implemented. Advise Contractor / Supervisor to recommence work if all applicable requirements have been satisfied and the Excavation Director /Project Archaeologist has approved recommend of work.

8. Seeking Advice

Advice on this procedure should be sought from the Sydney Metro Environment a Manager in the first instance. Contractors and alliance partners should ensure their own project environment managers are aware of and understand this procedure. Technical archaeological or heritage advice regarding an unexpected heritage item should be sought from a suitably qualified and experienced archaeologist/Aboriginal heritage consultant.

9. Related documents and references

- Environmental Incident Classification and Reporting – 9TP-PR-105
- Guide to Environmental Control Map – 3TP-SD-015
- NSW Heritage Office (1998), *Skeletal remains: guidelines for the management of human skeletal remains*.
- Roads and Maritime Services (2015), *Standard Management Procedure Unexpected Heritage Items*.
- Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal remains*.
- Sydney Metro Exhumation Management Plan

10. List of appendices

The following appendices are included to support this procedure:

- Appendix 1: Examples of finds encountered during construction works
- Appendix 2: Unexpected Heritage Item Recording Form
- Appendix 3: Photographing Unexpected Heritage Items
- Appendix 4: Uncovering Bones
- Appendix 5: Archaeological Advice Checklist
- Appendix 6: Template Notification Letter

11. Document history

Version	Date of approval	Notes
1.1		Incorporates ER comments 21/06/17
1.2		Amends p13 step 8 reference to s146 added
1.3		Incorporates Planning Mods 1-4 including amended CoA E20
1.4		Incorporates ER comments 21/03/18
2.0		Removes SSI 15-7400 COA reference

Appendix 1: Examples of finds encountered during construction works



Photo 1 - Aboriginal artefacts found at the Wickham Transport Interchange, 2015



Photo 2 – Aboriginal artefacts (shell material) found at the Wickham Transport Interchange, 2015



Photo 3 1840s seawall and 1880s retaining wall uncovered at Balmain East, 2016



Photo 4 Sandstone pavers uncovered at Balmain East, 2016



Photo 5 - Platform structure at Hamilton Railway Station classified as a 'work' by the project archaeologist - Wickham Transport Interchange project, 2015

Photo 6 - Platform structure at Hamilton Railway Station classified as a 'work' by the project archaeologist - Wickham Transport Interchange project, 2015



Photo 7 - Sandstone flagging and cesspit - Wynyard Walk project, 2014



Photo 8 - Chinese Ming Dynasty pottery and English porcelain/pottery dating back to early 19th century - Wynyard Walk project, 2014



Photo 9 - Pottery made by convict potter Thomas Ball during the early settlement - Wynyard Walk project, 2014

The following images, obtained from the Roads and Maritime Services' *Standard Management Procedure for Unexpected Heritage items 2015*, can be used to assist in the preliminary identification of potential unexpected items during construction and maintenance works.



Photo 10 - Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area) (RMS, 2015).

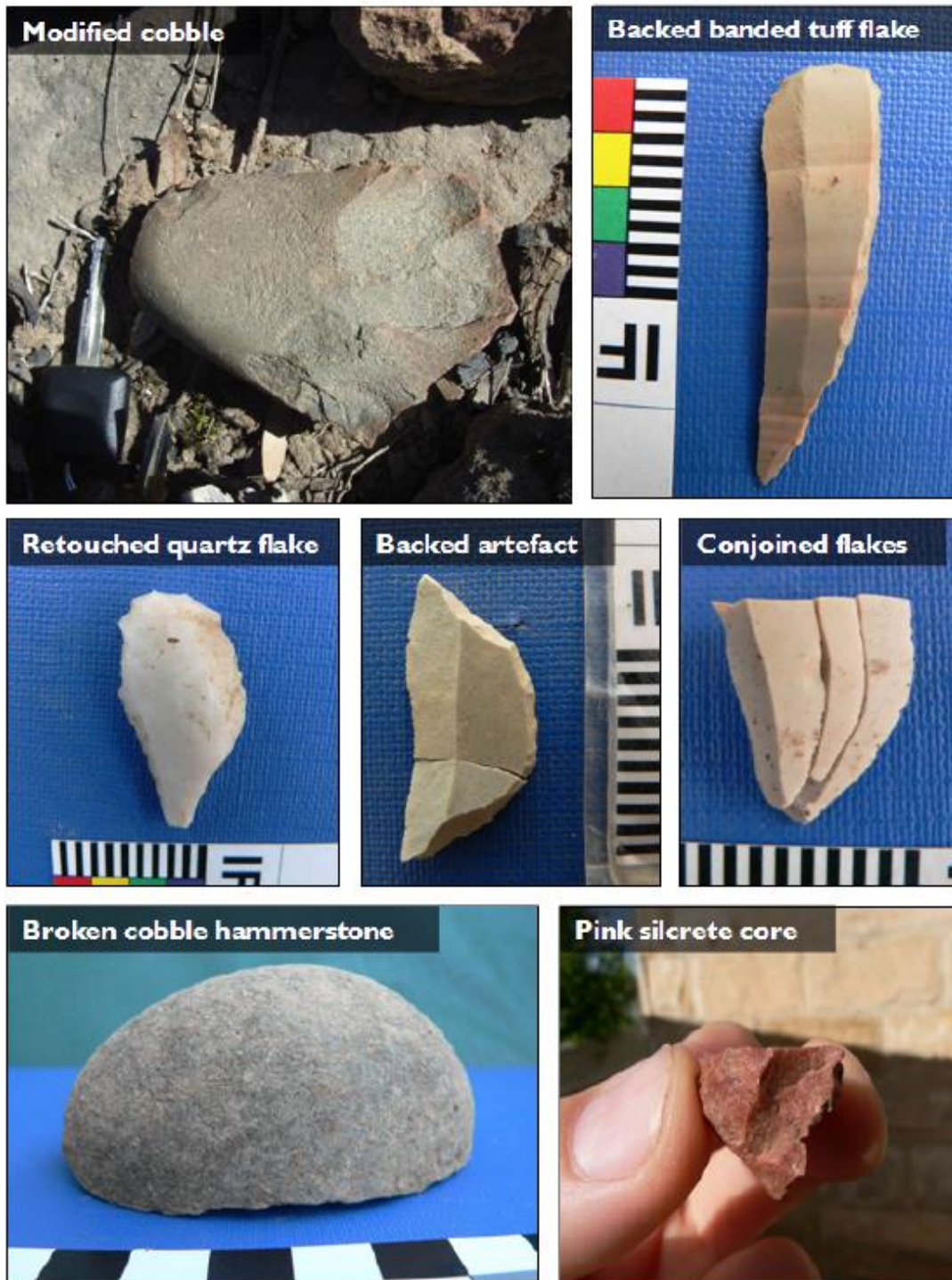


Photo 11 - Top left hand picture continuing clockwise: Stock camp remnants (Hume Highway Bypass at Tarcutta); Linear archaeological feature with post holes (Hume Highway Duplication), Animal bones (Hume Highway Bypass at Woomargama); Cut wooden stake; Glass jars, bottles, spoon and fork recovered from refuse pit associated with a Newcastle Hotel (Pacific Highway, Adamstown Heights, Newcastle area) (RMS, 2015).

Appendix 2 - Unexpected heritage item recording form

Example of unexpected heritage item recording form:

This form is to be completed Excavation Director on the discovery of an archaeological heritage item during construction or maintenance works

Date:		Recorded by: (include name and position)	
Project name:			
Description of works being undertaken:			
Description of exact location of item			
Description of item found (What type of item is it likely to be? Tick the relevant boxes).			
A. A relic	<input type="checkbox"/>	A 'relic' is evidence of a past human activity relating to the settlement of NSW with local or state heritage significance. A relic might include bottle, utensils, plates, cups, household items, tools, implements, and similar items	
B. A 'work', building or structure'	<input type="checkbox"/>	A 'work' can generally be defined as a form infrastructure such as track or rail tracks, timber sleepers, a culvert, road base, a bridge pier, kerbing, and similar items	
C. An Aboriginal object	<input type="checkbox"/>	An 'Aboriginal object' may include stone tools, stone flakes, shell middens, rock art, scarred trees and human bones	
D. Bone	<input type="checkbox"/>	Bones can either be human or animal remains. Remember that you must contact the local police immediately by telephone if you are certain that the bone(s) are human remains.	
E. Other	<input type="checkbox"/>		
Provide a short description of the item (E.g. metal rail tracks running parallel to the rail corridor. Good condition. Tracks set in concrete, approximately 10 cm below the current ground surface).			

Sketch <i>(Provide a sketch of the item's general location in relation to other road features so its approximate location can be mapped without having to re-excavate it. In addition, please include details of the location and direction of any photographs of the item taken)</i>			
Action taken (Tick either A or B)			
A. Unexpected item would not be further impacts on by the works	<input type="checkbox"/>	Describe how works would avoid impact on the item. (E.g. the rail tracks would be left in situ and recovered with paving).	
B. Unexpected item would be further impacted by the works	<input type="checkbox"/>	Describe how works would impact on the item. (E.g. milling is required to be continued to a depth of 200 mm depth to ensure the pavement requirements are met. Rail tracks would need to be removed.)	
Excavation Director		Signature	
		Signature	

Important

It is a statutory offence to disturb Aboriginal objects and historic relics (including human remains) without an approval. All works affecting objects and relics must cease until an approval is sought.

Approvals may also be required to impact on certain works.

Appendix 3 - Photographing unexpected heritage items

Photographs of unexpected items in their current context (*in situ*) may assist archaeologists/Aboriginal heritage consultants to better identify the heritage values of the item. Emailing good quality photographs to specialists can allow for better quality and faster heritage advice. The key elements that must be captured in photographs of the item include its position, the item itself and any distinguishing features. All photographs must have a scale (ruler, scale bar, mobile phone, coin etc.) and a note describing the direction of the photograph.

Context and detailed photographs

It is important to take a general photograph (Figure 1) to convey the location and setting of the item. This will add value to the subsequent detailed photographs also required (Figure 2).

Removal of the item from its context (e.g. excavating from the ground) for photographic purposes is not permitted.



Figure 2: Close up detail of the sandstone surface showing material type, formation and construction detail. This is essential for establishing date of the feature.

Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008 (RMS, 2015).

Photographing distinguishing features

Where unexpected items have a distinguishing feature, close up detailed photographs must be taken of these features, where practicable. In the case of a building or bridge, this may include diagnostic details architectural or technical features. See Figures 3 and 4 for examples.



Figure 3: Ceramic bottle artefact with stamp.



Figure 4: Detail of the stamp allows 'Tooth & Co Limited' to be made out. This is helpful to a specialist in gauging the artefact's origin, manufacturing date and likely significance.

Photographing bones

The majority of bones found on site will those of be recently deceased animal bones often requiring no further assessment (unless they are in archaeological context). However, if bones are human, the police must be contacted immediately (see Appendix 6 for detailed guidance). Taking quality photographs of the bones can often resolve this issue quickly. The project archaeologist can confirm if bones are human or non-human if provided with appropriate photographs.

Ensure that photographs of bones are not concealed by foliage (Figure 5) as this makes it difficult to identify. Minor hand removal of foliage can be undertaken as long as disturbance of the bone does not occur. Excavation of the ground to remove bone(s) should not occur, nor should they be pulled out of the ground if partially exposed.

Where sediment (adhering to a bone found on the ground surface) conceals portions of a bone (Figure 6) ensure the photograph is taken of the bone (if any) that is not concealed by sediment.



Figure 5: Bone concealed by foliage.



Figure 6: Bone covered in sediment

Ensure that all close up photographs include the whole bone and then specific details of the bone (especially the ends of long bones, the *epiphysis*, which is critical for species identification). Figures 7 and 8 are examples of good photographs of bones that can easily

be identified from the photograph alone. They show sufficient detail of the complete bone and the epiphysis.



Figure 7: Photograph showing complete bone.



Figure 8: Close up of a long bone's epiphysis.

Appendix 4 - Uncovering bones

This appendix provides advice regarding:

- what to do on first discovering bones
- the range of human skeletal notification pathways
- additional considerations and requirements when managing the discovery of human remains.

1. First uncovering bones

Refer to the Sydney Metro Exhumation Management Plan

Stop all work in the vicinity of the find. All bones uncovered during project works should be **treated with care and urgency** as they have the potential to be human remains. The bones must be identified as either human or non-human as soon as possible by a qualified forensic or physical anthropologist.

On the very rare occasion where it is immediately obvious from the remains that they are human, the Project Manager (or a delegate) should **inform the police by telephone** prior to seeking specialist advice. It will be obvious that it is human skeletal remains where there is no doubt, as demonstrated by the example in Figure 1⁹. Often skeletal elements in isolation (such as a skull) can also clearly be identified as human. Note it may also be obvious that human remains have been uncovered when soft tissue and/or clothing are present.

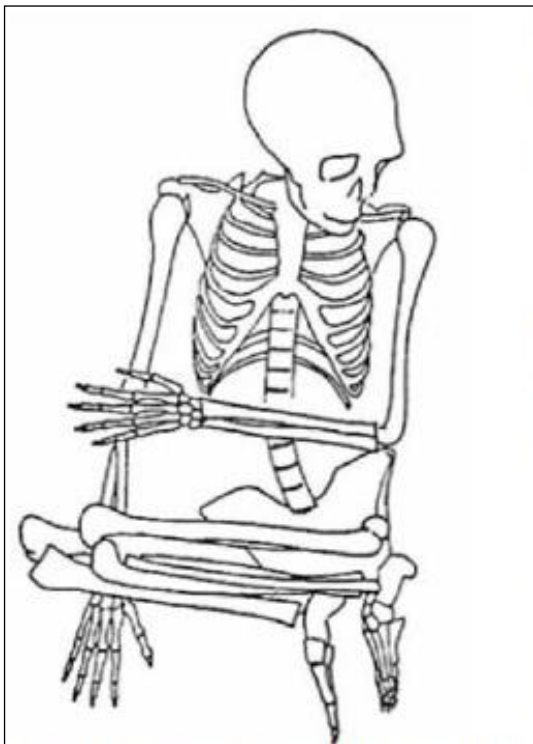


Figure 1: Schematic of a complete skeleton that is 'obviously' human¹².



Figure 2: Disarticulated bones that require assessment to determine species.

⁹ After Department of Environment and Conservation NSW (2006), *Manual for the identification of Aboriginal Remains*: 17

This preliminary phone call is to let the police know that a specialist skeletal assessment to determine the approximate date of death which will inform legal jurisdiction. The police may wish to take control of the site at this stage. If not, a forensic or physical anthropologist must be requested to make an on-site assessment of the skeletal remains.

Where it is not immediately obvious that the bones are human (in the majority of cases, illustrated by Figure 2), specialist assessment is required to establish the species of the bones. Photographs of the bones can assist this assessment if they are clear and taken in accordance with guidance provided in Appendix 3. Good photographs often result in the bones being identified by a specialist without requiring a site visit; noting they are nearly always non-human. In these cases, non-human skeletal remains must be treated like any other unexpected archaeological find.

If the bones are identified as human (either by photographs or an on-site inspection) a technical specialist must determine the likely ancestry (Aboriginal or non-Aboriginal) and burial context (archaeological or forensic). This assessment is required to identify the legal regulator of the human remains so **urgent notification** (as below) can occur.

Preliminary telephone or verbal notification by the archaeologist to the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) is appropriate. This must be followed up later by a formal letter notification to the relevant regulator when a management plan has been developed and agreed to by the relevant parties.

2. Range of human skeletal notification pathways

The following is a summary of the different notification pathways required for human skeletal remains depending on the preliminary skeletal assessment of ancestry and burial context.

A. Human bones are from a recently deceased person (less than 100 years old).

Action

A police officer must be notified immediately as per the obligations to report a death or suspected death under s35 of the *Coroners Act 2009* (NSW). It should be assumed the police will then take command of the site until otherwise directed.

B. Human bones are archaeological in nature (more than 100 years old) and are likely to be Aboriginal remains.

Action

The OEH (Planning and Aboriginal Heritage Section) must be notified immediately. The Aboriginal Cultural Heritage Advisor must contact and inform the relevant Aboriginal community stakeholders who may request to be present on site.

C. Human bones are archaeological in nature (more than 100 years old) and likely to be non-Aboriginal remains.

Action

The OEH (Heritage Division) must be notified immediately

Figure 3 summarises the notification pathways on finding bones.

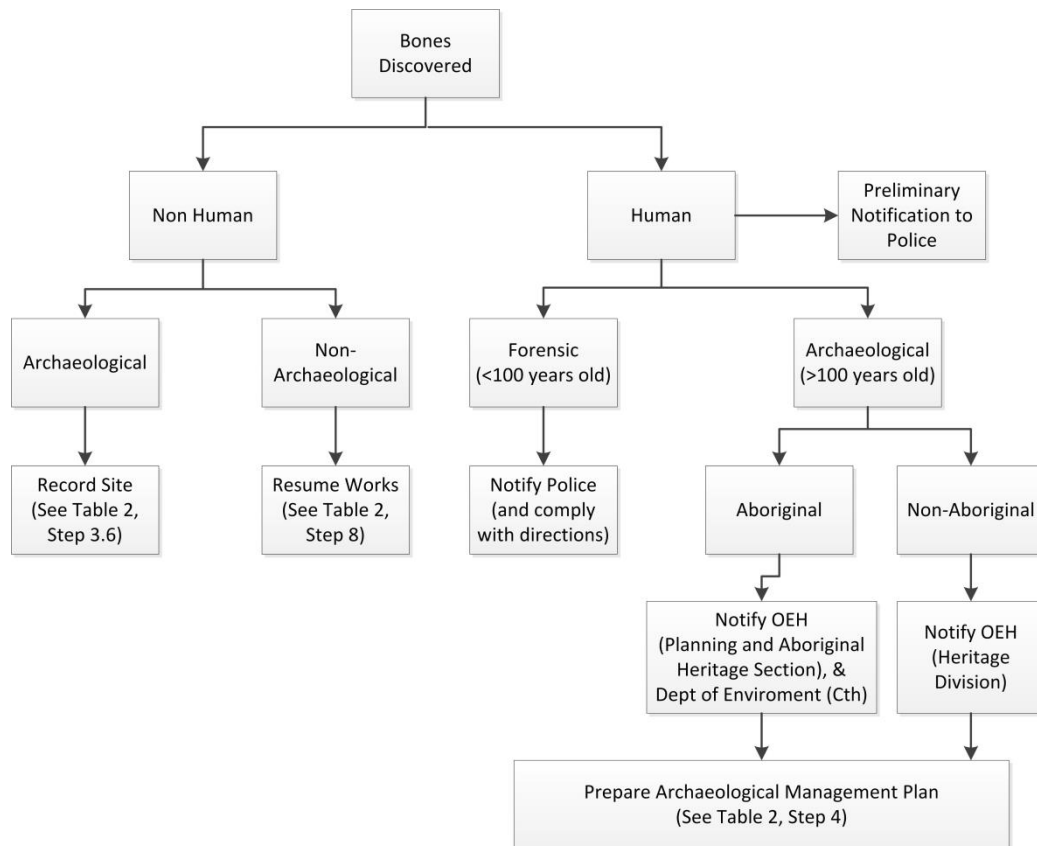


Figure 3 Overview of steps to be undertaken on the discovery of bones

After the appropriate verbal notifications (as described in 2B and 2C above), the Project Manager must proceed through the *Unexpected Heritage Items Exhumation Management Plan* (Step 4). It is noted that no *Exhumation Management Plan* is required for forensic cases (2A), as all future management is a police matter. Non-human skeletal remains must be treated like any other unexpected archaeological find and so must proceed to record the find as per Step 3.6.

3. Additional considerations and requirements

Uncovering archaeological human remains must be managed intensively and needs to consider a number of additional specific issues. These issues might include facilitating culturally appropriate processes when dealing with Aboriginal remains (such as repatriation and cultural ceremonies). Project Managers may need to consider overnight site security of any exposed remains and may need to manage the onsite attendance of a number of different external stakeholders during assessment and/or investigation of remains.

Project Managers may also be advised to liaise with local church/religious groups and the media to manage community issues arising from the find. Additional investigations may be required to identify living descendants, particularly if the remains are to be removed and relocated.

If exhumation of the remains (from a formal burial or a vault) is required, Project Managers should also be aware of additional approval requirements under the *Public Health Act 1991* (NSW). Specifically, Sydney Metro may be required to apply to the Director General of NSW

Department of Health for approval to exhume human remains as per Clause 26 of the *Public Health (Disposal of Bodies) Regulation 2002* (NSW)¹⁰.

Further, the exhumation of such remains needs to consider health risks such as infectious disease control, exhumation procedures and reburial approval and registration. Further guidance on this matter can be found at the NSW Department of Health website.

In addition, due to the potential significant statutory and common law controls and prohibitions associated with interfering with a public cemetery, project teams are advised, when works uncover human remains adjacent to cemeteries, to confirm the cemetery's exact boundaries.

¹⁰ This requirement is in addition to heritage approvals under the *Heritage Act 1977*.

Appendix 5 - Archaeological/heritage advice checklist

The archaeologist/Aboriginal heritage consultant must advise the Sydney Metro Principal Manager Sustainability Environment and Planning (Program) of an appropriate archaeological or heritage management plan as soon as possible after an inspection of the site has been completed (see Step 4). An archaeological or heritage management plan can include a range of activities and processes, which differ depending on the find and its significance.

In discussions with the archaeologist/Aboriginal heritage consultant the following checklist can be used as a prompt to ensure all relevant heritage issues are considered when developing this plan. This will allow the project team to receive clear and full advice to move forward quickly. Archaeological and/or heritage advice on how to proceed can be received in a letter or email outlining all relevant archaeological and/or heritage issues.

	Required	Outcome/notes
Assessment and investigation		
• Assessment of significance	Yes/No	
• Assessment of heritage impact	Yes/No	
• Archaeological excavation	Yes/No	
• Archival photographic recording	Yes/No	
Heritage approvals and notifications		
• AHIP, section 140, section 139 exceptions etc.	Yes/No	
• Regulator relics/objects notification	Yes/No	
• Notification to Sydney Trains for s170 heritage conservation register	Yes/No	
• Compliance with CEMP or other project heritage approvals	Yes/No	
Stakeholder consultation		
• Aboriginal stakeholder consultation	Yes/No	
Artefact/heritage item management		
• Retention or conservation strategy (e.g. items may be subject to long conservation and interpretation)	Yes/No	
• Disposal strategy	Yes/No	
• Short term and permanent storage locations (interested third parties should be consulted on this issue).	Yes/No	
• Control Agreement for Aboriginal objects	Yes/No	

Appendix 6 - Template notification letter

Insert on TfNSW letterhead

Select and type date]

[Select and type reference number]

XXX

Manager, Conservation
Heritage Division, Office of Environment and Heritage
Locked Bag 5020
Parramatta NSW 2124

[Select and type salutation and name],

Re: Unexpected heritage item discovered during Sydney Metro activities.

I write to inform you of an unexpected [select: relic, heritage item or Aboriginal object] found during Sydney Infrastructure and Services construction works at [insert location] on [insert date] in accordance with the notification requirement under select: section 146 of the *Heritage Act 1977* (NSW). [Where the regulator has been informally notified at an earlier date by telephone, this should be referred to here].

NB: On finding Aboriginal human skeletal remains this letter must also be sent to the Commonwealth Minister for the Environment in accordance with notification requirements under section 20(1) of the *Aboriginal and Torres Strait Islander Heritage Protection Act 1984* (Commonwealth).

[Provide a brief overview of the project background and project area. Provide a summary of the description and location of the item, including a map and image where possible. Also include how the project was assessed under the *Environmental Planning and Assessment Act 1979* (NSW) (e.g. Part 5). Also include any project approval number, if available].

Sydney Metro [or contractor] has sought professional archaeological advice regarding the item. A preliminary assessment indicates [provide a summary description and likely significance of the item]. Please find additional information on the site recording form attached.

Based on the preliminary findings, Sydney Metro [or contractor] is proposing [provide a summary of the proposed archaeological/heritage approach (e.g. develop archaeological research design (where relevant), seek heritage approvals, undertake archaeological investigation or conservation/interpretation strategy). Also include preliminary justification of such heritage impact with regard to project design constraints and delivery program].

The proposed approach will be further developed in consultation with a nominated Office of Environment and Heritage staff member.

Should you have any feedback on the proposed approach, or if you require any further information, please do not hesitate to contact [Environment and Planning Project Manager] on (02) XXXX XXXX.

Yours sincerely

[Sender name]

Sydney Metro Principal Manager Sustainability Environment and Planning (Program) [Attach the archaeological/heritage management plan and site recording form]

APPENDIX C CONSULTATION

CoA C5(e) Heritage Management Plan Consultation Phase 1 – Civils Works		
Government Agency/Stakeholder	Date consulted	Date of Response
Heritage NSW	31/08/2021	23/09/2021
SOPA	24/08/2021	03/09/2021
Place Management NSW	24/08/2021	13/09/2021
Burwood Council	24/08/2021	17/09/2021
City of Canada Bay Council	24/08/2021	30/08/2021
Inner West Council	24/08/2021	14/09/2021
Strathfield Council	24/08/2021	25/08/2021
City of Parramatta Council	24/08/2021	No response



Our ref: DOC21/766519-3

Joseph Cruz
Document Controller
Sydney Metro West - CTP
By email: john.ieroklis@transport.nsw.gov.au

Dear Mr Cruz

**Post Approval Submission for comment for Sydney Metro West Stage 1
Central Tunnel Package (SSI 10038)**

Thank you for your referral dated 28 July 2021 inviting comments from the Heritage Council of NSW on the above State Significant Infrastructure (SSI 10038) to address Modified condition of Approval sections of the SSI consent.

The relevant SSD/SSI conditions are contained in Condition 13 of SSI approval 10038 issued on 11 March 2021.

The following documents were reviewed, and comments are provided as delegate of the Heritage Council of NSW:

- Demolition of Potential Unlisted Heritage sites
 - s. 4.2: Non Aboriginal Heritage states that there are three sites which are potential unlisted heritage items. These are:
 - The Pine Inn (19 Parramatta Road, Concord);
 - 338-340 Parramatta Road, Burwood;
 - Former warehouse shed at Glebe Island.
 - Although CoA s D18 specifies that items assessed to be of local significance may be demolished and significant components salvaged, the interiors of these sites have not been inspected and hence their significance had not been assessed. S 4.2 states: *An assessment of significance will be undertaken to determine local significance in accordance with REMM NAH10.*
 - The above sentence should therefore be changed to reflect the need for a significance assessment to first be undertaken. An assessment of the heritage significance of these sites is still required, as it has not yet been determined if they are of potential State or local significance, and determination of *local significance in accordance with REMM NAH10* should not a forgone conclusion.
 - This statement also needs to be rectified in section 6.3.1: *Archival Recording*.
 - Furthermore, no further actions are specified as to what would happen to these sites if they are determined to be of State heritage significance.
- Conservation of relics and salvaged artefacts: The ARDEM should also mention the conservation of relics and salvaged artifacts in relation to post excavation management (see s.6.3.2) as this is a requirement under Condition of Approval (CoA) s. D28.

- Demolition of buildings and structures: S 6.3.3: Demolition Management states that
 - *Demolition of buildings and structures in close proximity of retained heritage buildings will be undertaken with care and under the guidance and recommendations from the heritage specialist where required, at the following locations:*
 - *The Bays - White Bay Power Station*
 - *Sydney Olympic Park - State Abattoirs*
 - *Five Dock - adjoining St Albans Church**Significant heritage fabric would be identified for salvage and potential reuse opportunities from the heritage curtilage of the White Bay Power Station within The Bays (REMM NAH3).*
 - This statement implies that demolition of components within the curtilage of these SHR listed heritage items may occur, but only as strictly approved and in accordance with CoA s. D17. No additional demolition is permitted.
- Unexpected Finds Policy
 - Wrong Authority Agency: The wrong heritage authority agency has been specified under the section *Unexpected Finds Procedure*. The document should replace the term *Heritage Division or Office of Environment and Heritage* with *Heritage NSW, Department of Premier and Cabinet* especially in the sections:
 - *5. Legislative Requirements;*
 - *6.2: Managing Unexpected Finds;*
 - *7: Responsibilities.*
 Appendix B is not included in the document reviewed. It is unclear if it includes reference to s146 of the Heritage Act 1977 and requirements for notification of the discovery of 'relics' to the Heritage Council of NSW.
 - Historic shipwrecks: The Unexpected Finds Policy does not mention historic shipwrecks as a type of unexpected find. Given the recent discovery of a relatively intact boat at Barangaroo in 2018, the inclusion of this type of heritage item / relic is recommended, along with what measures would be undertaken in the event of the discovery of such a find including its management based on significance. These options, should they be triggered would need to address discussions of management (in situ retention); excavation and recording techniques; artefact/ relic storage management conservation, interpretation/ display; and curation/ storage requirements. Recent historical research has also indicated the possible presence of two previously unknown shipwrecks on the eastern extremity outside the Whites Bay proposed works area (*Marion* and another unidentified wreck).
 - Reclamation sites: Given that the Whites Bay area has been subject to intensive reclamation works, there is a high likelihood that other historic shipwrecks and historic maritime infrastructure sites (with probable associated high density archaeological relics deposits) may be discovered in this area.
 - S.139: Approval of the SSI turns off approvals under this part of the *Heritage Act 1977*, therefore the s139 harm provisions do not apply (see s. 5: *Legislative Requirements*).
 - Reporting of Finds: Reporting of finds to Heritage NSW and Aboriginal Heritage Section should be officially undertaken in writing as per requirements under

s89a of the *National Parks and Wildlife Act 1974* (Aboriginal objects) and s146 of the *Heritage Act 1977* (relics).

If you have any questions regarding the above advice, please contact Dr Brad Duncan, Senior Maritime Archaeologist at Heritage NSW, on 0438 133 214 or brad.g.duncan@environment.nsw.gov.au.

Yours sincerely

F. Barry

Felicity Barry

A/ Senior Team Leader , Specialist Services

Heritage NSW

Department of Premier and Cabinet

As Delegate of the Heritage Council of NSW

23 September 2021

SOPA comments

Document No
Document Name

Item	Date of review	Revision No.	Raised By	Company	Doc. Reference (e.g., Section, Table)	Compliance Reference If applicable (REMM, CoA, Deed)	Comment (Please include one comment per item)
2	2021-09-01		KD	SOPA	Heritage sub-plan		Heritage plan identifies direct, potential direct, and indirect impacts to the Abattoir Heritage precinct at Sydney Olympic Park. However this is all it says - no information is provided about exactly what impacts are going to occur or what impacts may potentially occur, and no information is provided about the significance of these impacts. No reference is made to the Conservation Management Plan for this precinct (available on the SOPA website https://www.sopa.nsw.gov.au/Resource-Centre), or to the the Concise Conservation Plan for Building E, available from SOPA. No specific information is provided about how any of these unidentified impacts will be monitored/avoided/mitigated
3	2021-09-01		KD	SOPA	Heritage sub-plan		Settlement is identified as a risk to some heritage sites outside of Sydney Olympic Park, with up to 30mm settlement predicted, however there is no comment on settlement risk/management/monitoring to the Abattoir Heritage Precinct



13 September 2021

Ms Lorryn Williamson

Email: Lorryn.williamson@ctp-afjv.com.au

Dear Ms Williamson

**Re: Comments: Sydney Metro West Project, Bays Precinct to Sydney CBD-
SMW-CTPAFJV Heritage Management Plan
- LOC Reference Number: #11200**

Place Management NSW (PMNSW) have been reviewed and advise the following:

- Any potential heritage impacts within the SHR curtilage of White Bay Power Station, or its related canal intake/ outlet, must be first discussed with PMNSW heritage staff (note 6.1.2 *Heritage Specialist*)
- NAH3 – No demolition of heritage elements at White Bay Power Station is permissible, subject to the provisions of Division 3 of the NSW Heritage Act (see also 6.3.3)
- **6.3.1:** Note, photographic archival recording to the WBPS. Photographic archival recording is usually only necessary if changes are proposed. It is assumed that photographic recording will focus on the outside proposed construction site (shown yellow on figure 6) overlap with the SHR site area.
- **6.4:** Vibration Management: This section need to be updated to reflect the requirements that PMNSW has sought for the Construction Noise and Vibration Monitoring Plan and Noise and Vibration Program. In particular:
 - The lower screening level of 2.5mm/s for heritage structures will be adopted as the default base case and this will not be increased unless actioning the following point demonstrates that cosmetic damage will be avoided at a higher level
 - AFJV will need to work with PMNSW to verify that the safe working distances in 6.4.4 of the NVMP are sufficient to prevent cosmetic damage and confirm the acceptable screening levels by WBPS building / structure, noting that acceptable screening levels should not revert to “standard building vibration criteria” without approval by PMNSW and that it may be possible that the acceptable level(s) is between 2.5mm/s and the standard level.
- **6.7:** Details that a condition survey will be carried out by AFJV at WBPS. The report states: “Where required, the AFJV would rectify any property damage caused directly or indirectly by the CTP works within six months of completion of the works. The AFJV would consult with a heritage specialist to ensure the rectification works are consistent with the relevant management documentation for that item.”

- PMNSW requires a reasonable opportunity to review the condition survey to ensure it is thorough
 - PMNSW’s heritage specialist must be consulted
- **7.3:** A representative from PMNSW is to be present for any monitoring inspections that occur on WBPS
- **Appendix A**
 - **Item D14:** PMNSW should also review proposals to install hoarding or equipment on PMNSW’s land.
 - **Item NAH2:** States: “Prior to commencement of demolition of heritage elements at White Bay Power Station within The Bays construction site, significant heritage fabric would be identified for salvage and reuse opportunities for salvaged fabric considered.”
 - PMNSW requests that the AFJV confirms to it what it expects this will entail in terms of items proposed to be demolished.
 - PMNSW’s heritage specialist must be consulted on demolition proposals at least four weeks before any demolition is scheduled to occur.
- **Unexpected Heritage finds.** PMNSW is to be consulted if such finds relate to WBPS or its historical development.

For Further Assistance:

If you require any further information or wish to discuss the contents of this letter, please contact Katarina Simunic on 0436 802 874.

Yours sincerely



Arthur Tzortzis
A/Director, Leasing & Asset Management

Erran Woodward

From: Dylan Porter <Dylan.Porter@burwood.nsw.gov.au>
Sent: Friday, 17 September 2021 8:46 PM
To: Erran Woodward
Cc: Lorryn Williamson
Subject: RE: SMW -CTP Environmental Documents

Hi Erran

Thank you for your latitude in giving some additional time to respond to these reports. I would offer that both reports cover at a management level the key issues that need to be addressed. However, there are two key suggestions that I would like to make in relation to key management activities.

Noise and Vibration Management Plan

The consideration of noise and vibration impacts outlines a number of issues in terms of intrusive activities and assumed impact upon local residents and business. The basis of this appears sound but is based upon traditional considerations of daily life. It is suggested that there has been an increase in working from home, which means an increased number of residents at home between 9am and 5pm Monday to Friday, which within the noise and vibration management plan is period when increase construction noise and activity is likely to occur.

Similarly, from a local business perspective, it is likely that business, in particularly hospitality, is striving to return to business normality. For hospitality in particular this will likely mean increase use of outdoor spaces in response to venue capacity limits, which will be more directly impacted by construction activities.

It is requested that consideration be given to likely or potential business or working practices that may occur in response to COVID restrictions and management procedures. This will mean further consideration of impacts of noise and vibration on a cumulative basis and upon those living and working from home and broader consideration of impacts.

Heritage Management Plan

No additional comments on the content of the management plan. However, we request that copies of any photos during the demolition and construction phases of the project, be provided to Burwood Council library. Council has historian and archivist officers, and records of major construction projects such as the Sydney Metro Burwood North station offer invaluable insight into the development of the locality and record of these events can be retain in our library records.

Trust you find these comments constructive and can make myself available to elaborate on any issues.

Regards

Dylan Porter
Director City Strategy
T: 02 9911 9850

E: Dylan.Porter@burwood.nsw.gov.au

2 Conder Street, Burwood, NSW, 2134



Inc.1874
Burwood

Burwood · Burwood Heights · Croydon · Croydon Park · Enfield · Strathfield



From: Erran Woodward [<mailto:erran.woodward@ctp-afjv.com.au>]

Sent: Thursday, 16 September 2021 4:31 PM

To: Dylan Porter

Cc: Lorryn Williamson

Subject: SMW -CTP Environmental Documents

Hi Dylan,

Can you please confirm you will not be providing comment on the following documents:

- Noise and Vibration Management Plan including Monitoring Program – first provided 18 August
- Heritage Management Plan – first provided 23 August

At this stage we must progress the document with the comments received from all other reviewers and can no longer accommodate any further delay. This extended review period will conclude 17 September, and any comments received after this time may be considered in subsequent revisions and/or after DPIE document review.

Thanks,
ew



Erran Woodward
Environmental Approvals Manager
Acciona Ferrovia Joint Venture

*Sydney Metro West
Central Tunnelling Package
+61 437 343 178*

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From: Erran Woodward [mailto:erran.woodward@ctp-afjv.com.au]
Sent: Thursday, 16 September 2021 4:31 PM
To: Dylan Porter
Cc: Lorryn Williamson
Subject: SMW -CTP Environmental Documents

Hi Dylan,

Can you please confirm you will not be providing comment on the following documents:

- Noise and Vibration Management Plan including Monitoring Program – first provided 18 August
- Heritage Management Plan – first provided 23 August

At this stage we must progress the document with the comments received from all other reviewers and can no longer accommodate any further delay. This extended review period will conclude 17 September, and any comments received after this time may be considered in subsequent revisions and/or after DPIE document review.

Thanks,
ew



Erran Woodward
Environmental Approvals Manager
Acciona Ferrovial Joint Venture

*Sydney Metro West
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Gregor Wilson

From: Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>
Sent: Monday, 30 August 2021 6:51 PM
To: Lorryn Williamson
Subject: Environmental Management Plans - SMW - CTP
Attachments: Copy of AFJV Comments Review sheet - FFMP.xlsx; AFJV Comments Review sheet - Soil & Water.xlsx; AFJV Comments Review sheet - Spoil .xlsx; AFJV Comments Review sheet - Surface Water Monitoring Program.xlsx; Metro - AFJV Comments Review sheet - Heritage.xlsx

Hi Lorryn

Thank you for providing Council with the opportunity to provide feedback on the Environmental Management Plans for the tunnel and stations excavation associated with Sydney Metro West.

Should I receive any further feedback, I will send it through.

Regards

Paul

Paul Dewar | Manager, Strategic Planning
City of Canada Bay

1a Marlborough St Drummoyne NSW 2047 | www.canadabay.nsw.gov.au
T: 02 9911 6402 | Paul.Dewar@canadabay.nsw.gov.au



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Document Name Heritage Management Plan

Acciona Ferroviaria Joint Venture

Sydney Metro West - Central Tunneling Package

[illegible]

Erran Woodward

From: David Crosby <david.crosby@innerwest.nsw.gov.au>
Sent: Tuesday, 14 September 2021 4:55 PM
To: Erran Woodward
Cc: Lorryn Williamson; ankur.arora@transport.nsw.gov.au; Ken Welsh
Subject: RE: SMW - CTP Heritage Management Plan

Follow Up Flag: Follow up
Flag Status: Flagged

Hi Erran

Our only comment for the Heritage Management Plan was that the plan should confirm that a heritage inventory will be prepared as part of NAH3: ("Prior to commencement of demolition of heritage elements at White Bay Power Station within The Bays construction site, significant heritage fabric would be identified for salvage and reuse opportunities for salvaged fabric considered"), and it should identify the process for this consideration of reuse opportunities.

Regards

David Crosby

Road Access Project Engineer

p +61 2 9392 5650 e david.crosby@innerwest.nsw.gov.au



Council acknowledges the Traditional Custodians of these lands, the Gadigal-Wangal people of the Eora Nation.



From: Erran Woodward <erran.woodward@ctp-afjv.com.au>
Sent: Monday, 13 September 2021 4:01 PM
To: David Crosby <david.crosby@innerwest.nsw.gov.au>
Cc: Lorryn Williamson <lorryn.williamson@ctp-afjv.com.au>; ankur.arora@transport.nsw.gov.au; Ken Welsh <Ken.Welsh@innerwest.nsw.gov.au>
Subject: RE: SMW - CTP Heritage Management Plan

Thanks David,

We are able to hold off on progressing the document to wait for these comments, however any efforts to expedite this internally would be gratefully appreciated.

Thanks,

ew



Erran Woodward
Environmental Approvals Manager
Acciona Ferrovia Joint Venture

*Sydney Metro West
Central Tunnelling Package
+61 437 343 178*

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From: David Crosby <david.crosby@innerwest.nsw.gov.au>
Sent: Monday, 13 September 2021 3:52 PM
To: Erran Woodward <erran.woodward@ctp-afjv.com.au>; Ken Welsh <Ken.Welsh@innerwest.nsw.gov.au>
Cc: Lorryn Williamson <lorryn.williamson@ctp-afjv.com.au>; ankur.arora@transport.nsw.gov.au
Subject: RE: SMW - CTP Heritage Management Plan

Hi Erran

Yes our Heritage manager has said he will provide comments this week. Is that ok?

Regards

David Crosby
Road Access Project Engineer
p +61 2 9392 5650 e david.crosby@innerwest.nsw.gov.au



Council acknowledges the Traditional Custodians of these lands, the Gadigal-Wangal people of the Eora Nation.



From: Erran Woodward <erran.woodward@ctp-afjv.com.au>
Sent: Monday, 13 September 2021 3:09 PM
To: David Crosby <david.crosby@innerwest.nsw.gov.au>; Ken Welsh <Ken.Welsh@innerwest.nsw.gov.au>
Cc: Lorryn Williamson <lorryn.williamson@ctp-afjv.com.au>; ankur.arora@transport.nsw.gov.au
Subject: SMW - CTP Heritage Management Plan

Hi,

On behalf of the Sydney Metro West Central Tunnelling Package, I am writing to confirm if you will be providing any comment from Inner West Council on the following document:

- Heritage Management Plan, provided 24/08/21

If you have any queries on this document, please do not hesitate to reach out. Otherwise, we would welcome your comments at your earliest convenience.

Thanks,
ew



Erran Woodward
Environmental Approvals Manager
Acciona Ferrovial Joint Venture

*Sydney Metro West
Central Tunnelling Package
+61 437 343 178*

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Gregor Wilson

From: Elizabeth Black <elizabeth.black@strathfield.nsw.gov.au>
Sent: Monday, 6 September 2021 12:17 PM
To: system@teambinder.com
Cc: Lorryn Williamson
Subject: FW: CTP - Central Tunnel Package - Heritage Management Plan - Issued for Review

Dear Joseph,

We had trouble with opening the Teambinder.

Please see Strathfield's Council response below, in requesting ongoing information on ground water modelling in reference to Strathfield's Heritage Items which are within 25m of the tunnelling.

Kind Regards,



Elizabeth Black | *Specialist Planner Heritage*
Mon-Wed
P 9748 9999
65 Homebush Rd, Strathfield NSW 2135
www.strathfield.nsw.gov.au



[Follow Strathfield Council on Facebook](#)



[Follow Strathfield Library on Facebook](#)

From: Elizabeth Black
Sent: Monday, 6 September 2021 12:07 PM
To: Lorryn Williamson <Lorryn.Williamson@ctp-afjv.com.au>
Cc: Stephen Clements <stephen.clements@strathfield.nsw.gov.au>; Kandace Lindeberg <kandace.lindeberg@strathfield.nsw.gov.au>
Subject: RE: CTP - Central Tunnel Package - Heritage Management Plan - Issued for Review

Dear Lorryn,

In response to the attached Heritage Management document, Strathfield Council has two local heritage items within 25 metres of the tunnel, listed as **Item 49 -Masons Park Wetlands** and **Item 50 – Pumping Station** under the Strathfield Local Environmental Plan 2012 (see image 1 and 2 below). As such, any tunnelling within 25m of the wetlands may impact on the water level and supply of this wetland and/or any potential underlying aquifers in association with this wetland. The vibrations may also impact on the Pumping Station.

Therefore, Strathfield Council wishes to be advised if the ground water modelling identifies any potential risks to the Mason Park Wetlands and/or the Pumping Station.

Kind Regards,
Elizabeth

Homebush	Mason Park Wetlands	Underwood Road	Lot 1, DP 129388	Local	I49
Homebush	Pumping Station	Underwood Road (Mason Park)	Lot 1, DP 943418	Local	I50

Image 1: Listing of the items under Schedule 5 – Environmental Heritage of the SLEP 2012



Image 2: Strathfield Council's Intramap extract

From: Lorryn Williamson [<mailto:Lorryn.Williamson@ctp-afjv.com.au>]
Sent: Thursday, 26 August 2021 5:11 PM
To: Elizabeth Black <elizabeth.black@strathfield.nsw.gov.au>
Cc: Stephen Clements <stephen.clements@strathfield.nsw.gov.au>
Subject: RE: CTP - Central Tunnel Package - Heritage Management Plan - Issued for Review

Dear Elizabeth,

Thank you for reaching out with your question.

With regards to the heritage items you have identified (Items I49 - Mason Park Wetlands and I50 – Pumping Station as identified in SLEP 2012) the reason these have not been specifically addressed in the Heritage Management Plan are explained below.

The EIS (Technical Paper 3 – Non-Aboriginal Heritage) comments that tunnel sections between stations would generally be too deep to affect heritage items or archaeological deposits and (with the exception of the tunnel dive and TBM launch shaft at the Clyde stabling and maintenance facility – which are not part of this CTP Project) are not

included in the heritage study due to this exceedingly low risk of impact, unless specifically identified in EIS Technical Paper 2: Noise and vibration.

The Project Conditions of Approval requires that heritage buildings and structures should be assessed according to a conservative cosmetic (i.e. structural) damage objective of 2.5 mm/second Peak Particle Velocity (PPV). The EIS (Technical Paper 2: Noise and Vibration) states that the only heritage buildings and structures identified to require consideration of the 2.5 mm/s cosmetic damage screening criterion is the former White Bay Power Station in The Bays study area, due to the proximity of this item to the surface site at The Bays.

These factors are why Items 49 and 50 of Schedule 5 of the Strathfield Local Environmental Plan 2012 are not specifically identified in the AFJV Heritage Management Plan.

Please do note however that AFJV do consider impacts to heritage items and take this concern very seriously. Details of monitoring of heritage items that are identified as likely to result in vibration greater than 2.5mm/second are described in the Project Noise and Vibration Management Plan. We believe we can provide more clarity on this issue and address your concern in our next revision of the Heritage Management Plan by including the wording above taken from the EIS, identifying that the only heritage buildings or structures with the potential to trigger 2.5 mm/s criteria (the conservative criteria for potential impact) is the former White Bay Power Station at The Bays.

We hope this provides more clarity.

Kind regards

Lorryn



Lorryn Williamson
Environment Manager
Acciona Ferrovia Joint Venture
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From: Elizabeth Black <elizabeth.black@strathfield.nsw.gov.au>
Sent: Wednesday, 25 August 2021 3:15 PM
To: Lorryn Williamson <Lorryn.Williamson@ctp-afjv.com.au>
Cc: Stephen Clements <stephen.clements@strathfield.nsw.gov.au>
Subject: RE: CTP - Central Tunnel Package - Heritage Management Plan - Issued for Review

Dear Lorryn,

Thank you for your email. I have reviewed the attached document ***“CTP - Central Tunnel Package - Heritage Management Plan”*** but there appears to be no heritage items identified within the Strathfield LGA under Table 4 pages 9 and 10 ?

Strathfield Council's Intramaps show that there are two local heritage items in the vicinity of the metro tunnel. These are listed under Schedule 5 of the Strathfield Local Environmental Plan 2012 as Item 49 – Mason Park Wetlands and Item 50 – Pumping Station. As such, there has been no assessment of the effect of the proposed metro on the significance of these items within the attached document. Please can you clarify the reason for omitting Strathfield Council's heritage item from this document? Is our mapping incorrect (please see Image 2)?

Homebush	Mason Park Wetlands	Underwood Road	Lot 1, DP 129388	Local	149
Homebush	Pumping Station	Underwood Road (Mason Park)	Lot 1, DP 943418	Local	150

Image 1: Listing of the items under Schedule 5 – Environmental Heritage of the SLEP 2012



Image 2: Strathfield Council's Intramap extract

Kind Regards,



Elizabeth Black | *Specialist Planner Heritage*
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From: Lorryn Williamson [<mailto:Lorryn.Williamson@ctp-afjv.com.au>]
Sent: Monday, 23 August 2021 4:52 PM
To: Elizabeth Black <elizabeth.black@strathfield.nsw.gov.au>
Subject: RE: CTP - Central Tunnel Package - Heritage Management Plan - Issued for Review

Dear Elizabeth,

Thank you for reaching out. A little difficult to undertake the review without the documents.

Please reach out if you would like to have anything clarified or would like to discuss any aspect of the management plan.

You are welcome to email the comments review sheet to myself if you wish and I will provide you with an email confirming receipt of your review.

Thank you



Lorryn Williamson
Environment Manager
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From: Elizabeth Black <elizabeth.black@strathfield.nsw.gov.au>
Sent: Monday, 23 August 2021 3:03 PM
To: Lorryn Williamson <Lorryn.Williamson@ctp-afjv.com.au>
Subject: CTP - Central Tunnel Package - Heritage Management Plan - Issued for Review

Dear Lorryn,

I have been forwarded your email in order to review the Sydney Metro West - CTP - Heritage Management Plan – and provide you with comments by the 06 September 2021.

Would it be possible to please send me this document and the review sheet.

Kind Regards,



Elizabeth Black | *Specialist Planner Heritage*
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COMPANY	RAISED BY	DOCUMENT REF*	COMMENTS / RESPONSE
City of Canada Bay Council		6.1.2	The work encompassed by the heritage specialist should specifically state that the heritage specialist includes but is not limited to a suitably qualified and experienced heritage architect as well as a heritage suitably qualified and experienced heritage engineer. It is not clear what is meant by " proposed installation of at-property treatment on Heritage items"
			Reference to a 'suitably qualified' heritage specialist in response to the CoA D47 + D48 has been added. Identification of the particular heritage qualification is not necessary. It is a reference to CoA D48 - it refers to at-property vibrations impacts to heritage properties. Section 6.1.2 (now 5.1.2) updated.
City of Canada Bay Council		6.3.3	This condition refers to heritage items proposed to be fully or partial destroyed. A list of these heritage items within Canada Bay LGA has not been provided in the Heritage Management Plan.
			No heritage buildings are proposed to be fully or partially destroyed. Buildings in close proximity to demolition are listed in Section 6.3.3 (now 5.3.4). Refer to Table 5 for a list of items to be impacted by the CTP works.
City of Canada Bay Council		-	Prior to any work occurring, a condition report must be prepared for St Alban's Church, Rectory, shops and hall.
			Church would be subject to a condition survey as it was identified as being at risk of cosmetic damage in the EIS. Section 6.7 (now 5.7) has been updated to reflect this requirement.
City of Canada Bay Council		-	An archival recording of St Albans Church should be undertaken just in case there proposed works cause irreparable damage to the church. The photographic section of the recording will also be useful in helping to assess any damage to the building occasioned by the works.
			Archival recording of St Albans Church is not required by REMM NAH01
City of Canada Bay Council		6.7	A condition survey has not been required for St Alban's church, rectory, hall and shops at Five Dock. This must be undertaken. The Heritage Management Plan states "ensure the rectification works are consistent with the relevant management documentation for that item". This does not satisfactorily address the issue of heritage items that do not have a management document. An approach and description as to exactly how, in the case of any damage, rectification works will be undertaken to St Alban's church, rectory and hall should be provided at this stage. It has not be stated who determines what is "relevant" management documentation. This should include the most recent heritage inventory sheet for the item.
			Church would be subject to a condition survey as it was identified as being at risk of cosmetic damage in the EIS. 6.7 (now 5.7) updated.

COMPANY	RAISED BY	DOCUMENT REF*	COMMENTS / RESPONSE
City of Canada Bay Council		-	It has been stated that St Alban's Anglican Church, Five Dock, is likely to be subject to settlement of 30 mm. This will have serious consequences for the building. An excavation methodology for work likely to adversely affect the church should be prepared by a suitably qualified and experienced heritage engineer and an excavation methodology that greatly reduces the 30 mm settlement figure, or preferably reduces it to 0 mm, should be prepared and used. The same applies to St Alban's Rectory (17 mm settlement anticipated) as well as the hall and shops.
			The EIS assessed the risk level of 2 (possible superficial damage which is unlikely to have structural significance). The EIS did not identify specific mitigation in regard to potential for settlement for these items.
City of Canada Bay Council		-	The street trees (heritage item no. 397 under Canada Bay Local Environmental Plan 2013) located near the proposed North Strathfield Metro Station must be protected from harm during the works and the work is undertaken such that their health is retained
			The street trees would not be directly impacted by the project. The EIS identified they may be indirectly impacted during construction due to visual amenity being reduced.
City of Canada Bay Council		-	Mitigation measure NAH10 – requires an assessment of significance of the Pine Hotel at 19 Parramatta Road, and if found to have heritage significance, an archival recording will be undertaken. It should be a requirement that the assessment of heritage significance be provided to Canada Bay Council for approval, and that if an archival recording is then required, it must be undertaken promptly and a copy must be given to Council as soon as possible.
			Section 5.3.1 addresses archival recording of the potential unlisted items should it be required. Section 5.3.1 also identifies that the relevant council would receive the archival report upon completion.
City of Canada Bay Council		7.4	Records relating to heritage management should include condition reports and reports of the impact of the proposed works on heritage items. Also, reports on proposed remediation works. A record of communications with the owners of affected heritage properties should be kept.
			Pre-construction condition reports and remedial works would be recorded as outlined in Section 5.4 (records of any impacts avoided or minimised through design or construction methods).
Inner West Council	David Crosby	-	The plan should confirm that a heritage inventory will be prepared as part of NAH3: ("Prior to commencement of demolition of heritage elements at White Bay Power Station within The Bays construction site, significant heritage fabric would be identified for salvage and reuse opportunities for salvaged fabric considered"), and it should identify the process for this consideration of reuse opportunities.
			Section 5.3.2 updated to include salvage process, this would include creation of a salvage register. Consideration of reuse opportunities also included.

COMPANY	RAISED BY	DOCUMENT REF*	COMMENTS / RESPONSE
Heritage NSW	F Barry	4.2 6.3.1	<p>Demolition of Potential Unlisted Heritage sites</p> <p>o s. 4.2: Non Aboriginal Heritage states that there are three sites which are potential unlisted heritage items. These are:</p> <ul style="list-style-type: none"> □ The Pine Inn (19 Parramatta Road, Concord); □ 338-340 Parramatta Road, Burwood; □ Former warehouse shed at Glebe Island. <p>o Although CoA s D18 specifies that items assessed to be of local significance may be demolished and significant components salvaged, the interiors of these sites have not been inspected and hence their significance had not been assessed. S 4.2 states: An assessment of significance will be undertaken to determine local significance in accordance with REMM NAH10.</p> <p>o The above sentence should therefore be changed to reflect the need for a significance assessment to first be undertaken. An assessment of the heritage significance of these sites is still required, as it has not yet been determined if they are of potential State or local significance, and determination of local significance in accordance with REMM NAH10 should not a forgone conclusion.</p> <p>o This statement also needs to be rectified in section 6.3.1: Archival Recording.</p> <p>o Furthermore, no further actions are specified as to what would happen to these sites if they are determined to be of State heritage significance.</p>
			<p>Sentence in 4.2 updated to: An assessment of significance will be undertaken to determine significance in accordance with REMM NAH10 prior to demolition activities.</p> <p>Section 6.3.1 (now 5.3.1) is consistent with the REMM NAH10 wording, in that if the items are identified as having local heritage value they would be subject to archival recording. Section 6.3.1 (now 5.3.1) also uses the word 'if' and doesn't assume these items would be (or not be) of local heritage value. Therefore, no change made.</p> <p>If the items are assessed to be state significance, their demolition would be subject to further assessment and approval.</p>
Heritage NSW	F Barry	6.3.2	<p>Conservation of relics and salvaged artefacts: The ARDEM should also mention the conservation of relics and salvaged artifacts in relation to post excavation management (see s.6.3.2) as this is a requirement under Condition of Approval (CoA) s. D28.</p>
			<p>Section 6.3.2 (now 5.3.2) states that the ARDEM would include 'details of ongoing artefact management'. Added 'details of' to make clearer.</p>

COMPANY	RAISED BY	DOCUMENT REF*	COMMENTS / RESPONSE
Heritage NSW	F Barry	6.3.2	<p>Demolition of buildings and structures: S 6.3.3: Demolition Management states that</p> <p>o Demolition of buildings and structures in close proximity of retained heritage buildings will be undertaken with care and under the guidance and recommendations from the heritage specialist where required, at the following locations:</p> <ul style="list-style-type: none"> <input type="checkbox"/> The Bays - White Bay Power Station <input type="checkbox"/> Sydney Olympic Park - State Abattoirs <input type="checkbox"/> Five Dock - adjoining St Albans Church <p>Significant heritage fabric would be identified for salvage and potential reuse opportunities from the heritage curtilage of the White Bay Power Station within The Bays (REMM NAH3).</p> <p>o This statement implies that demolition of components within the curtilage of these SHR listed heritage items may occur, but only as strictly approved and in accordance with CoA s. D17. No additional demolition is permitted.</p>
			No additional demolition beyond that approved in the EIS and submissions report is proposed. Section 6.3.2 (now 5.3.2) reworded to be clear that this applies to the 0.7ha area that The Bays site encroaches into, but does not include building demolition.
Heritage NSW	F Barry	5 6.2 7	<p>Unexpected Finds Policy</p> <p>o Wrong Authority Agency: The wrong heritage authority agency has been specified under the section Unexpected Finds Procedure. The document should replace the term Heritage Division or Office of Environment and Heritage with Heritage NSW, Department of Premier and Cabinet especially in the sections:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 5. Legislative Requirements; <input type="checkbox"/> 6.2: Managing Unexpected Finds; <input type="checkbox"/> 7: Responsibilities. <p>Appendix B is not included in the document reviewed. It is unclear if it includes reference to s146 of the Heritage Act 1977 and requirements for notification of the discovery of 'relics' to the Heritage Council of NSW.</p>
			<p>Update to terms made as suggested (note, sections referenced above do not match document).</p> <p>Appendix B does reference s146. Additional wording added to Section 5.5.</p>
Heritage NSW	F Barry	5 6.2 7	<p>Historic shipwrecks: The Unexpected Finds Policy does not mention historic shipwrecks as a type of unexpected find. Given the recent discovery of a relatively intact boat at Barangaroo in 2018, the inclusion of this type of heritage item / relic is recommended, along with what measures would be undertaken in the event of the discovery of such a find including its management based on significance. These options, should they be triggered would need to address discussions of management (in situ retention); excavation and recording techniques; artefact/ relic storage management conservation, interpretation/display; and curation/ storage requirements. Recent historical research has also indicated the possible presence of two previously unknown shipwrecks on the eastern extremity outside the Whites Bay proposed works area (Marion and</p>

COMPANY	RAISED BY	DOCUMENT REF*	COMMENTS / RESPONSE
			Archaeological excavation at The Bays is to be managed in accordance with the ARDEM. The draft ARDEM indicates that historical research for the assessment did not include any positive archival evidence for the presence of shipwrecks. However undocumented maritime equipment cannot be discounted from within reclamation deposits although the potential for these items to remain would be low.
Heritage NSW	F Barry		Reclamation sites: Given that the Whites Bay area has been subject to intensive reclamation works, there is a high likelihood that other historic shipwrecks and historic maritime infrastructure sites (with probable associated high density archaeological relics deposits) may be discovered in this area.
			As above.
Heritage NSW	F Barry	5	S.139: Approval of the SSI turns off approvals under this part of the Heritage Act 1977, therefore the s139 harm provisions do not apply (see s. 5: Legislative Requirements).
			This appears to refer to Table 2 in Section 3.1. This table is listing legislation / approvals that do not apply. Therefore, no changes made.
Heritage NSW	F Barry		Reporting of Finds: Reporting of finds to Heritage NSW and Aboriginal Heritage Section should be officially undertaken in writing as per requirements under s89a of the National Parks and Wildlife Act 1974 (Aboriginal objects) and s146 of the Heritage Act 1977 (relics).
			Included in Appendix B and added to Section 5.5
SOPA	KD		Heritage plan identifies direct, potential direct, and indirect impacts to the Abattoir Heritage precinct at Sydney Olympic Park. However this is all it says - no information is provided about exactly what impacts are going to occur or what impacts may potentially occur, and no information is provided about the significance of these impacts. No reference is made to the Conservation Management Plan for this precinct (available on the SOPA website https://www.sopa.nsw.gov.au/Resource-Centre), or to the Concise Conservation Plan for Building E, available from SOPA. No specific information is provided about how any of these unidentified impacts will be monitored/avoided/mitigated
			Table 5 and Figure 2 have been revised to reflect that there are no direct impacts to the State Abattoirs due to a reduction in the size of the Sydney Olympic Park construction site. Table 5 has also been updated to define the source of the impact. Potential direct impacts to the State Abattoirs include vibration, with management measures included in Section 5.4 of the HMP. Indirect impacts to the State Abattoirs include visual impacts. These impacts would be managed in accordance with the mitigation measures listed in Table 9, as well as the Visual Amenity Management Plan.
SOPA	KD		Settlement is identified as a risk to some heritage sites outside of Sydney Olympic Park, with up to 30mm settlement predicted, however there is no comment on settlement risk/management/monitoring to the Abattoir Heritage Precinct
			The EIS did not identify the State Abattoirs as being at risk of settlement (refer to Section 12.5.2 of the EIS). Settlement would be monitored in accordance with CoA D66.

COMPANY	RAISED BY	DOCUMENT REF*	COMMENTS / RESPONSE
Burwood Council	D Porter		No additional comments on the content of the management plan. However, we request that copies of any photos during the demolition and construction phases of the project, be provided to Burwood Council library. Council has historian and archivist officers, and records of major construction projects such as the Sydney Metro Burwood North station offer invaluable insight into the development of the locality and record of these events can be retain in our library records.
			AFJV note this request and would provide copies of photos to Burwood Council. This is not an HMP requirement and has not been reflected in the HMP.
Place Management NSW	A Tzortzis	6.1.2	Any potential heritage impacts within the SHR curtilage of White Bay Power Station, or its related canal intake/ outlet, must be first discussed with PMNSW heritage staff (note 6.1.2 Heritage Specialist)
			There is an ongoing consultation process with Place Management NSW as described in the interface agreement. It will be through this process potential heritage impacts to White Bay Power Station or its related canal intake can be discussed.
Place Management NSW	A Tzortzis	6.3.3	NAH3 – No demolition of heritage elements at White Bay Power Station is permissible, subject to the provisions of Division 3 of the NSW Heritage Act (see also 6.3.3)
			The project does not propose to demolish built heritage elements within the curtilage of the White Bay Power Station State heritage listing. It is assumed that Division 3 of the Heritage Act refers to Part 4, Division 3. It should be noted that Sydney Metro West was declared as State significant infrastructure and critical State significant infrastructure under sections 5.12(4) and 5.13 of the EP&A Act. Section 5.23 of the EP&A Act identifies that approvals under Part 4 or excavation permits under section 139 of the Heritage Act 1977 are not required for approved State significant infrastructure projects. As such, approval under Part 4, Division 3 of the Heritage Act is not required for the 0.7 hectares of the project that is within the White Bay Power Station State heritage listing.
Place Management NSW	A Tzortzis	6.3.1	Note, photographic archival recording to the WBPS. Photographic archival recording is usually only necessary if changes are proposed. It is assumed that photographic recording will focus on the outside proposed construction site (shown yellow on figure 6) overlap with the SHR site area.
			As mentioned in 5.3.1, the archival recording would cover the extent that the items listed would be impacted.
Place Management NSW	A Tzortzis	6.4	Vibration Management: This section need to be updated to reflect the requirements that PMNSW has sought for the Construction Noise and Vibration Monitoring Plan and Noise and Vibration Program. In particular:- The lower screening level of 2.5mm/s for heritage structures will be adopted as the default base case and this will not be increased unless actioning the following point demonstrates that cosmetic damage will be avoided at a higher level- AFJV will need to work with PMNSW to verify that the safe working distances in 6.4.4 of the NVMP are sufficient to prevent cosmetic damage and confirm the acceptable screening levels by WBPS building / structure, noting that acceptable screening levels should not revert to "standard building vibration criteria" without approval by PMNSW and that it may be possible that the acceptable level(s) is between 2.5mm/s and the standard level.

COMPANY	RAISED BY	DOCUMENT REF*	COMMENTS / RESPONSE
			This is described in detail in the NVMP. In this document it is explained that an initial screening criteria of 2.5mm/s will be utilised. Where there is potential for this screening criteria to be exceeded as structural will be undertaken of the asset to confirm structural stability and validate whether the 7.5mm/s criteria can be utilised. Where the relevant criteria has been modelled to be exceeded a review of construction methodology will be undertaken to reduce vibration levels to below the screening criteria.
Place Management NSW	A Tzortzis	6.7	Details that a condition survey will be carried out by AFJV at WBPS. The report states: "Where required, the AFJV would rectify any property damage caused directly or indirectly by the CTP works within six months of completion of the works. The AFJV would consult with a heritage specialist to ensure the rectification works are consistent with the relevant management documentation for that item." - PMNSW requires a reasonable opportunity to review the condition survey to ensure it is thorough - PMNSW's heritage specialist must be consulted
			Pre-condition surveys will be provided to PMNSW. This also required by CoA D60.
Place Management NSW	A Tzortzis	7.3	A representative from PMNSW is to be present for any monitoring inspections that occur on WBPS
			Access to the WBPS will be coordinated with PMNSW who will have the opportunity to be present.
Place Management NSW	A Tzortzis	Appendix A	Item D14: PMNSW should also review proposals to install hoarding or equipment on PMNSW's land.
			This can be arranged as per the ongoing consultation process as described in the interface agreement (and above).
Place Management NSW	A Tzortzis	Appendix A	Item NAH2: States: "Prior to commencement of demolition of heritage elements at White Bay Power Station within The Bays construction site, significant heritage fabric would be identified for salvage and reuse opportunities for salvaged fabric considered." <input type="checkbox"/> PMNSW requests that the AFJV confirms to it what it expects this will entail in terms of items proposed to be demolished. <input type="checkbox"/> PMNSW's heritage specialist must be consulted on demolition proposals at least four weeks before any demolition is scheduled to occur.
			The project does not propose to demolish built heritage elements within the curtilage of the White Bay Power Station State heritage listing. Consultation with PMNSW regarding any demolition at WBPS (if required) would occur as described in the interface agreement (and above).
Place Management NSW	A Tzortzis	Appendix B	Unexpected Heritage finds. PMNSW is to be consulted if such finds relate to WBPS or its historical development.
			PMNSW would be consulted with through the ongoing consultation process if any unexpected finds relate to the WBPS or its historical development.

[illegible]

COMPANY	RAISED BY	DOCUMENT REF	COMMENTS / RESPONSE

CoA C5(e) Heritage Management Plan Consultation Phase 2 – Tunnelling Works		
Government Agency/Stakeholder	Date consulted	Date of Response
Sydney Olympic Park Authority	03/06/2022	17/06/2022
Inner West Council	03/06/2022	No response following reminder on: 24/6/2022 01/07/2022
City of Canada Bay Council	03/06/2022	09/06/2022
Burwood Council	03/06/2022	01/07/22
Strathfield Municipal Council	03/06/2022	No response following reminder on: 24/06/2022 01/07/2022
City of Parramatta Council	03/06/2022	No response following reminder on: 24/06/2022 01/07/2022
Heritage NSW	06/06/2022	07/06/2022
Place Management NSW	03/06/2022	08/06/2022

8 June 2022

Erran Woodward
Sydney Metro West

Email: erran.woodward@CTP-AFJV.com.au

Dear Mr Woodward

**Re: Comments on Sydney Metro West Central Tunnelling Package Heritage
Management Plan – Tunnelling Update
LOC Reference Number: #11515**

Thank you for the opportunity to provide feedback Tunnelling Package Heritage
Management Plan – Tunnelling Update.

Place Management NSW (PMNSW) have reviewed the plan and advise there are no
further comments.

For Further Assistance:

If you require any further information or wish to discuss the contents of this letter,
please contact Katarina Simunic on 0436 802 874.

Yours sincerely



Arthur Tzortzis
A/Director, Leasing & Asset Management

OFFICIAL

Place Management NSW
Placemaking NSW
Cites and Active Transport
Level 2, 66 Harrington Street, Sydney NSW 2000
PO Box N408, Grosvenor Place NSW 1220

Tel: 02 9240 8500

Oliver Gilroy-Sarkies

From: Eric Wong <Eric.Wong@canadabay.nsw.gov.au>
Sent: Thursday, 9 June 2022 5:09 PM
To: Erran Woodward
Cc: Paul Dewar; John Earls; Anne Andersen
Subject: RE: Heritage Management Plan
Attachments: SMWST1 External Comments Template - CCBC.xlsx

Hi Erran,

Hi Erran,

Please see Council's comment below. Attached is for your convenience.

We refer you to Section 5.8 in regards to the potential settlement as a result of the CTP. We have previously raised (c. August 2021) that the predicted settlement could potentially cause damage to St Albans Church Rectory (17 mm settlement) and St Albans Anglican Church (30 mm settlement). This settlement won't only impact structurally but also non-structurally, such as the potential damage to finishes and built in furniture and the like which would affect aesthetics of the buildings and important features. How has this been addressed?

5.8 SETTLEMENT

The potential for settlement as a result of the CTP has been identified by REMM GW05. Compliance with this REMM is described and includes measures and controls for understanding and development of a detailed geotechnical and hydrological model during design and construction. The model would be used to assess the potential for damage to other sub-surface elements through settlement or strain or higher (as per the CIRIA 1996 risk-based criteria) and specific damage to buildings/structures would be carried out and specific damage assessed.

Should you have any questions, don't hesitate to contact me.

Kind regards,
Eric Wong
Sydney Metro Interface Engineer

From: Erran Woodward <erran.woodward@ctp-afjv.com.au>
Sent: Friday, 3 June 2022 4:48 PM
To: Eric Wong <Eric.Wong@canadabay.nsw.gov.au>
Cc: Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>; John Earls <John.Earls@canadabay.nsw.gov.au>; Anne

Andersen <anne.andersen@ctp-afjv.com.au>

Subject: Heritage Management Plan

Hi Eric,

FYI I am also sending out the Heritage Management Plan (Rev04).
I am attaching herein in case there are any issues with the TeamBinder transmittal.

Thanks,
ew



Erran Woodward
Environment Manager
Acciona Ferrovia Joint Venture

*Sydney Metro West
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this email.

From: Eric Wong <Eric.Wong@canadabay.nsw.gov.au>

Sent: Friday, 3 June 2022 4:39 PM

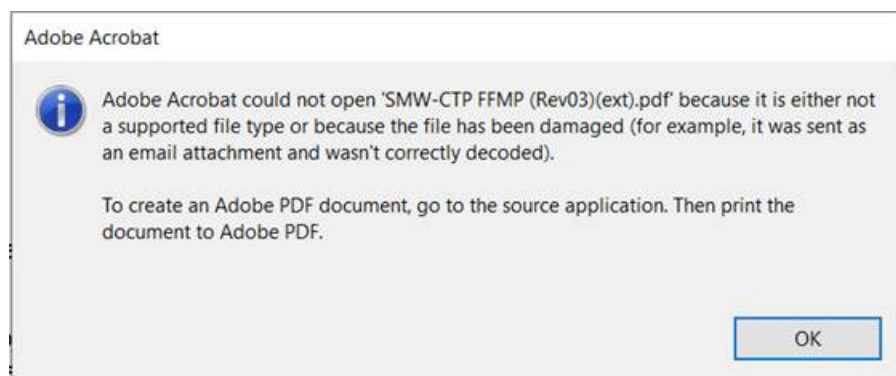
To: Erran Woodward <erran.woodward@ctp-afjv.com.au>

Cc: Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>; John Earls <John.Earls@canadabay.nsw.gov.au>

Subject: RE: WDR#0051: Sydney Metro West Central Tunneling Package - Flora and Fauna Management Plan (Rev3) - Tunneling Update [K3.1.1#F451C0.6414E93]

Hi Erran,

The pdf file is corrupted or damaged. Council is unable to review and comment. It is recommended to regenerate the file, scan the hard copy file or other better ways you can think of.



Should you have any questions, don't hesitate to contact me.

Kind regards,
Eric Wong
Sydney Metro Interface Engineer

Eric Wong | Sydney Metro Interface Engineer
City of Canada Bay

15-17 Regatta Road Five Dock NSW 2046 | www.canadabay.nsw.gov.au
T: 02 9121 0063 | Eric.Wong@canadabay.nsw.gov.au



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From: Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>
Sent: Friday, 3 June 2022 4:09 PM
To: Eric Wong <Eric.Wong@canadabay.nsw.gov.au>
Subject: FW: WDR#0051: Sydney Metro West Central Tunneling Package - Flora and Fauna Management Plan (Rev3) - Tunneling Update [K3.1.1#F451C0.6414E93]

Hi Eric

Flora and Fauna report provided by AFJV for Council Officer review and comment.

Paul

Paul Dewar | Manager, Strategic Planning
City of Canada Bay

1a Marlborough St Drummoyne NSW 2047 | www.canadabay.nsw.gov.au
T: 02 9911 6402 | Paul.Dewar@canadabay.nsw.gov.au



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From: Erran Woodward on iTWOcx/AFJV_SMWCJV <AFJV_SMWCJV@au.itwocx.com>
Sent: Friday, 3 June 2022 4:04 PM
To: Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>
Subject: WDR#0051: Sydney Metro West Central Tunneling Package - Flora and Fauna Management Plan (Rev3) - Tunneling Update [K3.1.1#F451C0.6414E93]

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iTWOcx

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Working Document Review

STATUS FOR REVIEW

ISSUED 3-JUN-22 04:01 PM

DUE 10-JUN-22 04:01 PM

COLLABORATORS	AUTHOR	COMPANY	PHONE	MOBILE
	Erran Woodward	Acciona Ferrovia Joint Venture		
COLLABORATORS	ACTION		PHONE	mobile
	David Crosby	Acciona Ferrovia Joint Venture		
	Dylan Porter	Acciona Ferrovia Joint Venture		
	Josi Hollywood	Acciona Ferrovia Joint Venture		
	Michael Jollon	Acciona Ferrovia Joint Venture		
	Paul Dewar	Acciona Ferrovia Joint Venture		
	Sally Hamilton	Acciona Ferrovia Joint Venture		
	Stephen Clements	Acciona Ferrovia Joint Venture		
COLLABORATORS	INFO	CONTACT	PHONE	mobile
	Anne Andersen	Acciona Ferrovia Joint Venture		

Sydney Metro West Central Tunneling Package - Flora and Fauna Management Plan (Rev3) - Tunneling Update

DESIGN LOT Non-Design

DISCIPLINE Environment and Planning : Ecology

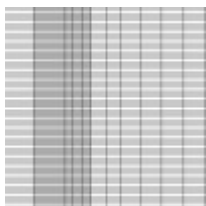
Comment

Hi,
Acciona Ferrovia Joint Venture (AFJV) would like provide the Sydney Metro West Central Tunneling Package Flora and Fauna Management Plan (Rev03) for your review. This document has been updated to include tunneling activities, which are identified as Stage B2 in the Sydney Metro West Staging Report. These updates are minimal in nature and have been highlighted in the text, to assist your review.

We invite your feedback on highlighted changes and seek a response by 17June2022 .
If you have any questions please do not hesitate to contact me on the details below.
Thanks,
Erran Woodward, Environment Manager
AFJV Sydney Metro West Central Tunneling Package
erran.woodward@CTP-AFJV.com.au
+61 437 343 178

ATTACHMENTS

[]Select All



SMWST1...e.xlsx

SMW-CT...t).pdf

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[SMW-CTP FF...\)\(ext\).pdf](#)

Attached file: [SMWST1 Ext...plate.xlsx](#)

[Download all attachments in one zip](#)

COMMENTS

[Erran Woodward \(AFJV-EWOO\)](#)

FOR REVIEW

3-JUN-22 04:01 PM

Sydney Metro West Central Tunneling Package - Flora and Fauna Management Plan (Rev3) - Tunneling Update Issued to AFJV

Oliver Gilroy-Sarkies

From: Dragomir Garbov <dragomir.garbov@environment.nsw.gov.au>
Sent: Tuesday, 7 June 2022 8:25 AM
To: Georgia Wright; OEH HD Heritage Mailbox
Cc: Rochelle Johnston; Cath Snelgrove
Subject: RE: Sydney Metro West CTP HMP

Follow Up Flag: Follow up
Flag Status: Flagged

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Hi Georgia,

Thank you for sending this through.

I am noting the minimal changes, highlighted in yellow. No comments would be required from Heritage NSW on this updated CMP.

Kind regards,

Drago

Dragomir Garbov, BA, MA, PhD, M. ICOMOS-ICUCH (he/him)
Senior Assessments Officer
Environment and Heritage – Heritage NSW
Department of Planning and Environment

T (02) 9995 6066 **E** Dragomir.Garbov@environment.nsw.gov.au

dpie.nsw.gov.au

Level 6
10 Valentine Ave
Parramatta NSW 2150

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I acknowledge the traditional custodians of the land and pay respects to Elders past and present. I also acknowledge all the Aboriginal and Torres Strait Islander staff working with NSW Government at this time.

Please consider the environment before printing this email.

From: Georgia Wright <Georgia.Wright@transport.nsw.gov.au>
Sent: Monday, 6 June 2022 8:17 PM
To: OEH HD Heritage Mailbox <HERITAGEMailbox@environment.nsw.gov.au>
Cc: Rochelle Johnston <Rochelle.Johnston@environment.nsw.gov.au>; Dragomir Garbov <dragomir.garbov@environment.nsw.gov.au>; Cath Snelgrove <Cath.Snelgrove@transport.nsw.gov.au>
Subject: Sydney Metro West CTP HMP

To whom it may concern,

Sydney Metro awarded the contract for the Sydney Metro West Central Tunnelling Package (CTP) (Sydney Olympic Park to The Bays), referred to as Phase B in the Sydney Metro West Phasing Report, to Acciona Ferrovia Joint Venture (AFJV). Phase B1, which included civil works, commenced in late 2021. Phase B2, which includes tunnelling activities, are due to commence in Q4 of 2022.

As part of the preparation for construction of Phase B2, and as required by condition C5 of the Approval, we would like provide the Sydney Metro West CTP Heritage Management Plan (HMP) (Rev04) for your review. This document has been updated to include Phase B2 tunnelling activities. These updates are minimal and have been highlighted in the text, to assist your review.

We are required to provide evidence of consultation with Heritage NSW. We would therefore appreciate confirmation by 10 April 2022 that you intend to provide comment on HMP (Rev04).

If you do intend to comment, please provide any comments by 20 June 2022.

Please note that the HMP includes appendices including the Unexpected Heritage Finds Procedure, which are not provided for comment as, where required, consultation on these documents has already occurred with Heritage NSW and all the documents in the appendices have been adopted as final.

Please do not hesitate to contact me should you require any further information.

Georgia

Georgia Wright
Archaeological Heritage Advisor
Sydney Metro

M 0437 317 478

sydneymetro.info

Level 43, 680 George Street, Sydney NSW 2000
PO Box K659, Haymarket NSW 1240



I acknowledge the traditional owners of the land on which I work and pay my respects to their Elders, past and present.

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authority states them to be the views of the NSW Office of Environment, Energy and Science.

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OFFICIAL

Oliver Gilroy-Sarkies

From: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>
Sent: Friday, 17 June 2022 11:19 AM
To: Erran Woodward
Cc: Sally Hamilton; Anne Andersen; Vivienne Albin
Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]
Attachments: Copy of SMWST1 External Comments Template_SOPA Heritage Comments.xlsx

Hi Erran,

Please see attached spreadsheet with SOPA's comments inserted.

Any questions, please let me know.

Kind regards

Rupert Luxton
Urban Planner, Planning
Sydney Olympic Park Authority

M 0400 768 486
rupert.luxton@sopa.nsw.gov.au
Level 8, 5 Olympic Boulevard, Sydney Olympic Park, NSW, 2127
sydneyolympicpark.com.au

From: Erran Woodward <erran.woodward@ctp-afjv.com.au>
Sent: Tuesday, 14 June 2022 8:44 AM
To: Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>
Cc: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>; Anne Andersen <anne.andersen@ctp-afjv.com.au>
Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]

Hi Vivienne,

I apologise for the issues in downloading the file. We sent through Flora & Fauna Management Plan and the Heritage Management Plan via iTWOcx but I think moving forward we will just use email. Currently I have the following names included in the distribution list for SOPA, let me know if there is anyone else you would like me to include:

- Sally.Hamilton@sopa.nsw.gov.au
- Rupert.Luxton@sopa.nsw.gov.au
- Vivienne.Albin@sopa.nsw.gov.au

Please find the Heritage document attached, along with a comments sheet for collecting any comments.

Please note, you should also have received the Spoil management Plan and Noise & Vibration Management Plan via email on Friday 10 June.

Thanks,
ew



Erran Woodward
Environment Manager
Acciona Ferrovial Joint Venture

*Sydney Metro West
Central Tunnelling Package
+61 437 343 178*

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From: Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>
Sent: Monday, 13 June 2022 8:38 AM
To: Erran Woodward <erran.woodward@ctp-afjv.com.au>
Cc: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>
Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]

Hi Erran

Hoping you can assist me. With regards to the Heritage Management Plan (as per the subject line above), I haven't received a Teambinder transmittal of the Heritage Management Plan. Also, when I download the document from Sally's original email I get a message that the file is damaged and cannot be opened.

Could you please send it to me as a PDF? Also, I note that it is due on the 17th - we may need an additional day or two.

Just wondering if you know if Rupert and I been added to the Teambinder for WTP?

Thanks very much
Vivienne

Vivienne Albin
Senior Manager, Planning
Sydney Olympic Park Authority

P 9714 7145
M 0414 526 383
vivienne.albin@sopa.nsw.gov.au
Level 8, 5 Olympic Boulevard, Sydney Olympic Park, NSW, 2127
sydneyolympicpark.com.au

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From: Vivienne Albin

Sent: Tuesday, 7 June 2022 7:54 AM

To: Erran Woodward <erran.woodward@ctp-afjv.com.au>

Cc: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>

Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]

Hi Erran

Thanks for your assistance. Yes, the PDF attached to your email works.

Thanks
Vivienne

Vivienne Albin
Senior Manager, Planning
Sydney Olympic Park Authority

P 9714 7145

M 0414 526 383

vivienne.albin@sopa.nsw.gov.au

Level 8, 5 Olympic Boulevard, Sydney Olympic Park, NSW, 2127

sydneyolympicpark.com.au

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From: Erran Woodward <erran.woodward@ctp-afjv.com.au>

Sent: Monday, 6 June 2022 5:00 PM

To: Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>

Cc: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>

Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]

Hi Vivienne,

I'm very sorry about that. Let me see what I can do at my end (re-merge the PDF perhaps and re-send).

Just to confirm, does the attached work for you?

Thanks,
ew



Erran Woodward
Environment Manager
Acciona Ferrovia Joint Venture

*Sydney Metro West
Central Tunnelling Package
+61 437 343 178*

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this email.

From: Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>

Sent: Monday, 6 June 2022 4:31 PM

To: Erran Woodward <erran.woodward@ctp-afjv.com.au>

Cc: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>

Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]

Hi Erran

Hoping for your assistance with the Flora & Fauna Report Revision 3. I can download the document but not open it. I get the following message:

Acrobat Reader



Adobe Acrobat Reader could not open 'SMW-CTP FFM' is either not a supported file type or because the file has been moved, renamed, or deleted. For example, it was sent as an email attachment and wasn't

Once I'm added to the distribution list do you think the above issue will be resolved?

Thanks
Vivienne

Vivienne Albin
Senior Manager, Planning
Sydney Olympic Park Authority

P 9714 7145
M 0414 526 383
vivienne.albin@sopa.nsw.gov.au
Level 8, 5 Olympic Boulevard, Sydney Olympic Park, NSW, 2127
sydneyolympicpark.com.au

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From: Erran Woodward <erran.woodward@ctp-afjv.com.au>
Sent: Monday, 6 June 2022 4:31 PM
To: Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>
Cc: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>
Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]

Hi Sally,

This is in train as we speak, you should expect to receive a notification shortly.

Can you confirm, is your preference to receive upcoming sub plans via TeamBinder also?

Thanks,
ew



Erran Woodward
Environment Manager
Acciona Ferrovia Joint Venture

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this email.

From: Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>
Sent: Monday, 6 June 2022 9:25 AM
To: Erran Woodward <erran.woodward@ctp-afjv.com.au>
Cc: Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>
Subject: RE: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]

Hi Erran,

Has this (and the others sent through) been uploaded to Team Binder as well? If not could you please send the links to Rupert and Vivienne copied in in, so they can also download into our filing system please?

Thanks

Sally

From: Erran Woodward on iTWOcx/AFJV_SMWCJV [mailto:AFJV_SMWCJV@au.itwocx.com]
Sent: Friday, 3 June 2022 4:47 PM
To: Sally Hamilton <Sally.Hamilton@sopa.nsw.gov.au>
Subject: WDR#0052: Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update [K3.1.1#F45302.6417396]



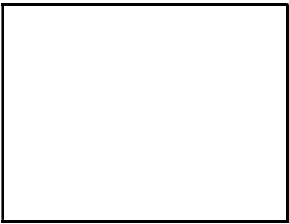
Hi Sally,

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STATUS FOR REVIEW

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	Erran Woodward	Acciona Ferrovia Joint Venture		
	ACTION		PHONE	mobile
	David Crosby	Acciona Ferrovia Joint Venture		
	Dylan Porter	Acciona Ferrovia Joint Venture		
	Eric Wong	Acciona Ferrovia Joint Venture		
	Katarina Simunic	Acciona Ferrovia Joint Venture		
	Michael Jollon	Acciona Ferrovia Joint Venture		
	Sally Hamilton	Acciona Ferrovia Joint Venture		
	Stephen Clements	Acciona Ferrovia Joint Venture		
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	Anne Andersen	Acciona Ferrovia Joint Venture		

Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update

DESIGN LOT Non-Design
DISCIPLINE Environment and Planning : Environmental Management

Comment

Hi,

Acciona Ferrovia Joint Venture (AFJV) would like provide the Sydney Metro West Central Tunneling Package Heritage Management Plan (Rev04) for your review. This document has been updated to include tunneling activities, which are identified as Stage B2 in the Sydney Metro West Staging Report. These updates are minimal in nature and have been highlighted in the text, to assist your review.

We invite your feedback on highlighted changes and seek a response by 17June2022 .

If you have any questions please do not hesitate to contact me on the details below.

Thanks,
Erran Woodward, Environment Manager
AFJV Sydney Metro West Central Tunneling Package
erran.woodward@CTP-AFJV.com.au
+61 437 343 178

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COMMENTS

[Erran Woodward \(AFJV-EWOO\)](#)

FOR REVIEW

3-JUN-22 04:46 PM

Sydney Metro West Central Tunneling Package - Heritage Management Plan (Rev04) - Tunneling Update Issued to AFJV

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Visit

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Oliver Gilroy-Sarkies

From: Dylan Porter <Dylan.Porter@burwood.nsw.gov.au>
Sent: Friday, 1 July 2022 12:46 PM
To: Erran Woodward
Subject: RE: Closure of document review period

Erran

No further comments on the updated management plans. However, I would note that I cannot identify a specific response to the points raised below and as per our previous submission.

Do you have a comments register which notes the AAJV response to these issues?

Noise and Vibration Management Plan

The consideration of noise and vibration impacts outlines a number of issues in terms of intrusive activities and assumed impact upon local residents and business. The basis of this appears sound but is based upon traditional considerations of daily life. It is suggested that there has been an increase in working from home, which means an increased number of residents at home between 9am and 5pm Monday to Friday, which within the noise and vibration management plan is period when increase construction noise and activity is likely to occur.

Similarly, from a local business perspective, it is likely that business, in particularly hospitality, is striving to return to business normality. For hospitality in particular this will likely mean increase use of outdoor spaces in response to venue capacity limits, which will be more directly impacted by construction activities.

It is requested that consideration be given to likely or potential business or working practices that may occur in response to COVID restrictions and management procedures. This will mean further consideration of impacts of noise and vibration on a cumulative basis and upon those living and working from home and broader consideration of impacts.

Heritage Management Plan

No additional comments on the content of the management plan. However, we request that copies of any photos during the demolition and construction phases of the project, be provided to Burwood Council library. Council has historian and archivist officers, and records of major construction projects such as the Sydney Metro Burwood North station offer invaluable insight into the development of the locality and record of these events can be retained in our library records.

Further on this point, we provided feedback on the Heritage Assessment for the property on the corner of the Burwood Road and Parramatta Road, which concluded that there was potential for this property to meet the threshold for heritage listing, despite being noted for demolition. The updated management plan did not appear to make a response to this point.

Regards

Dylan Porter
Director City Strategy
T: 02 9911 9850
E: Dylan.Porter@burwood.nsw.gov.au
2 Conder Street, Burwood, NSW, 2134

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From: Erran Woodward <erran.woodward@ctp-afjv.com.au>

Sent: Friday, 1 July 2022 9:32 AM

To: Sally.Hamilton@sopa.nsw.gov.au; Rupert Luxton <Rupert.Luxton@sopa.nsw.gov.au>; Vivienne Albin <Vivienne.Albin@sopa.nsw.gov.au>; Dylan Porter <Dylan.Porter@burwood.nsw.gov.au>; Michelle King <michelle.king@property.nsw.gov.au>; Eric Wong <Eric.Wong@canadabay.nsw.gov.au>; Paul Dewar <Paul.Dewar@canadabay.nsw.gov.au>; john.earls@canadabay.nsw.gov.au; David Crosby <david.crosby@innerwest.nsw.gov.au>; Gordon Malesevic <gordon.malesevic@strathfield.nsw.gov.au>; Sasi Kumar <SKumar@cityofparramatta.nsw.gov.au>; Sandra Martin <SMartin@cityofparramatta.nsw.gov.au>

Cc: Oliver Gilroy-Sarkies <oliver.gilroysarkies@ctp-afjv.com.au>; Gregor Wilson <gregor.wilson@ctp-afjv.com.au>; Anne Andersen <anne.andersen@ctp-afjv.com.au>; Michael Woolley <michael.woolley@hbi.com.au>; John Ieroklis <John.Ieroklis@transport.nsw.gov.au>; Maria Doumit <maria.doumit@transport.nsw.gov.au>; James Hayward <James.Hayward@transport.nsw.gov.au>

Subject: Closure of document review period

This email is addressed to:

- Sydney Olympic Park Authority
- City of Canada Bay Council
- Burwood Council
- Inner West Council
- Strathfield Municipal Council
- City of Parramatta Council
- Place Management NSW

Hi,

Acciona Ferrovial Joint Venture (AFJV) would like to acknowledge your assistance in review the Sydney Metro West Central Tunnelling Package (CTP) Construction Environmental Management Plan update to include tunnelling activities.

Document review period for all documents will be closed by end of business today. If you have not provided comments on documents provided to you for review by this time, it will be understood that no comments will be provided.

Document	Response due by	Status
Flora and Fauna Management Plan	17/6/22	Closed
Heritage Management Plan	17/6/22	Closed
Spoil Management Plan	24/6/22	Closed
Noise and Vibration Management Plan	24/6/22	Closed
Soil and Water Management Plan	01/7/22	Closed

Thanks,
ew



Erran Woodward
Environment Manager
Acciona Ferrovia Joint Venture

*Sydney Metro West
Central Tunnelling Package
+61 437 343 178*

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Cc: Oliver Gilroy-Sarkies <oliver.gilroysarkies@ctp-afjv.com.au>; Gregor Wilson <gregor.wilson@ctp-afjv.com.au>; Anne Andersen <anne.andersen@ctp-afjv.com.au>; Michael Woolley <michael.woolley@hbi.com.au>; John Ieroklis <John.Ieroklis@transport.nsw.gov.au>; Maria Doumit <maria.doumit@transport.nsw.gov.au>; James Hayward <James.Hayward@transport.nsw.gov.au>
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Thanks,
ew



Erran Woodward
Environment Manager
Acciona Ferrovial Joint Venture

*Sydney Metro West
Central Tunnelling Package
+61 437 343 178*

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DATE	COMPANY	RAISED BY	REVIEW DOC. NO.*	DOCUMENT REF*	DEED REF*	COMMENTS / RESPONSE	COMMENT CATEGORY*
8/06/2022	CoCB	EWONG	SMWSTCTP-AFJ-1NL-PE-PLN-000004	Revision 04	N/A	We refer you to Section 5.8 in regards to the potential settlement as a result of the CTP. We have previously raised (c. August 2021) that the predicted settlement could potentially cause damage to St Albans Church Rectory (17 mm settlement) and St Albans Anglican Church (30 mm settlement). This settlement won't only impact structurally but also non-structurally, such as the potential damage to finishes and built in furniture and the like which would affect aesthetics of the buildings and important features. How has this been addressed?	Observation
12/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-PE-PLN-000004	General	N/A	AFJV refers to EIS section 12.5.2 in which settlement impacts have been assessed for the approved CTP project, for both tunnelling and surface works. Table 12-3 identifies the settlement CoCB mentioned in the comment, however also mentions that for both St Albans Church Rectory and St Albans Anglican Church structural damage is unlikely. AFJV are not intending to reassess the outcomes of the EIS as part of the Heritage Management Plan. The Heritage Management Plan describes the management of the project as approved by the EIS, including settlement monitoring. As per REMM GW5 a detailed geotechnical and hydrogeological model for will be developed and progressively updated during design and construction, which would include assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain. Where building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage.	Observation
17/06/2022	SOPA	RLUXTON	SMWSTCTP-AFJ-1NL-PE-PLN-000004	Revision 04	N/A	Settlement is still not being considered a risk for the State Abattoir Buildings. As previously raised, settlement is identified as a risk to some heritage sites outside of Sydney Olympic Park with up to 30mm settlement predicted, however, the document makes no reference on settlement risk/management/monitoring to the Abattoir Heritage Precinct. As the scope of the HMP now includes tunnelling directly under the precinct, this risk should be re-examined.	Observation
12/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-PE-PLN-000004	General	N/A	AFJV refers to EIS section 12.5.2 in which settlement impacts have been assessed for the approved CTP project, for both tunnelling and surface works. AFJV are not intending to reassess the outcomes of the EIS as part of the Heritage Management Plan. As per REMM GW5 a detailed geotechnical and hydrogeological model for will be developed and progressively updated during design and construction, which would include assessment of the potential for damage to structures, services, basements and other sub-surface elements through settlement or strain. Where building damage risk is rated as moderate or higher (as per the CIRIA 1996 risk-based criteria), a structural assessment of the affected buildings/structures would be carried out and specific measures implemented to address the risk of damage.	Observation
1/07/2022	BC	DPORTER	SMWSTCTP-AFJ-1NL-PE-PLN-000004	Revision 04	N/A	No additional comments on the content of the management plan. However, we request that copies of any photos during the demolition and construction phases of the project, be provided to Burwood Council library. Council has historian and archivist officers, and records of major construction projects such as the Sydney Metro Burwood North station offer invaluable insight into the development of the locality and record of these events can be retain in our library records. Further on this point, we provided feedback on the Heritage Assessment for the property on the corner of the Burwood Road and Parramatta Road, which concluded that these was potential for this property to meet the threshold for heritage listing, despite being noted for demolition. The updated management plan did not appear to make a response to this point.	Observation
12/07/2022	AFJV	EWOODWARD	SMWSTCTP-AFJ-1NL-PE-PLN-000004	General	N/A	1) Comment not related to content of the Heritage Management Plan. Discussions can progress outside of this document review forum. 2) AFJV has outlined in Section 4.2 of the HMP, that the potential heritage item identified within the EIS (338-340 Parramatta Road, Burwood) has since been confirmed to be of local heritage significance.	Observation

APPENDIX D COA C13(A) CONSULTATION

Gregor Wilson

From: Sandra Wallace <Sandra.Wallace@artefact.net.au>
Sent: Friday, 8 October 2021 4:29 PM
To: Gregor Wilson
Cc: Erran Woodward; Duncan Jones
Subject: RE: CTP Heritage Management Plan review

Thanks Gregor,

I confirm the heritage management approach in the CHMP is appropriate and is consistent with the heritage management documents that supported by the planning approval for the project.


Kind regards
Sandra

Dr Sandra Wallace
Managing Director

ARTEFACT

Telephone: 9058 9660 **Mobile:** 0403565086
Address: Suite 56, Jones Bay Wharf, 26-32 Pirrama Rd, Pyrmont NSW 2009
Web: www.artefact.net.au

Cultural Heritage Management | Archaeology | Heritage Interpretation

 *We acknowledge the Traditional Custodians of Country in which we live and work, and pay our respects to them, their culture and their Elders past, present and future*

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From: Gregor Wilson <gwilson@landairwater.com.au>
Sent: Friday, 8 October 2021 2:33 PM
To: Sandra Wallace <Sandra.Wallace@artefact.net.au>
Cc: Erran Woodward <erran.woodward@ctp-afjv.com.au>; Duncan Jones <Duncan.Jones@artefact.net.au>
Subject: RE: CTP Heritage Management Plan review

Hi Sandra,

Please see attached with comments addressed as discussed earlier today.

Thanks,

Gregor Wilson
Environmental Consultant, Land Air Water Environmental Management
Ph: 0432 089 430

