



Southwest Metro Corridor – Construction Heritage Management Plan

SMCSWSSJ-JHL-WEC-EM-PLN-000013

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Terms and definitions

The following terms, abbreviations and definitions are used in this plan.

Terms	Explanation
AHIMS	Archaeological Heritage Information Management Service
Archaeological Potential	Potential of a site to contain archaeological remains. This potential is assessed by identifying former land uses and associated features through historical research, and evaluating whether subsequent actions (either natural or human) may have impacted on evidence for these former land uses.
AARD	Archaeological Assessment and Research Design
ACHAR	Aboriginal Cultural Heritage Assessment Report
AMS	Archaeological Method Statement
CEMF	Construction Environmental Management Framework
CEMP	Construction Environmental Management Plan
CHL	Commonwealth Heritage List
CHMP	Construction Heritage Management Plan
CoA	Conditions of Approval
CSSI	Critical State Significant Infrastructure
DPI&E	Department of Planning, Industry & Environment (formerly Department of Planning & Environment – DPE)
EDR	Excavation Directors Report
EIS	Environmental Impact Statement
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
ER	Environmental Representative
Heritage Act	<i>Heritage Act 1977</i>
Heritage NSW, DPC	Heritage NSW, Department of Premier and Cabinet
HIA	Heritage Impact Assessment
HIS	Heritage Interpretation Strategy
John Holland	John Holland Group Pty Limited
JHLOR	John Holland Laing O'Rourke Joint Venture
Laing O'Rourke / LORA	Laing O'Rourke Australia Construction Pty Limited
LEP	Local Environment Plan
Local significance	An item is important in the course or pattern of the local area's cultural or natural history.
Metron T2M	Mott MacDonald Australia Pty Ltd and Arcadis Australia Pacific Pty Ltd Joint Venture
Minister, the	NSW Minister for Planning
NHL	National Heritage List
NP&W Act	<i>National Parks & Wildlife Act 1974</i>
OEH	Office of Environment and Heritage (now Heritage NSW, DPC)
PAD	Potential Archaeological Deposit
The Burra Charter	The Australia ICOMOS Charter for Places of Cultural Significance (Adopted 31 October 2013)
RAPs	Registered Aboriginal Parties. As defined in the Aboriginal cultural heritage consultation requirements for proponents 2010
REMM	Revised Environmental Mitigation Measure

Terms	Explanation
Research Potential	An item has potential to yield information that will contribute to an understanding of the NSWs (or the local area's) cultural or natural history. It is possible for an area to be of high archaeological potential but low research potential.
S170	Section 170
SHR	State Heritage Register
SMC	Southwest Metro Corridor
Stations	Railway Stations within the SMC Project Area. These include Marrickville Railway Station Group (SHR listed), Dulwich Hill Railway Station Group (Section 170 [s170] listed), Hurlstone Park Railway Station Group (s170 listed), Canterbury Railway Station Group (SHR listed), Campsie Railway Station Group (s170 listed), Belmore Railway Station Group (SHR listed), Lakemba Railway Station Group (s170 listed), Wiley Park Railway Station Group (s170 listed), and Punchbowl Railway Station Group (s170 listed)
SWM	Southwest Metro (scope approved under CSSI 8256 – previously known as Sydenham to Bankstown Upgrade)

1. CHMP CoA, CEMF, Environmental Performance Outcomes and REMM Compliance Matrix

The Southwest Metro Project (SWM) was assessed as a Critical State Significance Infrastructure (CSSI 8256) by the Minister for Planning and Environment under Part 5 Division 5.2 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Minister's Conditions of Approval (CoA) were granted on 12 December 2018 with conditions. On 22 October 2020 modifications to the Bankstown Station section of SWM (Mod 1) was approved and revised CoA were granted (CSSI 8256-Mod 1). John Holland Laing O'Rourke Joint Venture (JHLOR) have been engaged to undertake corridor works on SWM. The corridor works package is known as Southwest Metro Corridor (SMC) and is located between Sydenham Station and Stacey St, Bankstown. A heritage Sub-plan is required as part of the Construction Environmental Management Plan (CEMP) for the project under CoA C3(d). The heritage CoA are outlined in conditions E10-17 and addressed in this plan as outlined below. Additionally, the Revised Environmental Mitigation Measures (REMM) and requirements in the Construction Environmental Management Framework (CEMF) also provide guidance on required actions during construction works and have been referenced accordingly.

It is noted that the term "stations" is used collectively to represent all railway stations within the SMC project area, including Marrickville Railway Station Group (SHR listed), Dulwich Hill Railway Station Group (s170 listed), Hurlstone Park Railway Station Group (s170 listed), Canterbury Railway Station Group (SHR listed), Campsie Railway Station Group (s170 listed), Belmore Railway Station Group (SHR listed), Lakemba Railway Station Group (s170 listed), Wiley Park Railway Station Group (s170 listed), and Punchbowl Railway Station Group (s170 listed).

Table 1-1 Compliance Matrix

Condition Requirement			Reference	How addressed?
Conditions of Approval				
C3	The CEMP Sub-plans must be prepared in consultation with the relevant government agencies identified for each CEMP Sub-plan and be consistent with the CEMF and CEMP referred to in Condition C1:		Section 2.6 Appendix A	This Construction Heritage Management Plan (CHMP) will be reviewed by Heritage NSW, Department of Premier and Cabinet (Heritage NSW, DPC) and City of Canterbury Bankstown and Inner West Council. Details of consultation are provided in Appendix A.
	d)	Heritage Council (or its delegate) and Relevant Council(s)		
C4	The CEMP Sub-plans must be prepared in accordance with the CEMF		This table	Requirements of the CEMF have been addressed in the compliance matrix (this table)
C5	Details of all information requested by an agency to be included in a CEMP Sub-plan as a result of consultation, including copies of all correspondence from those agencies, must be provided with the relevant CEMP Sub-Plan.		Section 2.6 Appendix A	This CHMP will be reviewed by Heritage NSW, DPC and City of Canterbury Bankstown and Inner West Council. Details of consultation are provided in Appendix A.

Condition	Requirement	Reference	How addressed?
C6	Any of the CEMP Sub-plans may be submitted along with, or subsequent to, the submission of the CEMP but in any event, no later than one (1) month before Construction.	This plan	This CHMP will be submitted to the Secretary as a Sub-plan to the CEMP within the required timeframe
C7	Construction must not commence until the CEMP and all CEMP Sub-plans have been approved by the Planning Secretary. The CEMP and CEMP Sub-plans, as approved by the Planning Secretary, including any minor amendments approved by the ER must be implemented for the duration of Construction. Where Construction of the CSSI is staged, Construction of a stage must not commence until the CEMP and CEMP Sub-plans for that stage have been approved by the Planning Secretary.	This plan	This CHMP will be approved by the Secretary as a Sub-plan to the CEMP. Minor amendments would also be approved by the Environmental Representative (ER).
E10	Following completion of Work described in the documents listed in Conditions A1 and A2 in relation to heritage items, a Heritage Report including the details of any archival recording, further historical research either undertaken or to be carried out and archaeological excavations (with artefact analysis and identification of a final repository for finds), must be prepared in accordance with any guidelines and standards required by the Heritage Council of NSW and Heritage NSW.	Section 6.2.4 Section 6.3.9	<p>An archival record would be prepared for</p> <ul style="list-style-type: none"> • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • Old Sugarmil <p>Archival recording would be limited to areas of the heritage items where direct or visual impacts would be minor or greater than minor, or where the works would impact heritage items listed on the SHR. Archival recording of the railway stations has been prepared as part of the SWM design and would not need to be completed for SMC.</p> <p>An Excavation Directors Report (EDR) would be prepared at the conclusion of the SMC archaeological program. This would include further historical research, results of archaeological excavations, artefact analysis and identification of a final repository for finds.</p>
E11	An Excavation Director's Report (EDR) must be prepared for any heritage items of State significance that are discovered during Work. The EDR must be prepared in consultation with Heritage NSW.	Section 6.3.9	An EDR would be prepared at the conclusion of the archaeological program and would include results of excavation of State and locally significant archaeology if relevant to the SMC program and the results of archaeological test excavations within the Canterbury Construction Site.
E12	The Heritage Report and Excavation Directors Report must be submitted to the Planning Secretary, the Heritage Council of NSW and Heritage NSW for information no later than 24 months after the completion of Work referred to in Condition E10.	Section 6.2.4 Section 6.3.9	The archival recording report and EDR would be submitted to the Planning Secretary, the Heritage Council of NSW and Heritage NSW, DPC for information no later than 24 months after the completion of work.

Condition	Requirement	Reference	How addressed?
E13	The Proponent must prepare a Heritage Interpretation Strategy which outlines a process to interpret key Aboriginal and non-Aboriginal heritage values and stories of heritage items in the final project design. The Heritage Interpretation Strategy must be prepared in consultation with the Heritage Council of NSW and submitted to the Planning Secretary for information before the commencement of Construction.	Section 6.2.5	A Heritage Interpretation Strategy (HIS) has been prepared for Sydney Metro City & Southwest: Sydenham to Bankstown Line by Artefact Heritage (October 2020), and individual Heritage Interpretation Plans have been prepared for the stations by Artefact Heritage as part of the SWM detailed design. A separate strategy and additional interpretations plans are therefore not required for SMC. This obligation is retained by Sydney Metro
E14	A Heritage Interpretation Plan(s) must be prepared, consistent with the Heritage Interpretation Strategy which identifies heritage items to be used in the final design of the project. The plan(s) must identify how items will be interpreted and provide a timeframe for their implementation which must be no later than the commencement of Operation. Heritage interpretation in any station precinct must be identified in the relevant Station Design and Precinct Plan(s) required in Condition E56. The Heritage Interpretation Plan must be prepared in accordance with the NSW Heritage Manual, the NSW Heritage Office's Interpreting Heritage Places and Items: Guidelines (August 2005), and the NSW Heritage Council's Heritage Interpretation Policy.	Section 6.2.5	Individual Heritage Interpretation Plans, that are consistent with the HIS (October 2020), have been prepared for the station precincts by Artefact Heritage as part of the SWM detailed design. Additional Heritage Interpretation plans are therefore not required for SMC. This obligation is retained by Sydney Metro
E15	An Unexpected Heritage Finds and Human Remains Procedure must be prepared to manage unexpected heritage finds in accordance with the guidelines and standards prepared by the Heritage Council of NSW or Heritage NSW.	Section 6.1.2 Section 6.1.3 Section 6.3.5 Section 6.3.7	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project. Sydney Metro Exhumation Management Plan has been completed by Sydney Metro and is outside the management of this CHMP. Sydney Metro Exhumation Plan would be implemented where required.
E16	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 and submitted to the Planning Secretary for information no later than one (1) month before the commencement of Construction.	Section 6.1.2 Section 6.1.3 Section 6.3.5 Section 6.3.7	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project. Sydney Metro Exhumation Management Plan has been completed by Sydney Metro and is outside the management of this CHMP. Sydney Metro Exhumation Plan would be implemented where required.
E17	The Unexpected Heritage Finds and Human Remains Procedure, as submitted to the Planning Secretary, must be implemented for the duration of Construction and during Operational maintenance Work. Note: Human remains that are found unexpectedly during Work are under the jurisdiction of the NSW State Coroner and must be reported to the NSW Police immediately.	Section 6.1.2 Section 6.1.3 Section 6.3.5 Section 6.3.7	Sydney Metro Exhumation Management Plan has been completed by Sydney Metro and is outside the management of this CHMP. Sydney Metro Exhumation Plan would be implemented where required.

Condition	Requirement	Reference	How addressed?
Revised Environmental Mitigation Measures			
NAH1	The project design would minimise adverse impacts to heritage buildings, elements, fabric, spaces and vistas that contribute to the overall heritage significance of the Bankstown Line.	Section 6.2.2 Section 6.2.3 Section 6.2.6 Section 6.2.7 Section 6.2.8 Section 6.2.9	Although impacts to heritage values would be minor as a result of SMC the following measures have been put in place to minimise adverse impacts: <ul style="list-style-type: none"> • Exclusion zones • Preparation of a Heritage Impact Assessment (HIA) with heritage protection measures recommended • Use of a conservation architect/heritage engineer for station and bridge works where required
NAH2	The project design would maximise the retention and legibility of heritage buildings, structures, fabric, spaces and vistas that are individually significant and contribute to the overall heritage significance of the Bankstown Line.	n/a	As works are minor, generally related to rail corridor works and would not greatly alter vistas, project design would avoid impacts to heritage items where feasible and adhere to any addition protection measures recommended in the HIA. This requirement has been deemed "not applicable" as per the Staging Report
NAH3	The project design would complement retained heritage buildings, elements, fabric, spaces and vistas to avoid outcomes that compromise the significance of these heritage items.	n/a	As works are minor, generally related to rail corridor works and would not greatly alter vistas, project design would avoid impacts to heritage items where feasible and adhere to any addition protection measures recommended in the HIA. This requirement has been deemed "not applicable" as per the Staging Report
NAH4	The project design would be developed with guidance from an appropriately qualified and experienced conservation architect.	n/a	As works are minor and generally related to rail corridor works. Project design would avoid direct impacts to heritage items where feasible and adhere to any addition protection measures recommended in the HIA. This requirement has been deemed "not applicable" as per the Staging Report
NAH5	Where heritage significant items or elements are to be retained within the operational area, an adaptive reuse strategy would be prepared by an appropriately qualified and experienced heritage architect.	n/a	The SMC would not directly impact items that would be appropriate for adaptive reuse. This requirement has been deemed "not applicable" as per the Staging Report

Condition	Requirement	Reference	How addressed?
NAH6	A Heritage Interpretation Plan would be prepared to document the development of the Bankstown Line and detail the history of each station and its contribution to both the Bankstown Line and the surrounding suburbs. Appropriate heritage interpretation would be incorporated in the design and would provide legible connection between stations.	Section 6.2.5	A HIS has been prepared for Sydney Metro City & Southwest by Metro (October 2020). A separate strategy therefore is not required for SMC. Individual Heritage Interpretation Plans have been prepared for the station precincts by Artefact Heritage as part of the SWM detailed design. Additional Heritage Interpretation plans are therefore not required for SMC. This requirement has been deemed "not applicable" as per the Staging Report
NAH7	A moveable heritage item strategy would be prepared by an appropriately qualified and experienced heritage specialist in consultation with Sydney Trains, and would include a comprehensive record of significant railway elements to be impacted. This would include items contained within station and platform buildings as well as of any other significant equipment within the curtilage of the heritage railway stations. The moveable heritage item strategy would form part of the broader interpretation strategy.	n/a	A moveable heritage item strategy has been prepared for SWM by Artefact Heritage (June 2020) as part of the detailed design. The SMC would not directly impact moveable heritage items as all works undertaken within the station curtilages would typically be within the rail corridor and would primarily consist of rail infrastructure modifications, such as overhead wiring structures. This requirement has been deemed "not applicable" as per the Staging Report
NAH8	Where significant buildings are to be re-purposed or refreshed: <ul style="list-style-type: none"> the inherent character of the building should be retained with new additions, including form, palette and materiality, sympathetic to its heritage values a suitably qualified and experienced heritage architect should advise on appropriate materials and finishes which would be sympathetic to the heritage values of each individual station the internal layout of the building should be retained where possible, and rooms should not be subdivided unless it can be completed without adverse impact and/or is reversible without any long term adverse impact a significant element register should be prepared by a suitably qualified and experienced heritage architect. The register should list significant fabric, assess its condition, tolerance for change and recommend retention or salvage where fabric of high significance is to be removed, adequate assessment should be carried out that outlines impact and justification in accordance with the Statements of Heritage Impact guidelines (NSW Heritage Council 2002) 	n/a	The SMC would not directly impact the station buildings and would not involve re-purposing or refreshing significant buildings. Direct impacts to significant fabric would be limited to minor penetrations to platforms, retaining wall and abutment walls, but would not impact the inherent character of these structures or require them to be refreshed. This requirement has been deemed "not applicable" as per the Staging Report

Condition	Requirement	Reference	How addressed?
NAH9	The design and materials used for the construction of new access stairs, concourses, canopies and lift shafts should be as sympathetic as possible to the existing character of the stations with the aim of minimising visual impacts. The design should use unobtrusive, modern, lightweight materials such as glass panelling and slim frame elements. The Design Review Panel should be consulted in regard to the design, form and material of these additions.	n/a	The SMC would not involve the construction of new access stairs, concourses, canopies or lift shafts. This requirement has been deemed “not applicable” as per the Staging Report
NAH10	Where platforms are re-levelled, door thresholds and steps should be accessible without raising or relocation of entries. Sub-floor ventilation should remain open to avoid long term impacts to the structures.	n/a	The SMC would not involve re-levelling the station platforms. This requirement has been deemed “not applicable” as per the Staging Report
NAH11	A landscape scheme would be prepared for the Old Sugarmill to re-instate planting within and close to the curtilage of the item. The scheme would consider appropriate period plants and trees. Any boundary wall treatment would be designed in consultation with a heritage architect.	Section 6.2.3 Section 6.2.8	Planting along the eastern boundary of the Canterbury Bowls Club (adjacent to the Sugarmill site) should be reinstated if trees are impacted for the site compound in accordance with NAH11. The Principal Contractor would prepare and implement the Landscape Scheme should it be triggered by their activities in accordance with NAH11 and the Policy 13 of the Conservation Management Plan (CMP) for Old Sugarmill. Works undertaken near the Old Sugarmill would be inspected by the Environmental Manager to ensure that vehicular movement in the area does not cause deterioration to the northern retaining wall. If evidence of deterioration is observed, advice on management and treatment should be sought from the conservation architect. Any boundary wall treatment would be designed in consultation with a conservation architect.
NAH12	The archaeological research design, including any mitigation measures identified in the Archaeological Assessment and Research Design report, would be implemented.	Section 6.3.3	An AMS has been prepared for the SMC which outlines appropriate archaeological management in accordance with the AARD
NAH13	Photographic 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).	Section 6.2.4	Because the SMC works would be undertaken within the curtilage of several heritage items, archival recording required for the project area would include: <ul style="list-style-type: none"> • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line

Condition	Requirement	Reference	How addressed?
			<ul style="list-style-type: none"> Old Sugarmill <p>Archival recording will be undertaken to a level of detail that reflects JHLOR's scope of works. Archival recording would be limited to areas of the heritage items where direct or visual impacts would be minor or greater than minor, or where the works would impact items listed on the SHR. Due to the negligible visual impact to Old Sugarmill, archival recording of the heritage item would be limited to external views and vistas. Archival recording of the stations has been completed as part of SWM and would not be required for SMC. .</p>
NAH14	An unexpected finds procedure would be developed and included in the construction heritage management plan.	Section 6.1.2 Section 6.1.3 Section 6.3.5 Section 6.3.7 Appendix E	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project
NAH15	Methodologies for the removal of existing structures and construction of new structures would be developed and implemented during construction to minimise direct and indirect impacts to other elements within the curtilages of the heritage items, or to heritage items located in the vicinity of works.	n/a	The SMC would not involve the removal or construction of new station buildings. The minor removal and construction of structures within heritage curtilages would be limited to the removal of non-significant redundant ARTC infrastructure and services, and the installation of new overhead wiring structures, GST/GLT and fencing. Mitigation measures for minimising impacts associated with these works have been outlined in the HIA prepared for SMC and would be implemented during construction.
NAH16	All retained heritage buildings, structures, fabric and moveable heritage items would be protected to avoid damage during works in the vicinity of these items, including from vibration. Retained significant buildings or elements susceptible to damage would be protected by hoardings or screens.	Section 6.2.7 Section 8	<p>SMC would involve works in the vicinity of heritage items and could involve vibration impacts, though it is unlikely. Physical exclusion zones would be put in place where works are within 5 m of a listed heritage item or within a curtilage if significant fabric is within 5 m of works. This may apply to</p> <ul style="list-style-type: none"> Marrickville Railway Station Group Dulwich Hill Railway Station Group Hurlstone Railway Station Group Canterbury Railway Station Group Wiley Park Railway Station Group Campsie Railway Station Group

Condition	Requirement	Reference	How addressed?
			<ul style="list-style-type: none"> • South Dulwich Hill Heritage Conservation Area • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • Inter-War Hotel (former Hotel Canterbury) • Electricity substation no. 275 <p>Vibration monitoring will be undertaken in accordance with Section 8 of the Construction Noise and Vibration Management Sub-plan. Vibration monitoring would be undertaken for works involving the use of vibration intensive plant in close proximity to significant heritage fabric, such as the removal of redundant ARTC infrastructure adjacent to platforms at the following stations:</p> <ul style="list-style-type: none"> • Marrickville Railway Station Group • Dulwich Hill Railway Station Group • Hurlstone Railway Station Group • Canterbury Railway Station Group • Campsie Railway Station Group
NAH17	Prior to construction commencing, a detailed inventory of all buildings, structures, fabric, spaces and vistas of heritage significance that are to be retained or removed would be prepared by appropriately qualified and experienced heritage specialists. The inventory must provide an assessment of the heritage impact based on the significance of each element and sub- element that comprises it and include recommendations for protection and conservation relative to the identified level of heritage significance.	Section 6.2.9 Appendix D	<p>A significant fabric inventory has been prepared by Metron during the design phase for the station curtilages and detailed impact assessments have also been prepared for the stations.</p> <p>An additional inventory and HIA has been completed for SMC. The HIA and inventory, which outlines potential impacts and protection measures for significant fabric, spaces and vistas, has been prepared for the following items:</p> <ul style="list-style-type: none"> • Marrickville Railway Station Group • Dulwich Hill Railway Station Group • Hurlstone Park Railway Station Group • Canterbury Railway Station Group • Campsie Railway Station Group • Belmore Railway Station Group • Lakemba Railway Station Group • Wiley Park Railway Station Group • Punchbowl Railway Station Group

Condition	Requirement	Reference	How addressed?
			<ul style="list-style-type: none"> • Stone house, including interiors • Sewage Pumping Station 271 • Old Sugarmill • Inter-War Hotel (former Hotel Canterbury) • Federation Post Office Building (former Canterbury Post Office) • Electricity substation no. 275 • Federation House (former station master's cottage) • Post-war bus shelter and public lavatories • Lakemba Water Pumping Station (WP0003) • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • South Dulwich Hill Heritage Conservation Area <p>The HIA includes assessments of impacts to elements and significant fabric and has been provided for review to Sydney Metro.</p> <p>It is noted that only the exteriors of the items ;Sewage Pumping Station 271', 'Stone house, including interiors', 'Old Sugarmill', 'Inter-War Hotel (former Hotel Canterbury)', 'Federation Post Office Building (former Canterbury Post Office)', 'Electricity substation no. 275', 'Federation House (former master's cottage)', 'Post-war bus shelter and public lavatories' and 'Lakemba Water Pumping Station (WP0003)' have been included as these items are located outside of SMC and there are no impacts to the interiors associated with the works.</p>
NAH18	In the event that unexpected archaeological remains, relics, or potential heritage items are discovered during construction, all works in the immediate area would cease, and the unexpected finds procedure would be implemented.	Section 6.1.3 Section 6.3.5 Appendix E	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project
NAH19	In the event that a potential burial site or potential human skeletal material is exposed during construction, the Transport for NSW Exhumation Management Plan would be implemented.	Section 6.1.2 Section 6.3.7	Sydney Metro Exhumation Management Plan has been completed by Sydney Metro and outside the management of this CHMP. Sydney Metro Exhumation Plan would be implemented where required

Condition	Requirement	Reference	How addressed?
NAH20	All works to conserve, protect or remove significant heritage fabric would be undertaken by skilled tradespeople with experience working on heritage sites, in consultation with an appropriately qualified conservation heritage architect.	Section 6.2.3	Advice would be sought from a conservation architect on work methodologies where direct impacts to significant fabric of Canterbury Railway Station Group, Wiley Park Railway Station Group, Cooks River underbridges, Hurlstone Park Railway Underbridge and South Dulwich Hill Heritage Conservation Area are proposed. This measure would not apply to other items as significant fabric would not be directly impacted
AH1	Aboriginal stakeholder consultation would continue to be undertaken in accordance with <i>Aboriginal Cultural Heritage Consultation Requirements for Proponents</i> (DECC, 2010).	Section 2.6 Appendix B	Consultation with Registered Aboriginal Parties (RAPs) was undertaken during concept design as part of the Sydney Metro Sydenham to Bankstown Environmental Impact Statement (EIS) and also during preparation of the ACHAR. The SMC area is outside of the two identified areas of potential archaeological deposits (PAD) in the ACHAR. As a result, no further RAP consultation is required for this CHMP. RAPs would be involved if Aboriginal objects were identified during excavations
AH2	The Aboriginal Cultural Heritage Assessment Report would be implemented.	Section 6.1.1	As no areas requiring management in the ACHAR are located within the SMC area Aboriginal archaeology would be managed under the Unexpected Heritage Find Procedure
AH3	Archaeological test excavation (and salvage if required) would be carried out at S2B PAD02 at Punchbowl Station. Excavations would be conducted in accordance with the methodology outlined by the Aboriginal cultural heritage assessment report.	Section 6.1.1	S2B PAD02 is not within the SMC area therefore this measure is not relevant to the current scope of works. If JHLOR's scope changes, the relevance of this REMM will be reassessed, and this Plan updated as necessary. Any updates to this plan will be assessed by the ER in accordance with CoA A26. This requirement has been deemed "not applicable" as per the Staging Report
AH4	Appropriate Aboriginal heritage interpretation would be incorporated into the design in consultation with Aboriginal stakeholders.	Section 6.2.5	The HIS and Heritage Interpretations Plans that have been prepared for SWM as part of the detailed design have incorporated appropriate Aboriginal heritage interpretation. Therefore, further Aboriginal heritage interpretation is not needed for the scope of SMC This requirement has been deemed "not applicable" as per the Staging Report
AH5	If potential Aboriginal items are uncovered during the works, all works in the immediate area would cease, and the unexpected finds procedure included in the construction heritage management plan would be implemented.	Section 6.1.3	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project

Condition	Requirement	Reference	How addressed?
	During pre-work briefings, employees would be made aware of the unexpected finds procedures and obligations under the <i>National Parks and Wildlife Act 1974</i> .		
Construction Environmental Management Framework			
10.1(a)	<p>The following heritage management objectives will apply to construction:</p> <ul style="list-style-type: none"> • Embed significant heritage values through any architectural design, education or physical interpretation. • Minimise impacts on items or places of heritage value. • Avoid accidental impacts on heritage items. • Maximise worker's awareness of indigenous and non-indigenous heritage 	<p>Section 6.1.2 Section 6.1.3 Section 6.2.2 Section 6.2.3 Section 6.2.5 Section 6.2.6 Section 6.2.7 Section 6.2.8 Section 6.2.9 Section 6.3.2 Section 6.3.3 Section 6.3.5 Section 6.3.7 Appendix D</p>	<p>Heritage Interpretation would not be required for the SMC and would be undertaken during main works.</p> <p>Impacts would be minimised and accidental impacts avoided by:</p> <ul style="list-style-type: none"> • Exclusion zones • Preparation of a HIA and heritage inventory with protection measures recommended • Use of a conservation architect/heritage engineer for station and bridge works where required • Unexpected Heritage Finds Procedure • Archaeological management under the AARD and AMS <p>Heritage awareness training would be provided to all site workers. This obligation has been retained by JHLOR</p>
10.2(a)	Principal Contractors will develop and implement a Heritage Management Plan which will include as a minimum:		
(i)	Evidence of consultation with Registered Aboriginal Parties and the NSW Heritage Council	<p>Section 2.6 Appendix A Appendix B</p>	<p>RAP consultation not required under the scope of works</p> <p>The key stakeholders related to Heritage who will be consulted in finalisation of this CHMP are</p> <ul style="list-style-type: none"> • Heritage Council (or delegate) • City of Canterbury Bankstown Council • Inner West Council
(ii)	Identify initiatives that will be implemented for the enhancement of heritage values and minimisation of heritage impacts, including procedures and processes that will be used to implement and document heritage management initiatives	<p>Table 6-1 Table 6-2</p>	<p>Tables 6-1, 6-2 and 6-3 included detailed measures to manage heritage impacts and enhance heritage values within the scope of the SMC</p>

Condition	Requirement	Reference	How addressed?
		Table 6-3	
(iii)	The heritage mitigation measures as detailed in the environmental approval documentation	Section 6	This compliance matrix details how conditions will be addressed
(iv)	The responsibilities of key project personnel with respect to the implementation of the plan	Section 7	Table 7-1 outlines roles and responsibilities
(v)	Procedures for interpretation of heritage values uncovered through salvage or excavation during detailed design	Section 6.2.5	A HIS has been prepared for SWM and individual Heritage Interpretation Plans have been prepared for each station precinct by Artefact Heritage as part of detailed design. Additional Heritage Interpretation Plans would therefore not be required for the scope of SMC.
(vi)	Procedures for undertaking salvage or excavation of heritage relics or sites (where relevant), consistent with and any recordings of heritage relics prior to works commencing that would affect them	Section 6.3.3	An AMS has been prepared for the SMC and outlines appropriate archaeological management in accordance with the AARD. Archaeological management would include: <ul style="list-style-type: none"> Archaeological monitoring during excavations in Zone 2 areas at Marrickville, Canterbury, Belmore and Lakemba Railway Stations Archaeological test and salvage excavations in Zone 1 areas at the Canterbury Construction Site
(vii)	Details for the short term and/or long term management of artefacts or movable heritage	Section 6.3.3	An AMS has been prepared for the SMC which outlines appropriate archaeological management including management of artefacts in accordance with the AARD. No moveable heritage would be impacted by the SMC scope.
(viii)	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 6.1.2 Section 6.1.3 Section 6.2.3 Section 6.2.6 Section 6.2.7 Section 6.2.8 Section 6.2.9 Section 6.3.3 Section 6.3.5 Section 6.3.7	Although impacts to heritage values would be minor as a result of SMC the following measures have been put in place to minimise adverse impacts: <ul style="list-style-type: none"> Exclusion zones Preparation of a HIA and heritage inventory with protection measures recommended Use of a conservation architect/heritage engineer for station and bridge works where required Unexpected Heritage Finds Procedure Archaeological management under the AARD and AMS

Condition	Requirement	Reference	How addressed?
		Appendix D	
(ix)	Procedures for unexpected heritage finds, including procedures for dealing with human remains	Section 6.1.2 Section 6.1.3 Section 6.3.5 Section 6.3.7	The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project. Sydney Metro Exhumation Management Plan has been completed by Sydney Metro and outside the management of this CHMP. Sydney Metro Exhumation Plan would be implemented where required.
(x)	Heritage monitoring requirements	Section 6.3.3 Section 8	Monitoring of works within archaeological management zones will occur in accordance with the requirements of the relevant AMS and the instruction of the Excavation Director. JHLOR site monitoring, auditing and reporting will be undertaken in accordance with the CEMP
(xi)	Compliance record generation and management	Section 8 CEMP Section 15	Compliance record generation and management will be undertaken in accordance with the CEMP
10.2(b)	The Contractor's regular inspection will include checking of heritage mitigation measures	Section 8 CEMP Section 15	JHLOR will undertake weekly inspections using the site monitoring and inspection software FieldView (Environmental Inspection Report).
10.2(c)	Compliance records will be retained by the Contractor. These will include:		
(i)	Inspections undertaken in relation to heritage management measures	Section 8 CEMP Section 15	JHLOR will undertake weekly inspections using the site monitoring and inspection software FieldView. JHLOR will also undertake inspections in line with the <i>Severe Environmental Risk (SER) – Heritage</i> inspection review on a regular basis. The Heritage SER is a focused inspection on high risk activities that may impact on heritage and/or archaeology. All inspections will be stored on the SMC Project Drive.
(ii)	Archival recordings undertaken of any heritage item	Section 6.2.4	An archival record would be prepared for <ul style="list-style-type: none"> • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • Old Sugarmill

Condition	Requirement	Reference	How addressed?
			<p>Archival recording would be limited to areas of the heritage items where direct or visual impacts would be minor, or where the works would impact items listed on the SHR. Due to the negligible visual impact to Old Sugarmill, archival recording of the heritage item would be limited to external views and vistas. Where an archival recording has been previously prepared for a heritage item an additional archival recording may not be required as part of SMC.</p> <p>Archival recording of the stations has been completed as part of SWM and would not be required for SMC.</p>
(iii)	Unexpected finds and stop work orders	Section 6.1.2 Section 6.1.3 Section 6.3.5 Section 6.3.7	<p>The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project.</p> <p>Sydney Metro Exhumation Management Plan has been completed by Sydney Metro and outside the management of this CHMP. Sydney Metro Exhumation Plan would be implemented where required.</p>
(iv)	Records of any impacts avoided or minimised through design or construction methods	Section 8	<p>JHLOR will document and keep records of impact avoidance or minimisation during design and construction through:</p> <ul style="list-style-type: none"> • Design Reports (Refer to relevant package) • Site Inspections (Environmental Inspection Report) • Meeting minutes (as required) • Memos and emails (as required)
10.3(a)	Examples of heritage mitigation measures include:		
(i)	Any heritage item not affected by the works will be retained and protected throughout construction.	Section 6.1.2 Section 6.1.3 Section 6.2.3 Section 6.2.6 Section 6.2.7 Section 6.2.8 Section 6.2.9 Section 6.3.2 Section 6.3.3 Section 6.3.5	<p>Although impacts to heritage values would be minor as a result of SMC the following measures have been put in place to minimise adverse impacts:</p> <ul style="list-style-type: none"> • Exclusion zones • HIA and heritage inventory with protection measures recommended • Use of a conservation architect/heritage engineer for station and bridge works where required • Unexpected Heritage Finds Procedure • Archaeological management under the AARD and AMS

Condition	Requirement	Reference	How addressed?
		Section 6.3.7 Appendix D	
(ii)	During construction undertake professional archaeological investigation, excavation, and reporting of any historical Indigenous heritage sites of state significance which will be affected. Reporting may be completed as construction progresses	Section 6.3.3	An AMS has been prepared for the SMC which outlines appropriate archaeological management in accordance with the AARD.
(iii)	Undertake archival recordings of all non-Indigenous heritage items affected by the works prior to commencement of works	Section 6.2.4	<p>An archival record would be prepared for:</p> <ul style="list-style-type: none"> • Hurlstone Park Railway Underbridge • Canterbury (Cooks River) Underbridge • Canterbury (Cooks River/Charles St) Underbridge – Main Line • Old Sugarmill <p>Archival recording would be limited to areas of the heritage items where direct or visual impacts would be minor or greater than minor, or where the works would impact items on the SHR. Due to the negligible visual impact to Old Sugarmill, archival recording of the heritage item would be limited to external views and vistas. Where an archival recording has been previously prepared for a heritage item an additional archival recording may not be required as part of SMC.</p> <p>Archival recording of the stations has been completed as part of SWM and would not be required for SMC.</p>
(iv)	Implement unexpected heritage find procedures for Indigenous and non-Indigenous heritage items.	Section 6.1.2 Section 6.1.3 Section 6.3.5 Section 6.3.7	<p>The Sydney Metro Unexpected Heritage Finds Procedure would be implemented for the project.</p> <p>The Sydney Metro Exhumation Management Plan has been completed by Sydney Metro and is outside the management of this CHMP. Sydney Metro Exhumation Plan would be implemented where required.</p>
Table 17.4	<ul style="list-style-type: none"> • The design is sympathetic to the historic significance of existing stations, and where practicable, avoids and minimises impacts to heritage. • The preferred project retains, and where possible, repurposes all heritage elements. 	Section 3 Table 1-1 Table 6-1 Table 6-2 Table 6-3	<p>Works would be undertaken within station curtilages; however, they would consist of the removal and installation of minor infrastructure such as overhead wiring, segregation and safety fencing, and GST and utilities</p> <p>Design Review Panel review is not required for SMC</p>

Condition	Requirement	Reference	How addressed?
	<ul style="list-style-type: none">The design and mitigation strategies are reviewed by the Sydney Metro Design Review Panel.Impacts on heritage are managed in accordance with relevant legislation, including the EP&A Act, the <i>Heritage Act 1977</i>, and relevant guidelines.Potential impacts are managed by the mitigation measures.		<p>Heritage management would be outlined under the legislation and guidelines as discussed in the CHMP (Section 3). Works would adhere to the CSSI CoA and REMMs (Table 1-1)</p> <p>Mitigation measures are outlined in Tables 6-1, 6-2 and 6-3</p>

2. Introduction

2.1 Purpose and Background

This CHMP forms part of the CEMP for SMC (the Project). This CHMP does not address the main construction works for Southwest Metro (SWM) which will be managed under separate plans.

This CHMP has been prepared to address the management and mitigation of potential impacts of the Project, to manage heritage issues and minimise risk of impact during the first stage of development under the CoA and REMMs.

It describes how JHLOR and its sub-contractors will ensure all risks associated with heritage management are considered and managed effectively during the corridor works as described in Section 2 of this plan. It has been prepared to support, and should be read in conjunction with, the Sydney Metro CEMP as well as a number of Sydney Metro prepared heritage related plans and procedures.

This CHMP addresses the relevant requirements of the Project Approval (EIS, Submissions Report and Minister's CoA) and all applicable guidelines and standards specific to heritage management during the Project early works.

2.2 Planning Approval

The works are to be delivered through Part 5 Division 5.2 of the EP&A Act in accordance with the CSSI Sydney Metro City & Southwest Sydneyham to Bankstown CoA (SSI 8256-Mod 1). The approval process includes specific planning conditions and commitments that must be addressed in this CEMP Sub-plan and delivered during the project.

A CoA Compliance Tracking Matrix will be established upon commencement to ensure the approval conditions are captured, addressed and closed out. The Matrix includes all conditions relevant to JHLOR's scope of work and will be updated as the works progress and reviewed on a quarterly basis to verify compliance with each condition.

2.3 Project Location and Works

Sydney Metro City & Southwest is a new 30km metro line extending metro rail from the end of Sydney Metro Northwest at Chatswood under Sydney Harbour, through new CBD stations and southwest to Bankstown. It is due to open in 2024 with the capacity to run a metro train every two minutes each way through the centre of Sydney. The Sydney Metro City & Southwest comprises of two components:

- Chatswood to Sydenham project
- Sydenham to Bankstown upgrade, now known as Southwest Metro (SWM)

SMC will include work activities within the rail corridor for the greater Sydney Metro Sydenham to Bankstown upgrade. The SMC project site is located on the T3 Bankstown line between Sydenham and Bankstown, NSW.

Works will occur predominately within the rail corridor. SMC is expected to be finished in late 2022.

The works will be undertaken by a John Holland Group Pty Limited (John Holland) and Laing O'Rourke Construction Pty Limited (Laing O'Rourke) joint venture referred to as JHLOR. Laing O'Rourke has been nominated as Principal Contractor and as such the works will occur under Laing O'Rourke's Management Systems.

2.3.1 [Permanent Works](#)¹

The works include all permanent new infrastructure and modifications to existing infrastructure, as part of the construction of Sydney to Bankstown station upgrade works. The SMC works are consistent with the scope approved under SSI 8256. The permanent new infrastructure and modifications to existing infrastructure to be constructed includes:

- Installation and commissioning of Combined Service Route (GST, GLT, pit & pipe)
- Signalling, communications and HV diversions
- Rail embankment stabilisation including retaining walls
- Installation of drainage
- Installation of security and segregation fencing
- Civil enabling works for traction substations
- Vegetation clearing
- Access road upgrades/establishment
- Hi-rail access pads
- Utility diversions
- Bridge remedial works, including installation of crash barriers and throw screens
- Modifications to the existing rail track
- Overhead wire works
- Demolition of redundant infrastructure
- Relocation of Sydney Trains cables
- Establishment of the Canterbury Construction Site including demolition of the existing Greens Bowling Club building, excavations for earthworks and service installations, installation of a drainage pit and power pole, and the removal of trees. These works will require excavations within the Canterbury Archaeological Management Zone.

2.3.2 [Temporary Works](#)

The SMC works include:

- Temporary arrangements to divert and control pedestrians, public transport users, cyclists, public transport and traffic and to provide public access, amenity, security and safety during all stages of design and construction of the Works
- Temporary arrangements for people and vehicles to safely access all property, including publicly accessible space affected by the Contractor's Activities
- Temporary arrangements for people and vehicles to safely access the Site
- Temporary access stairs, walkways and platforms within the Site

¹ JHLOR Construction Team – refer to drawing packages;

DPK 156 CSR METRO 3

DPK 455 HV SYDNEY TRAINS

DPK 902 CORRIDOR CIVIL

DPK 904 EMBANKMENT STABILISATION

DPK 932 NOISE WALL AND FENCING

- Temporary construction hoardings, fencing, noise walls, access gates, barriers and signage on and around the Site
- All environmental safeguards and measures necessary to mitigate environmental effects which may arise during the design and construction of the Works
- Cleaning, maintenance, repair, replacement and reinstatement, as required, of all areas occupied by the Contractor during design and construction of the Works
- Temporary site facilities required for design and construction of the Works
- Temporary infrastructure, safety screens and ground support installed or erected to undertake design and construction of the Works
- Temporary arrangements for Utility Services including water, electricity, stormwater, sewerage, gas and electronic communications
- Temporary power for stations
- Temporary works and measures required as a consequence of requirements arising from the stakeholder and community liaison process
- All other temporary works and measures required for the construction of the Works
- Investigation works.

2.3.3 [Summary of impacts to heritage items](#)

Impacts to listed heritage items and potential archaeological resources are expected to be negligible to moderate as a result of the SMC. Most works would occur outside the curtilages of listed heritage items, or outside areas with identified potential for significant archaeological resources. Where works would be located within the curtilages of the listed railway stations the works would be minor in nature and consist of the removal of redundant infrastructure such as overhead wiring or the installation of similar overhead wiring infrastructure, installation of safety and segregation fencing, and the installation and removal of GST and utilities as part of the Sydney Trains Relocations. There are no identified Aboriginal sites or areas of Aboriginal archaeological potential within the SMC project area. A summary of expected impacts is listed below.

- Moderate to negligible impacts to identified areas of potential for state and locally significant archaeology around Marrickville, Canterbury, Belmore and Lakemba railways stations (within and outside listed station curtilages) and the Canterbury Construction Site
- Negligible impacts to the fabric of the state significant Canterbury railway station and locally listed Wiley Park railway stations as a result of excavations within platforms, movement of plant on the platforms, temporary removal of fence panels, and penetrations to platforms, retaining walls, and overbridge abutment walls for the removal of existing utilities and cable ladders and installation of new utilities, cable ladders and GST as part of the Sydney Train Relocations
- Neutral direct impacts to Marrickville Station, Dulwich Hill Station, Hurlstone Park Station, Campsie Station, Belmore Station, Lakemba Station and Punchbowl Station as a result of the corridor works
- Negligible to moderate visual impacts to the nine railway stations along the alignment as a result of SMC, particularly as a result of the installation of new GST within sight of the stations
- Potential negligible vibration impacts to the fabric of two state significant railway stations (Marrickville and Canterbury Stations) and three locally listed railway stations (Dulwich Hill, Hurlstone Park and Campsie Stations) as a result of the removal of ARTC redundant infrastructure and the installation of new overhead wiring infrastructure in proximity to

significant elements within the listed heritage curtilages. There would be no removal or modification of significant elements of the heritage listed stations however

- Minor impacts to the fabric of three locally significant rail/road bridges as a result of the installation of segregation and safety fencing along and adjacent to the bridges
- Negligible impacts to one heritage conservation area as a result of works within the curtilage, including the installation of segregation and safety fencing, the installation of GST and CSR, and bridge remedial works such as the installation of throw screens at the Albermarle Street rail bridge
- Negligible visual impacts to 13 listed items that are located within, or in the vicinity of the SMC as a result of the installation of items such as overhead wiring infrastructure, GST and CSR, and a retaining wall adjacent to Canterbury (Cooks River) Underbridge, and Canterbury (Cooks River/Charles St) Underbridge.
- Possible impacts to unexpected Aboriginal and non-Aboriginal archaeology.

The levels of impacts to the railway stations are informed by HIA prepared by Artefact Heritage (2020) for the Stage 2 and Stage 3 detailed design for SWM. The impacts to the listed heritage items resulting from SMC have been assessed in a HIA prepared in accordance with REMM NAH17 (see Section 6.2.9).

The location of the heritage items within and adjacent to SMC are illustrated in Figure 4-1 to Figure 4-14. The location of the areas of archaeological potential within SMC are illustrated in Figure 4-15 to Figure 4-18.

2.3.4 [Associated documents](#)

This Plan will provide continuity between a range of documents and specific requirements to ensure that the SMC (Southwest Metro Corridor) Project is carried out generally in accordance with:

- The Sydney Metro City & Southwest – Sydenham to Bankstown – State Significant Infrastructure Assessment (SSI 8256), dated 12th December 2018
- The Sydney Metro City & Southwest – Sydenham to Bankstown - Environmental Impact Statement, dated 7th September 2017
- The Sydney Metro City & Southwest – Sydenham to Bankstown – Submissions and Preferred Infrastructure Report June 2018
- The Sydney Metro City & Southwest – Sydenham to Bankstown – Instrument of Approval, dated 12th December 2018
- Sydney Metro City & Southwest – Sydenham to Bankstown Staging Report
- The Sydney Metro Construction Environmental Management Framework v3.2
- Sydney Metro Unexpected Heritage Finds Procedure 2019
- Sydney Metro Exhumation Management Plan 2019
- The Sydney Metro City & Southwest – Sydenham to Bankstown – Mod 1 – Bankstown Station – State Significant Infrastructure Assessment (SSI 8256-Mod 1), dated 22nd October 2020
- The SMC Design and Construction Deed, Scope of Works and Technical Criteria – B06 Heritage 2020
- Department's Guideline for the Preparation of Environmental Management Plans. Appendix A1

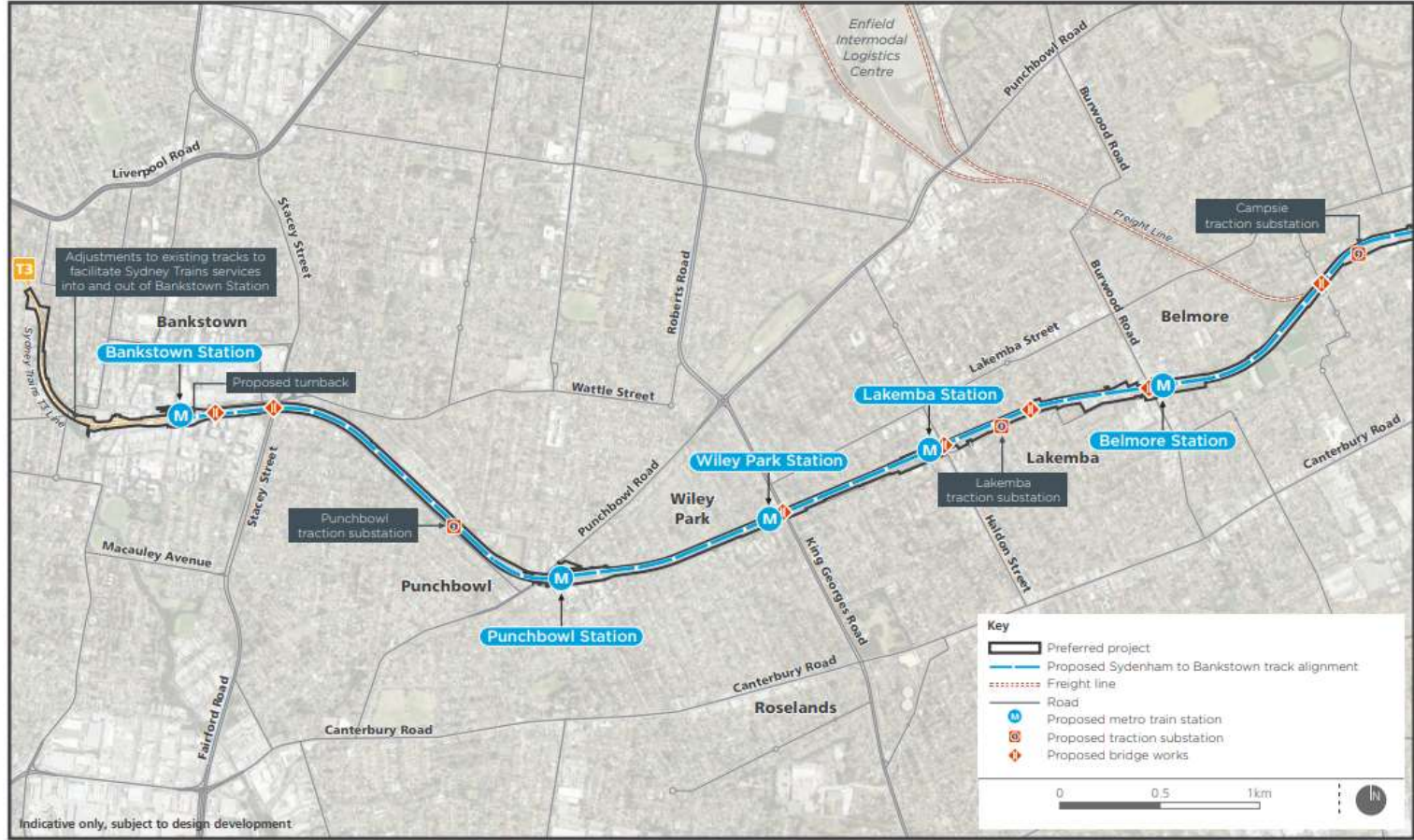
- The conditions of all other environmental legislative requirements
- Other relevant heritage documents such as Conservation Management Plans
- All other requirements of The Contract.

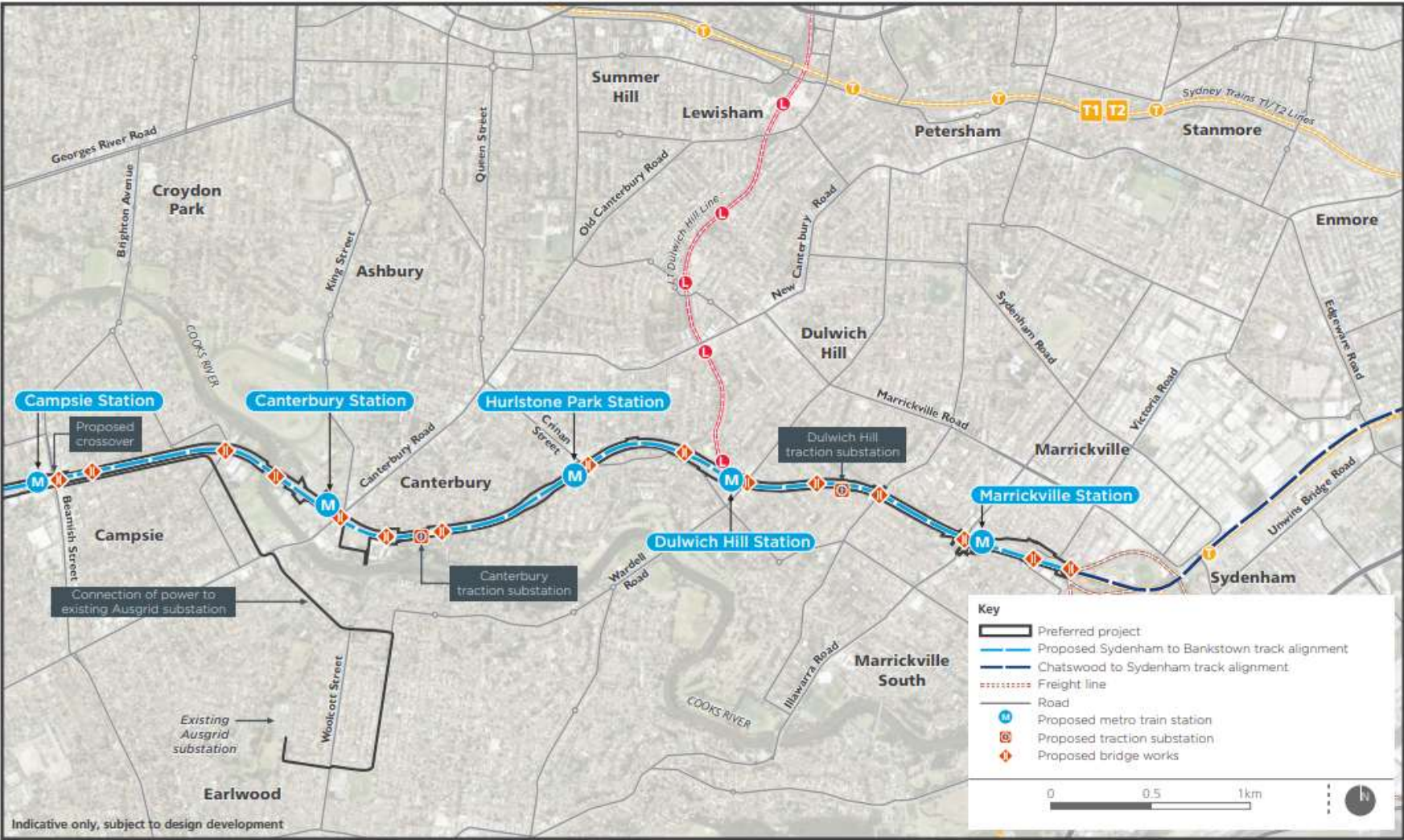
2.4 Mitigation, Objectives and Targets

This CHMP provides the basis for the management of heritage issues and to minimise risk of impact during the course of the development, and mitigation of any impact that cannot be avoided. This includes the management of unexpected heritage finds and unexpected impacts to heritage. Mitigation and management measures are outlined in Tables 6-1, 6-2 and 6-3. The objectives and targets of heritage management and mitigation are outlined below:

- Minimise impacts to heritage buildings, structures, fabric, spaces and vistas
- Avoid accidental impacts on heritage items
- Maximise worker's awareness of indigenous and non-indigenous heritage
- Compliance with the objectives of Schedule C1 Appendix B6 of the project deed (as related to SMC works)
- No disturbance or damage to known heritage sites or items, beyond that approved by SSI Approval
- Unknown or undocumented heritage items are not knowingly destroyed, defaced or damaged.
- Consult with all relevant stakeholders prior to impacts in areas which have been assessed to possess archaeological potential, and/or upon the discovery of unexpected Non-Aboriginal and Aboriginal objects or cultural features.
- Any historical relics found on site shall be kept safe for consideration for incorporation into interpretation within the public domain—within the proposed site fixtures as may be supported by the Interpretation Strategy and Plan.
- No harm, destruction or defacement of human remains, including Aboriginal burials, will occur.

Figure 2-1 Site layout (source: Sydney Metro City & Southwest - Sydenham to Bankstown - Submissions and Preferred Infrastructure Report, 2018)





2.5 Project Specific Environmental Management System

The Project CEMP is the primary Environmental Management System (EMS) document for the delivery of the proposed works. This CHMP is one of the suites of aspect-specific support plans that have been prepared to support the CEMP. Refer to Section 3 of the CEMP for further details.

2.6 Consultation

The Minister's CoA C3 requires that the CHMP be prepared for the Project in consultation with the relevant Council and the Heritage NSW, DPC as delegate for the NSW Heritage Council.

The key stakeholders related to Heritage who will be consulted in finalisation of this CHMP include:

- Heritage Council (or delegate)
- City of Canterbury Bankstown Council
- Inner West Council

A summary of consultation is provided below and in Appendix B.

CoA CSSI_8256	Agency Consultation	Requirements and date submitted	Key issues raised	CHMP Section Reference
C6 C3(d)	Department of Planning, Industry and Environment	Submitted for approval		N/A
	Heritage Council (Heritage NSW, DPC as delegate)	Submitted for consultation 25/11/2020	Response received 21/12/2020 noting additional heritage items near the project area ('Sewage Pumping Station 271' and 'Lakemba Water Pumping Station (WP0003)'). Otherwise stated that the plan is acceptable	Appendix A
	City of Canterbury Bankstown	Submitted for consultation 30/11/2020	Response received 1/12/2020 with comment regarding the unexpected finds of Aboriginal cultural material	Appendix A
	Inner West Council	Submitted for consultation 3/12/2020	Response received 7/12/2020 with comment regarding responsibilities of the Conservation Architect	Appendix A

REMM AH1 requires that Aboriginal stakeholder consultation be undertaken. Consultation with RAPs was undertaken during concept design as part of the Sydney Metro Sydenham to Bankstown EIS and also during preparation of the ACHAR. The SMC area is outside of the two identified areas of PAD in the ACHAR (see Section 4.1). As a result, no further RAP consultation is required under the CoA or REMMs in preparation of this SMC CHMP.

RAPs would be involved if Aboriginal objects were identified during excavations.

3. Legal and Other Requirements

Table 2.1 below details the legislation and planning instruments considered during development of this Plan.

Table 3-1 Legislation and Planning Instruments

Legislation	Description	Relevance to this CHMP
EP&A Act	This Act establishes a system of environmental planning and assessment of development proposals for the State.	The approval conditions and obligations are incorporated into this CHMP.
<i>Environment Protection and Biodiversity Conservation Act 1999 (Cwth)</i>	<p>The main purpose of this Act is to provide for the protection of the environment especially those aspects that are of national environmental importance and to promote ecological sustainable development.</p> <p>Heritage places are listed on the National Heritage List (NHL) for their 'outstanding heritage value to the nation' and are owned by a variety of constituents, including government agencies, organisations or individuals. Only items owned or controlled by the Commonwealth that meet the threshold for national heritage listing under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) are listed on the Commonwealth Heritage List (CHL) and/or the World Heritage List (WHL) and afforded protection under the EPBC Act.</p>	Not relevant as no NHL, CHL or WHL items
<i>National Parks and Wildlife Act 1974 (NP&W Act)</i>	The relevance of this Act is firstly in respect to the protection and preservation of aboriginal artefacts. Discovery of material on site suspected as being of aboriginal origin must be reported and protected pending assessment and direction by the Client's Representative.	No Aboriginal sites or areas of archaeological potential have been identified within the project site. An Aboriginal heritage impact permit under section 90 of the NP&W Act is not required for works approved under Part 5.1 of the EP&A Act.
<i>Heritage Act 1977 (Heritage Act)</i>	<p>This Act provides for the preservation and conservation of heritage items such as building, works, relic, places of historic interest, scientific, cultural, social, archaeological, architectural, natural or aesthetic significance.</p> <p>It is an offence under this Act to wilfully and knowingly damage or destroy items of heritage value.</p> <p>Do not demolish, damage, move or develop around any place, building, work, relic, moveable object, precinct, or land that is the subject of an interim heritage order or listing on the State Heritage Register (SHR) or heritage listing in a Local Environmental Plan without an approval from the Heritage Council (NSW) or local council.</p>	Heritage Items are identified on the project site and addressed as part of the CoA. An approval under Part 4, or an excavation permit under section 139, of the Heritage Act is not required for works approved under Part 5.1 of the EP&A Act.

Legislation	Description	Relevance to this CHMP
<i>Aboriginal and Torres Strait Islander Heritage Protection Act 1984 (Cwth)</i>	This Act provides for the preservation and protection from injury or desecration to areas and objects of particular significance to Aboriginals. Areas and objects can be protected by Ministerial Declaration and it is then an offence to contravene such a declaration.	No areas or objects within the Project have been identified as being subject to such a declaration and this Act is of little relevance to the project.
<i>Coroners Act</i>	This Act enables coroners to investigate certain kinds of deaths or suspected deaths in order to determine the identities of the deceased persons, the times and dates of their deaths and the manner and cause of their deaths.	This Act is relevant if Human Skeletal Remains are located within the project area

3.1 Guidelines

Additional guidelines and standards relating to the management of Aboriginal and historic cultural heritage include:

- Code of Practice for the archaeological investigation of Aboriginal objects in NSW (Office of Environment and Heritage [OEH] 2010)
- Aboriginal cultural heritage consultation requirements for proponents 2010 (OEH 2010)
- Due Diligence Code of practice for protection of Aboriginal objects in NSW (OEH 2010)
- Guide to investigating, assessing and reporting on Aboriginal cultural heritage in NSW (OEH 2010)
- Guide to Aboriginal Heritage Impact Permit processes and decision making
- Assessing Heritage Significance (NSW Heritage Office 2001)
- Levels of Heritage Significance (NSW Heritage Office 2008)
- Assessing Significance for Historical Archaeological Sites and Relics (NSW Heritage Branch, Department of Planning 2009)
- Investigating Heritage Significance (NSW Heritage Office 2001)
- NSW Government's Aboriginal Participation in Construction Guidelines (2007).
- How to Prepare Archival Recording of Heritage Items (Heritage Branch 1998).
- Photographic Recording of Heritage Items Using Film or Digital Capture (Heritage Branch 2006).
- Guidelines for the Management of Human Skeletal Remains under the Heritage Act 1977

3.2 ISCA

The Project will pursue a rating under the IS Rating Scheme V1.2. This plan relates to several of the IS credits listed below:

3.2.1 ISCA Her-1

- *Measures to minimise adverse impacts to heritage during construction have been identified and implemented (Section 6.2)*
- *Heritage aspects relevant to this credit must be managed, reviewed or audited by a suitably qualified professional. A suitably qualified professional is someone who has a formal cultural heritage qualification and minimum of five years' experience (Table 6-2).*

3.2.2 ISCA Her-2

- *Monitoring of heritage is undertaken at appropriate intervals during construction (Table 6-1)*
- *Monitoring and modelling demonstrates enhancements to heritage values (Table 6-1)*
- *Heritage aspects relevant to this credit must be managed, reviewed or audited by a suitably qualified professional. A suitably qualified professional is someone who has a formal cultural heritage qualification and minimum of five years' experience (Table 6-2).*

4. Existing Environment

The existing environment and heritage context of the Project has been assessed in the following background reports prepared to support the EIS for the Project:

- Sydney Metro City and Southwest –Sydenham to Bankstown: Aboriginal Heritage Archaeological Assessment, prepared by Artefact Heritage (2017a)
- Sydney Metro City and Southwest – Sydenham to Bankstown: Non-Aboriginal Heritage Impact Assessment (HIA), prepared by Artefact Heritage (2017b).

Additional reports, which have been prepared for the project and have been used to support this management plan also include:

- Sydney Metro City and Southwest – Sydenham to Bankstown Historical Archaeological Assessment and Research Design by Artefact Heritage (2017c)
- Sydney Metro City and Southwest – Sydenham to Bankstown: Aboriginal Cultural Heritage Assessment Report (ACHAR), prepared by Artefact Heritage (2017d)

These reports have been referenced to inform this management plan in regard to existing environment, heritage significance and archaeological potential.

4.1 Aboriginal Heritage

Artefact Heritage (2017a) undertook a heritage assessment of the Sydney Metro City and Southwest – Sydenham to Bankstown Project. An ACHAR was also prepared in consultation with the RAPs (2017d). No previously registered Aboriginal sites were located within the project area. Two areas of PAD were located during the site survey for the EIS study, but these are outside the SMC project area, near Belmore and Punchbowl Stations. The remainder of the EIS project area was found to have low Aboriginal archaeological potential and significance.

An assessment of Aboriginal archaeological potential for the rail corridor that encompasses the SMC area found:

The rail corridor consists of an undulating landform including slope, crest and flat landform contexts. Large portions of the rail corridor are located through significantly modified landform contexts, including large cuts through the underlying shale and sandstone geology.

Visibility was generally low throughout the corridor, impeded by vegetation, structures, fill, rail track and ballast. Soil exposures occurred within areas of erosion in vehicle access tracks and cuts. Impacts within the rail corridor are extensive, and include landform modification, subsurface infrastructure such as gas pipelines and galvanised steel troughs, electricity and telecommunications cables as well as rail infrastructure such as overhead wiring structures. (ACHAR page 28)

The archaeological potential for the SMC project area is considered to be low with a low Aboriginal archaeological and cultural significance.

4.2 Built Heritage

4.2.1 Heritage listings

The SMC works would be largely undertaken outside the SHR station curtilages, however, minor works such as the installation of fencing and/or the installation of GST as part of the Sydney Trains Relocation would be required within three of the SHR listed stations along the alignment (Marrickville, Canterbury and Belmore Railway Station Groups). As a result, these listed stations would be subject to negligible to minor direct and indirect impacts. A number of locally listed items would also be visually impacted by the SMC, including additional station catchments. These heritage items and their registered listings are shown in Table 4-1 below. Note that the 'stone house including interiors', 'Old Sugarmill', 'Inter-War Hotel (former Hotel Canterbury)', 'Federation Post Office Building (former Canterbury Post Office)', 'Electricity substation no. 275', 'Federation House (former station master's cottage)' and 'Post-war bus shelter and public lavatories' will not be directly impacted. Works will occur adjacent to these items therefore they have been included in order to manage any indirect impacts.

Descriptions of the heritage listed items in or adjacent to SMC have been included in Appendix A.

Table 4-1 Heritage listed Items in and near the Project Area

Item	Listings	Significance
Sewage Pumping Station 271	<ul style="list-style-type: none"> SHR (01342) Sydney Water s170 Heritage and Conservation Register (4571727) Marrickville Local Environment Plan (LEP) 2011 (I67) 	State
Stone house, including interiors	<ul style="list-style-type: none"> Marrickville LEP 2011 (I114) 	Local
Marrickville Railway Station Group	<ul style="list-style-type: none"> SHR (01186) RailCorp s170 Heritage and Conservation Register (4801091) Marrickville LEP 2011 (I89) 	State
South Dulwich Hill Heritage Conservation Area	<ul style="list-style-type: none"> Marrickville LEP 2011 (C29) 	Local
Dulwich Hill Railway Station Group	<ul style="list-style-type: none"> RailCorp S.170 Heritage and Conservation Register (4801909) Marrickville LEP 2011 (I316) 	State
Hurlstone Park Railway Station Group	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (4802051) Canterbury LEP 2012 (I124) 	Local
Hurlstone Park Railway Underbridge	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (4805737) Canterbury LEP 2012 (I126) 	Local
Old Sugarmill	<ul style="list-style-type: none"> SHR (00290) Canterbury LEP 2012 (I82) 	State

Item	Listings	Significance
Canterbury Railway Station Group	<ul style="list-style-type: none"> SHR (01109) RailCorp s170 Heritage and Conservation Register (4801100) Canterbury LEP 2012 (I67) 	State
Inter-War Hotel (former Hotel Canterbury)	<ul style="list-style-type: none"> Canterbury LEP 2012 (I68) 	Local
Federation Post Office Building (former Canterbury Post Office)	<ul style="list-style-type: none"> Canterbury LEP 2012 (I66) 	Local
Electricity substation no. 275	<ul style="list-style-type: none"> Ausgrid S.170 Heritage and Conservation Register (3430425) 	Local
Canterbury (Cooks River) Underbridge	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (4801568) Canterbury LEP 2012 (I72) 	Local
Canterbury (Cooks River/Charles St) Underbridge – Main Line	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (5062566) 	Local
Campsie Railway Station Group	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (4801101) Canterbury LEP 2012 (I40) 	Local
Belmore Railway Station Group	<ul style="list-style-type: none"> SHR (01081) RailCorp s170 Heritage and Conservation Register (4801084) Canterbury LEP 2012 (I11) 	State
Federation House (former station master's cottage)	<ul style="list-style-type: none"> Canterbury LEP 2012 (I10) 	Local
Post-war bus shelter and public lavatories	<ul style="list-style-type: none"> Canterbury LEP 2012 (I29) 	Local
Lakemba Railway Station Group	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (4801916) Canterbury LEP 2012 (I143) 	Local
Wiley Park Railway Station Group	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (4801946) Canterbury LEP 2012 (I159) 	Local
Lakemba Water Pumping Station (WP0003)	<ul style="list-style-type: none"> Sydney Water s170 Heritage and Conservation Register (4570136) Canterbury LEP 2012 (I158) 	Local
Punchbowl Railway Station Group	<ul style="list-style-type: none"> RailCorp s170 Heritage and Conservation Register (4802067) Canterbury LEP 2012 (I155) 	Local

Figure 4-1 Heritage curtilages overview

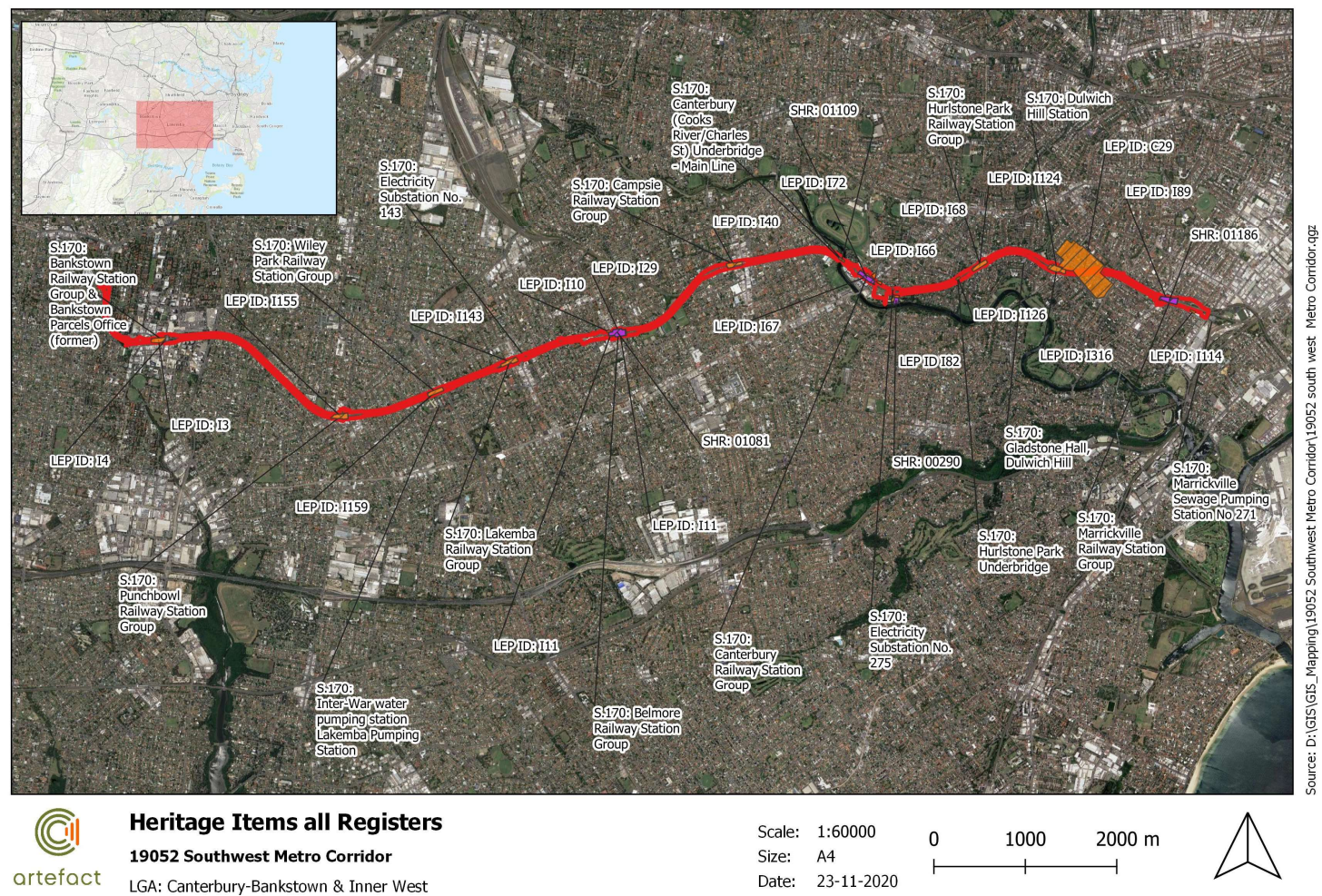


Figure 4-2 Heritage curtilage – stone house including interiors



Heritage Closeup LEP ID I114
19052 Southwest Metro Corridor
LGA: Canterbury-Bankstown & Inner West

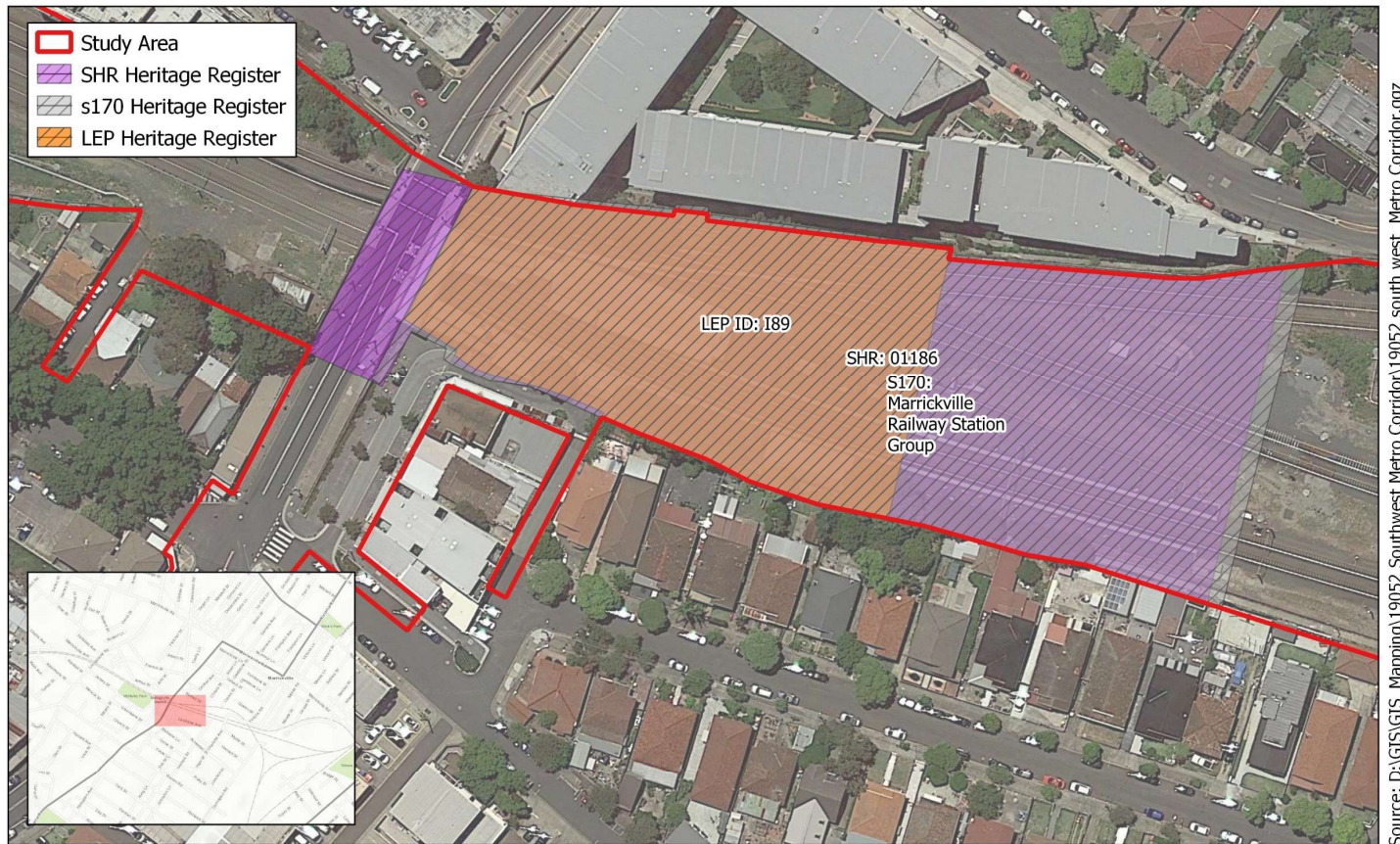
Scale: 1:1000
Size: A4
Date: 09-10-2020

0 20 40 m



Source: D:\GIS\GIS_Mapping\19052 Southwest Metro Corridor\19052 south west Metro Corridor.qgz

Figure 4-3 Heritage curtilage – Marrickville Railway Station Group



Heritage Curtilages Marrickville Station
19052 Southwest Metro Corridor
LGA: Canterbury-Bankstown & Inner West

Scale: 1:1250
Size: A4
Date: 09-10-2020

0 20 40 m



Figure 4-4 Heritage curtilage Dulwich Hill Railway Station Group and South Dulwich Hill Heritage Conservation Area

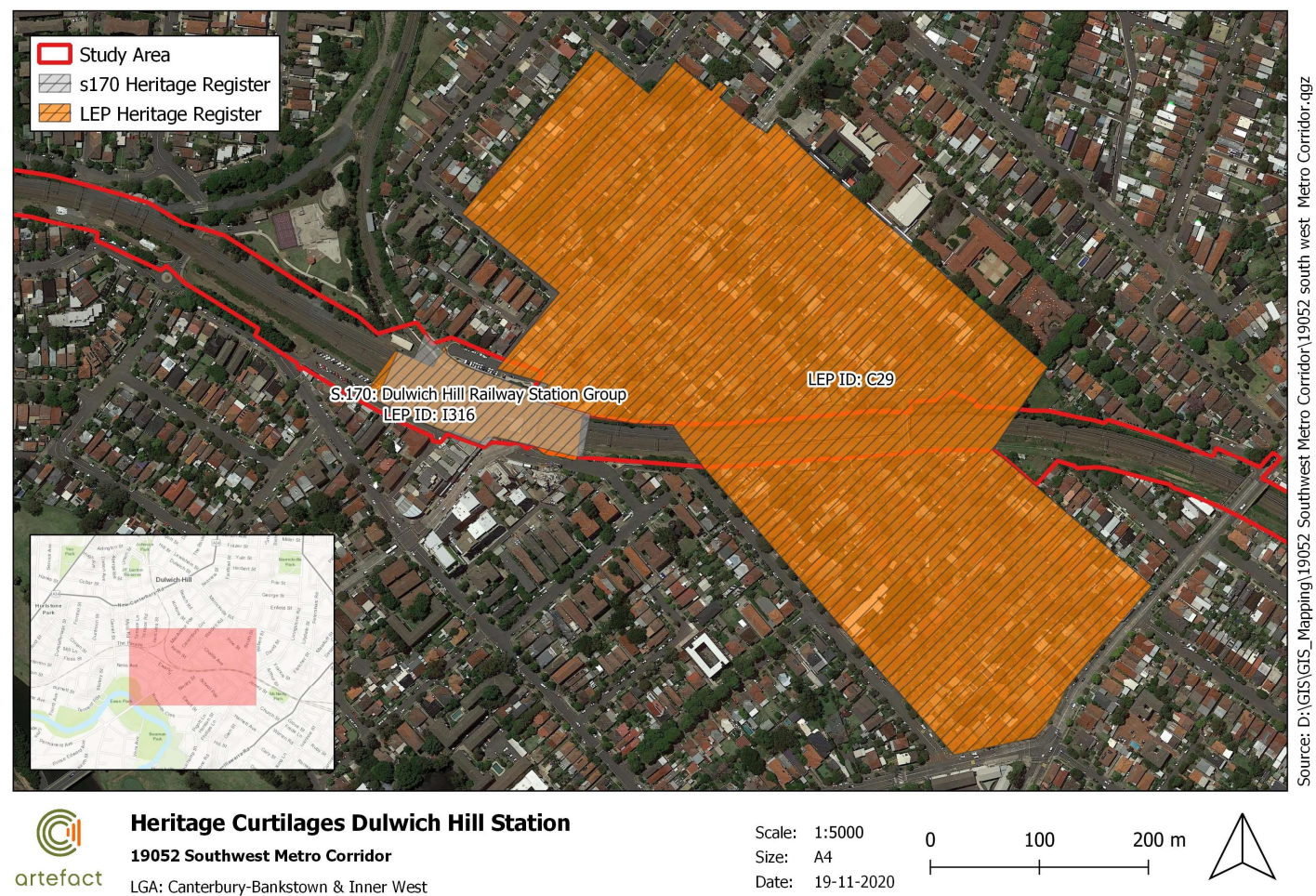


Figure 4-5 Heritage curtilage Hurlstone Park Railway Station Group

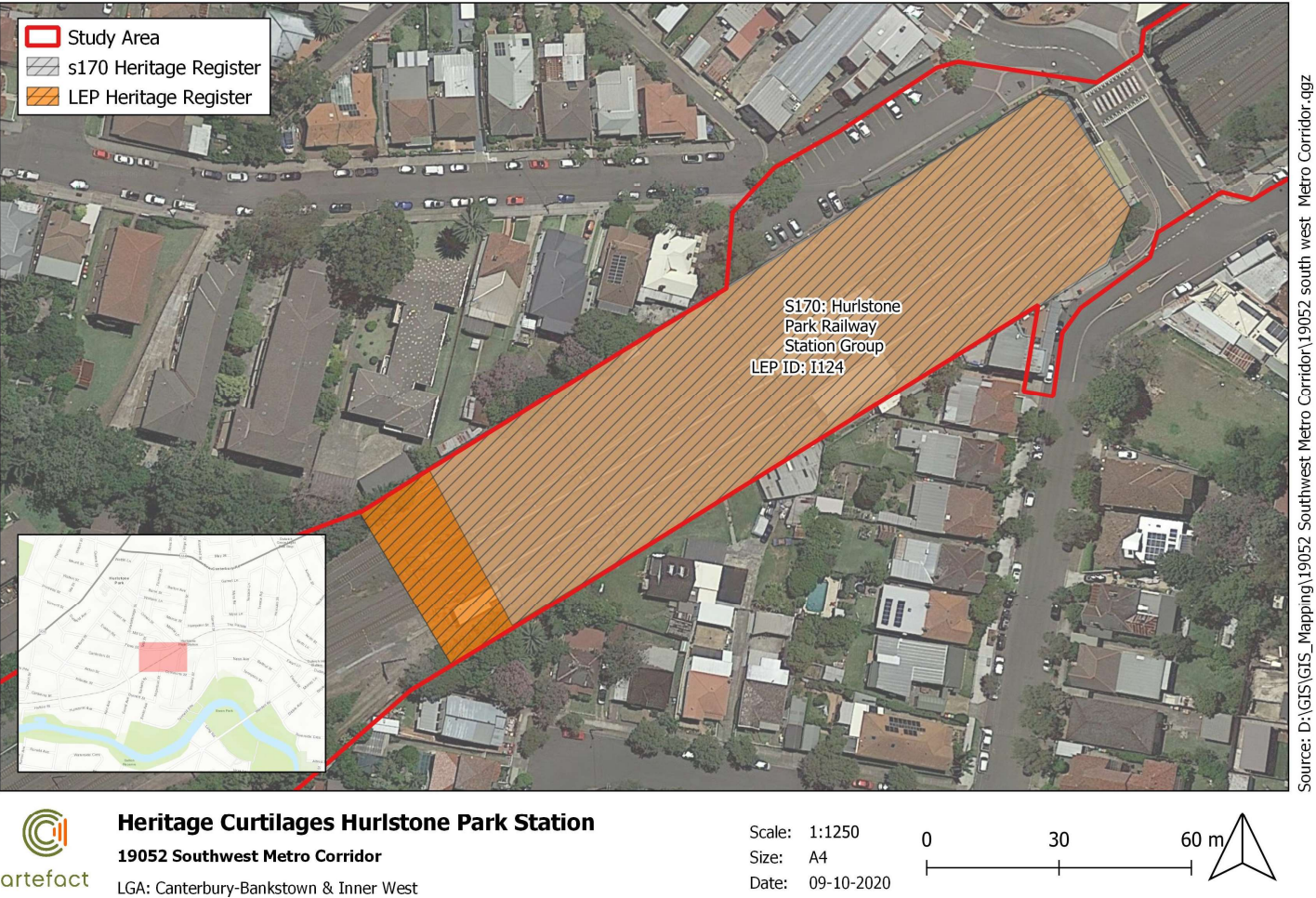
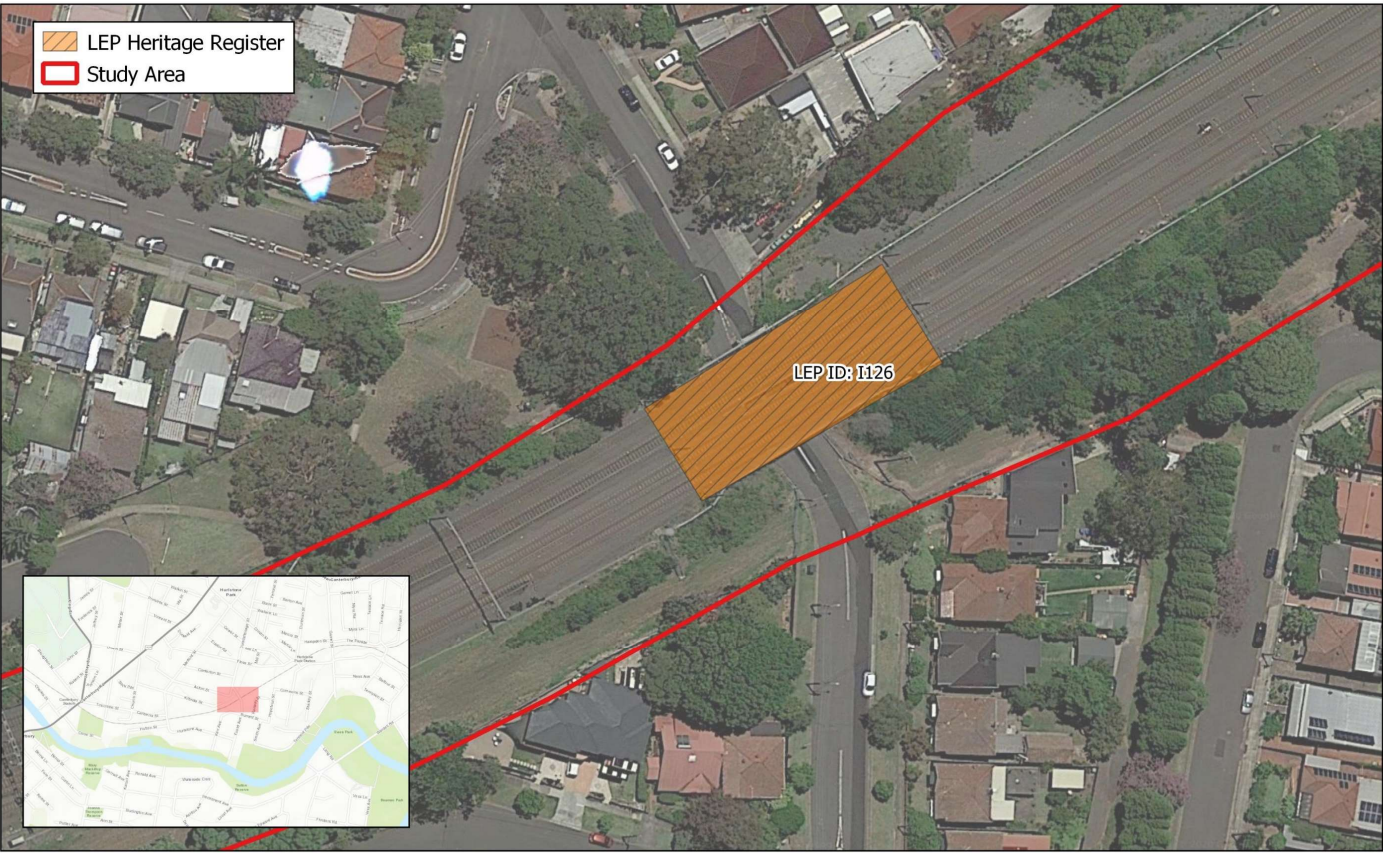
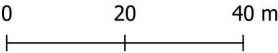


Figure 4-6 Heritage curtilage Hurlstone Park Railway Underbridge



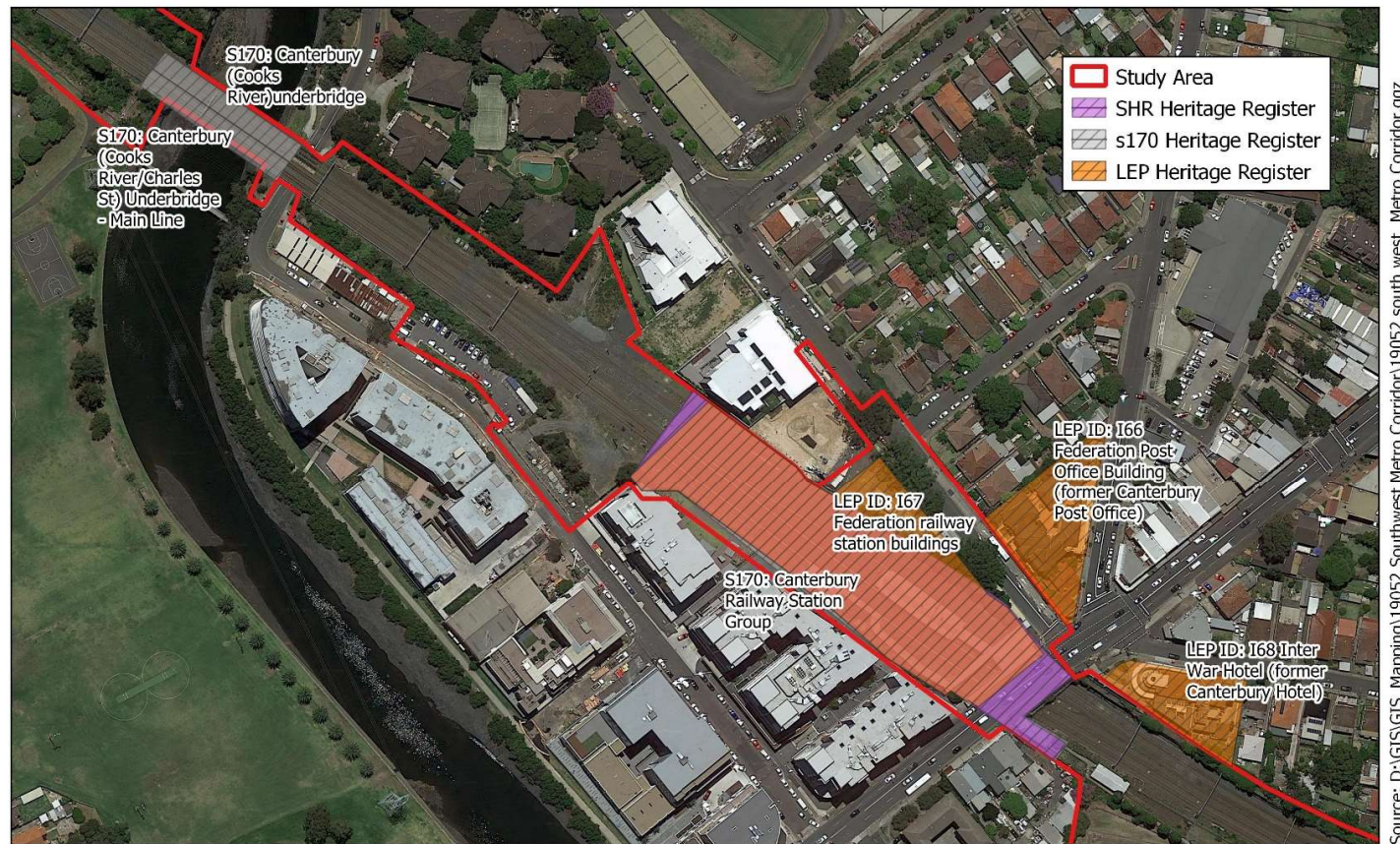
Heritage Closeup LEP ID I126
19052 Southwest Corridor Metro
LGA: Canterbury-Bankstown & Inner West

Scale: 1:1000
Size: A4
Date: 09-10-2020



Source: D:\GIS\GIS_Mapping\19052 Southwest Metro Corridor\19052 south west Metro Corridor.qgz

Figure 4-7 Heritage curtilage Canterbury Railway Station Group and nearby heritage items



Source: D:\GIS\GIS_Mapping\19052 Southwest Metro Corridor\19052 south west Metro Corridor.qgz



Heritage Curtilages Canterbury Station

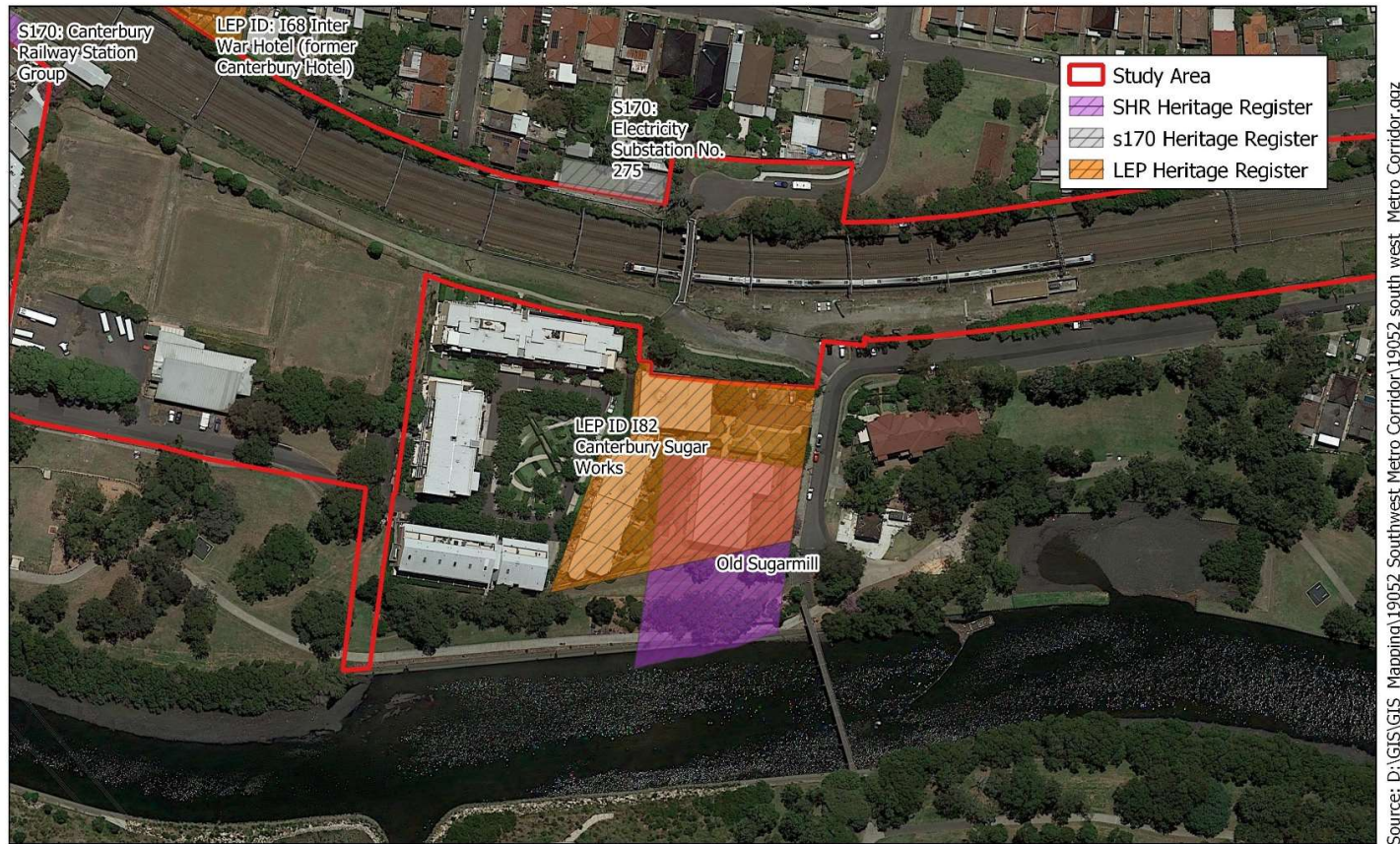
19052 Southwest Metro Corridor

LGA: Canterbury-Bankstown & Inner West

Scale: 1:2500
Size: A4
Date: 12-11-2020



Figure 4-8 Heritage curtilage Canterbury Old Sugar Mill

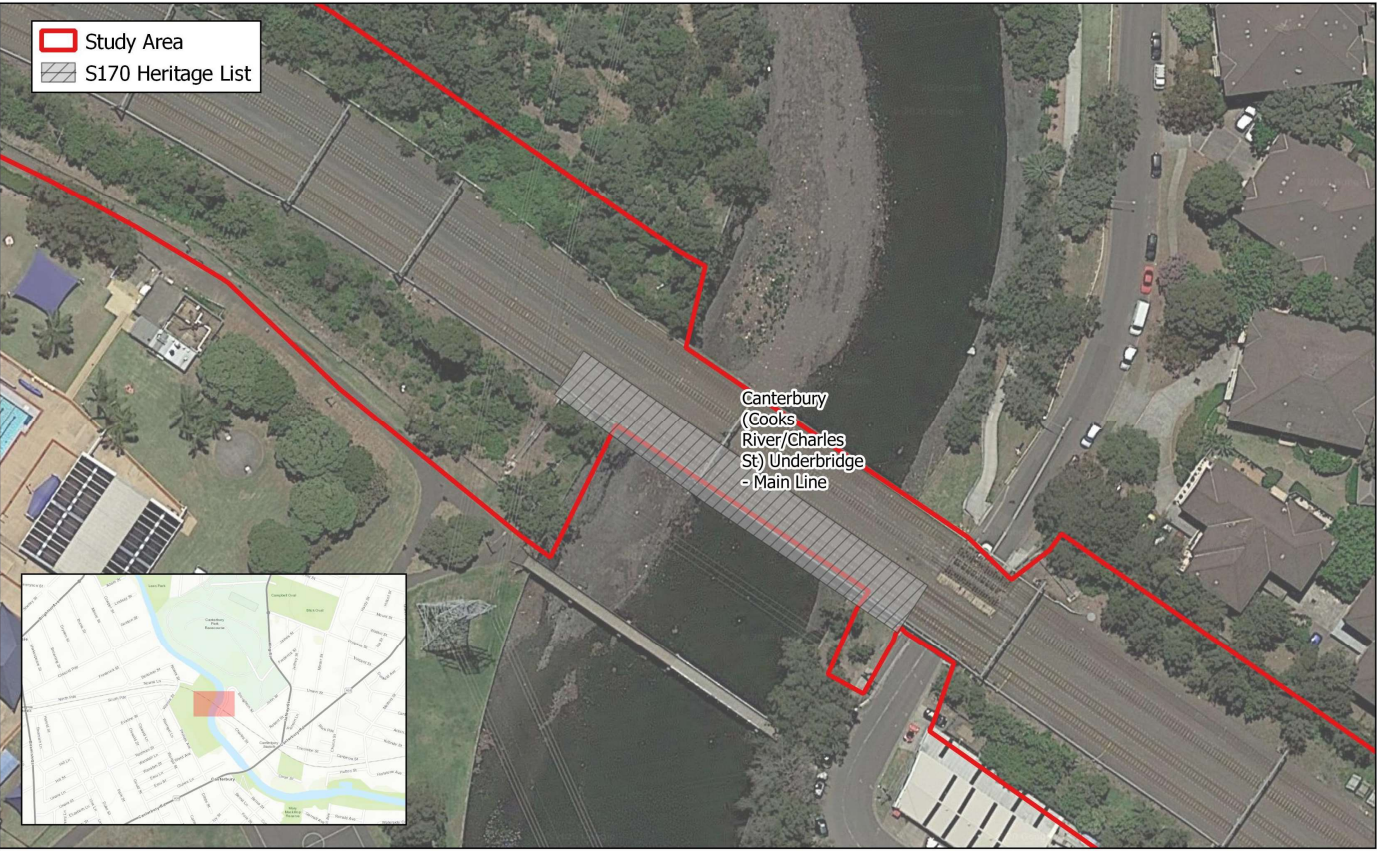


Heritage Curtilages Old Sugar Mill
19052 Southwest Metro Corridor
LGA: Canterbury-Bankstown & Inner West

Scale: 1:2000
Size: A4
Date: 12-11-2020



Figure 4-9 Heritage curtilage Canterbury (Cooks River/Charles St) Underbridge – Main Line



Heritage Closeup s170 5062566
19052 Southwest Corridor Metro
LGA: Canterbury-Bankstown & Inner West

Scale: 1:1000
Size: A4
Date: 09-10-2020

0 20 40 m



Source: D:\GIS\GIS_Mapping\19052 Southwest Metro Corridor\19052 south west Metro Corridor.qgz

Figure 4-10 Heritage curtilage Campsie Railway Station Group

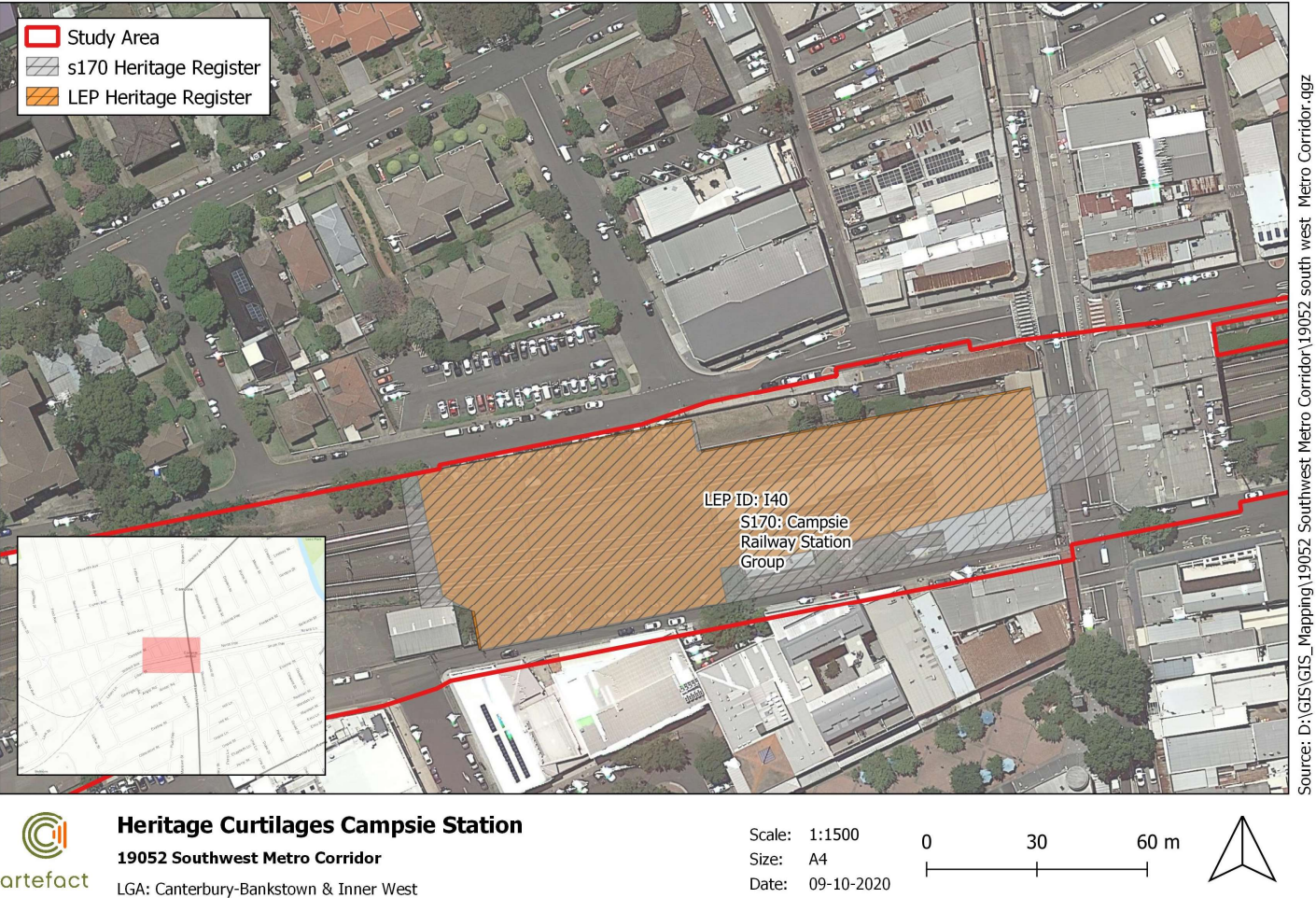


Figure 4-11 Heritage curtilage Belmore Railway Station Group

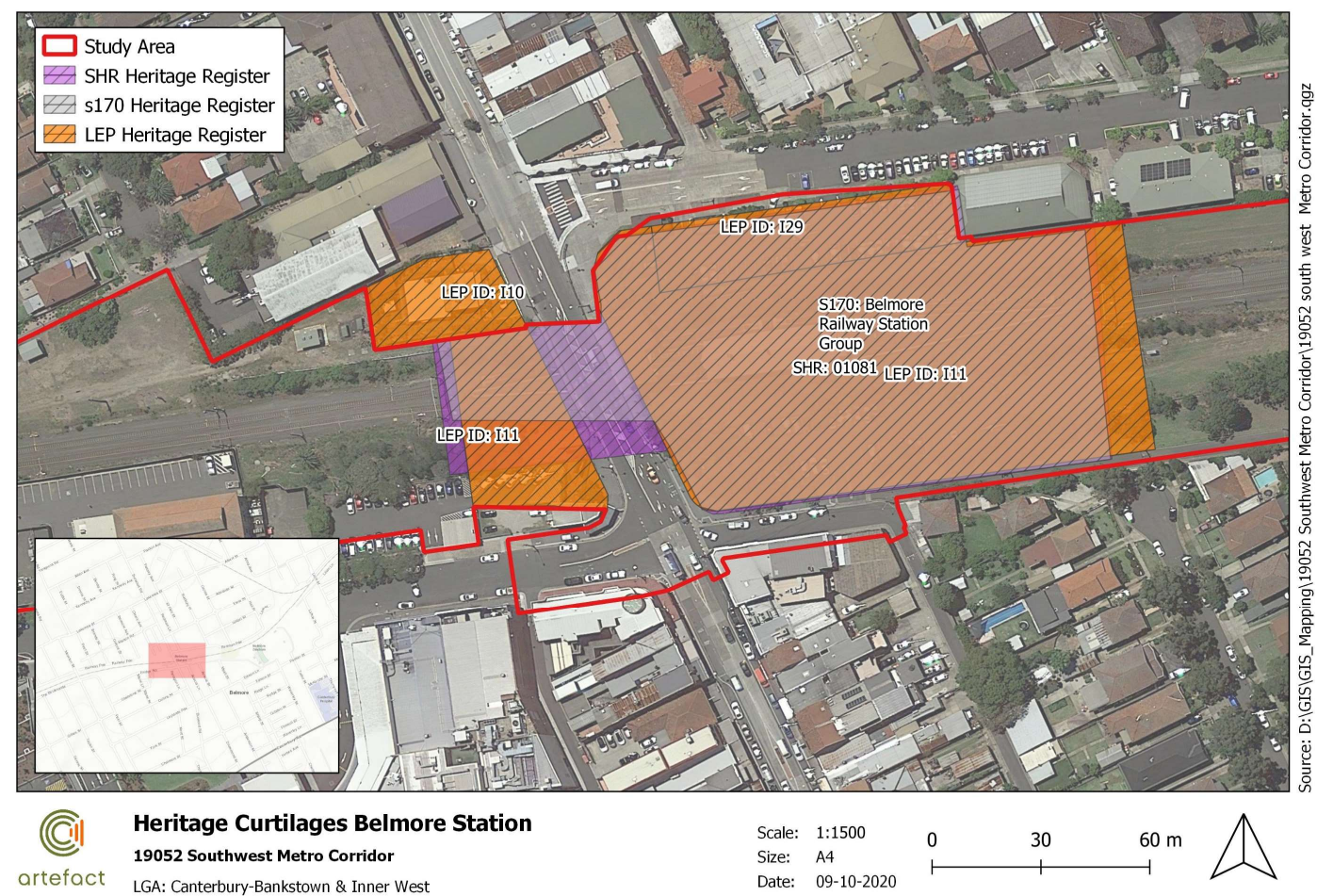
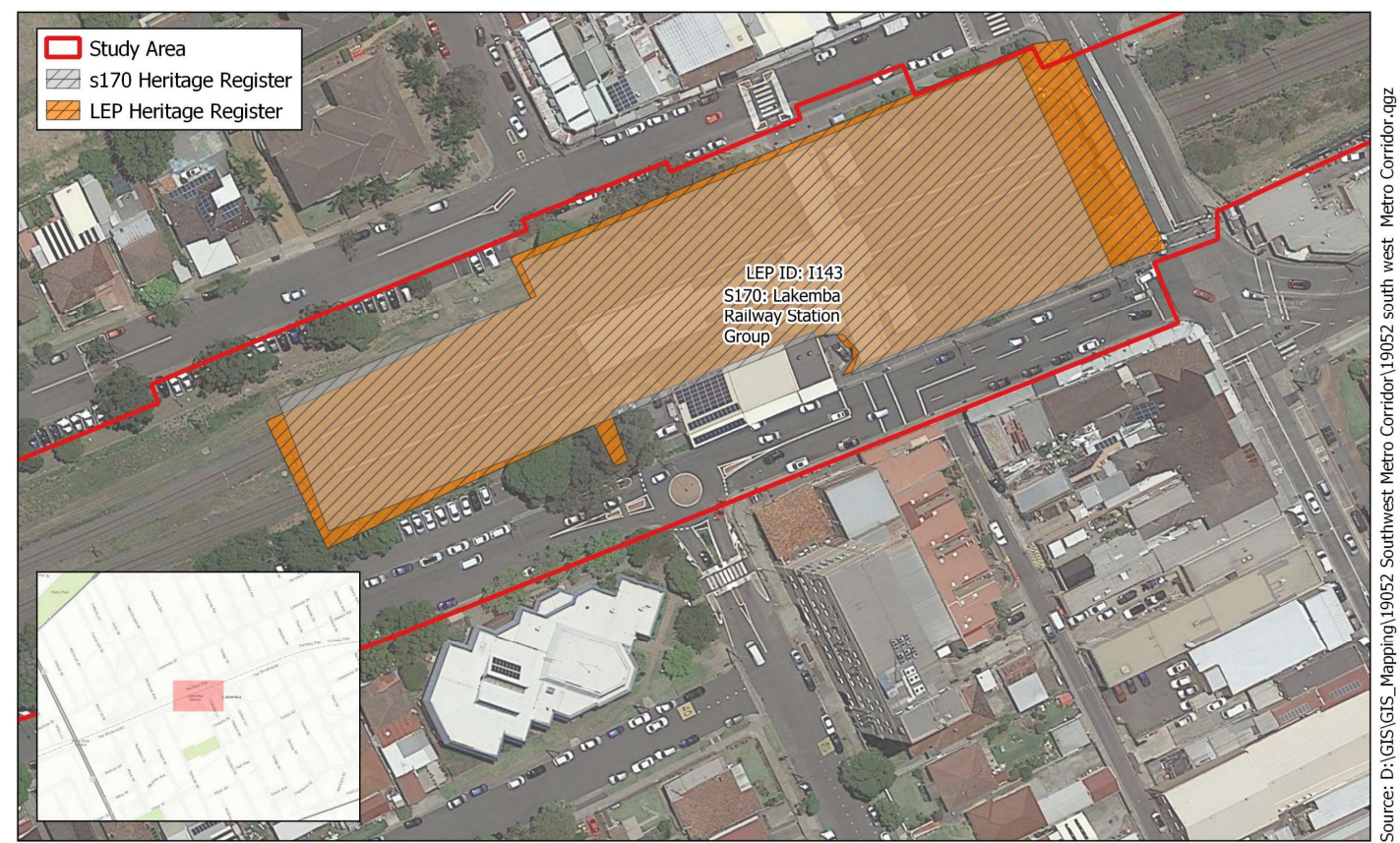


Figure 4-12 Heritage curtilage Lakemba Railway Station Group



 **Heritage Curtilages Lakemba Station**
19052 Southwest Metro Corridor
LGA: Canterbury-Bankstown & Inner West

Scale: 1:1250
Size: A4
Date: 09-10-2020

0 20 40 m



Figure 4-13 Heritage curtilage Wiley Park Railway Station Group

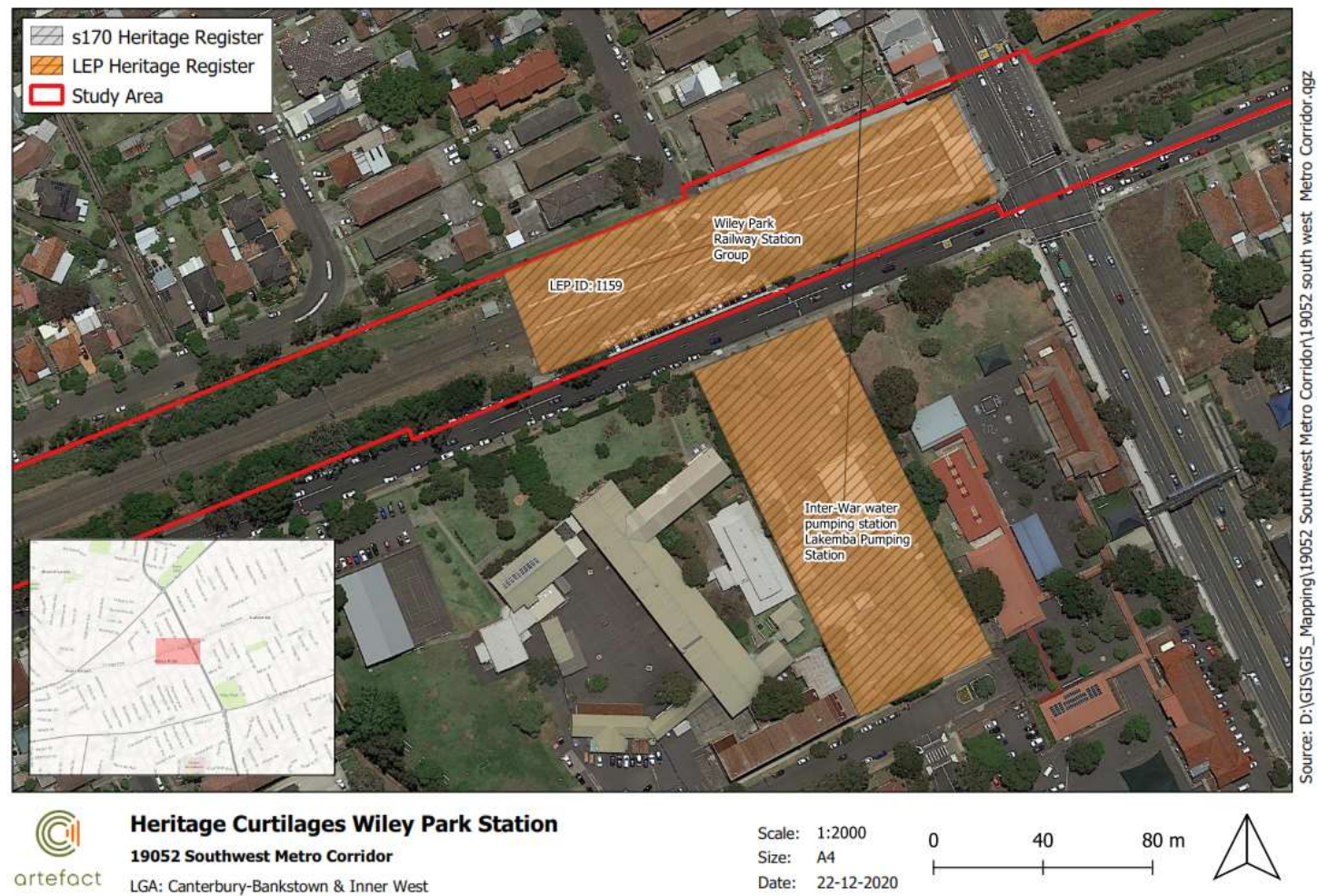
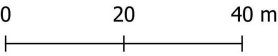


Figure 4-14 Heritage curtilage Punchbowl Railway Station Group



Heritage Curtilages Punchbowl Station
19052 Southwest Metro Corridor
LGA: Canterbury-Bankstown & Inner West

Scale: 1:1000
Size: A4
Date: 09-10-2020



4.3 Non-Aboriginal Archaeology

4.3.1 Defined areas of Archaeological Potential within SMC area

SMC will be undertaken within portions of four areas of defined archaeological potential as outlined in the AARD. These areas are within and in the vicinity of the listed curtilages of Marrickville, Canterbury, Belmore and Lakemba Railway Stations. A detailed history, assessment for archaeological potential and significance is included in the AARD and is summarised below.

Marrickville Railway Station

The SMC area includes a portion of the rail corridor through Marrickville Railway Station which was assessed in the AARD as having a moderate-high potential for locally significant archaeology associated with the development of rail infrastructure. The area to be impacted by the SMC is designated in the AARD partly requiring an AMS and possibly archaeological management such as salvage excavation and monitoring, while a portion would be managed under the Unexpected Finds Heritage Procedure. A former air raid shelter was also identified outside of the SMC impact area which depending on intactness has the potential to reach the threshold of local significance.

The AARD assessed that there would be nil to low potential for archaeological remains associated with nineteenth century farming. Any remains are unlikely to have research value. There is moderate to high potential for archaeological remains associated with the late nineteenth and early twentieth century development of the Bankstown rail line, Marrickville Station and the Earlwood tramline, although they are likely to be truncated. These archaeological remains have potential to reach the threshold for local heritage significance, depending on the intactness. Potential archaeological remains of the WWII air raid shelter would be of local significance for research potential, associative and technical significance, and for demonstrating the historical and physical elements of Sydney's defence and protection response to World War II.

Canterbury Railway Station

The SMC area includes a portion of Canterbury Railway Station which was assessed in the AARD as having moderate potential for locally significant archaeology associated with the development of rail infrastructure. The SMC area includes the Canterbury Construction Site which was assessed in the AARD as having moderate to high potential for State significant archaeology associated with the Australasian Sugar Company. The SMC area also includes an area to the east of Canterbury Railway Station which was assessed in the AARD as having a low potential for locally significant archaeology associated with the development of rail infrastructure and the early settlement of the township associated with the Australasian Sugar Company. The areas to be impacted by the SMC are designated in the AARD as partly requiring an AMS and possibly archaeological management such as test excavations and monitoring (particularly within the Canterbury Construction Site), while a portion would be managed under the Unexpected Finds Procedure as remains are likely to have been impacted by the construction of the rail line.

The AARD found that there is nil to low potential for archaeological remains associated with nineteenth century farming to be present. Any remains are unlikely to have research value. There is moderate to high potential for remains of structures associated with the Canterbury Sugar Company works such as timber slab huts and outbuildings. These would have high research value and associative and historical significance at a local or State level depending on nature and intactness, although remains of State significance are unlikely to be present in the rail corridor where the SMC works would largely be undertaken as identified in the AARD. Archaeological remains associated with the historical development of the Bankstown rail line, Canterbury Station and Canterbury Park Racecourse may be present. Depending on the intactness of the remains, potential archaeological remains could reach the threshold for local significance.

Belmore Railway Station

The SMC area includes a portion of the rail corridor to the west of Belmore Railway Station which was assessed in the AARD as having a low-moderate potential for locally significant archaeology associated with the development of rail infrastructure. The area to be impacted by the SMC is designated in the AARD partly requiring an AMS and possibly archaeological management such as monitoring, while a portion would be managed under the Unexpected Heritage Finds Procedure.

The AARD found that there is nil to low potential for archaeological remains associated with nineteenth century farming to be present. Any remains are unlikely to have research value. There is low-moderate potential for archaeological remains associated with the late nineteenth and early twentieth century development of the Bankstown rail line and Belmore Station, including the former goods shed and platform, converter room, and coal bin. These archaeological remains have potential to reach the threshold for local heritage significance, depending on the intactness

Lakemba Railway Station

The SMC area includes a portion of the rail corridor through Lakemba Railway Station which was assessed in the AARD as having a low-moderate potential for locally significant archaeology associated with the development of rail infrastructure. The SMC area also includes a portion of the rail corridor east of Lakemba Railway Station which was assessed in the AARD as having a low potential for locally significant archaeology associated with the development of Taylor House (Lakemba) and associated stables and outbuildings. The area to be impacted by the SMC is designated in the AARD partly requiring an AMS and possibly archaeological management such as monitoring, while a portion would be managed under the Unexpected Heritage Finds Procedure.

The AARD found that there is nil to low potential for archaeological remains associated with nineteenth century farming to be present. Any remains are unlikely to have research value. There is low potential for archaeological remains associated with the late nineteenth and early twentieth century establishment of the Taylor House (Lakemba), stables and potential outbuildings, as well as evidence of associated farming activities. There is low-moderate potential for archaeological remains associated with the late nineteenth and early twentieth century development of the Bankstown rail line and Lakemba Station, including the first timber island platform at the station. These archaeological remains have potential to reach the threshold for local heritage significance, depending on the intactness, particularly remains associated with 'Lakemba' and the Lakemba 1909 timber island platform.

4.3.2 Archaeological potential of the remainder of the SMC area

The rail corridor and station catchments not specified as having archaeological potential were found to have nil-low potential to contain significant archaeological remains in the AARD. The majority of the SMC will be undertaken in these areas.

Figure 4-15: Archaeological potential at Marrickville Station



Figure 4-16: Archaeological potential at Canterbury Station

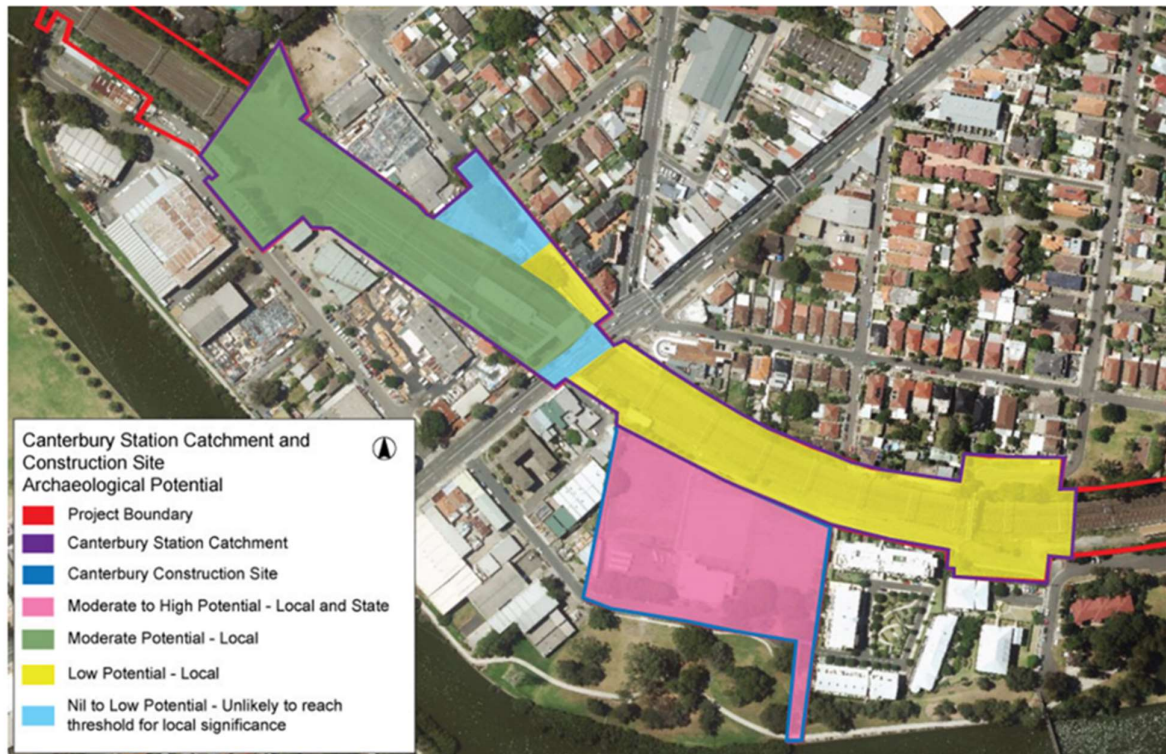


Figure 4-17: Archaeological potential at Belmore Station



Figure 4-18: Archaeological potential at Lakemba Station



5. Construction Risk Assessment

Impacts of the Project are described in Table 5-1, Table 5-2 and the aspects and impacts register in the CEMP. Management measures to address these identified risks are included in Section 6.

Table 5-1 Aboriginal Heritage – Aspects, Impacts and Risks

Activity	Aspect/s	Impact/s
Subsurface excavations for retaining walls, overhead wiring, fencing, and installation of CSR, GST and utilities	Excavation	Finding/disturbance to and/or destruction of unexpected burials, human remains or other Aboriginal objects.

Table 5-2: Built heritage – Aspects, Impacts and Risks

Activity	Aspect/s	Impact/s
Installation of CSR and GST within curtilages of heritage items including Dulwich Hill Station, Canterbury Station, Lakemba Station, Wiley Park Station, Punchbowl Station, and South Dulwich Hill Heritage Conservation Area	Installation, plant movement on platforms, temporary removal of fencing to provide access, and minor excavations	Visual impacts, impacts to fabric
Decommissioning, modification and removal of redundant GST and utilities within curtilages of heritage items including Dulwich Hill Station, Canterbury Station, Lakemba Station, Wiley Park Station, Punchbowl Station	Modifications, removals and minor excavations	Visual impacts, impacts to fabric (positive visual impacts from the removal of redundant utilities)
Bridge remedial works, including installing throw screens within South Dulwich Hill Heritage Conservation Area	Installation	Visual impacts, impacts to fabric
Removal of ARTC redundant infrastructure within curtilages of heritage items including Marrickville Station, Canterbury Station, Dulwich Hill Station, Hurlstone Park Station and Campsie Station	Excavation, vibration and soil compaction due to the use of heavy machinery to hammer out overhead wire portals and footings	Temporary visual impacts to listed items, impacts to fabric
Installation of new overhead wiring within curtilages of heritage items including South Dulwich Hill Heritage Conservation Area, Dulwich Hill Station and Canterbury Station	Excavation, vibration and soil compaction due to the use of heavy machinery for the installation of the overhead wire portals and footings	Temporary visual impacts to listed items, impacts to fabric
Construction of retaining walls adjacent to Canterbury (Cooks River) Underbridge, and Canterbury (Cooks River/Charles St) Underbridge	Construction of walls	Visual impacts
Installation of security and segregation fencing within and adjacent to curtilages of heritage items including South Dulwich Hill Heritage Conservation Area, Marrickville Station, Hurlstone Park Underbridge, Canterbury (Cooks River) Underbridge, and Canterbury (Cooks River/Charles St) Underbridge – Main Line	Installation	Visual impacts to listed items, impacts to fabric

Activity	Aspect/s	Impact/s
Installation of throw screens and segregation fencing within sight of Old Sugarmill and removal of plantings outside of the heritage item	Installation and removal of plantings	Visual impacts
Construction and use of compound sites and laydown areas	Installation and operation	Temporary visual impacts to listed items
Temporary works	Pedestrian control and access, installation of hoarding, fencing and other temporary works such as temporary generator installation	Temporary visual impacts to listed items
Utilities and drainage works	Excavation, vibration and soil compaction due to the use of heavy machinery, cutting and filling, installation of fencing	Temporary visual impacts to listed items

Table 5-3 Non-Aboriginal Archaeology– Aspects, Impacts and Risks

Activity	Aspect/s	Impact/s
Subsurface excavations for retaining walls, civil works, fencing and CSR construction	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance
Installation of CSR and GST within curtilages of heritage items including Dulwich Hill Station, Canterbury Station, Lakemba Station, Wiley Park Station, Punchbowl Station, and South Dulwich Hill Heritage Conservation Area	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance
Removal of redundant GST and utilities within curtilages of heritage items including Dulwich Hill Station, Canterbury Station, Hurlstone Station, Lakemba Station, Wiley Park Station, Punchbowl Station	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance
Removal of ARTC redundant infrastructure within curtilages of heritage items	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance
Installation of new overhead wiring within curtilages of heritage items including South Dulwich Hill Heritage Conservation Area, Dulwich Hill Station and Canterbury Station	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance
Construction and use of compound sites and laydown areas, including the Canterbury Construction Site. Activities such as bulk earthworks, service installations, tree removals and demolition of the existing Greens Bowling Club building	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of State or local significance. The establishment of the Canterbury Construction Site will require subsurface excavations which may impact non-Aboriginal archaeological deposits of state significance.

Activity	Aspect/s	Impact/s
Temporary works	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance
Utilities and drainage works	Excavation	Disturbance to and/or destruction of non-Aboriginal archaeological deposits of local significance

6. Management Measures

This section describes the overall approach and principles associated with managing and mitigating Aboriginal and non-Aboriginal cultural heritage risks of the Project. The management measures are based on the mitigation measures compiled from the relevant requirements of the Project Approval as modified, REMMs, requirements from the Design and Construction Deed, Scope of Works and Technical Criteria, relevant elements of Metro's CEMF and the requirements and standards of JHLOR.

The following sections discuss management measures as required under the CoA, REMMS, Scope of Works and Technical Criteria – B06 Heritage and other relevant Metro documents which are referenced in text.

6.1 Aboriginal archaeological management

6.1.1 [Aboriginal Cultural Heritage Assessment Report](#)

An ACHAR was prepared by Artefact Heritage (2017d) as part of the Preferred Infrastructure Report (PIR) which forms part of the Approved Project as modified (CoA E15, E16 and E17). Comprehensive Aboriginal consultation was undertaken as part of the preparation of the ACHAR, including an Aboriginal Focus Group (AFG) meeting. All RAPs who responded through consultation were in support of the proposed archaeological management methodology included in the ACHAR.

The ACHAR identified two areas of PAD that are outside the SMC area, near Belmore and Punchbowl Stations. The ACHAR required that the rest of the Sydenham to Bankstown corridor would be managed under the Sydney Metro Unexpected Heritage Finds Procedure. The ACHAR would be implemented in accordance with REMM AH2.

6.1.2 [Human remains](#)

If suspected human remains are identified, the Sydney Metro Unexpected Heritage Finds Procedure and Sydney Metro Exhumation Management Plan would be implemented in accordance with E15, E16 and E17.

Works will immediately cease in that area. The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist and Sydney Metro ER. The Sydney Metro Exhumation Management Plan will be enacted. Preliminary notification to the NSW Police will be undertaken by the Sydney Metro Environmental Manager.

Once confirmation is received from the technical specialist that the remains are of human origin, there are three possible statutory pathways to follow based on the assessment. Refer to the Sydney Metro Exhumation Management Plan.

No works to recommence until clearance is provided by Heritage NSW, DPC and/or the NSW Police as Sydney Metro Exhumation Management Plan

6.1.3 Unexpected finds

Following the discovery of new finds of Aboriginal objects – works will cease in the immediate area and the area secured. Assessment of the site/object and subsequent management of the site will be carried out in accordance with the Sydney Metro Unexpected Heritage Finds Procedure (see Appendix E). The use of the Sydney Metro Unexpected Heritage Finds Procedure would satisfy the requirement in E15, E16 and E17 to include measures to manage an unexpected find in the CHMP.

All new sites will be recorded on standard Archaeological Heritage Information Management Service (AHIMS) site cards and lodged with Heritage NSW, DPC.

Following the discovery of unexpected Aboriginal objects, Sydney Metro would notify City of Canterbury Bankstown, Inner West Council, Aboriginal and Torres Strait Island Reference Group and the RAPs.

6.1.4 Clearance

A written clearance confirmation would be provided by the project archaeologist to JHLOR once Aboriginal archaeological management has been completed in an area. This would be signed off by Metro before works commenced. Construction would continue under the Unexpected Heritage Finds Procedure.

6.1.5 Reporting

Upon completion of any unexpected finds reporting and required mitigation measures, post excavation reporting in accordance with the Heritage NSW, DPC Aboriginal requirements will be undertaken within two years of the completion of SMC archaeological works. The post-excavation report is to be prepared by the Aboriginal archaeologist in consultation with the RAPs. RAPs would review the draft report prior to finalisation.

6.2 **Built Heritage Management**

6.2.1 General

Impacts to built heritage as a result of the SMC would in most cases be minimal (with the exception of moderate visual impacts at Lakemba Station). They are generally limited to the following:

- Moderate to negligible impacts to identified areas of potential for state and locally significant archaeology around Marrickville, Canterbury, Belmore and Lakemba Stations (within and outside station curtilages)
- Negligible impacts to the fabric of the state significant Canterbury railway station and locally listed Wiley Park railway stations as a result of excavations within platforms, movement of plant on the platforms, temporary removal of fence panels, and penetrations to platforms, retaining walls, and overbridge abutment walls for the removal of existing utilities and cable

ladders and installation of new utilities, cable ladders and GST as part of the Sydney Train Relocations

- Neutral direct impacts to Marrickville Station, Dulwich Hill Station, Hurlstone Park Station, Campsie Station, Belmore Station, Lakemba Station and Punchbowl Station as a result of the corridor works
- Negligible to moderate visual impacts to the nine railway stations along the alignment as a result of SMC, particularly as a result of the installation of new GST within sight of the stations
- Potential negligible vibration impacts to the fabric of two state significant railway stations (Marrickville and Canterbury Stations) and three locally listed railway stations (Dulwich Hill, Hurlstone Park and Campsie Stations) as a result of the removal of ARTC redundant infrastructure and the installation of new overhead wiring infrastructure in proximity to significant elements within the listed heritage curtilages. There would be no removal or modification of significant elements of the heritage listed stations however
- Minor impacts to the fabric of three locally significant rail/road bridges as a result of the installation of segregation and safety fencing along the bridges
- Negligible impacts to one heritage conservation area as a result of works within the curtilage, including the installation of segregation and safety fencing, the installation of GST and CSR, and bridge remedial works such as the installation of throw screens at the Albermarle Street rail bridge
- Negligible visual impacts to 13 listed items that are located within, or in the vicinity of the SMC as a result of the installation of items such as overhead wiring infrastructure, GST and CSR, and a retaining wall adjacent to Canterbury (Cooks River) Underbridge, and Canterbury (Cooks River/Charles St) Underbridge.

The levels of impacts to the railway stations are informed by HIAs prepared by Artefact Heritage (2020) for the Stage 2 and Stage 3 detailed design for SWM. The impacts to the listed heritage items resulting from SMC have been assessed in a HIA prepared in accordance with REMM NAH17 (see Section 6.2.9).

6.2.2 [Design Requirements](#)

Due to the minor nature of the works design requirements are outside the scope of this CHMP. However, they should follow REMM NAH1 for avoidance of impacts, NAH2 and NAH3 in regard to the sensitivity of design to heritage items, and CEMF Table 17.4 in regard to ensuring that the design is sympathetic to the historic significance of existing stations. The obligations to addresses these REMMs are retained by Metron T2M in the detailed design.

The following measures have been put in place to minimise adverse impacts resulting from SMC and are discussed in the following sections of the CHMP. These measures identify the impacts resulting from the SMC works and outline mitigation strategies that would be employed during the works in order to avoid or reduce impact levels to the identified heritage items where possible:

- Exclusion zones during works
- Preparation of a HIA and heritage inventory with protection measures recommended
- Use of a conservation architect/heritage engineer for station and bridge works where required

Artefact Heritage are the nominated heritage specialists and will work with the design team where required to provide advice and guidance to minimise heritage impact.

6.2.3 Conservation Architect

Where works are undertaken with the curtilage of a heritage item and would remove or impact significant heritage fabric (as identified by the HIA – see Section 6.2.9), work methodologies will be undertaken by skilled tradespeople in consultation with a conservation architect in accordance with REMM NAH20. At a minimum this would include works undertaken within the curtilages of:

- Canterbury Railway Station Group
- Wiley Park Railway Station Group
- South Dulwich Hill Heritage Conservation Area
- Hurlstone Park Railway Underbridge
- Canterbury (Cooks River) Underbridge
- Canterbury (Cooks River/Charles St) Underbridge – Main Line

The conservation architect would also advise on any treatment of the Old Sugarmill boundary wall (if required) in accordance with NAH11. Where works are undertaken near the Old Sugarmill, the Environmental Manager will also ensure that monitoring of the northern retaining wall is undertaken to ensure that vehicular movement in the area is not causing the wall to deteriorate. If evidence of deterioration is observed advice on management and treatment should be sought from the conservation architect.

Where works are undertaken within the curtilage of a heritage item but would not impact significant fabric, input from a conservation architect would not be required.

6.2.4 Archival Photographic Recording

Archival photographic recording would be undertaken according to the methodologies of the following documents as specified in E10, E12 and NAH13:

- NSW Heritage Council guideline “Photographic Recording of Heritage Items Using Film or Digital Capture” (2006); and
- NSW Heritage Office publication “How to Prepare Archival Records of Heritage Items” (1998).

SMC would involve the removal of ARTC redundant infrastructure and the installation of new overhead wiring infrastructure, GST and utilities within the curtilages of several stations and bridges. SMC would also involve the installation of fencing and throw screens at the rail/road bridges. As a result, archival recording required for the project area would include:

- Hurlstone Park Railway Underbridge
- Canterbury (Cooks River) Underbridge
- Canterbury (Cooks River/Charles St) Underbridge – Main Line
- Old Sugarmill

Archival recording would be limited to areas of the heritage items where direct or visual impacts would be minor or greater than minor, or where the works would impact heritage items listed on the SHR. Due to the negligible visual impact to Old Sugarmill, archival recording of the heritage item would be limited to external views and vistas. Where an archival recording has been previously prepared for a heritage item an additional archival recording would not be required as part of SMC, this is the case for all stations.

Due to the minor nature of the works archival recordings would not be required for the heritage items which are located further from the SMC works or that would not be impacted, including:

- Sewage Pumping Station 271

- Stone house, including interiors
- South Dulwich Hill Heritage Conservation Area
- Inter-War Hotel (former Hotel Canterbury)
- Federation Post Office Building (former Canterbury Post Office)
- Electricity substation no. 275
- Federation House (former station master's cottage)
- Post-war bus shelter and public lavatories
- Lakemba Water Pumping Station (WP0003)

The Heritage Archival Recording Report will be prepared within two years of completion of SMC archival recording in accordance with condition E12 and submitted to the Planning Secretary, the Heritage Council of NSW and Heritage NSW, DPC.

6.2.5 [Heritage Interpretation](#)

A HIS has been prepared for Sydney Metro City & Southwest: Sydenham to Bankstown Line by Artefact Heritage (October 2020). A separate strategy is therefore not required for SMC. Individual Heritage Interpretation Plans have also been prepared for each station precinct by Artefact Heritage as part of the SWM detailed design. Therefore, due to the minor nature of the works additional Heritage Interpretation Plans are not required for SMC.

6.2.6 [Heritage Engineer](#)

As the listed items to be directly impacted are road/rail bridges a heritage engineer would be consulted in regard to any significant structural issues (where required).

6.2.7 [Exclusion zones](#)

Exclusion zones, including hoarding, screening or mapped no go zones would be provided where SMC works are to be undertaken in close proximity to heritage items, or significant elements of items that are not to be impacted. In accordance with NAH16, at a minimum the locations of the following heritage items would be identified on environmental control plans:

- Sewage Pumping Station 271
- Stone house, including interiors
- Marrickville Railway Station Group
- Dulwich Hill Railway Station Group
- Hurlstone Park Railway Station Group
- Canterbury Railway Station Group
- Campsie Railway Station Group
- Belmore Railway Station Group
- Lakemba Railway Station Group
- Wiley Park Railway Station Group
- Punchbowl Railway Station Group
- Hurlstone Park Railway Underbridge
- Old Sugarmill
- Inter-War Hotel (former Hotel Canterbury)
- Federation Post Office Building (former Canterbury Post Office)
- Electricity substation no. 275
- Federation House (former station master's cottage)
- Post-war bus shelter and public lavatories
- Lakemba Water Pumping Station (WP0003)
- Canterbury (Cooks River) Underbridge

- Canterbury (Cooks River/Charles St) Underbridge – Main Line
- South Dulwich Hill Heritage Conservation Area

Physical barriers such as hoarding, screening or protective blankets would primarily be needed for works that are to be undertaken within about 5m of a heritage item or significant fabric of a heritage item. Due to the proximity of the works to significant heritage fabric physical barriers would be used during works at the following heritage items:

- Marrickville Railway Station (where works are undertaken adjacent to the platforms)
- Dulwich Hill Railway Station (where works are undertaken adjacent to the platforms)
- Canterbury Railway Station (where works are undertaken adjacent to the platforms and bridges)
- Wiley Park Railway Station (where works are undertaken adjacent to and within the platform)
- Hurlstone Railway Station (where works are undertaken adjacent to the platforms)
- Campsie Railway Station (where works are undertaken adjacent to the platforms)
- South Dulwich Hill Heritage Conservation Area (to protect the significant Depression era brick pavement)
- Hurlstone Park Railway Underbridge
- Inter-War Hotel (former Hotel Canterbury)
- Electricity substation no. 275
- Hurlstone Park Railway Underbridge
- Canterbury (Cooks River) Underbridge
- Canterbury (Cooks River/Charles St) Underbridge – Main Line

Confirmation regarding which heritage items require physical barriers during the works has been included in the HIA prepared for the SMC works – see Appendix D. The requirements for exclusion zones when working in the vicinity of the heritage items would be included in site inductions and toolbox meetings and marked on site maps (Section 6.4).

6.2.8 [Landscape scheme](#)

Planting along the eastern boundary of the Canterbury Bowls Club (adjacent to the Sugarmill site) should be reinstated if trees are impacted for the site compound in accordance with NAH11. The JHLOR would prepare and implement the landscape scheme should it be triggered by their activities. The preparation of a landscape scheme would be consistent with Policy 13 of the Old Sugarmill CMP (see Appendix C).

6.2.9 [Heritage Impact Assessment](#)

A significant fabric inventory has been prepared by Metron during the design phase for the station curtilages. Detailed impact assessments have also been prepared for the stations. For items outside the station curtilages an inventory and HIA would be completed for SMC.

A HIA and inventory which outlines potential impacts and protection measures for significant fabric, spaces and vistas has been prepared for the following items:

- Sewage Pumping Station 271
- Stone house, including interiors
- Marrickville Railway Station Group
- Dulwich Hill Railway Station Group
- Hurlstone Park Railway Station Group
- Canterbury Railway Station Group
- Campsie Railway Station Group
- Belmore Railway Station Group

- Lakemba Railway Station Group
- Wiley Park Railway Station Group
- Punchbowl Railway Station Group
- Old Sugarmill
- Inter-War Hotel (former Hotel Canterbury)
- Federation Post Office Building (former Canterbury Post Office)
- Electricity substation no. 275
- Federation House (former station master's cottage)
- Post-war bus shelter and public lavatories
- Hurlstone Park Railway Underbridge
- Canterbury (Cooks River) Underbridge
- Canterbury (Cooks River/Charles St) Underbridge – Main Line
- Lakemba Water Pumping Station (WP0003)
- South Dulwich Hill Heritage Conservation Area

The HIA includes assessment of impacts to elements and significant fabric and has been provided for review to Sydney Metro – see Appendix D.

Additional heritage memos may be prepared during the SMC works to provide further advice and assessment where appropriate.

It is noted that only the exteriors of the items 'Sewage Pumping Station 271', 'Stone house, including interiors', 'Old Sugarmill', 'Inter-War Hotel (former Hotel Canterbury)', 'Federation Post Office Building (former Canterbury Post Office)', 'Electricity substation no. 275', 'Federation House (former master's cottage)', 'Post-war bus shelter and public lavatories' and 'Lakemba Water Pumping Station (WP0003)' have been included as these items are located outside of SMC and there are no impacts to the interiors associated with the works.

6.3 Non-Aboriginal Archaeological Management

6.3.1 Archaeological Zoning

The AARD divided the project into archaeological management zones based on archaeological potential and construction impacts. These management zones are the high level framework on which site specific archaeological management documents are based.

Archaeological management zone mapping in Figures 6.1 to 6.4 is based on a 'traffic light' coding:

- **Red (Zone 1):** Direct impact to significant archaeology. Archaeological investigation required prior to any construction impacts (bulk excavation etc.).
- **Amber (Zone 2):** Potential impact to significant archaeology. Prepare Work Stage Specific AMS once construction methodology and impacts are known. Archaeological investigation is likely required.
- **Green (Zone 3):** Unlikely to contain significant archaeology. Construction to proceed with Unexpected Heritage Finds Procedure as nil-low potential for significant archaeological remains.

6.3.2 Archaeological Management

Archaeological management would be undertaken in accordance with the works specific AMS documents and in accordance with the archaeological zoning plan and AARD (Figures 6.1 and 6.2).

6.3.3 Archaeological Method Statement

An AMS has been prepared for the SMC and includes management for works within the defined areas of archaeological potential near Marrickville, Canterbury, Belmore and Lakemba Stations and Canterbury Construction Site that would be impacted, as well as the procedure for managing unexpected archaeological finds across the remainder of the corridor. The AMS includes detail on archaeological potential and significance based on the AARD with additional information related to the subject site as required. It includes a methodology for archaeological management such as archaeological monitoring and test/salvage excavation in accordance with the AARD approved methodology. In accordance with NAH12 the AMS also includes a methodology for analysis of heritage items, archaeological and artefact management strategies and a sieving strategy.

The AMS includes the following management measures for works within the defined areas of archaeological potential:

- Archaeological monitoring during excavation works including non-destructive digging, potholing, clearing and grubbing, installation of CSR and fences and the relocation of Sydney Trains cables, at Marrickville, Canterbury, Belmore and Lakemba Stations within Zone 2 areas
- Archaeological test excavation is required within the Canterbury Construction Site, identified as Zone 1, where the proposed works would potentially impact significant archaeological remains. Where significant archaeological remains are identified during test excavations and impacts cannot be avoided, a program of archaeological salvage excavation will be required to investigate and document the archaeological remains before any impacts could occur.

6.3.4 Excavation Directors

Before excavation of archaeological management sites, the Proponent must nominate a suitably qualified Excavation Director who complies with the Heritage Council of NSW's Criteria for Assessment of Excavation Directors (July 2011) to oversee and advise on matters associated with historic archaeology and advise the Department of Planning, Industry & Environment (DPI&E) and Heritage NSW, DPC.

The nominated Primary Excavation Director is Dr Iain Stuart, Secondary Excavation Director is Jenny Winnett, with Duncan Jones as Site Director. The Excavation Director will have input into any AMS for areas where local or State significant archaeology is to be impacted and would oversee archaeological investigations and responses to unexpected finds as required, including:

- Archaeological monitoring during excavation works at Marrickville, Canterbury, Belmore and Lakemba Stations within Zone 2 areas
- Archaeological test excavations within the Zone 1 Canterbury Construction Site
- Programs of archaeological salvage excavation as required.

Roles and responsibilities are discussed in table 7-1.

6.3.5 Unexpected finds

Unexpected non-Aboriginal archaeological finds would be managed under the Sydney Metro Unexpected Heritage Finds Procedure (see Appendix E).

An archaeological find would be unexpected if it was not identified in the AARD or the AMS 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, 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 would only be required if the relic was unexpected.

6.3.6 Clearance

A written clearance confirmation would be provided by the Primary Excavation Director to JHLOR once archaeological management has been completed in an area. This would be signed off by Metro before works commenced. Construction would continue under the Unexpected Heritage Finds Procedure.

6.3.7 Human Remains

If suspected human remains are identified, the Sydney Metro Exhumation Management Plan would be implemented in accordance with E15, E16 and E17.

Works will immediately cease in that area. The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist and Sydney Metro ER. This requirement will form part of the site induction. The Sydney Metro Exhumation Management Plan will be enacted. Preliminary notification to the NSW Police will be undertaken by JHLOR.

Once confirmation is received from the technical specialist that the remains are of human origin, there are three possible statutory pathways to follow based on the assessment. Refer to the Sydney Metro Exhumation Management Plan.

No works to recommence until clearance is provided by Heritage NSW, DPC and/or the NSW Police as per the Sydney Metro Exhumation Management Plan

Dr Denise Donlon is the nominated forensic anthropologist for the Project. She would be consulted in the event of a discovery of expected human remains.

6.3.8 Storage of archaeological remains

Where possible artefact cleaning and preliminary cataloguing would occur on site, otherwise artefacts would be catalogued and stored off site at the Metro facility at Rosebery. Details on proposed sampling and analysis are provided in the AMS document in accordance with the AARD. Artefact's cataloguing database would be used along with a sampling procedure outlined in the AMS and approved by the Primary Excavation Director.

6.3.9 Analysis and reporting

A preliminary results report will be prepared within two months of completion of archaeological work. This would be prepared under the direction of the Primary Excavation Director.

An EDR will be prepared within two years of completion of SMC archaeological excavations and submitted to the Planning Secretary, the Heritage Council of NSW and Heritage NSW, DPC in accordance with conditions E10, E11 and E12.

The EDR will be prepared in accordance with the standard requirements of an Excavation permit issued by the Heritage Council:

- a. An executive summary of the archaeological programme;
- b. Due credit to the client paying for the excavation, on the title page;
- c. An accurate site location and site plan (with scale and north arrow);
- d. Historical research, references and bibliography;
- e. Detailed information on the excavation, including the aim, the context for the excavation, procedures, treatment of artefacts (cleaning, conserving, sorting, cataloguing, labelling, scale photographs and/or drawings, location of repository) and analysis of the information retrieved;
- f. Nominated repository for the items;
- g. Detailed response to research questions (at minimum those stated in the approved Research Design);
- h. Conclusions from the archaeological programme. The information must include a reassessment of the site's heritage significance, statement(s) on how archaeological investigations at this site have contributed to the community's understanding of the site and other comparable archaeological sites in the local area and any relevant recommendations for the future management of the site information and artefacts;
- i. Details of how this information about this excavation has been publicly disseminated (for example provide details about Public Open Days and include copies of press releases, public brochures and/or information signs produced to explain the archaeological significance of the site).

Figure 6-1 Archaeological Management zoning for Marrickville Station (Artefact Heritage 2017c)

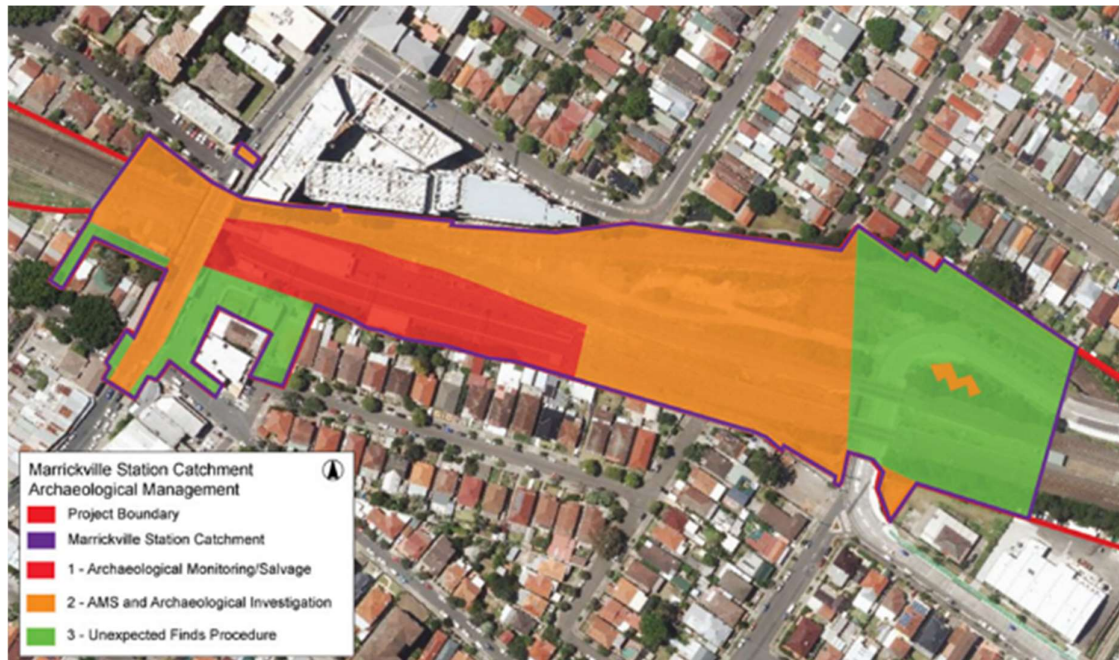


Figure 6-2 Archaeological Management zoning for Canterbury Station (Artefact Heritage 2017c)



Figure 6-3 Archaeological Management zoning for Belmore Station (Artefact Heritage 2017c)



Figure 6-4 Archaeological Management zoning for Lakemba Station (Artefact Heritage 2017c)



Table 6-1 SMC Construction, Management Action and Responsibilities, Aboriginal Heritage

Management Action	Trigger/Timing	Responsibility	Description of Management
Monitoring			
The Environment Manager will undertake weekly inspections and monitoring of construction activities to ensure compliance with the requirements of the CoA and this plan.	Weekly during construction	Environmental Manager	<ul style="list-style-type: none"> Undertake weekly inspections and monitoring of construction activities to ensure compliance with the requirements of the CoAs and this plan.
Daily inspections of controls will be undertaken by Supervisors during works.	Daily during construction	Site Supervisors	<ul style="list-style-type: none"> Complete daily inspections of the controls during works.
Management			
All relevant personnel and contractors involved in the design and construction of the Project must be advised of the relevant heritage considerations, legislative requirements and commitments.	Pre-construction	Environmental Manager Archaeologist	<ul style="list-style-type: none"> Ensure all personnel involved in earthworks or any type of disturbance are appropriately trained / inducted and made aware of the cultural significance of the area, including site identification and materials likely to be uncovered. Personnel will be instructed to notify the Environmental Manager in the event they identify any object which they believe to be of archaeological or cultural origin.
Aboriginal stakeholder identification (RAP) and contact details in case of unexpected finds.	Pre-construction	Environmental Manager	<ul style="list-style-type: none"> Identify RAPs (Appendix B). Contact RAPs in accordance with the Unexpected Heritage Finds Protocol in the case of unexpected finds of an Aboriginal object or potential Aboriginal human skeletal remains and/or Aboriginal burials (AH1). RAPs should be consulted prior to test or salvage excavation commencing in accordance with the project ACHAR and should be given the opportunity to participate in any excavation works in accordance with the ACHAR.

Incident Response				
Unexpected finds procedures for Aboriginal objects.	Identification of potential Aboriginal heritage artefacts or other sensitive cultural values.	Environmental Manager	<ul style="list-style-type: none"> Following the discovery of new finds of Aboriginal objects – works will cease in the immediate area and the area secured in accordance with the Unexpected finds Procedure which in accordance with E15, E16, E17, AH5, NAH14 and NAH18. Assessment of the site/object and subsequent management of the site will be carried out in accordance with the Sydney Metro Unexpected Heritage Finds Protocol and the ACHAR (AH2). In addition, the site will be recorded on standard AHIMS site cards and lodged with Heritage NSW, DPC. Upon completion of any unexpected finds reporting and required mitigation measures, post excavation reporting in accordance with the Heritage NSW, DPC Aboriginal heritage requirements will be undertaken within 12 months of the completion of the Project. Post-excavation report to be prepared by the Aboriginal archaeologist in consultation with the RAPs. 	
Unexpected finds procedures for human skeletal remains.	Identification of a potential burial or discovery of skeletal remains.	Environmental Manager	<ul style="list-style-type: none"> Works will immediately cease in that area. The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist and Sydney Metro ER (E17, NAH14, AH5, NAH19). The Sydney Metro Exhumation Management Plan (E15) will be enacted. Preliminary notification to the NSW Police will be undertaken by the Sydney Metro Environmental Manager. Once confirmation is received from the technical specialist that the remains are of human origin, there are three possible statutory pathways to follow based on the assessment. Refer to the Sydney Metro Exhumation Management Plan. No works to recommence until clearance is provided by Heritage NSW, DPC and/or the NSW Police as per the protocol outlined in Section 6.3.7 of this CHMP and the Sydney Metro Exhumation Management Plan. 	
Where impacts are identified outside the project area	New impact areas not previously surveyed	Environmental Manager	<ul style="list-style-type: none"> Non-conformance procedures outlined in the CEMP (Section 17). Where practicable avoid additional impacts, or confirm appropriate mitigation measures. Ensure that consistency assessments are undertaken for any new impact areas and approval sought from Sydney Metro. Further consultation with RAPs would be required where a consistency assessment identifies additional impacts to Aboriginal heritage. The consistency assessment would outline appropriate mitigation measures. 	
Site clearance after archaeological management completed	Construction	Environmental Manager Aboriginal archaeological Excavation Director	<ul style="list-style-type: none"> Site clearance would be required from the project archaeologist prior to construction commencing. This clearance would be in the form of a memo or email and would apply to a work specific area or the project sites as a whole, depending on stage of works. 	

Table 6-2 SMC Construction, Management Action and Responsibilities, Built Heritage

Management Action	Trigger/Timing	Responsibility	Description of Management
Monitoring			
The Environment Manager will undertake weekly inspections and monitoring of construction activities to ensure compliance with the requirements of the CoA and this plan.	Weekly during construction	Environmental Manager	<ul style="list-style-type: none"> Undertake weekly inspections and monitoring of construction activities to ensure compliance with the requirements of CoAs and this plan.
Daily inspections of controls will be undertaken by Supervisors during works.	Daily during Construction	Site Supervisors	<ul style="list-style-type: none"> Complete daily inspections of the controls during works.
Vibration monitoring	Construction	Environmental Manager	<ul style="list-style-type: none"> Vibration monitoring will be undertaken in accordance with Section 8 of the Construction Noise and Vibration Management Sub-plan.
Management			
General	Pre-construction and construction	Coordinated by Metro and Head Contractor	<ul style="list-style-type: none"> Heritage issues arising during design development and throughout the construction period will be raised for discussion if required at Environmental Fortnightly Meetings with Sydney Metro, the ER and JHLOR. Issues will be escalated to Heritage NSW, DPC and DPI&E where necessary
Archival recording	Pre-construction	Heritage Specialist where not completed by Metro	<ul style="list-style-type: none"> Archival recording required would be conducted by the heritage specialist in accordance with E10, E12 and REMM NAH13. The Heritage Archival Recording Report will be submitted to Planning Secretary, the Heritage Council of NSW and Heritage NSW, DPC within two years of completion of SMC archival recording in accordance with condition E12.
Heritage Interpretation	Pre-construction	Environmental Manager Heritage Specialist / Artefact	<ul style="list-style-type: none"> A HIS has been prepared for Sydney Metro City & Southwest by Metro (February 2018) (E13, NAH6). A separate strategy therefore is not required for SMC. Individual Heritage Interpretation Plans have been prepared for the station precincts by Artefact Heritage as part of the detailed design. Therefore, due to the minor nature of works additional Heritage Interpretation Plans would not be required for SMC (E14).
Heritage Inductions	Pre-construction and Ongoing	Environmental Manager	<ul style="list-style-type: none"> Contractors will be given awareness training on Aboriginal and non-Aboriginal historic heritage prior to commencement of their work on site. All site personnel shall undergo such site specific induction training, which will include environmental awareness training in addition to heritage management training.

Management Action	Trigger/Timing	Responsibility	Description of Management
Heritage Impact Assessment	Pre-construction and Ongoing	Environmental Manager	<ul style="list-style-type: none"> Toolbox meetings will also be undertaken as and when required; covering specific environmental issues and heritage control measures as identified in this CHMP. Personnel directly involved in implementing heritage control measures on site will be given specific training in the various measures to be implemented. Records of all training are to be filed in accordance with the project filing system. A significant fabric inventory has been prepared by Metron during the design phase for the station curtilages. Detailed HIAs have also been prepared for the stations. For items outside the station curtilages an inventory and HIA have been completed for SMC. A HIA and inventory which outlines potential impacts and protection measures for significant fabric, spaces and vistas has been prepared for the following items: <ul style="list-style-type: none"> Marrickville Railway Station Group Dulwich Hill Railway Station Group Hurlstone Park Railway Station Group Canterbury Railway Station Group Campsie Railway Station Group Belmore Railway Station Group Lakemba Railway Station Group Wiley Park Railway Station Group Punchbowl Railway Station Group Sewage Pumping Station 271 Stone house, including interiors Old Sugarmill Inter-War Hotel (former Hotel Canterbury) Federation Post Office Building (former Canterbury Post Office) Electricity substation no. 275 Federation House (former station master's cottage) Post-war bus shelter and public lavatories Lakemba Water Pumping Station (WP0003) Hurlstone Park Railway Underbridge Canterbury (Cooks River) Underbridge Canterbury (Cooks River/Charles St) Underbridge – Main Line South Dulwich Hill Heritage Conservation Area The HIA includes an assessment of impacts to significant fabric, elements and vistas. The HIA has been provided for review to Sydney Metro.

Management Action	Trigger/Timing	Responsibility	Description of Management
			It is noted that only the exteriors of the items 'Sewage Pumping Station 271', 'Stone house, including interiors', 'Old Sugarmill', 'Inter-War Hotel (former Hotel Canterbury)', 'Federation Post Office Building (former Canterbury Post Office)', 'Electricity substation no. 275', 'Federation House (former master's cottage)', 'Post-war bus shelter and public lavatories' and 'Lakemba Water Pumping Station (WP0003)' will be included as these items are located outside of SMC and there are no impacts to the interiors associated with the works. The HIA has been provided for review to Sydney Metro.
Conservation Architect	Pre-construction and Ongoing	Environmental Manager	<ul style="list-style-type: none"> A heritage conservation architect should be consulted where direct impacts to significant fabric are proposed in accordance with NAH20. This would generally be in relation to reviewing work methodologies and providing design advice and recommendations.
Heritage Engineer	Pre-construction and Ongoing	Environmental Manager	<ul style="list-style-type: none"> Where significant impacts to bridge fabric are proposed a heritage engineer would be consulted in regard to any structural issues, where required. However, due to the minor nature of the bridge works, which largely be limited to the installation of new segregation and safety fencing at 'Hurlstone Park Railway Underbridge', 'Canterbury (Cooks River) Underbridge' and 'Canterbury (Cooks River/Charles St) Underbridge – Main Line', it is unlikely that a heritage engineer will need to be engaged for SMC.
Exclusion Zone	Pre-construction and Ongoing	Environmental Manager	<ul style="list-style-type: none"> Exclusion zones, including hoarding, screening or mapped no go zones would be provided where SMC are to be undertaken in close proximity to heritage items, or significant elements of items that are not to be impacted. Where access is required within the exclusion zones this would be managed by inductions (Section 6.4). In accordance with NAH1 and NAH16, at a minimum the locations of the following heritage items would be identified on environmental control plans: <ul style="list-style-type: none"> - Sewage Pumping Station 271 - Stone house, including interiors - Marrickville Railway Station Group - Dulwich Hill Railway Station Group - Hurlstone Park Railway Station Group - Canterbury Railway Station Group - Campsie Railway Station Group - Belmore Railway Station Group - Lakemba Railway Station Group - Wiley Park Railway Station Group - Punchbowl Railway Station Group - Hurlstone Park Railway Underbridge - Canterbury (Cooks River) Underbridge - Canterbury (Cooks River/Charles St) Underbridge – Main Line - Old Sugarmill

Management Action	Trigger/Timing	Responsibility	Description of Management
			<ul style="list-style-type: none"> - Inter-War Hotel (former Hotel Canterbury) - Federation Post Office Building (former Canterbury Post Office) - Electricity substation no. 275 - Federation House (former station master's cottage) - Post-war bus shelter and public lavatories - Lakemba Water Pumping Station (WP0003) - South Dulwich Hill Heritage Conservation Area <p>Physical barriers such as hoarding or screening would primarily be needed for works within 5 m of a listed heritage item or within a curtilage if significant fabric is within 5 m of works, such as works undertaken in proximity to the railway station heritage curtilages, listed bridges and significant footpath adjacent to the Albermarle Street rail bridge in the South Dulwich Hill Conservation Area. Due to the proximity of the works to significant heritage fabric physical barriers would be used during works at the following heritage items:</p> <ul style="list-style-type: none"> - Marrickville Railway Station Group - Dulwich Hill Railway Station Group - Hurlstone Park Railway Station Group - Canterbury Railway Station Group - Wiley Park Railway Station Group - Campsie Railway Station Group - Hurlstone Park Railway Underbridge - Canterbury (Cooks River) Underbridge - Canterbury (Cooks River/Charles St) Underbridge – Main Line - Inter-War Hotel (former Hotel Canterbury) - Electricity substation no. 275 - South Dulwich Hill Heritage Conservation Area <p>Confirmation regarding which heritage items would require physical barriers during the works have been included in the HIA prepared for the SMC works. The requirements for exclusion zones when working in the vicinity of the heritage items would be included in site inductions and toolbox meetings (Section 6.4).</p>

Table 6-3 SMC Construction, Management Action and Responsibilities, Non-Aboriginal archaeology

Management Action	Trigger/Timing	Responsibility	Description of Management
Monitoring			
The Environment Manager will undertake weekly inspections and monitoring of construction activities to ensure compliance with the requirements of the CoA and this plan.	Weekly during construction	Environmental Manager	<ul style="list-style-type: none"> Undertake weekly inspections and monitoring of construction activities to ensure compliance with the requirements of CoAs and this plan.
Daily inspections of controls will be undertaken by Supervisors during works.	Daily during Construction	Site Supervisors	<ul style="list-style-type: none"> Complete daily inspections of the controls during works.
Vibration monitoring	Construction	Environmental Manager	<ul style="list-style-type: none"> Vibration monitoring will be undertaken in accordance with Section 8 of the Construction Noise and Vibration Management Sub-plan.
Management			
Nomination of an Excavation Director	Pre-construction	Environmental Manager Archaeologist	<ul style="list-style-type: none"> Before excavation of archaeological management sites, a qualified Excavation Director (ED) would be nominated who complies with the Heritage Council of NSW's Criteria for Assessment of Excavation Directors (July 2011) in accordance with the AARD. DPI&E and Heritage NSW, DPC shall be advised of the nominated ED by Sydney Metro. Dr Iain Stuart has been nominated as the Primary Excavation Director and Jenny Winnett as the Secondary Excavation Director.
Preparation of AMS	Construction	Environmental Manager Archaeologist	<ul style="list-style-type: none"> A works specific AMS has been prepared for SMC in accordance with the excavation methodology outlined in the AARD (NAH12). The AMS has been signed off by the Primary Excavation Director.
Archaeological management	Construction	Environmental Manager Archaeologist	<ul style="list-style-type: none"> Non-Aboriginal archaeological management is to be undertaken in accordance with the AARD and AMS. Zoning for the Project is shown in Figure 6-1 and Figure 6.2. Archaeological management would be undertaken in those portions of identified archaeological management zones near Marrickville, Canterbury, Belmore and Lakemba Stations. Details of required management are outlined in the AMS.
Notification and management of relics	Construction	Sydney Metro Archaeologist	<ul style="list-style-type: none"> If any potential relics are located the ED would assess significance of the find and provide advice. If relics are of local or State significance and are not identified in the AARD or AMS, Heritage NSW, DPC would be notified under s146 of the Heritage Act.

Management Action	Trigger/Timing	Responsibility	Description of Management
Site clearance after archaeological management completed	Construction	Environmental Manager Excavation Director	<ul style="list-style-type: none"> Site clearance would be required from the Primary ED prior to construction. This clearance would be in the form of a memo or email and would apply to a work specific area or the project sites as a whole, depending on stage of works.
Archaeological reporting	Construction	Environmental Manager Archaeologist	<ul style="list-style-type: none"> Archaeological reporting and find management would be undertaken in accordance with the AARD. The EDR will be prepared within two years of completion of archaeological program in accordance with condition E10, E11 and E12. The Excavation Director would oversee preparation of the report.
Heritage Inductions	Ongoing	Environmental Manager	<ul style="list-style-type: none"> All site personnel shall undergo site specific induction training, which will include environmental awareness and heritage management training. Toolbox meetings will also be undertaken as and when required; covering specific environmental issues and heritage control measures as identified in this CHMP and in the HIA, such as what exclusion zones are necessary when working in the vicinity of heritage items. Personnel directly involved in implementing heritage control measures on site will be given specific training in the various measures to be implemented. Records of all training are to be filed in accordance with the project filing system.
Incident Response			
Unexpected finds procedure for non-Aboriginal artefacts and relics.	During construction	Environmental Manager	<ul style="list-style-type: none"> If unexpected finds are located during works the Unexpected Heritage Finds Procedure would be followed in accordance with the Sydney Metro Unexpected Heritage Finds Procedure and E15, E16, E17, NAH14 and NAH18. Further archaeological work or recording may be recommended.
Unexpected finds procedures for human skeletal remains.	Identification of a potential burial or discovery of skeletal remains.	Environmental Manager	<ul style="list-style-type: none"> Works will immediately cease in that area. The discoverer will immediately notify machinery operators so that no further disturbance of the remains will occur, as well as notify the foreman/site supervisor, principal contractor, project archaeologist and Sydney Metro ER (E17, NAH14, NAH19). The Sydney Metro Exhumation Management Plan (E15) will be enacted. Preliminary notification to the NSW Police will be undertaken by the Sydney Metro Environmental Manager. Once confirmation is received from the technical specialist that the remains are of human origin, there are three possible statutory pathways to follow based on the assessment. Refer to the Sydney Metro Exhumation Management Plan. No works to recommence until clearance is provided by Heritage NSW, DPC and/or the NSW Police as per the protocol outlined in Section 6.3.7 of this CHMP and the Sydney Metro Exhumation Management Plan.

6.4 Heritage Awareness Training (Induction)

All relevant personnel and contractors involved in the Project will be advised of the relevant heritage considerations and legislative requirements and cultural awareness training will be undertaken for all, including those involved with ground disturbing activities, which will include the following as relevant:

- Information on the heritage significance
- Information on the Aboriginal archaeological and cultural heritage values of the Project
- Outline the location and type of archaeological sites within the Project and give instructions not to disturb these sites
- Provide clear information about statutory obligations for heritage in accordance with the NP&W Act. It is important to note that failure to report a discovery and those responsible for the damage or destruction occasioned by unauthorised removal or alteration to a site or to archaeological material may be prosecuted under the NP&W Act (as amended)
- How to identify stone artefacts and other Aboriginal heritage sites
- Stop works and reporting protocols for discovery of previously unknown heritage and archaeological items
- All relevant personnel and contractors involved in the Project will be advised of the relevant heritage considerations, legislative requirements and recommendations in the Non-Aboriginal HIA (Artefact Heritage 2012; 2015)
- All personnel involved with ground disturbing activities are made aware of their obligations to avoid any impacts to non-Aboriginal heritage under the Heritage Act
- This will include information on historic heritage sites and 'relics' and information about statutory obligations under the Heritage Act
- This will also include information on the potential for human skeletal remains and the requirements of the Sydney Metro Exhumation Management Procedure
- All relevant personnel and contractors involved in the Project will be advised of the mitigation measures and recommendations in the SMC HIA
- Information relating to the nature of works and potential impacts via pre-starts at the start of activity
- Information relating to the necessary exclusion zones when working in the vicinity of heritage items
- Information about appropriate storage of materials, for example within designated laydown zones and only brought in when ready to install.

All training and tool box meetings will be recorded by JHLOR. All project documentation, including environmental compliance and training records, will be kept as objective evidence of compliance with environmental requirements.

6.5 Unexpected Finds Procedure

If any potential significant archaeological remains or Aboriginal heritage objects, as protected under NSW legislation, are uncovered during the works, then the Sydney Metro Unexpected Heritage Finds procedure would be implemented.

6.6 Ongoing Notifications – Unexpected Finds

The following protocol will be followed with respect to ongoing notifications.

- For all unexpected heritage finds the project Environmental Manager shall notify the Sydney Metro ER and Sydney Metro Heritage Program Manager in accordance with the Sydney Metro Unexpected Finds Procedure
- Notification under s146 would only be required if the relic was unexpected and would apply to relics of State significance
- For unexpected Aboriginal archaeological finds, RAPs will be notified immediately
- Notification to the RAPs will occur within 1 week where changes to the Project are identified that may have implications for Aboriginal heritage management (such as changes in design)
- Feedback requested from the RAPs should be received within two weeks and no later than four weeks from the date correspondence is issued
- The appropriate address and format for responses shall be provided as part of the request. Where no response is issued within this timeframe, a follow-up phone call will be made by the Environmental Manager (or project Heritage Specialist) to close out the outstanding request
- All notification and consultation records will be kept by JHLOR and its relevant consultants.

7. Roles and Responsibilities

Relevant roles and responsibilities associated with this CHMP are presented in Table 7-1. All personnel are responsible for ensuring that heritage items are protected.

It is important to note that failure to report a discovery and those responsible for the damage or destruction occasioned by unauthorised removal or alteration to a site or to archaeological material may be prosecuted under the NP&W Act (as amended).

Table 7-1 Roles and Responsibilities

ROLES	RESPONSIBILITIES
Department of Planning, Industry and Environment	Approval of the Heritage Management Plan Monitor JHLOR compliance with the Heritage Management Plan
Project Director	Ensure that sufficient resources are allocated for the implementation of this CHMP Ensure that the CEMP covers the management and mitigation measures presented in this CHMP Ensure that the outcomes of the visual checks/ compliance construction monitoring/ incident reporting are systematically evaluated as part of ongoing management of construction activities Ensure audits of construction site records/ monitoring records/ incident reports are undertaken and findings are shared with relevant site personnel and corrective actions are implemented Authorise all monitoring reports and any revisions to this CHMP
Environment Manager	Oversee the overall implementation of this CHMP Site Inductions Ensure all relevant personnel have access to and understand the most up-to-date copy of this CHMP Ensure that any required actions arising from the detection of unexpected heritage items or if works are required outside of the approved development footprint are reported to the relevant personnel for further action and ensure that the actions are effectively implemented Ensure all monitoring reporting requirements are met and maintained on site
Construction supervisors Subcontractors	Understand and implement mitigation protocols as required in the CHMP and any other required measures during construction Undertake relevant training to implement the requirements of this CHMP All personnel are responsible for ensuring that heritage items are protected All site personnel to undertake toolbox talks in relation to the reporting process for unexpected finds. Informing the Environmental Manager of any heritage issues as they arise.

ROLES	RESPONSIBILITIES
Environmental Representative	<p>Receive and respond to communications from the Secretary in relation to the environmental performance of the Project</p> <ul style="list-style-type: none"> • Receive and respond to communication from the Planning Secretary in relation to the environmental performance of the CSSI; • Consider and inform the Planning Secretary on matters specified in the terms of this approval; • Consider and recommend to the Proponent any improvements that may be made to work practices to avoid or minimise adverse impact to the environment and to the community; • Review documents identified in Conditions C1, C3 and C8 and any other documents that are identified by the Planning Secretary, to ensure they are consistent with requirements in or under this approval and if so: <ul style="list-style-type: none"> • (i) make a written statement to this effect before submission of such documents to the Planning Secretary (if those documents are required to be approved by the Planning Secretary), or • (ii) make a written statement to this effect before the implementation of such documents (if those documents are required to be submitted to the Planning Secretary for information or are not required to be submitted to the Secretary); • Regularly monitor the implementation of the documents listed in Conditions C1, C3 and C8 to ensure implementation is being carried out in accordance with the document and the terms of this approval; • As may be requested by the Planning Secretary, help plan, attend or undertake audits of the development commissioned by the Department including scoping audits, programming audits, briefings and site visits, but not independent environmental audits required under Condition A34 of this approval; • As may be requested by the Planning Secretary, assist the Department in the resolution of community complaints; • Assess the impacts of minor ancillary facilities as required by Condition A19 of this approval; • Consider any minor amendments to be made to the documents listed in Conditions C1, C3 and C8 and any document that requires the approval of the Planning Secretary that comprise updating or are of an administrative or minor nature and are consistent with the terms of this approval and the documents listed in Conditions C1, C3 and C8 or other documents approved by the Planning Secretary and, if satisfied such amendment is necessary, approve the amendment. This does not include any modifications to the terms of this approval; and • Prepare and submit to the Planning Secretary and other relevant regulatory agencies, for information, an ER Monthly Report detailing the ER's actions and decisions on matters for which the ER was responsible in the preceding month. The ER Monthly Report must be submitted within seven (7) days following the end of each month for the duration of the ER's engagement for the CSSI. <p>Must complete project induction covering LORs' environmental management system.</p>

ROLES	RESPONSIBILITIES
Primary Excavation Director	<p>The Primary Excavation Director must be suitably qualified and be someone who complies with the Heritage Council of NSW's <i>Criteria for Assessment of Excavation Directors</i> (July 2011) to oversee and advise on matters associated with historic archaeology and advise the DPI&E and Heritage NSW, DPC</p> <p>The Excavation Director must be present to oversee excavation and advise on archaeological issues</p> <p>The Excavation Director has the authority to advise on the duration and extent of oversight required as informed by the provisions of the approved AARD and Excavation Methodology</p> <p>The nominated Primary Excavation Director is Dr Iain Stuart who is able to manage State significant archaeology under the NSW Heritage Council Excavation Directors Criteria</p>
Secondary Excavation Director	<p>The secondary excavation director would support the Primary Excavation Director where needed.</p> <p>The nominated Secondary Excavation Director is Jenny Winnett who is able to manage locally significant archaeology under the NSW Heritage Council Excavation Directors Criteria</p>
Heritage Specialist	<p>The Heritage Specialist will be responsible for providing advice and guidance to manage and minimise potential impacts to any built heritage values through a variety of means, prepare HIA reports for built heritage and to undertake required archival recording of the heritage items in accordance with the approval and relevant documents.</p> <p>The nominated heritage specialist is Artefact Heritage</p>
Forensic Anthropologist	<p>The Forensic Anthropologist would respond to find of potential human remains in accordance with the Sydney Metro Exhumation Management Plan.</p> <p>The nominated Forensic Anthropologist is Dr Denise Donlon from Sydney University</p>
Conservation Architect	<p>The Conservation Architect would provide advice to tradespeople and review work methodologies where conservation, protection, or direct impacts to significant fabric of heritage are proposed. Technical/targeted advice provided by the Conservation Architect regarding impacts to built heritage would be in addition to any initial built heritage advice/mitigation measures provided by the Heritage Specialist.</p>

8. Monitoring, Auditing and Reporting

Monitoring, auditing and reporting will be undertaken in accordance with the CEMP, the management actions in Table 6-2 as well as additional requirements listed below.

The Environment Manager will undertake weekly inspections and monitoring of construction activities to ensure compliance with the requirements and heritage mitigation measures of the CoA and this plan.

The Weekly Environmental Inspection Checklist will be used to maintain compliance and effectiveness of controls.

Where works are undertaken within the vicinity of heritage curtilages and the HIA has identified the risk of vibration impacts, the Environmental Manager will ensure that vibration monitoring is undertaken in accordance with Section 8 of the Construction Noise and Vibration Management Sub-plan (Table 6-2). Where works are undertaken near the Old Sugarmill, the Environmental Manager will also ensure that monitoring of the northern retaining wall is undertaken to ensure that vehicular movement in the area is not causing the wall to deteriorate. Monitoring and inspection of the northern retaining wall of Old Sugarmill would be undertaken as part of the management of Policy 13 of the Old Sugarmill CMP (see Appendix C).

JHLOR will also undertake inspections in line with the SER – Heritage inspection review on a regular basis. The Heritage SER is a focused inspection on high risk activities that may impact on heritage and/or archaeology.

Items that require action will be documented on the site environmental inspection. Items that require specific and detailed action will be recorded on the Project's Corrective Action Register. The Site Construction Manager will be responsible for providing appropriate resources in terms of labour, plant and equipment to enable the items to be rectified in the nominated timeframes.

Daily inspections of controls will be made by Supervisors and maintenance will be undertaken during active site works. This will include checking that heritage mitigation measures outlined in this CHMP have been implemented.

Records associated with this management plan and monitoring programme will be maintained in accordance with Section 15 of the CEMP. Site inspections will be undertaken and maintained within FieldView, JHLOR's monitoring and inspection software.

9. Review and Improvement

Continuous improvement of this plan will be achieved by the ongoing evaluation of environmental management performance against environmental policies, objectives and targets for the purpose of identifying opportunities for improvement. These ongoing evaluations will be conducted by JHLOR on a 6-monthly basis.

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 and deficiencies.
- Develop and implement a plan of corrective and preventative action to address any non-conformances and deficiencies.
- Verify the effectiveness of the corrective and preventative actions.
- Document any changes in procedures resulting from process improvement.
- Make comparisons with objectives.

Any revisions to the CHMP will be in accordance with the process outlined in Section 21 of the CEMP. A copy of the updated plan and changes will be distributed to all relevant stakeholders in accordance with the approved document control procedure.

10. Enquiries, Complaints and Incident Management

Environmental incidents and complaints are to be investigated, documented, actioned and closed out as per the details provided in the Community Consultation Strategy and Section 19 of the CEMP, including those related to Aboriginal and non-Aboriginal cultural heritage.

Appendix A

Stakeholder Consultation Feedback

Condition of Approval SSI 8256	Agency Consultation	Consultation Workshop	Status	Comments	JHLOR Response
C3(d), C6 Construction Heritage Management Plan	Heritage Council	N/A	Submitted 25/11/2020 Response received 21/12/2020	<p>Dear Mr. Keegan</p> <p>Thank you for your email dated 25 November 2020 inviting comments from the Heritage Council of NSW on the Construction Heritage Management Plan for the above State Significant Infrastructure (SSI) proposal.</p> <p>The South West Metro Corridor includes several State Heritage Register (SHR) listed placed located within or near the proposed project area including:</p> <ul style="list-style-type: none"> Marrickville Railway Station Group (4801091) Old Sugarmill (00290) Canterbury Railway Station Group (01109) Belmore Railway Station Group (01081) <p>The following s170 items are located within and near the project area:</p> <p><u>RailCorp:</u></p> <ul style="list-style-type: none"> 12 items <p><u>Sydney Water:</u></p> <ul style="list-style-type: none"> Interwar water pumping station – Item No. 4570136 <p><u>Ausgrid:</u></p> <ul style="list-style-type: none"> Electricity Substation no. 275 – Item No. 3430425 <p>There are also several locally listed heritage places within and adjacent to the site listed on the Marrickville LEP 2011 and Canterbury LEP 2012.</p> <p>The Construction Heritage Management Plan to guide the works required for South West Sydney Metro has been reviewed. Please note that the Construction Heritage Management Plan supplied by Sydney Metro for the same SSI (8256) also lists the Sewage Pumping Station (SHR 01342) as being affected by the project proposal, which has been omitted from this document. It is recommended that this item be included as part of this report.</p> <p>HNSW notes the conclusion in the CHMP that impacts to potential archaeological resources are expected to be negligible to minor (Section 2.3.3) and that impacts to archaeology would be managed through archaeology specific documents prepared for the project such as the AARD and AMS documents as necessary.</p> <p>The submitted CHMP is considered satisfactory to guide the works required the South West Metro Corridor Works and the applicant is advised to follow the recommendations therein.</p> <p>As the site contains local heritage items, and other local are in the vicinity, advice should be sought from the relevant local councils. It is recommended that RailCorp, Sydney Water and Ausgrid be consulted for comment on items from their s170 registers.</p>	<p>Noted. Potential impacts to Sewage Pumping Station 271 (SHR 01342) and Lakemba Water Pumping Station (WP0003) (Sydney Water S170 4570136) were included in the HIA prepared for SMC (Appendix D). Management of potential impacts to the heritage items have been included in this CHMP.</p> <p>It is noted that there will be no direct impacts to Ausgrid or Sydney Water heritage items and therefore consultation is not necessary. Sydney Trains (Railcorp) has been consulted through the detailed design process. As such there is no need to consult through this CHMP.</p>
	City of Canterbury Bankstown	N/A	Submitted 30/11/2020 Response received 21/12/2020	<p>Hi all,</p> <p>Not very many comments from us, just a couple of things:</p> <p>Heritage Management Plan</p> <p>In the event of Unexpected Finds of Aboriginal cultural material, Sydney Metro should notify the Canterbury Bankstown Council Aboriginal and Torres Strait Islander Reference Group.</p>	<p>Noted. Recommendation added to the Aboriginal management of unexpected finds (Section 6.1.3).</p>
	Inner West Council	N/A	Submitted 3/12/2020 Response received 21/12/2020	<p>Hi Ken</p> <p>I have reviewed the CHMP, and the following issues have been identified:</p> <p>Table 6.2 (p. 62): Amend 'could' to 'shall'</p> <p>Table 7-1 Role and Responsibilities: The responsibility for advice regarding built heritage should rest with a conservation architect.</p>	<p>Noted. Responsibility of the conservation architect has been updated.</p>

Appendix B

Registered Aboriginal Parties

The list of registered Aboriginal stakeholders/RAPs and associated contact details for the Project area included below:

Stakeholder
Darug Land Observations
Darren Duncan
Murri Bidgee Mullangari Aboriginal Corporation
Tocomwall
Darug Aboriginal Cultural Heritage Assessments
Kamilaroi-Yankuntjatjara Working Group
Woronora Plateau Gundagarra Elders Council
Aboriginal Archaeology Service Inc
Gandangara Local Aboriginal Land Council
Metropolitan Local Aboriginal Land Council
Gundungurra Tribal Technical Services
Aboriginal Heritage Office (North Sydney Council)
Tony Williams
Bilinga Cultural Heritage Technical Services
Gunyyu Cultural Heritage Technical Services
Munyunga Cultural Heritage Technical Services
Murrumbul Cultural Heritage Technical Services
Wingikara Cultural Heritage Technical Services

Appendix C

Heritage Item Descriptions

The physical descriptions of the heritage listed items in or adjacent to the Project area are provided below. These descriptions have been primarily taken from the SHI listings for the items. The description for Lakemba Water Pumping Station (WP0003) has been taken from the Sydney Water S170 Heritage and Conservation Register). The description of Old Sugarmill has been extracted from the draft Conservation Management Plan for the heritage item (Bronwyn Hanna History & Heritage 2020). Relevant policies from the CMP for Old Sugarmill that have been considered in this CHMP and in the HIA (Appendix D) have also been included in this appendix.

Sewage Pumping Station 271

Residence

The residence is an unadorned two storey brick building designed in Federation Queen Anne style. Masonry is English bond and the facade is accentuated by timber filigree detailing. The pumping station/ boiler house is designed in classic Federation Romanesque style. Decorative Gothic buttresses with steep copings flank its sides, round headed windows surmounted by arches of rusticated sandstone typify the window openings, and the walls and gables are accentuated by machicolation motifs. The gables have sandstone copings with bracketed kneelers. The windows are small paned figured glass with pivotal awnings typical of the Federation style.

The internal doors are round headed diagonal panelled double doors and are similar in style to the external doors. The building originally had a slate roof with terracotta hips, ridges and finials.

Boiler, Engine House:

Both the boiler and engine house have since been clad in terracotta tile. The gable roofs have monitors, which are centrally placed and continue approximately half the length of the roof and are fitted with fixed steel louvres. The roof truss in the engine house is a delicate hand-wrought Warren truss strengthened internally with matchboarding. The exposed rafters are rounded on the ends and this attention to detail is typical of the quality of carpentry throughout. The internal pilasters, which correspond with the buttresses, hold the overhead crane rail.

Crane:

The overhead crane is a simple undertrussed steel girder hand operated crane typical of the early twentieth century.

Chimney Stack:

The chimney stack is polychromatic brickwork on a square base which changes to an octagonal shaft some three metres above the ground. It is finished with an ornate cap. The stack is a local landmark.

Stone house, including interiors

The house at 1 Myrtle Street, Marrickville was built as Loch Lomond as the home of James Meek Jnr circa 1870s. James Meek Snr built a stone cottage in Harriet Street in 1860 which was subsequently demolished. Loch Lomond was built by his son to the same design but on a larger scale. James Jnr, who married Harriet Fairburn in 1866, lived in Loch Lomond and raised their eight children there until a new residence, Myrtle Grove, was built in 1887. The house was occupied by C.G. Neilson in the 1920s under the name of Stonehenge.

The house is the largest of the rock faced sandstone houses found in close proximity of early sandstone quarries in Marrickville. It has smooth faced cut stone quoins and surrounds to the French door openings on the verandah, a slate roof and late Victorian columns. The original detailing to the doors and windows has been lost. Modifications to the house include the addition of security features, brick and metal boundary wall treatment along Myrtle Street and a metal and timber lean-to addition to the west of the original dwelling.

Marrickville Railway Station Group

Marrickville railway station consists of one wayside platform (Platform 2) to the south and an island platform (Platform 1) to the north. Passenger rail only uses the south side of the island platform, with the Metropolitan Goods Line running on the north. The station buildings are original, as is the booking office at the western end of Platform 2. The station is accessed via the stairs from the Illawarra Road overbridge and via a second set of stairs on the south which give access to Platform 2. Illawarra Road is a major commercial shopping strip.

Platform building - Platform 1 (1895)

External: Rectangular polychromatic face brick building with gabled roof and surrounding cantilevered awning clad in corrugated roof sheeting. The face brick is in stretcher bond, with dark brick walls and lighter salmon coloured bricks forming a dado, framing the upper half of the windows and doors and with a diamond pattern dentil course at the high level. The building is eight bays in length, with the bays defined by engaged brick piers which coincide with the awning brackets. Original chimneys with cement mouldings and terracotta flues remain but have been painted.

The cantilever awning is on filigreed steel brackets supported on decorative cement capped brick engaged piers and bolt fixings to the station building brick walls. The soffit lining is the underside of the corrugated steel roof fixed to intermediate exposed purlins. There is a decorative timber moulding at the junction with the brick wall. The awning returns around both ends of the building and at the stair end becomes a canopy supported on timber posts. The awning edges are finished with a decorative timber boarded valance.

The external walls rise from a projecting brick plinth (now painted) with a decorative two part cement dado moulding which frames the salmon brick dado and is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding, each with a decorative keystone.

The original window and door openings have segmental arches and the windows feature a decorative moulded cement sill. The original timber windows were double hung with a double paned lower sash and a multi-paned upper sash featuring coloured glass. Much of the original coloured window glass as well as the original fanlights above the door openings remain on the southern side but several have been bricked up on the goods line side. The doors were timber panelled but most have been removed or, on the northern side, bricked up. The end brick gables feature a louvre within a round brick window frames in salmon coloured voussoir shaped bricks with four cement keystones.

Internal: The building comprises a booking hall, still accessible via the original set of double doors at the bottom of the stairs; a booking office; Station Masters room; general waiting room; ladies room and ladies toilets, a store and men's toilets. The internal usage has now changed and the toilets have modern fitouts and finishes. Original plaster wall finishes and plaster ceilings and ceiling roses remain in the general waiting room, the ladies waiting room, and ladies toilets as well as the Station Masters room.

Platform building - Platform 2 (1911)

External: Rectangular face brick building with gabled roof and integral shallower sloped single cantilevered awning. The face brick is in stretcher bond and the building is four bays in length, with the bays defined by engaged brick piers which coincide with the awning supports. The original chimney with cement mouldings and terracotta flue has been removed.

The cantilever awning is on standard double bowed steel brackets supported on decorative cement haunches and bolt fixings to the station building brick walls. The soffit lining of corrugated steel is fixed to intermediate exposed purlins and follows the roof slope. There is a decorative timber moulding at the junction with the brick wall. Vertical timber boards form a valance at each end of awning. The awning roof as for the main roof is corrugated steel.

The external walls rise from a projecting brick plinth four courses high with a decorative dado moulding run in cement which is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding. The rear or southern side of the building reflects the same detailing.

The original window openings feature a moulded cement sill with a scalloped fringe. The original timber windows were double hung with a single paned lower sash and a six paned upper sash which featured coloured glass. Most of the original window glass as well as the upper glazing bars remain but have been obscured by the installation of vandal proof fibreglass sheeting. Original door openings featured fanlights matching the upper window sashes, which have also been removed. One original timber panelled door remains. The rear of the building has been painted and all the window openings bricked up.

Internal: The building comprises a general waiting room; ladies room and ladies toilets, a store and men's Toilets. Not accessible.

Booking office (1917)

The original timber framed overhead booking office dating from 1895 was demolished and the existing timber framed booking office located on Platform 2 built in 1917-18. The building is a simple, rectangular weatherboard clad timber framed structure, with a gable roof clad in corrugated steel which extends as an awning with exposed rafters on the platform side. Originally the roof extended to the east over the open public space and ticket collection booth, but this has been replaced by a later gabled awning structure on timber posts. Externally the original ticket window survives as does two of the original timber double hung windows; the door has been replaced by a flush type.

Internal: Internally much of the fabric survives including the timber lining boards, the timber boarded ceiling and the built in desk and cupboards, although it would appear much of this dates from the alterations and additions of the mid 1940s.

Platforms

Platform 1 has an asphalt surface with the original brick face and edge. The northern side of this platform (not used and fenced off) has a brick edge with the original brick face. Platform 2 also has its original brick face but with a concrete edge.

Overbridge (1911)

Steel girders and a concrete slab supported on central brick piers and side brick abutments. The original access stairs from the overbridge to Platform 1 have the original steel stringers but have new concrete treads and a new steel balustrade. The later stairs on the south were constructed from steel stringers supported on steel columns and with precast concrete treads.

[South Dulwich Hill Heritage Conservation Area](#)

The South Dulwich Hill HCA is located between Canonbury Grove and Livingstone Road in Marrickville/Dulwich Hill and dates to 1901-1920.

The South Dulwich Hill HCA is suburban in character. It was within the part of the extensive Petersham Estate that was known as the Petersham Farms, and was used for orchards and market gardens before the first subdivision in 1901, with a second in 1907. Most lots had been developed by 1920. The short period of development has led to a highly consistent built form that demonstrates Marrickville's mature twentieth century suburban cultural landscape, with detached, single storey Federation bungalows set on low-density lots with setbacks and space for front and rear gardens and side driveways to most properties.

The streetscape rhythms are well expressed and are enhanced by the gentle undulation in the local topography. A high proportion of houses are substantially intact and have retained much of their original detailing such as face brickwork, slate roofs and decorative terracotta ridge capping; tall rough-cast chimneys, timber windows, hoods, timber verandah detailing and face brick facades. This establishes an integrity that underlies the streetscapes in this area.

Many of the 'Federation' houses in the area demonstrate an important local variation to the style. Instead of the usual steep pitched roof rising high to a cross-ridge, the houses built in this part of Marrickville are characterised by a lower-pitched roof which rises to a long cross-ridge set at the height of the gable-ended return. This pattern is not a common one in Sydney and is likely that a local builder was responsible, but whatever the reason, the built forms of the houses in the HCA demonstrate a consistency and cohesive character not seen in many other areas.

Major structural alterations and additions such as second storeys are rare, creating a roofscape that has retained its integrity when viewed obliquely or from side streets. The alterations that have been made include mainly the replacement of roof cladding (retaining the original roof forms); removal of timber-framed windows and insertion of Aluminium-framed windows, the replacement or alteration of front fences and the construction of carports and garages forward of the building line. Many houses have undergone alterations and additions particularly in the migrant style. Most of these have been made to the rear of properties and are not highly visible elements in the local streetscape and include the loss of significant fabric such as timber windows and face brickwork. Others have introduced colour schemes and applied decorative elements that are visually prominent and intrusive in the streetscape views, although their impact could be reversed. Evidence was also found of more recent layers, including the rendering and stripping of detail associated with the current fashion for gentrification. Although some of these have affected the aesthetic values of their immediate streetscape their contribution to the unity of the rhythms of the facades and roofscapes of the Conservation Area remains.

The area also contains several notable examples of Inter-War residential flat building development, including the blue-black brick development with Dutch detailing in Keith Street and the P&O influenced block in Wardell Street.

Streetscapes in the area possess an open, suburban quality due to the low density and single storey development. They are notable for their unity of built form and strong roof patterns, extensive brick paving (part of the Depression employment relief scheme) and in the case of Margaret Street and Canonbury Grove, outstanding street trees, with avenue plantings of mature Ficus in the pavement of Margaret Street and Brush Box in Canonbury Grove.

Fence styles vary, with a high proportion of original iron palisade fences west of Wardell Street, and low brick walls in face brick to match the house to the east. The low height has allowed the fences in the area to remain reasonably neutral elements in oblique views along the streetscapes of the area. Kerbs and gutters are mainly concrete. Verges are wide, and include street planting in a grassed strip between the footpath and carriageway.

Dulwich Hill Railway Station Group

Context

Dulwich Hill Railway Station consists of a single island platform with an original platform building, and stair access to an original timber framed weatherboard clad overhead booking office. The station is accessible via the booking office building from the Wardell Road overbridge.

Platform building - Platforms 1-2 (1935)

External: The building is rectilinear in plan with parapeted gable ends and a half hipped awning to both elevations. The sides of the gables are characterised by the bricks being corbelled. It is constructed of red bricks in stretcher bond. A soldier course of darker bricks is used at the window heads and as a single band at awning height on the gable ends. These same bricks also are used to create a series of frames on each elevation which suggest window openings. The window sills are bullnose bricks. Both the brick heads and sills have been painted. Windows are in timber and were originally either double hung with an upper sash of six panes, or in the toilets, with a fixed lower sash with an upper sash of louvres. All windows have been later modified and both the glazing bars and glazing removed or obscured. The original external panelled doors have been removed and replaced with flush doors.

The roof and awnings are clad with corrugated steel, the roof space being ventilated by a single metal louvre in each gable end. Beneath the awning the soffit is clad with fibre cement and exposed battens at the joints.

Internal: The interior consists of a series of discrete spaces arranged in a linear plan. From the access end the rooms are: general waiting area, station masters office, ladies waiting room and ladies toilet, store and men's toilet. Within the waiting room the original plaster ceiling and plaster wall finishes remain as does the original timber seats. The station masters room has a new hardboard ceiling while the toilet fitouts are later.

Overhead booking office (1935)

This is a square timber framed weatherboard clad building consisting of a booking hall with an open side to the Wardell Road entry, a booking office and a bookstall. The building is in a good state of preservation retaining original double hung windows, internal and external weatherboard cladding as well as the exposed timber post structure with diagonal bracing and fibre cement wall and ceiling cladding. Roofing is corrugated steel.

The overhead booking office is supported on steel I beams which span between steel platform trestles and a face brick pier on the southern embankment.

Internal fixtures and fitting replaced with modern office furniture; Roof replaced with corrugated metal sheets; Doors replaced or boarded, though some original/early doors and joiners remain; One ticket window replaced with modern equivalent; one boarded, contains copper cash tray; Ticket collector's cabin removed; Bookstall windows boarded; Unclear if 4 over 2 sash windows in booking office were built as is or replaced original.

Platform (1935)

One Island type, with asphalt surface and original brick platform face and edge.

Overbridge (c.1930, c.1975)

The Wardell Road overbridge consists of a modern reinforced, prestressed concrete road deck spanning between lateral concrete beams which bear on the original face brick platform and embankment piers on each side. The bridge is excluded from this listing.

Hurlstone Park Railway Station Group

Hurlstone Park Railway Station consists of one wayside platform on the south and an island platform on the north. Passenger rail only uses the south side of the island platform, with the Metropolitan Goods Line running on the north. The station is accessed via the overbridge and overhead booking office from Floss Street.

Platform building - Platform 1 (1915)

External: Rectangular face brick building with gabled roof and integral shallower sloped single cantilevered awning. The face brick is in stretcher bond and the building is six bays in length, with the bays defined by engaged brick piers which coincide with the awning supports. There is a further open veranda bay at the eastern end. Original chimneys with cement mouldings and terracotta flues have been removed.

The northern cantilever awning on the goods line side has been removed. The remaining southern cantilever awning has standard double bowed steel brackets supported on decorative cement haunches and bolt fixings to the station building brick walls. The soffit lining is corrugated steel fixed to intermediate exposed purlins and follows the roof slope. There is a decorative timber moulding at junction with the brick wall. Vertical timber boards form a valance at each end of the awning. On the eastern end of the building the vertical boarding fills the whole width of the gable end and the roof is supported on two timber posts to form an open veranda for one bay. The awning roofs as for the main roof is corrugated steel.

The external walls rise from a projecting brick plinth five/six courses high with a decorative dado moulding run in cement which is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding. The northern side of the building reflects the same detailing. Painted "Ladies" wall signs remain.

The original window openings feature a moulded cement sill with a scalloped fringe. The original timber windows were double hung with a single paned lower sash and a six paned upper sash. If the upper sashes featured coloured glass, none now remain. The original window glass as well as the upper glazing bars have been removed in most cases. Most of the windows now contain diamond pattern vandal proof fibreglass sheeting and/or hardboard coverings. Original door openings featured fanlights matching the upper window sashes, which have also been removed. One original timber panelled door remains. The original slate thresholds remain on the northern side only.

Internal: The building comprises a station master's office; general waiting room; ladies room and ladies toilets, a store and men's toilets. The internal usage has now changed and the toilets have modern fitouts and finishes. Original plaster wall finishes and plaster ceilings remain in the general waiting room, the ladies waiting room, and ladies toilets. The men's toilets retains the original painted brick walls but the ceiling has been removed. The station master's office has lost all internal finishes due to fire damage.

Platform building - Platform 2 (1915)

External: Rectangular face brick building with gabled roof and integral shallower sloped single cantilevered awning. The face brick is in stretcher bond and the building is four bays in length, with the bays defined by engaged brick piers which coincide with the awning supports. The original chimney with cement mouldings and terracotta flue has been removed.

The cantilever awning is on standard double bowed steel brackets supported on decorative cement haunches and bolt fixings to the station building brick walls. The soffit lining of corrugated steel is fixed to intermediate exposed purlins and follows the roof slope. There is a decorative timber moulding at junction with the brick wall. Vertical timber boards form a valance at each end of awning. The awning roofs as for the main roof is corrugated steel.

The external walls rise from a projecting brick plinth four/five courses high with a decorative dado moulding run in cement which is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding. The rear or southern side of the building against the rock cutting reflects the same detailing.

The original window openings feature a moulded cement sill with a scalloped fringe. The original timber windows were double hung with a single paned lower sash and a six paned upper sash which featured coloured glass. The original window glass as well as the upper glazing bars have been removed in several cases. Most of the windows now contain diamond pattern vandal proof fibreglass sheeting and/or hardboard coverings. Original door openings featured fanlights matching the upper window sashes, which have also been removed. One original timber panelled door remains. The original slate thresholds remain.

Internal: The building comprises a general waiting room with timber benches; ladies room and ladies toilets, a store and men's toilets. The waiting room and ladies waiting room retains the original plaster wall finishes, ripple iron ceiling, plaster ceiling rose and timber floor. The ladies toilets retain the original timber partitions and fittings but have not been used in many years. The men's toilets retains the original painted brick walls, urinal stalls, some timber partitions but the ceiling has been removed.

Platforms (1894, 1911)

Platform 1 has an asphalt surface with the original brick face with a concrete edge. The northern side of this platform (not used and fenced off) which extends only to the western end of the platform building has a concrete edge but the face is buried below the ballast of the raised railway lines. Platform 2 also has its original brick face with a concrete edge. Both platforms have reproduction heritage-style lamp posts.

Footbridge (1915)

Haunched beam design consists of tapered cantilevers bearing on platform trestles and brick abutments and supporting shallow beams over the railway tracks. The original access stairs remain.

Overhead booking office (c1980s)

The original timber framed overhead booking office dating from 1915 has been demolished and replaced by a new structure erected on the original footbridge.

Hurlstone Park Railway Underbridge

The Hurlstone Park Railway Underbridge was designed by engineering staff, New South Wales Government Railways and constructed by day labour. It consists of a single span, double track, prestressed concrete girder railway bridge, with 9.85 metre clear span between brick abutments, consisting of parallel, post-tensioned precast I-shaped concrete girders transversely post-tensioned in-situ to create a homogeneous structure carrying ballasted tracks. The concrete girders rest on concrete pad stones on top of each brick abutment. The bridge carries the double track Bankstown Railway over Ford Avenue. It was constructed shortly after the first prestressed bridge at Dombarton in 1962.

Old Sugarmill

The lot

The former Sugar House, Canterbury is located on the northern banks of the Cooks River, approximately 400 metres east of Prout's Bridge (where Canterbury Road crosses the river near the Canterbury Railway Station and bus interchange). The lot, approximately 4,378 metres² in area (according to SIX mapping measurement tools), is bounded:

- to the north, by the Bankstown-Sydenham railway line and Council-owned pedestrian footpath;
- to the east, by Sugar House Road, formerly Church Street;
- to the south, by a Council reserve and shared pedestrian-cycle way beside the Cooks River;
- and to the west, by an adjacent apartment complex at 20 Close Street. This adjacent apartment complex of approximately 80 units is also built on the former site of the Sugar Works, but is separately owned by another Owners Corporation, SP.79359.

The former Sugar House sits picturesque in a park-like setting, on a small rise which slopes gently from the railway cutting towards the river. Its southern boundary is approximately 4 metres above the high-water mark, approximately 30 metres distant from the river. The river has flooded regularly throughout European occupation but the Sugar House building was positioned carefully on high ground, giving the place ready access to fresh water but keeping it safe from flooding events to date.

The apartment complex contains three buildings: the five-storey stone Sugar House building including its three-storey stone east wing (Building 1, containing 20 apartments), the two-storey row of nine brick townhouses, both sitting above a concrete garage (Building 2) and the three-storey apartment block of 10 units (Building 3) positioned over a brick and concrete garage. There is a bin area and driveway with allocated parking between the entrance gates on Sugar House Road and the entree to the garages under Building 3.

The former Sugar House, Canterbury

The Sugar House is a five-storey stone building originally built in 1841 as an industrial building to hold manufacturing works for refining sugar. The main stone building is 29 metres by 18 metres and its three-storey stone east wing, built about a year later, is 10 metres by 8 metres. Both have weight-bearing stone walls—some 80cm wide at the base of the main building and 60cm wide at the base of the east wing.

Over the years the place was also used for wool scouring, engineering works, bacon & small goods processing, and most recently as an apartment complex. It also weathered long periods where it was left vacated. During these many decades in industrial use, adjacent structures were built and removed including two large chimneys. One of these chimneys was demolished as recently as 1993—after it was state-heritage listed and apparently without approval. The Sugar House bears many marks from this long history of use, with window and door openings being made and filled in, and wings attached and detached.

In February 1996, the Sugar House was still in relatively good condition, retaining some of its original, “massive internal iron bark timbers” and roof structure (Kass, 1988b; McKillop, 1985) when it was firebombed. Although state-heritage listed and subject to considerable penalties beyond those for normal property damage, the arsonist was never identified or prosecuted. Remarkably, the stone shell of the building survived relatively unscathed, although the roof and interiors were destroyed.

In order to convert the site to residential apartments in 1999-2004, the stonework was cleaned, repaired, reconstructed, re-mortared and re-pointed to the design of conservation architects Woodhouse & Danks. All subsidiary industrial structures on the site (apart from the stone east wing) were removed. Rooms on the ground floor were enlarged by excavating the bedrock, which lowered the ground level. The land around the building was also partially excavated and levelled under archaeological supervision. Two new pedestrian bridges were built across the void between the historic sandstone cutting (above which the front gardens of the complex are positioned), and the main stone building and its east wing, giving one entrance to all the apartments from the north.

The Sugar House now presents with neat and regular rows of wide-arched, timber-framed windows, and several high, several thin, round-arched stone door openings and a corrugated metal roof. There are 18 two-bedroom units and one four-bedroom unit contained within the main stone building; another four-bedroom unit occupies the entire three storey east wing. The roof of the main wing is a large simple hip with four small dormer openings on each of the east and western slopes to enable airflow. The roof of the east wing is gable-fronted.

The northern façade of the main building is topped with a stone pediment marked “A.S.C. 1841”, announcing the original owners (Australian Sugar Company) and date of construction of the building. This pediment is respectfully echoed in a simplified modern form on the facades of the nearby, recently built residential Buildings 2 and 3, which also harmonise with the main building with their metal roofs and pale-tan face brick walls.

Heritage consultant and geologist David Young was recently commissioned to report on damp issues and provided an expert description of the stone building’s fabric:

The thick walls are built of large blocks of white sandstone that was quarried from the site, the quarry floor forming the foundation on which the building was constructed. . .

The bedrock may slope slightly southwards towards the river, but also steps down across the site. Bedrock is visible at the base of the northern half of the building . . . but is below present ground level for the southern half of the building . . .

The Woodhouse & Danks drawings show ground levels being lowered, implying excavation into the sandstone bedrock. As a result, for the northern half of the main 1841 building . . . what appears to be the lower course of made stonework, is in fact the natural bedrock . . . [An] attempt to disguise this was made . . . by the cutting out and filling of fake joints in the sandstone.

The walls of large blocks of white sandstone range in thickness from 600–800mm . . . The stones are bedded in earthy mortars that probably contain some lime. [An archaeological study by] Steding (2000) recorded shell lime mortars. Those mortars that are externally visible today are principally a cement-lime composition repointing . . . dating from 2002 with some possible earlier phases. One section of stonework at the south end of the west wall retains what may be an early mortar and joint profile.

There are substantial areas of new stonework, introduced in 2002 to form openings and to replace missing and decayed stones. The new stones are a pale pinkish or creamy brown colour. Some stones have been patched with mortar, probably in 2002 though there may be earlier phases. Extensive rendering of the walls was removed in 2002, though traces remain. Some internal walls were rendered and painted during the earlier “lives” of the building . . .

Most of the masonry appears in good condition, particularly given its age—175 years. There is some decay in the form of fretting of surfaces, of both the cut stonework and the bedrock, the latter proving that some decay has occurred since 2002.

Floors: As part of the 2002–3 conversion new concrete floors were laid within the stone walls on black plastic damp-proof membranes (DPM). The junction of the floor and the walls is visible in four of the openings cut through the plasterboard linings and in each case the DPM is visible and (just) projects above the concrete floor. There is little or no space between the sandstone wall and the DPM and concrete floor. Where readily seen, the floor level is slightly higher than the external ground level. Floors are finished in parquetry or carpet, with ceramic tiles in bathrooms.

Internal walls: Internally all 1841 walls are lined with plasterboard, which is either glued directly to 2002 brickwork, or more commonly is supported on galvanised steel furrings — a metal frame that support the plasterboard away from the walls.

Landscaping

The SP.70598 lot is bounded by a metal palisade fence on a rendered brick plinth with rendered brick posts, constructed c.2004 at the time of the residential redevelopment.

All plantings in the complex date from or since the 2004 redevelopment of the place for residential apartments. The areas between the buildings are landscaped with cement pathways, lawn and mostly non-native plantings in curving garden beds. Some of the garden beds are edged in brick, others in modern sandstone while the gardens in the southern garden are generally edged with historic sandstone blocks probably recycled from demolished built elements from the place. Some ceramic pedestal pots planted with flowers are positioned throughout, giving an air of historic formality.

The garden plantings include a Jacaranda mimosifolia tree in the south west corner, two rows of Chinese tallow trees (Triadica sebifera) between the townhouses and the stone building, weeping figs (Ficus benjamina) near the letter boxes at the Sugar House Road entry, an evergreen ash tree (Fraxinus griffithi) near the entrance to Building 3 and, most recently planted, a Eumundi quandong tree (Eleaocarpus Eumundi) next to the Council reserve on the southern border. Less prominent plantings include sweet box hedges (Murraya paniculata), peacock iris (Moraea/Dietes iridioides), Nile lilies (Agapanthus orientalis) and kaffir lilies (Clivia miniata). These plant species are common, generic suburban types, hardy and fast growing. The garden well survived the long drought in the first decade of the 21st century but requires regular (usually weekly) trimming, weeding and maintenance by professional gardeners.

In 2010 the Owners Corporation installed several large rainwater storage tanks in a ground-floor garbage room in Building 3, as well as a garden watering system with a rain sensor—to minimise the need to use mains water for garden maintenance.

The land between the Sugar House and the river is outside the SP.70958 lot but it is part of the SHR curtilage and affects the appearance of the place, so it is discussed briefly here. This reserve land, owned by Council, has been levelled about half a metre higher than the lowest level of the Sugar House's gardens, and is held up by retaining walls on its northern and southern sides. The concrete-edged retaining wall beside the cycling and pedestrian footpath, adjacent to the river, is approximately 3 metres high. A further slope above this concrete wall reaches to the level of the Council reserve and has been planted with eucalyptus trees and more recently with shrubbery. There is a smaller retaining wall between the reserve and the Sugar House. The reserve has been planted with a five-veined paperbark (Melaleuca quinquemervia) and several river she-oak trees (Casuarina cunninghamiana) which have now grown above the height of the five storey stone building and obscure views of the building from the river.

Also outside the property lot but affecting its appearance is the land to the north of lot, which slopes upwards between a retaining wall behind the car parking area north of the Sugar House and the railway reserve. Owned by the railways, this land was planted with Australian native plants such as grevillea and tea tree bushes around the time of the residential re-development and now has substantial foliage which obscures views of the historic building from the railway line.

Relevant CMP Policies

5. That all development in the vicinity of the Sugar House complement the style and form of the existing building and be designed to enhance its visual dominance within the Cooks River landscape.

6. That no activity should occur to the Sugar House which would:

- reduce the intactness of remaining fabric of considerable significance;
- detract from its landscape qualities and appearance;
- reduce evidence of significant associations within the existing fabric.

12. That view corridors to and from the Sugar House across the Cooks River, as well as up and down the river be maintained, enhanced or opened up, in order to maintain the landmark significance of the place. It may be necessary to enter into dialogue with neighbouring properties including Railcorp, which owns the land to the north beside the rail corridor, and Canterbury-Bankstown Council, which owns the reserve to the south adjoining the river, to help achieve this outcome.

13. That the management and care of the landscaping throughout the property should be considered as a whole in its context with the Sugar House, ideally through commissioning a Landscape Management Plan from a heritage landscape expert to guide minor works and any major redevelopment of the gardens.

Electricity substation no. 275

The Mill Street substation is a minimally decorated Interwar Stripped Classical building. It is set back from the street alignment behind a low brick wall and gates. The façade consists of a symmetrically arranged entrance arch and windows, with a second entrance to one side with a contrasting lintel and name plaque over. Stylistic elements include a partially gabled parapet. Decorative elements include detailed parapet brickwork, soldier-coursed brick lintels to the timber panelled windows and the use of bullnose bricks around the arch.

The Mill Street substation is constructed in load bearing dark face brick laid in stretcher bond. Access to the plant is by two steel roller-doors. The arched doorway is also brick construction. The windows are timber framed with vision obscure glass.

Canterbury Railway Station Group

Canterbury Railway Station consists of one wayside (Platform 2) on the south and one island (Platform 1) on the north, with both original platform buildings remaining. The northern side of the island platform is not used for passenger services. The wayside platform is accessed from the footbridge via a ramp, while the island platform is accessed by stairs. An overhead booking office accessed from the Canterbury Road overbridge on the east and from Broughton Street on the north was rebuilt in the late 1980s.

Platform building - Platform 1 (1895)

External: Rectangular polychromatic face brick building with gabled roof and surrounding cantilevered awning clad in corrugated roof sheeting. The face brick is in stretcher bond, with dark brick walls and lighter salmon coloured bricks forming a dado, framing the upper half of the windows and doors and with a diamond pattern dentil course at the high level. The building is eight bays in length, with the bays defined by engaged brick piers which coincide with the awning brackets. Original chimneys with cement mouldings and terracotta flues remain but have been painted.

The cantilever awning is on filigreed steel brackets supported on decorative cement capped brick engaged piers and bolt fixings to the station building brick walls. The soffit lining is the underside of the corrugated steel roof fixed to intermediate exposed purlins. There is a decorative timber moulding at junction with brick wall. The canopy returns around the western end of the building but not the eastern or stair access end. The awning edges are finished with a decorative timber boarded valance.

The external walls rise from a projecting brick plinth (now painted) with a decorative two part cement dado moulding which frames the salmon brick dado and is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding, each with a decorative keystone.

The original window and door openings have segmental arches and the windows feature a decorative moulded cement sill. The original timber windows were double hung with a double paned lower sash and a multi-paned upper sash featuring coloured glass. Much of the original coloured window glass remains as well as the original fanlights above the door openings. The doors were timber panelled.

The end brick gables feature a louvre within a round brick window frames in salmon coloured voussoir shaped bricks with four cement keystones.

Internal: The building comprises a booking hall entered by a set of double doors at the bottom of the stairs; a booking office; station masters room; general waiting room; ladies waiting room and ladies toilet, a lamp room and men's toilet. The internal usage has now changed, and the toilets have modern fitouts.

Platform building - Platform 2 (1915)

External: Rectangular face brick building with gabled corrugated steel roof and integral shallower sloped cantilevered awning. The face brick is in stretcher bond. The building is four bays in length, with the bays defined by engaged brick piers which coincide with the awning supports. The original chimney with cement mouldings and terracotta flue remains.

The cantilever awning is on standard double bowed steel brackets supported on decorative cement haunches and bolt fixings to the station building brick walls. The soffit lining is the underside of the corrugated steel roofing fixed to intermediate exposed purlins. There is a decorative timber moulding at junction with brick wall. Vertical timber boards form valances at each end of awning.

The external walls rise from a projecting brick plinth three/four courses high with a decorative dado moulding run in cement which is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding.

The original window openings feature a moulded cement sill with a scalloped fringe. The original timber windows were double hung with a single paned lower sash and a six paned upper sash featuring coloured glass, with glass louvres in the toilet windows. The original window glass as well as the upper glazing bars has been removed from all but one window. Original door openings featured fanlights matching the upper window sashes. All the original timber panelled doors have been removed.

Internal: The building comprises a general waiting room; ladies room and ladies toilets and men's toilets. The internal usage has now changed and the toilets have modern fitouts and finishes. The waiting room and ladies room have original ripple iron ceiling, ceiling rose and plaster wall finishes.

Overhead booking office (late 1980s)

The original timber clad overhead booking office has been demolished and replaced by a new steel framed metal hipped roof structure.

Signal box (1915)

External: Canterbury signal box is located beside the Bankstown suburban line, in the Canterbury Station precinct. It is a two storey timber framed structure clad in 'checked and chamfered' weather boards. It has a hipped, galvanised corrugated iron roof with wide eaves on all sides. The first floor (or operating level) has wood framed, sliding windows on three sides with a blank rear wall. On the eastern end of the building there is a landing, incorporating an enclosed toilet. The landing extends past the front of the building over a public walkway to a flight of metal stairs. The ground floor incorporates the interlocking room and relay room. The interlocking room has four windows in the front wall. In the rear is the relay room, featuring four windows in the rear wall. The eastern extension is flat roofed and is constructed of precast concrete panels between exposed verticals simulating timber weatherboards. There is one door at the eastern end of this extension (2009).

Internal: The interior walls and ceiling of the first floor are lined with wall boards, and the timber floor is covered in linoleum. On the ground floor, the interlocking room is unlined, and the long and narrow lined relay room houses signalling relays which control the operation of signalling circuits.

Platforms (1895)

Platform 1 has an asphalt surface with its original brick face and a concrete edge. The northern or 'goods' side of this platform is constructed in the same manner. Platform 2 also has its original brick face with a concrete edge.

Footbridge (1915)

Haunched beam design consists of tapered cantilevers bearing on platform trestles and brick piers on each side support shallow beams over the railway tracks. The footbridge has been modified at a later unknown date.

Overbridge (c.1917)

The overbridge consists of steel girders supporting a jack arched brick and concrete deck. The girders span the Up and Down lines supported on concrete and brick abutment walls. The parapet walls are brick.

Canopies (late 1980)

New steel framed and metal roof clad canopies have been erected over the access stairs to the island platform and at the eastern end of the wayside station building, as well as the access ramp.

[Inter-War Hotel \(former Hotel Canterbury\)](#)

Massive two-storey brick hotel with colonnade at street level. Balcony stepped back. Parapet with winged horses as ornamentation. Topped by lantern. Decorative treatment reflects proximity of racecourse.

[Federation Post Office Building \(former Canterbury Post Office\)](#)

A single-storey brick post office designed for its corner location. Sandstone porch on pillars, sandstone pilasters extend across facade, sandstone cornice and capping are its features. A Two-storey residence is located at the rear.

Canterbury (Cooks River) Underbridge

The bridge was constructed in 1916 by day labour and designed by NSW Government Railways. It is a three span, double track, brick arch railway bridge, with 16.16 metres clear spans between intermediate foundations and abutments. The arches are semi-circular in elevation with plain brick spandrel walls and stone coursing above the crown of the arches. The bridge is in good condition with some minor cracking and staining of the brickwork.

Canterbury (Cooks River/Charles St) Underbridge – Main Line

The bridge is located on the Bankstown Line and is adjacent to the 1916 brick arch Canterbury (Cooks River) Underbridge that is part of the goods line. The original bridge was constructed in 1895. The bridge directly adjoins the structure of the 1916 brick underbridge. The existing bridge is a replacement bridge to the original 1895 bridge which was planned with a similar structure to the original but with welded steel deck girders and precast concrete units on top. It was designed by McMillan Britton & Kell and the work was undertaken in 1993.

Today the bridge has three sets of iron piers with riveted cross beams in between brick abutments. It has a steel girder with concrete top and access walkway along the south side. The bridge was refurbished in 1993, however it retains the original piers and abutments. The bridge is in good condition.

Campsie Railway Station Group

Campsie Railway Station consists of one wayside platform on the south and an island platform on the north, both with original station buildings. Passenger rail only uses the south side of the island platform, with the Metropolitan Goods Line running on the north. Most of the overhead booking office and the access stairs are modern, with part of the original 1915 booking office being adapted. The station is accessed from the Beamish Street overbridge. Beamish Street is the main commercial shopping strip in Campsie.

Platform building - Platform 1 (1915)

External: Rectangular face brick building with gabled roof and integral shallower sloped single cantilevered awning. The face brick is in stretcher bond and has been painted. The building is six bays in length, with the bays defined by engaged brick piers which coincide with the awning supports. There is a further open veranda bay at the eastern end. The original chimneys with cement mouldings and terracotta flues remain.

The northern cantilever awning on the goods line side has been removed. The remaining southern cantilever awning has standard double bowed steel brackets supported on decorative cement haunches and bolt fixings to the station building brick walls. The soffit lining is corrugated steel fixed to intermediate exposed purlins and follows the roof slope. There is a decorative timber moulding at junction with the brick wall. Vertical timber boards form a valance at each end of the awning. On the eastern end of the building the vertical boarding fills the whole width of the gable end and the roof is supported on two timber posts to form an open veranda for one bay. The awning roof as for the main roof is corrugated steel.

The external walls rise from a projecting brick plinth three/four courses high with a decorative dado moulding run in cement which is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding. The northern side of the building reflects the same detailing.

The original window openings feature a moulded cement sill with a scalloped fringe. The original timber windows were double hung with a single paned lower sash and a six paned upper sash featuring coloured glass. Much of the original coloured window glass as well as the upper glazing bars has been removed and replaced with vandal-proof fibreglass sheeting. Original door openings featured fanlights matching the upper window sashes. All the original timber panelled doors have been either removed or modified, and the original thresholds have also been removed.

Internal: The building comprises a station master's office; general waiting room; ladies room and ladies toilets, a store and men's toilets. The internal usage has now changed and the toilets have modern fitouts and finishes. Original plaster wall finishes, ripple iron ceilings, and timber cornices remain as well as ceiling roses in the general waiting room, the ladies waiting room, and ladies toilets. The men's toilets retain the original painted brick walls but the ceiling has been replaced.

Platform building - Platform 2 (1915)

External: Rectangular face brick building with gabled corrugated steel roof and integral shallower sloped single cantilevered awning. The face brick is in stretcher bond and has been painted. The building is four bays in length, with the bays defined by engaged brick piers which coincide with the awning supports. The original chimney with cement mouldings and terracotta flue still remains. The cantilever awning is on standard double bowed steel brackets supported on decorative cement haunches and bolt fixings to the station building brick walls. The soffit lining is the underside of the corrugated steel roof and is fixed to intermediate exposed purlins. There is a decorative timber moulding at junction with brick wall. Vertical timber boards form a valance at each end of awning.

The external walls rise from a projecting brick plinth three/four courses high with a decorative dado moulding run in cement which is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding. The rear or southern side of the building against the rock cutting reflects the same detailing.

The original window openings feature a moulded cement sill with a scalloped fringe. The original timber windows were double hung with a single paned lower sash and a six paned upper sash which featured coloured glass. The original window glass as well as the upper glazing bars has been removed in several cases. Most of the windows now contain diamond pattern vandal proof fibreglass sheeting and/or hardboard coverings. The original door openings featured fanlights matching the upper window sashes. One original timber panelled door has been replaced with a modern flush door.

Internal: The building comprises a general waiting room; ladies room and ladies toilets a store and men's toilets. The waiting room and ladies waiting room retains the original plaster wall finishes, ripple iron ceiling, plaster ceiling rose and timber floor. The ladies toilets retain the original timber partitions and fittings but have not been used in many years. The men's toilets have a modern fitout but the original brick painted wall finish remains.

Overhead booking office (1915/partial), Station concourse & footbridge (2001)

The modern building incorporates all functions within it. It consists of a large concourse, new access stairs and canopies, a ticket office, access lifts to Platforms 1 and 2, new public toilets and retail areas on Beamish Street. The existing structure has been built on the footprint of the original 1915 footbridge and stairs. Like the original footbridge the current concourse is located off the Beamish Street overbridge such that its eastern edge is directly accessible from the street. The overhead booking office was expanded and extensively modified c1950s. Parts of the 1915 booking office and 1950s parcels office have been incorporated within the new building and serve as retail shops. These parts are identifiable by the retained original fabric including ripple iron ceilings, weatherboards and ceiling roses. However these sections have also been modified and reconfigured with new glazing and shopfront designed to simulate the original detailing. This part of the building is covered by a corrugated steel half gabled roof which is juxtaposed with a corrugated steel gabled station entry. The western end of the concourse looks out onto the station through a clear glass and metal framed wall, which extends all along the length of the concourse. The entire area is roofed by a steel space frame structure covered with metal deck roof sheeting.

The northern end of the concourse is connected to the 1947 footbridge (which was an extension of the 1915 footbridge), which comprises of a riveted steel plate girder substructure and latticed steel framing. This section of the footbridge like the original footbridge had timber floor construction and timber steps leading down to the disused Platform 3 although it currently has a concrete slab and steps. Retail shops bordering the north-eastern corner of the concourse along Beamish Street date from the c.1950s.

Platforms

Platforms all have an asphalt surface.

Platform 1 (1894) (Up) is an island platform arrangement although the south side of the platform is not used. It is brick with concrete extension.

Platform 2 (1915) (Down) is a wayside platform. It is brick with concrete extension.

Platform 3 (1950) is a disused wayside platform. Concrete with open concrete frame.

Overbridge (1915)

The Beamish Street overbridge crosses over the eastern end of the railway station and runs parallel to the footbridge. The structure is a steel jack-arch overbridge which comprises of filled in arched brickwork between steel web-girders, supported by central brick piers and side brick abutments.

Canopies (2001)

Steel framed canopies with corrugated steel roofs were constructed over the new stairs and to the existing station buildings.

Belmore Railway Station Group

Belmore Station has a single island platform with the original platform building and a modified booking office and concourse with an access lift. The platform is accessed directly via the modern stairs through the concourse from the overbridge on Burwood Road. Burwood Road is the main commercial shopping strip in the suburb.

Platform building (1895)

External: Rectangular polychromatic face brick building with gabled roof and surrounding cantilevered awning clad in corrugated roof sheeting. The face brick is in stretcher bond, which was originally a dark brick up to a dado (the lower brick walls have now been painted) of lighter salmon coloured bricks which frame the upper half of the windows and doors, with a diamond pattern dentil course at the high level. The building is eight bays in length, with the bays defined by engaged brick piers which coincide with the awning brackets. Original chimneys with cement mouldings and terracotta flues remain but have been painted.

The cantilever awning is on filigreed steel brackets supported on decorative cement cornices on engaged brick piers and bolt fixings to the station building brick walls. The soffit lining is the underside of the corrugated steel roof fixed to intermediate exposed purlins. There is a decorative timber moulding at the junction with the brick wall. The awning returns around the eastern end of the building but has been removed at the western end. The edge of the awning is finished with a decorative timber boarded valance.

The external walls rise from a projecting brick plinth (now painted) with a decorative two part cement dado moulding which frames the salmon brick dado and is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding, each with a decorative keystone.

The window and door openings have segmental arches and the windows feature a decorative moulded cement sill. The original timber windows were double hung with a double paned lower sash and a multi-paned upper sash featuring coloured glass of which some still remains. This detail continued through in the fanlights above the doors. The doors were timber panelled and most still remain. The end brick gable walls feature a louvre within a round brick window framed in salmon coloured voussoir shaped bricks, with four cement keystones.

Internal: The building comprises a booking hall originally entered by a set of double doors at the bottom of the stairs; a booking office; station masters room; general waiting room; ladies waiting room and ladies toilet, a lamp room and men's toilet. The internal usage has now changed, and the toilets have modern fitouts.

Overhead booking office (1937, 2008)

External: The original weatherboard overhead booking office was constructed in 1937, and had a hipped roof clad in Marseille pattern terracotta tiles which have been replaced by new terracotta tiles. It was constructed by placing steel beams across the Up line and supporting them on brick piers on the railway embankment on the north and on steel trestles on the platform. As well as accommodating the station master and ticket selling facilities it contained a parcels office and a booking hall which opened onto Burwood Road, with a bookstall in the north western corner. The building was substantially modified in 2008 by opening up the front wall on Burwood Road to provide larger full height glazing and more open access to the booking hall. The stairs were replaced and covered with a glazed canopy as well as the addition of an access lift.

Internal: The booking office which is on the platform side of the building contains the area for ticketing and also contains the station masters office as well as staff facilities in the old parcels office. The interior of the booking office and open booking hall has hardboard lined ceilings with timber battens. The walls in the booking office and old parcels office are also lined with hardboard, while the booking hall is lined with weatherboards. The timber floors have been replaced with concrete with carpet internally and tiles in the open booking hall. The original timber panelled doors and ticket window have been replaced.

Platform (1895, 1907)

One Island platform with asphalt surface, original brick platform face and edge. The platform was lengthened in 1907.

Overbridge (1961)

The Burwood Road overbridge was originally a wooden structure, supported on brick piers. In 1961 the roadway deck was replaced with prestressed concrete which spans between the original brick abutments on each side and the original brick pier on the platform. Not a significant element.

Canopies (2008)

Modern glass canopy covers the stairway access from the booking hall concourse.

[Federation House \(former station master's cottage\)](#)

The SHI listing for Federation House (former station master's cottage) does not include a description of the heritage item.

[Post-war bus shelter and public lavatories](#)

Modern style rendered masonry bus shelter with flat concrete roof. Rendered masonry toilet adjacent decorated with fluted pilasters and wavy patterned parapet.

[Lakemba Railway Station Group](#)

Lakemba Railway Station has a single island platform with the original platform building and a large modern footbridge, booking office, central concourse, concessionaire, and easy access lift. The footbridge is accessed from Railway Parade on the north and The Boulevard on the south, both commercial shopping strips.

Platform building - Platforms 1/2 (1919)

External: Rectangular face brick building with gabled roof and integral shallower sloped cantilevered awnings. The face brick in stretcher bond has been painted. The building is six bays in length, with the bays defined by engaged brick piers which coincide with the awning supports. Original chimneys with cement mouldings and terracotta flues have been removed.

The cantilever awnings have standard double bowed steel brackets supported on decorative cement haunches and bolt fixings to the station building brick walls. Soffit lining of timber boards fixed to intermediate exposed purlins follows the roof slope. There is a decorative timber moulding at the junction with the brick wall. Vertical timber boards form a valance at each end of the awnings. The awning roof as for the main roof is corrugated steel.

The external walls rise from a projecting brick plinth three/four courses high with a decorative dado moulding run in cement which is continuous between door and window openings. Decorative cement window and door frames rise above the dado moulding.

The original window openings feature a moulded cement sill with a scalloped fringe. The original timber windows were double hung with a single paned lower sash and a six paned upper sash featuring coloured glass. The original window glass as well as the upper glazing bars has been removed. Original door openings featured fanlights matching the upper window sashes. All the original doors have been removed and most of the door openings bricked up, the original thresholds have also been removed.

Internal: The building comprises a booking office; general waiting room; ladies room and ladies toilets and men's toilets. The original timber framed signal box which is shown on the original drawings at the stair access end of the platform building has either been removed, or was never constructed. The internal usage has now changed and the toilets have modern fitouts and finishes.

Overhead booking office (2001)

The original timber framed overhead booking office dating from 1926 has been demolished and replaced by a new structure erected on the original footbridge consisting of a booking office, a central concourse, and a concessionaire. The original access stairs remain and have original star pattern cast iron newel posts at the bottom of the flights.

Platform (1919)

One island platform, with asphalt surface and original brick platform face and edge. Convex island platform, extended in concrete.

Canopies (2001)

New steel framed metal roofed canopy constructed over original station access stairs and extending to eastern end of station building.

Footbridge (1926)

Haunched beam design consists of tapered cantilevers bearing on platform trestles and supporting shallow beams over the railway tracks. The structure was augmented with the construction of the new overhead booking office and concourse.

War memorial

Outside the station entrance is a war memorial. It is a sandstone block broken column (symbolising sacrifice) on a plain plinth. It bears the inscription: 'In memory of our fallen comrades. This memorial was unveiled by His Excellency the Governor of NSW Lieutenant General Sir John Northcott KCMG CB MVO Sunday 19th April 1953'. Located on a small square lawn area, with plantings along the fence line.

Wiley Park Railway Station Group

Wiley Park Railway Station consists of two wayside platforms with original platform buildings and an original overhead booking office all which have been modified by varying degrees. The platforms are accessed by earth supported ramps via the overbridge from King Georges Road, a main road. The overhead booking office building is flanked by commercial shops of a design which detracts from its significance.

Platform building - Platform 1 (1938)

External: Rectangular face brick building (since painted) which originally had a hipped terracotta Marseille pattern tile roof. The roof was replaced after a fire with a simple metal clad skillion roof which cantilevers at the platform side to form an awning. The windows are timber framed and originally had glass louvres which have since been removed and boarded up or fitted with fixed glass. Original single panel timber doors have been removed and replaced with flush doors. The brick work detailing includes brick-on-edge above the openings and a soldier course above, running around all elevations; a soldier course at ground level and splayed brick reveals to the openings.

Internal: The building comprises a ladies waiting room and ladies toilets, a central Station Masters office (not used) and men's toilets. The toilets now have modern fitouts and finishes. A fire in the roof has resulted in the loss of the original ceilings. In the Station Master's office the ceiling lining is the exposed underside of the metal deck and in the toilets a fibre cement sheeting.

Platform building - Platform 2 (1938)

External: Small rectangular red face brick shelter building with a hipped terracotta Marseille pattern tile roof in the same style as the building on the Up platform. The building is enclosed on three sides with an opening to the platform for access to the timber seating on three sides. Windows on the lateral walls were originally timber framed in three bays each with three horizontal glazing bars, but have since been bricked up. The brick work detailing includes brick-on-edge above the openings and a soldier course above, running around all elevations; a soldier course at ground level and splayed brick reveals to the openings.

The awning consists of the northern third of the main hipped roof supported on two hardwood cantilevers which rise vertically on brick haunches on each side of the main opening. The soffit lining is asbestos cement, extending around the building as an eaves soffit.

Internal: Internally the shelter has a concrete floor, rendered walls and a hardboard ceiling with battens. The timber slatted seats are original.

Overhead booking office (1938)

External: The overhead booking office is a timber framed, weatherboard clad building which was originally roofed with a hipped terracotta Marseille pattern tile roof, which following a fire in the roof has been replaced by corrugated steel. The frontage to King Georges Road has a projecting fascia awning with Art Deco influenced horizontal banding supported on exposed

hardwood cantilevers. The building retains original timber framed double hung windows, but the glazing overlooking the station has been replaced with metal cladding.

Internal: The building consists of the booking office, (the parcels office and its door to King Georges Road has been removed) an entry concourse and ticket collection booth. The two front ticket windows have been removed and the internal ticket window replaced. On the north side the original book stall has been removed for later retail spaces.

Roof replaced with corrugated metal sheets; Internal fixtures and fittings replaced with modern office furniture; Internal floor plan reorganised and staff toilet added; Doors removed and/or replaced; Two ticket windows removed, one replaced with modern equivalent; Bookstall extended; front door and façade replaced with new shopfront glazing; Footbridge windows and weatherboard siding replaced with corrugated metal screen wall; Footbridge and ramps upgraded with new fencing and awnings.

Notable original attributes: weatherboard siding; multi-pane sash windows; covered booking hall with AC ceilings; cantilever awning over footpath; original ticket collector's cabin and window; early safe

Platforms (1938)

Platform 1 and 2 are wayside platforms with asphalt surface, with in situ concrete face and edge.

Canopies

Modern steel framed and steel roofed canopies have been erected over both platform access ramps and which continue up to the footbridge.

Footbridge (1938)

Concrete platform supported on steel beams bearing on platform trestles and natural earth embankment on each side. New corrugated steel canopies and metal handrails have been added to the footbridge.

[Lakemba Water Pumping Station \(WP0003\)](#)

The one and a half storey pumping station is of reinforced concrete construction. The building has a gable roof that is sheeted in Colorbond. There are three original metal roof ventilators. The front entrance faces south. Above the entrance is the entablature that identifies the owner as the former MBWS&S. Along the east and west walls are modern metal framed windows. The original windows were much larger, filling the whole of the panels set between the structural piers. To the east and west of the station are a number of other timber framed fibro-cement building, c.1950s, used as stores and offices, including a former Survey Branch Depot (Wiley Park). The principal access to the station is from Hillcrest Street. The asphalt access is bordered by a number of mature Canary Island palms. The station is set within a suburban streetscape that is an interesting mix of inter-war housing, a 1920s public school and a railway station (Wiley Park).

Punchbowl Railway Station Group

Punchbowl Railway Station consists of a single island platform with two later built station buildings. The platforms are accessed by a central set of stairs which lead down from the footbridge associated with the original timber framed and weatherboard overhead booking office. The station can be accessed by steps either from the south by The Boulevard, which is a major shopping street, or from the north via Warren Reserve and Punchbowl Road. Immediately to the west of the overhead booking office the Punchbowl Road overbridge crosses the rail line.

Platform building (1980s)

External: Simple rectangular face brick building with a flat metal deck roof and high profiled metal fascia which extends as a cantilever awning on both sides. The windows are timber double hung and the doors are flush.

Internal: The building consists of a Station Master's office, sign-on room a store and waiting room. Inside the waiting room the walls are face brick with a concrete floor, while the other rooms have their internal walls rendered. The metal clad soffit of the awning continues through as the internal ceiling to all rooms.

Toilet block (1970s)

The male and female toilets originally had a hipped roof which was replaced with a flat roof matching the adjacent main platform building. The roof spans between both buildings. Like the main building, the toilet is a simple rectangular building, with external walls of face brick, while the windows are aluminium framed.

Overhead booking office (1929)

The overhead booking office is a timber framed, weatherboard clad building with a hipped corrugated steel clad roof. The original 1929 roof configuration consisted of a simple hipped roof with Dutch gables on the eastern and western ends and which covered the booking office, the parcels office, the booking hall and the eastern and western footbridges. The later lamp room addition extended the western side of the building to the north to make the building L shaped. A bookstall was added which added a further northern but smaller extension with an awning roof. The ticket collection cabin connected to the main booking office has been removed.

On wall inside overhead booking office is a Timetic clock inside a weatherproof metal case and timber mount board. It is not original to the overhead booking office and likely to have been installed in c1950s. It is no longer operational. New electronic clock installed in 2015.

Overall form and patterns of glazing have been altered by the early addition of the hipped roof lamp room (now used for storage), skillion roof bookstall, enclosure of footbridges, and curvilinear profile of modern footbridge and stair awnings; Lamproom and bookstall additions otherwise sympathetic to historic function; Internal fixtures and fittings replaced with modern

office furniture; Doors relocated; Ticket windows replaced with modern ticket windows or removed; Ticket collector's cabin removed; Footbridge stairs, balusters and rails replaced.

Notable original attributes: simple open floor-plan of bookings/parcels office; internal tongue-and-groove board lining; external weatherboard siding; multi-pane sash windows; covered booking hall with AC ceiling; dutch-gable roof vents.

Platforms (1909)

One island platform with asphalt surface and original brick face and edge, extended in concrete. Coping has been raised in concrete.

Footbridge (1930)

Standard concrete platform supported on steel beams bearing on steel platform trestles and steel trestles on each side of the tracks. Stairs give access from the north and south with a single stair leading down to the island platform - these were replaced in 2014. The footbridge structure and stairs have been modified.

Canopies (c2000s)

A modern steel framed and steel roofed canopy has been erected over the platform access stairs and extends from the end of the main station building up to the overhead booking office. A contemporaneous canopy with glazed walling also extends across the southern footbridge.

Appendix D

Heritage Impact Assessment

(To be included in Final Version in accordance with Contractual requirements)

Appendix E

Sydney Metro Unexpected Heritage Finds Procedure



Sydney Metro Unexpected Heritage Finds Procedure

[SM-18-00105232]

Sydney Metro Integrated Management System (IMS)

Applicable to:	Sydney Metro
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System Owner:	IMS element owner (generally a member of the Executive)
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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 OEHL 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 <i>(What type of item is it likely to be? Tick the relevant boxes).</i>			
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 <i>(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).</i>			

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.

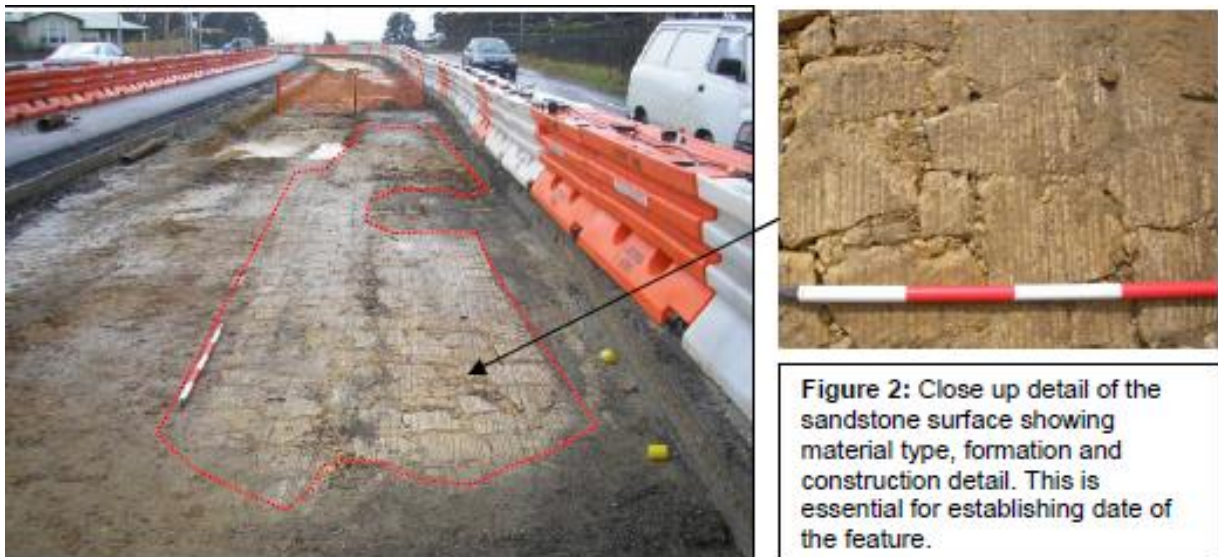


Figure 1: Telford road uncovered on the Great Western Highway (Leura) in 2008 (RMS, 2015).

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.

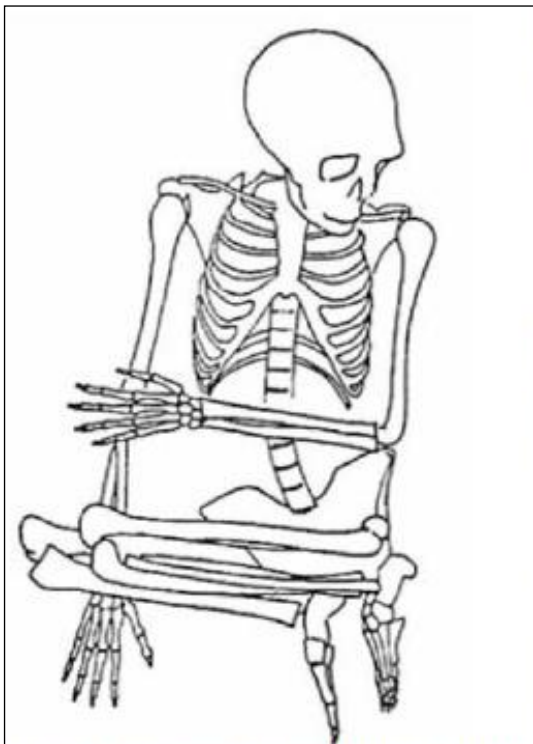


Figure 1: Schematic of a complete skeleton that is 'obviously' human¹².



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.

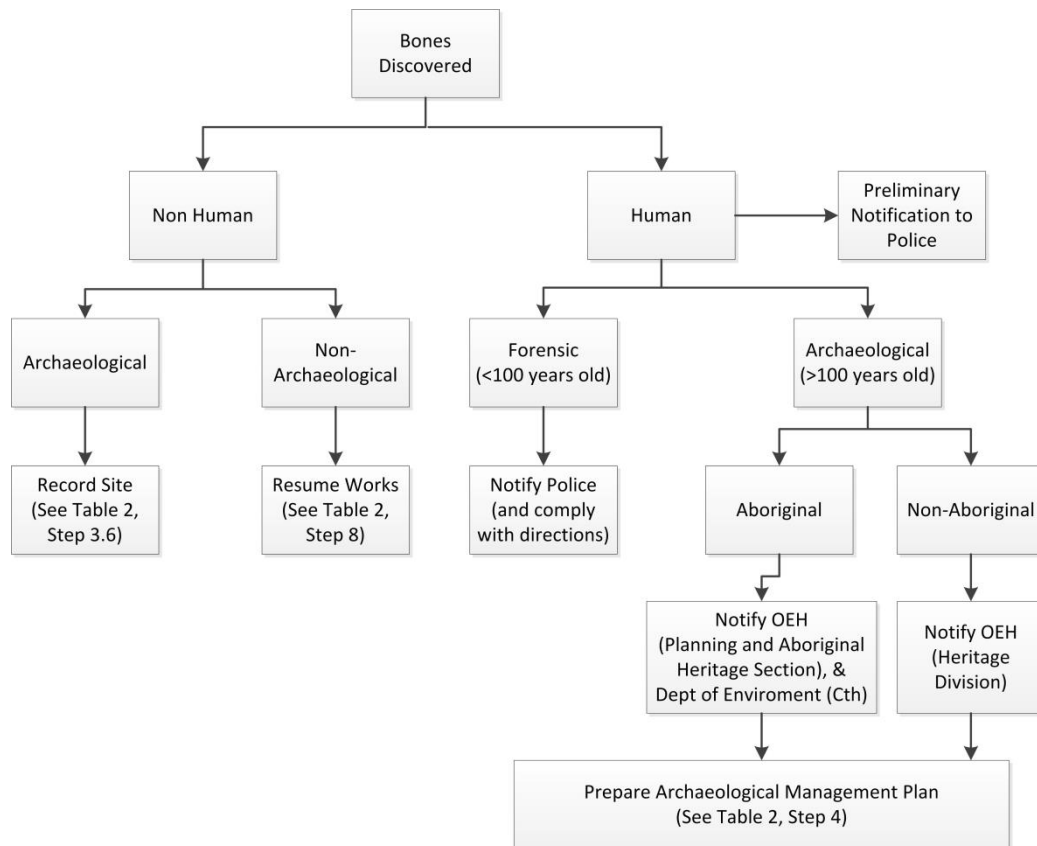


Figure 3 Overview of steps to be undertaken on the discovery of bones

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]